

ABOUT PRODUCT

公司产品



MD系列斜齿圆柱齿轮减速机
MD series helical gear reductor



MJ系列斜齿锥齿圆柱齿轮减速机
MJ series helical bevel gear reductor



MP系列平行轴斜齿圆柱齿轮减速机
MP series parallel shaft helical gear reductor



MN系列蜗杆蜗轮减速机
MN series helical-worm gear reductor



MTH/MTB系列大功率减速机
MTH/MTB series high power reductor



Z系列锥齿锥齿圆柱齿轮减速机
Z series bevel gear reductor

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1.1 性能特点

高度模块化设计: 可以方便地配用各种形式的电动机或采用其它动力输入。同种机型可配用多种功率的电动机。容易实现各机型间组合串联。

传动比: 划分细, 范围广。组合机型可以形成很大的传动比, 输出转速低。

安装形式: 安装位置不受限制。

强度高、体积小: 箱体采用高强度铸铁, 齿轮及齿轮轴采用气体渗碳淬火, 精密工艺, 因而单位体积承载能力高。

使用寿命长: 在正确选型和正常使用维护的条件下, 减速机(除易损件外)的主要零部件寿命一般不低于25000小时。易损件包括润滑油、密封以及轴承。

噪声低: 减速机主要零部件经过精细加工, 并通过精心组装和调试, 因而减速机噪声较低。

效率高: 齿轮减速机效率可达96%。

1.2 使用场所条件

适合在环境温度-10°C到+40°C条件下运行, 海拔高度不超过1000米。

输入转速不大于1800rpm, 齿轮最高圆周速度不超过22m/s。

可用于正反转。

无行业限制。

在其它条件下使用请与我公司技术支持联系。

1.1 Performance features

Highly Standard Modular Designed: The products are easily connected with and driven by different types of motors or other kinds of input power. The same type geared motor can be adapted to optional powers of motors. It is therefore easy to realize different solutions for varied requirements.

Ratio: Featured many closely divided ratios and wide range of them. Very big final ratios can be obtained through combined units to reach extremely low output speeds.

Mounting Arrangement: No strict limitation to the mounting arrangement.

High Strength, Compact Dimension: Housings are made of high strength cast iron. Gears and shaft gears are finished with gas carburising process and precise grinding to essentially get high loading capacity of per certain volume.

Long Service Life: Under the condition of accurately selecting type size and the normal maintenance and use, main components (except those easily-disabled parts) can last as long as up to more than 25,000 hours. Easily-disabled parts include lubricating oil, oil seals, and bearings.

Low Noise: All key components are finished by precisely machining, accurate assembly, and finally tested, and therefore, fairly low noise is reached.

High Efficiency: The efficiency of gear unit can reach 96%.

1.2 Using location conditions

Suitable for the operation sites in the ambient temperatures from -10°C to 40°C, and altitudes up to 1000m above the sea level.

The input rotational speed should not exceed 1,800r/min. The circumferential speed of the gear should not exceed 22m/s.

Suitable for normal-reverse rotation.

Without industry limitation.

Please consult our technical supporting department for other circumstance

1.3 选型指南

1) 减速机系列的選擇
用戶根據傳動布置形式確定系列(我公司提供以下幾種方案供選擇) :

1.3 Guide to model selection

1) Selection of speed reducer series
Users can determine the series according to the allocation form of transmission
(Our company can offer several plans for selection as follows)

<p>MD系列斜齿硬齿面减速机 输入轴与输出轴同轴。 安装形式: 脚架安装, 法兰安装</p>	<p>MD series bevel gear hard gear face speed reducer Input shaft and output shaft are coaxial. Installation form: foot installation and flange installation</p>	
<p>MP系列平行轴斜齿减速机 输入轴与输出轴平行。 安装形式: 脚架安装, 空心轴安装, 法兰安装, 前脚空心轴安装, 法兰空心轴安装, 前置盘安装。</p>	<p>MP series parallel shaft bevel gear speed reducer Input shaft and output shaft are parallel. Installation form: foot installation, hollow shaft installation, flange installation, foot and hollow shaft installation, flange and hollow shaft installation, locking disc installation.</p>	
<p>MJ系列摆线硬齿面减速机 输入轴与输出轴垂直, 传动效率高, 配套功率大, 最小传动比小。 安装形式: 脚架安装, 空心轴安装, 法兰安装, 前脚空心轴安装, 法兰空心轴安装, 前置盘安装。</p>	<p>MJ series spiral bevel gear speed reducer Input shaft and output shaft are vertical, transmission efficiency is higher than that of MN series, power is higher than that of MN series, and minimum transmission ratio is lower than that of MN series. Installation form: foot installation, hollow shaft installation, flange installation, foot and hollow shaft installation, flange and hollow shaft installation, locking disc installation.</p>	
<p>MN系列圆柱蜗杆减速机 传动效率较低, 配套功率最大到22KW, 最小传动比在左右。 安装形式: 脚架安装, 空心轴安装, 法兰安装, 法兰空心轴安装, 前置盘安装。</p>	<p>MN series cylindrical worm speed reducer Low transmission efficiency, power is up to 22 KW, and minimum transmission ratio is about 9. Installation form: foot installation, hollow shaft installation, flange installation, flange and hollow shaft installation, locking disc installation.</p>	

2) 减速机型号的选择

恒功率选型

电动机与减速机直接或通过联轴器连接

在恒功率选型参数表中找到相应的电动机功率、极数。
在此功率极数下，初步选一个具有相近传动比的机型，
并记录下其他用系数 f_b 。
计算总工况系数 f_a

$$f_a = f_1 \times f_2 \times f_3$$

f_1 : 工作机最低工况使用系数 (P005页, 表1)

f_2 : 启动系数 (根据每小时启动次数参照P006页, 表2)

f_3 : 环境温度系数 (P006页, 表3) 在选用MN系列需要考虑

比较 f_b 与 f_a , 需满足条件: $f_b \geq f_a$

恒扭矩选型

确定许用扭矩:

许用扭矩 \geq 工作扭矩 \times 总工况系数 (f_a)

在恒扭矩选型参数表查找相应的许用扭矩和传动比。

输入轴型选型

确定许用扭矩:

许用扭矩 \geq 工作扭矩 \times 总工况系数 (f_a)

在输入轴型选型参数表查找相应的许用扭矩和传动比。

3) 输出端径向载荷及轴向载荷, 请与我公司技术部联系。

4) 安装条件检查

1. 把所选机型的结构尺寸和可利用空间的尺寸作比较, 减速机必须留有足够的径向和轴向空间, 防止灰尘空气进入和妨碍问题的维护工作。

2) Model selection of speed reducer

Model selection of constant power

The motor and speed reducer can be directly coupled or connected by coupler.

Find the corresponding motor power and pole number in the model selection parameter form of constant power. Under the power and pole number, first select a model with approximate transmission ratio and record the using coefficient f_b .

Calculation of total working condition coefficient f_a

$$f_a = f_1 \times f_2 \times f_3$$

f_1 : minimum working condition coefficient of working machine (Table 1 on Page P006)

f_2 : starting coefficient (refer to Table 2 on Page P006 according to starting times per hour)

f_3 : Ambient temperature coefficient (Table 3 on Page P006) it should be taken into consideration when selecting Mn series

Compare f_b and f_a . Have to satisfy the condition $f_b \geq f_a$

Model selection of constant torque

Confirming the permissible torque (M_a max):

Permissible torque $>$ working torque \times total working condition coefficient (f_a)

Find the corresponding permissible torque (M_a max) and transmission ratio in the constant torque model selection parameter form.

Input shaft type

Confirming the permissible torque (M_a max):

Permissible torque \geq working torque \times total working condition coefficient (f_a)

Find the corresponding permissible torque (M_a max) and transmission ratio in the constant torque model selection parameter form.

3) For the radial load and axial load at the output end, please contact the technology department of our company.

4) Test of installation conditions

1. Comparing the structural dimensions of the selected model with the dimensions of available space, enough radial and axial space must be set aside for the reducer to prevent air from entering and obstructing the maintenance of the brake.

2. 新机不提供固定安装用连接螺栓, 为可靠固定安装减速机, 须用8.8级或以上强度的螺栓固定地脚螺栓。

3. 有特殊需要时, 可加文字说明。

1.4 出厂与贮存

1) 除特殊说明, 部分减速机出厂时不带润滑油。在试车前确保按说明书做好润滑。如果安装方式与订货时的安装方式不一致, 请按新安装方式调整减速机的油量及透气塞的位置。

2) 减速机的标准油漆为优丽美灰油漆, 其他特殊油漆要求请在订货时说明。

3) 减速机的贮存期限不得超过6个月, 对于需要长期贮存的请与我公司联系。

2. Connection bolts for fixed installation are not provided at random. For reliable installation of reducer, the grounding or flange must be fixed with bolts of grade 8.8 or above strength.

3. When there is special need, add text description.

1.4 Delivery and Storage

1) Unless otherwise specified, some reducers are not lubricated when they leave the factory. Make sure to add the lubricating oil according to the instruction before the test run. If the installation method is not consistent with the test run, please adjust the oil quantity of the reducer and the position of the air plug according to the new installation method.

2) The standard paint of the reducer is the eucalyptus grey paint. Please specify other special paint requirements when ordering.

3) The storage period of the reducer shall not exceed 6 months. For those who need long-term storage, please contact our company.

1.5 工况系数、启动系数、环境温度系数

工作机	日带载运行时间 (小时)			工作机	日带载运行时间 (小时)					
	≤ 0.5	$>0.5-10$	>10		≤ 0.5	$>0.5-10$	>10			
污水处理	刮泥机	-	-	1.2	起重机械	出料输送机*	1	1.4	1.8	
	压滤机	1	1.3	1.5		桥式起重机	1	1.4	1.8	
	离心机	0.8	1	1.3		行走式起重机	1.5	1.75	2	
	曝气机	-	1.8	2		提升式起重机	1	1.1	1.4	
	格栅设备	1	1.2	1.3		桥式龙门起重机	1	1.2	1.6	
	刮泥机	1	1.3	1.5		塔式起重机	-	-	1.6	
	提升机	-	1.1	1.3		卷扬机	-	1.8	1.8	
	输送机	-	1.3	1.5		螺旋输送机	-	1.5	1.5	
	水轮机	-	-	2		冷床输送机	-	1.3	1.4	
	离心机	1	1.2	1.3		化学工业	输送机, 用于均匀分配	1	1.3	1.4
1个活瓣容积式泵	1.3	1.4	1.8	输送机, 用于非均匀分配	1.4		1.6	1.7		
>1个活瓣容积式泵	1.2	1.4	1.5	输送机, 用于非均匀分配	1		1.3	1.5		
斗式输送机	1	1.6	1.6	输送机, 用于非均匀分配	1.2		1.4	1.6		
输送机	1	1.3	1.5	破碎机	1		1.3	1.5		
行走式起重机	1.2	1.6	1.8	离心机	1		1.2	1.3		
斗式输送机: 用于物料	1	1.7	1.7	风机类	冷却塔风机		-	-	2	
斗式输送机: 用于物料	1	2.2	2.2		风机 (轴流和离心式)		-	1.4	1.5	
破碎机	1	2.2	2.2		糖业生产		甘蔗切碎机	-	-	1.7
输送机	1.25	1.5	1.75				甘蔗碾磨机	-	-	1.7
输送机	1	1.25	1.5			甘蔗压榨机	-	-	1.2	
集中驱动输送机 (无反转)	1.25	1.5	1.75			榨干机, 机械制糖机, 蒸糖机	-	-	1.4	
集中驱动输送机 (有反转)	1.5	1.75	2			甘蔗清洗机	-	-	1.5	
集中驱动输送机 (有反转)	1.75	2.25	2.5			甘蔗切片机	-	-	1.5	
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	集中驱动输送机 (有反转)	1.75	2.25	2.5	带式输送机	-	1.5	1.5		
纺织工业	破碎机	1.25	1.5	1.75	水泥工业	带式输送机	-	1.2	1.4	
	破碎机	1	1.25	1.5		破碎机*	-	1.2	1.4	
	破碎机	1	1.25	1.5		破碎机	-	-	2	
输送机械	斗式输送机	-	1.2	1.5	造纸机械	带式输送机	-	-	2	
	输送机	1.4	1.6	1.8		带式输送机	-	1.6	1.6	
	输送机	-	1.5	1.8		带式输送机	-	-	2	
	皮带输送机 $\leq 150\text{KW}$	1	1.2	1.3		带式输送机	-	1.1	1.4	
	皮带输送机 $> 150\text{KW}$	1.1	1.3	1.4		带式输送机	-	-	2	
	带式输送机*	-	1.2	1.5		带式输送机	-	-	2	
	带式输送机*	-	1.5	1.8		带式输送机	-	1.8	2	
	带式输送机	-	1.2	1.5		带式输送机	-	2	2.25	
	带式输送机	-	1.2	1.4		带式输送机	-	1.8	1.9	
	带式输送机	-	1.5	-		带式输送机	-	1.4	1.5	

工作机额定功率 P_2 的确定: *) 按最大转矩确定额定功率

启动次数/小时	启动时间/小时	$\leq 0.5h$	$0.5-10h$	$> 10h$
< 10		1.00	1.00	1
> 100		1.15	1.25	1.4
> 500		1.25	1.40	1.7

环境温度	10°C	20°C	30°C	40°C	50°C
环境温度系数 f_3	0.88	1.00	1.15	1.35	1.65

1.5 Working condition coefficient, starting coefficient, ambient temperature coefficient

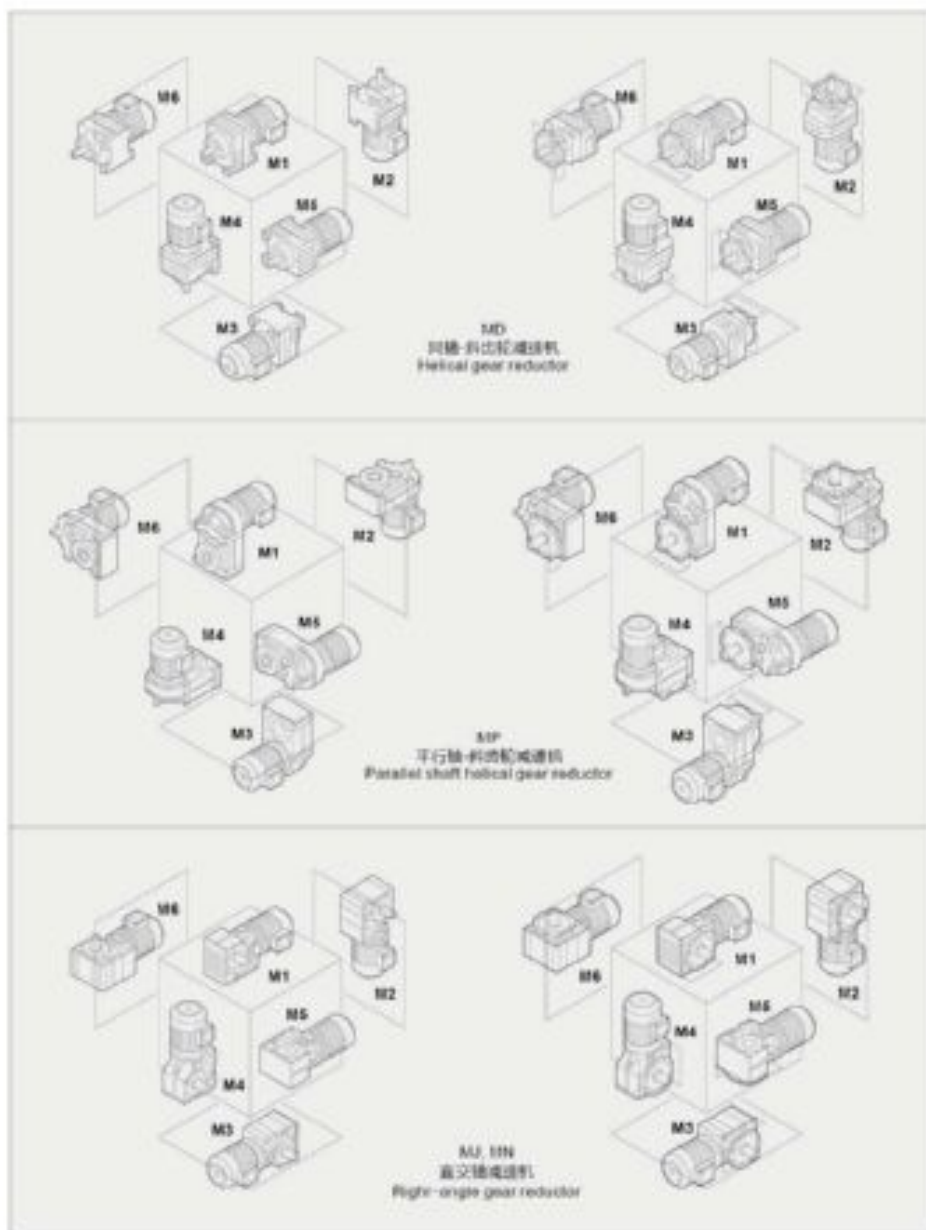
Driven machines	Daily operating time (hour)			Driven machines	Daily operating time (hour)					
	≤ 0.5	$>0.5-10$	>10		≤ 0.5	$>0.5-10$	>10			
Waste water-treatment	Thickeners	-	-	1.2	Cranes	Slowing gears	1	1.4	1.8	
	Filtration presses	1	1.3	1.5		Lifting gears	1	1.4	1.8	
	Flocculation apparatus	0.8	1	1.3		Travelling gears	1.5	1.75	2	
	Aerators	-	1.8	2		Heading gears	1	1.1	1.4	
	Raking equipment	1	1.2	1.3		Drinking job cranes	1	1.2	1.6	
	Centrifugation and other tanks	1	1.3	1.5		Excavators	-	-	1.6	
	Dye thickeners	-	1.1	1.3		Dough mills	-	1.8	1.8	
	Screw pumps	-	1.3	1.5		Rubber calendars	-	1.5	1.5	
	Water turbines	-	-	2		Cooling drums	-	1.3	1.4	
	Centrifugal pumps	1	1.2	1.3		Chemical industry	Mixers for uniform media	1	1.3	1.4
1 piston volume type pump	1.3	1.4	1.8	Mixers for uniform media	1.4		1.6	1.7		
Flow line volume type pump	1.2	1.4	1.5	Mixers for uniform media	1		1.3	1.5		
Bucket conveyors	1	1.6	1.6	Mixers for uniform media	1.2		1.4	1.6		
Dumping buckets	1	1.3	1.5	Baking ovens	1		1.3	1.5		
Caterpillar	1.2	1.6	1.8	Centrifugal machine	1		1.2	1.3		
Bucket elevators	1	1.7	1.7	Fan	Cooling tower fan		-	-	2	
Bucket elevators for chemical industry	1	2.2	2.2		Fan		-	-	1.4	1.5
Cutter heads	1	2.2	2.2		Cane sugar		Cane knives	-	-	1.7
Wire drawing machine	1.25	1.5	1.75	Cane mills			-	-	1.7	
Steel industry	Rolling machines	1	1.25	1.5	Beet sugar production	Beet cocooners	-	-	1.2	
	Continuous casting	1.25	1.5	1.75		Beet cocooners	-	-	1.4	
	Rolling machines	1.5	1.75	2		Sugar beet washing machines	-	-	1.5	
	Rolling machines	1.75	2.25	2.5		Sugar beet cutters	-	-	1.5	
	Rolling machines	2	2.25	2.75		Cokeworks	Material ropeways	-	1.3	1.4
	Rolling machines	1.25	1.5	1.75			Material ropeways	-	1.6	1.8
Loam	1	1.25	1.5	T-bar lifts	-		1.3	1.4		
Spinning machines	1	1.25	1.5	Continuous ropeways	-		1.4	1.6		
Conveyors	Washing machine	1	1.25	1.5	Cement industry	Concrete mixers	-	1.5	1.5	
	Bucket conveyors	-	1.2	1.5		Breakers*	-	1.2	1.4	
	Heading machines	1.4	1.6	1.8		Rotary kilns	-	-	2	
	Hoists	-	1.5	1.8		Tube mills	-	-	2	
	Ball conveyors 150kw	1	1.2	1.3		Separators	-	1.6	1.6	
	Ball conveyors 151 kw	1.1	1.3	1.4		Roll crushers	-	-	2	
	Goods lifts*	-	1.2	1.5		Paper machines	Of all kind	-	1.8	2
	Passenger lifts*	-	1.5	1.8			Pulper drives	-	2	2.25
	Apron conveyors	-	1.2	1.5			Resinipating compressor	-	1.8	1.9
	Escalators	-	1.2	1.4			Compressor	Centrifugal compressor	-	1.4
Rail travelling gears	-	1.5	-							

Design for power rating of driven machine P_2 : *) Designed power corresponding to max. torque

启动次数/小时	启动时间/小时	$\leq 0.5h$	$0.5-10h$	$> 10h$
< 10		1.00	1.00	1
> 100		1.15	1.25	1.4
> 500		1.25	1.40	1.7

环境温度	10°C	20°C	30°C	40°C	50°C
Thermal factor f_3	0.88	1.00	1.15	1.35	1.65

1.6 安装位置图 Installation position figure



1.7 MN、MJ系列减速机胀紧盘安装位置说明

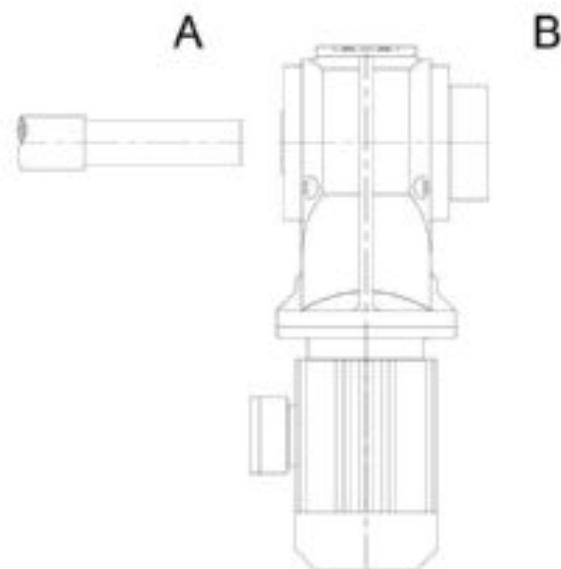
MJ、MN系列减速机的MJH、MNH结构型式必须标明胀紧盘输出位置（即设备轴输入的方向）。

如下图：输出端位置在A面

1.7 Description to installation position of expansion plate of MN, MJ series speed reducer

For structural forms MJH, MNH, of MJ, MN series speed reducers, the position of output end of expansion plate must be indicated (i.e., insertion direction of equipment shaft).

As shown in the following figure:
The output end is at Side A.



1.8 MN、MP、MJ系列胀紧盘尺寸图 Size figure of expansion plate of MN,MP,MJ series

<p>MNH-30</p>	<p>MNH-40</p>
<p>MNH-50</p>	<p>MNH-60</p>
<p>MNH-70</p>	<p>MNH-80</p>
<p>MNH-90</p>	<p>MPH-20</p> <p>最大配置 电机机座号: 71 Base No. of maximum motor allocated for :71</p>
<p>MJH-30/MPH-30</p> <p>MP系列最大配置 电机机座号: 80 Base No. of maximum motor allocated for MP series :80</p>	<p>MJH-40/MPH-40</p> <p>MP系列最大配置 电机机座号: 90 Base No. of maximum motor allocated for MP series :90</p>

注: 1MN、MP、MJ系列胀紧盘为通用规格尺寸图, 其中心距与轴心距标准产品。

Note: 1 Except the output shafts are different, MN, MP, MJ series speed reducers with expansion plate are same as for key below shaft standard products.

<p>MJH-50/MPH-50</p> <p>MP系列最大配置 电机机座号: 100 Base No. of maximum motor allocated for MP series :100</p>	<p>MJH-60/MPH-60</p> <p>MP系列最大配置 电机机座号: 112 Base No. of maximum motor allocated for MP series :112</p>
<p>MJH-70/MPH-70</p> <p>MP系列最大配置 电机机座号: 132 Base No. of maximum motor allocated for MP series :132</p>	<p>MJH-80/MPH-80</p> <p>MP系列最大配置 电机机座号: 160 Base No. of maximum motor allocated for MP series :160</p>
<p>MJH-90/MPH-90</p>	<p>MJH-100/MPH-100</p>
<p>MJH-120/MPH-120</p> <p>MP系列最大配置 电机机座号: 280 Base No. of maximum motor allocated for MP series :280</p>	<p>MJH-150/MPH-150</p> <p>MP系列最大配置 电机机座号: 280 Base No. of maximum motor allocated for MP series :280</p>
<p>MJH-160/MPH-160</p>	<p>MJH-180</p>

注: 1MN、MP、MJ系列胀紧盘为通用规格尺寸图, 其中心距与轴心距标准产品。

Note: 1 Except the output shafts are different, MN, MP, MJ series speed reducers with expansion plate are same as for key below shaft standard products.

1.9 MD、MJ、MP、MN系列减速机联接法兰重量表(kg)

Coupling flange weight form of MD, MJ, MP, MN series speed reducer

减速机型号 Reducer type					电机机座号 Motor frame size												
MDX	MN	MP	MJ	MD	63	71	80	90	100	112	132	160	180	200	225	250	280
				19													
		29		29													
	39	39	39	39	3	4	6	6	10								
	49	49															
	59			49													
	59	59	59	59	3	3	5	5	10	10	17						
69	69	69	69	69													
79	79	79	79	79	5	5	7	7	12	12	19	37					
89	89	89	89	89			9	9	14	14	22	38	38				
99	99	99	99	99					17	17	22	42	42	58			
109		109	109	109					23	23	23	43	43	58	65		
				139								30	50	50	65	70	
		129	129	149								43	57	57	72	78	108
		159	159														
		169	169	169								83	83	83	93	113	113
				189	179												

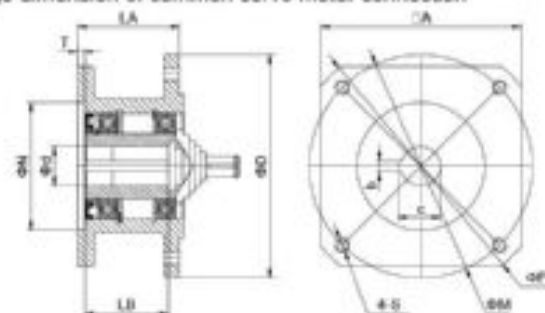
1.10 MD、MJ、MP、MN系列减速机输入轴型输入部分重量表(kg)

Weight form of input part of input shaft type of MD, MJ, MP, MN series speed reducer(kg)

减速机型号 Reducer type					输入轴型输入部分重量表(kg)									
MDX	MN	MP	MJ	MD	AD1	AD2	AD3	AD4	AD5	AD6	AD7	AD8		
				19										
		29		29	3	4								
	39	39	39	39										
	49	49												
	59			49										
	59	59	59	59			4	7						
69	69	69	69	69										
79	79	79	79	79			6	8	14					
89	89	89	89	89			7	11	16	31				
99	99	99	99	99					12	17	32	47		
109		109	109	109					18	23	33	43		
				139						30	45	45	55	
		129	129	149						37	52	62	62	72
		159	159											
		169	169	169						62	82	72	92	
				189	179									

1.11 常用伺服电机联接法兰尺寸

Flange dimension of common servo motor connection



机型号 Type				联接法兰尺寸 (mm) Flange dimension (mm)												
MN	MP	MJ	MD	D	LA	A	P	M	N	T	S	d	b	c	LB	
			19													
		29	29		100	130	φ170	φ145	φ110H7	7	M8	φ22E8	8	25.3	50	
39	39	39	39	φ120												
49	49				130	180	φ230	φ200	φ114.3H7	5	M12	φ35E8	10	38.3	75	
59																
		49	49		72	130	φ170	φ145	φ110H7	7	M8	φ22E8	8	25.3	50	
	59	59	59	φ160												
69	69	69	69		94	180	φ230	φ200	φ114.3H7	5	M12	φ35E8	10	38.3	75	
79	79	79	79	φ200												
					75	130	φ170	φ145	φ110H7	7	M8	φ22E8	8	25.3	50	
					91.5	180	φ230	φ200	φ114.3H7	5	M12	φ42E8	12	45.3	110	
					129	180	φ230	φ200	φ114.3H7	5	M12	φ42E8	12	45.3	110	
					66	130	φ170	φ145	φ110H7	7	M8	φ22E8	8	25.3	50	
89	89	89	89	φ250												
					84	180	φ230	φ200	φ114.3H7	5	M12	φ35E8	10	38.3	75	
					123	180	φ230	φ200	φ114.3H7	5	M12	φ42E8	12	45.3	110	



2.1 MD系列结构型式说明 Description to structural form of MD series

- | | | |
|--|--|--|
| <p>1) MD 型
底座安装三级或二级斜齿齿轮减速机
Model MD
Three-stage or two-stage foot-mounted helical gear reductor</p> | | |
| <p>2) MDF 型
法兰安装三级或二级斜齿齿轮减速机
Model MDF
Three-stage or two-stage flange-mounted helical gear reductor</p> | | |
| <p>3) MDM 型
法兰安装带加长轴承箱三级或二级斜齿齿轮减速机
Model MDM
Three-stage or two-stage flange-mounted helical gear reductor with extended bearing hub</p> | | |
| <p>4) MDX 型
底座安装单级斜齿齿轮减速机
Model MDX
Single-stage foot-mounted helical gear reductor</p> | | |
| <p>5) MDXF 型
法兰安装单级斜齿齿轮减速机
Model MDXF
Single-stage flange-mounted helical gear reductor</p> | | |

组合型

MD...MD 型 (...代表以上所有结构形式)
MD 系列与 MD 系列组合减速机

Combined type

MD...MD model (representing all the above structural forms)
MD series and MD series combined speed reductor



输入部分配置 Input allocation

Y

AD

AM1

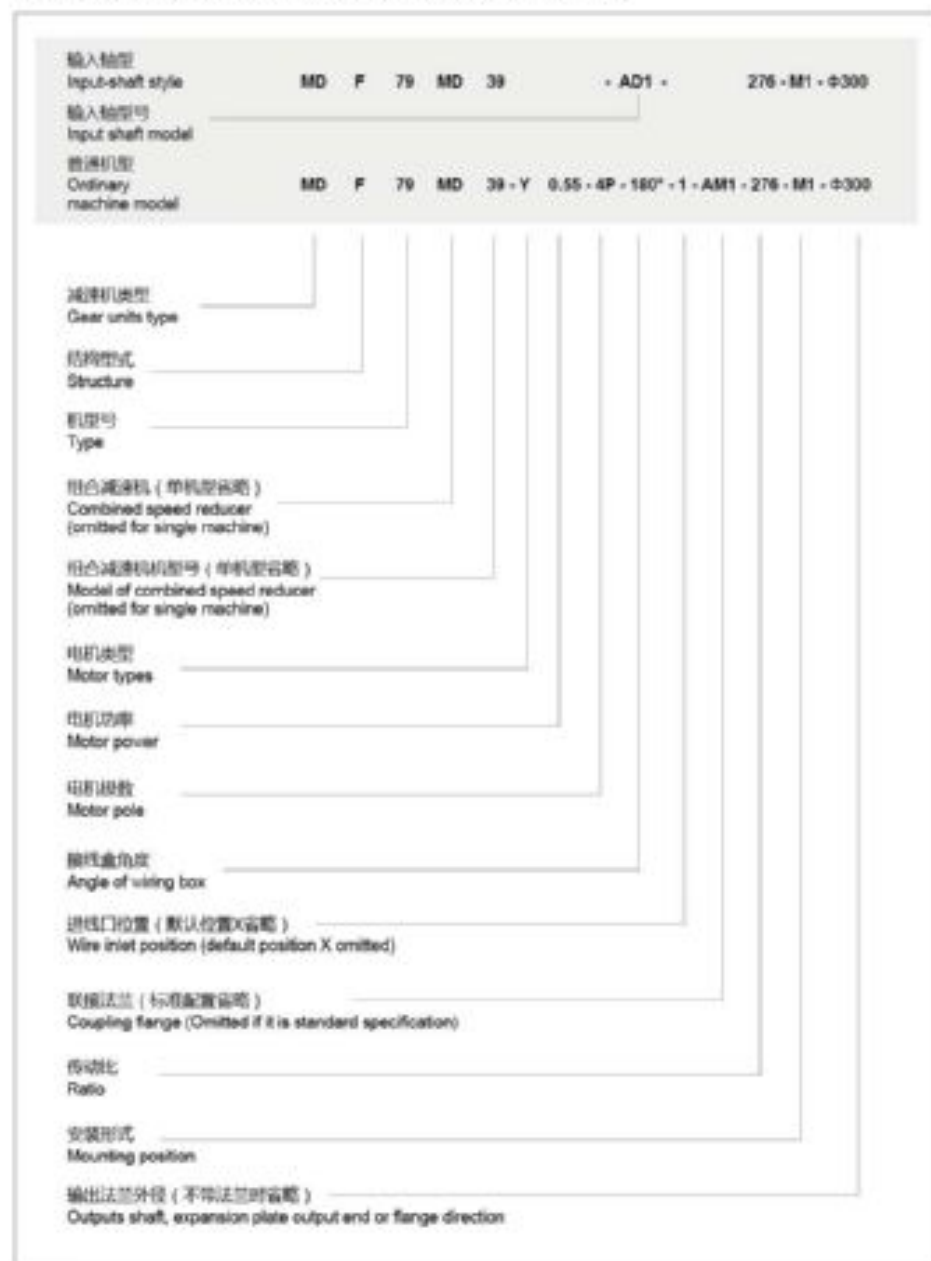


电机直联型 (标准配置)
Motor direct connecting type
(stand configuration)

输入轴型
Input shaft type

联接法兰型
Coupling flange type

2.2 MD系列型号表示方法 Model expression way of MD series



减速机类型: MD斜齿蜗轮蜗杆减速机	Gear unit type: MD Helical gear reducer
结构形式 (见P014页) 普通轴伸式 (省略) 轴伸法兰式 F 加长法兰式 M 未注明按普通轴伸式供应	Structure (See P014) Foot-mounter solid shaft output (Omitted) Flange-mounter solid shaft output F Extended flange type M If there is no indication, the product is supplied according to ordinary shaft extension foot installation
组合减速机及机型号: 见P027-P066页选型参数表	Combined speed reducer and type: see model selection parameter form on P027-P066
机型号: 见P027-P071页选型参数表	Type: see model selection parameter form on P027-P071
电机类型代号: 普通电机 Y 防爆电机 YB 直流电机 Z 制动电机 YEJ 多速电机 YD 变频电机 YVP 冶金起重电机 YZ 变频制动电机 YVPEJ 绕线电机 YG	Codes for Motor Types: Ordinary Motor Y Flameproof Motor YB Direct current motor Z Brake Motor YEJ Multi-speed Motor YD Variable Frequency Motor YVP Metallurgy hoisting Motor YZ Transduction braking Motor YVPEJ Rot Motor YG
电机功率、极数: 见P027-P066页选型参数表	Motor power, pole: see model selection parameter form on P027-P066
接线盒角度、进线口位置: 未注明按接线盒角度按0°、进线口位置X供应, 见 P023-P026页安装形式图	Angle of wiring box, wire inlet position: If there is no indication, the default angle of wiring box is 0°, and for the wire inlet position X, see installation form figure on Page P023-P026
输入轴型号: 见P067-P071页选型参数表	Input shaft model: see model selection parameter form on P067-P071
联接法兰: AM1刚性联接 AM柔性联轴器联接 (具体尺寸请与我公司技术部联系)	Coupling flange: AM1 rigid connection Connection of AM flexible coupler (Please contact the technical department of our company for size details)
传动比: 见P027-P071页选型参数表	Ratio: see model selection parameter form on P027-P071
安装形式: M1、M2、M3、M4、M5、M6, 未注明按M1供应, 见P023-P026页安装形式图	Mounting position: M1- M2- M3- M4- M5- M6, if there is no indication, the product is supplied according to M1, see installation form figure on Page P023-P026
输出法兰外径: 未注明按最小法兰供应, 见P072-P092页安装尺寸图	Outer diameter of output flange: If there is no indication, the product is supplied according to the minimum flange. See installation size figure on Page P072-P092

2.3 MD系列选型参数表释义 Model selection definition form of MD series

MD系列恒功率选型参数表 Constant power model selection parameter form of MD series

输出转速 Output speed r/min	输出扭矩 Output torque N·m	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type	极数 Pole P	输出转速 Output speed r/min	输出扭矩 Output torque N·m	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type	极数 Pole P
0.12KW						0.12KW					
0.06	13034	21342	1.00	MD 149 MD79	4P	0.79	1127	1737	1.35	MD 89 MD59	4P
0.08	11172	18210	1.15	MDF 149 MD79	4P	0.91	990	1524	1.55	MDF 89 MD59	4P
0.09	9731	15923	1.30			1.1	794	1303	1.90		
0.10	8604	14075	1.50			1.2	696	1143	2.2		

注：0.12KW表示电机功率。Note: 0.12KW indicates motor power.

MD系列恒扭矩选型参数表 Constant torque model selection parameter form of MD series

输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电机功率 Power KW	极数 Pole P	输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电机功率 Power KW	极数 Pole P
130N·m					200N·m				
0.16	8612	MD 29 MD19	0.12	4P	3.1	439	MD 39 MD19	0.12	4P
0.19	7425	MDF 29 MD19	0.12	4P	3.6	378	MDF 39 MD19	0.12	4P
0.20	6921				4.2	328			
0.23	6050								
0.26	5217				4.8	289	MD 39 MD19	0.18	4P
0.30	4681				5.0	265	MDF 39 MD19	0.18	4P

注：130N·m表示许用扭矩。Note: 130 N·m indicates permissible torque.

MD系列输入轴选型参数表 Model selection parameter form of input shaft type of MD series

传动比 Ratio i	输出转速 Output speed r/min	许用扭矩 Permissible torque N·m	额定功率 Nominal Power Ratings KW	机型号 Type	传动比 Ratio i	输出转速 Output speed r/min	许用扭矩 Permissible torque N·m	额定功率 Nominal Power Ratings KW	机型号 Type
RX59 AD... , n = 1400 1/min					RX99 AD... , n = 1400 1/min				
5.90	295	37	1.0	MDX 59 AD2	3.48	403	405	17.6	MDX 99 AD5
5.07	276	34	1.0	MDXF 59 AD2	3.09	454	405	20	MDXF 99 AD5
					2.76	507	405	22	
4.36	322	61	2.1	MDX 59 AD2	2.48	564	405	25	
3.79	369	58	2.3	MDXF 59 AD2	2.15	650	385	27	
3.55	394	55	2.5		1.93	726	355	28	
3.14	448	65	3.1		1.60	875	315	29	
2.91	481	49	2.5		1.39	1005	290	31	

注：MDX 59 AD... 表示输入轴型号，n = 1400 r/min表示输入转速，69 N·m表示该型号不同传动比中最大的许用扭矩。
Note: MDX 59 AD... means input shaft type, n = 1400 r/min means input speed, 69 N·m indicates the maximum permissible torque under different speed ratios in the model.

- 1) 选型参数表中机型号可与该行中的任一传动比搭配。
- 2) 选型参数表中机型号69-179参数也适用于MEM型号。
- 1) The machine types in the parameter selection list can match any transmission ratios in the column.
- 2) The parameters type 69-179 in this list also fits model MEM.

2.4 MD系列输入功率及最大扭矩 Input power and maximum torque of MD series

规格 Size	MD09	MD19	MD29	MD39	MD49	MD59	MD69	MD79	MD89	MD99	MD109	MD139	MD149	MD169	MD179
结构形式 Structure	MD			MDF			MD			MDF			MEM		
输入功率(kw) Input power rating	0.12-0.37	0.12-0.75	0.12-3	0.12-3	0.12-5.5	0.12-7.5	0.12-7.5	0.18-11	0.55-22	0.55-30	2.2-45	5.5-90	11-160	11-160	11-160
传动比 Rate	3.21-75.24	3.63-81.64	3.37-135.09	3.41-134.67	3.70-176.66	4.30-199.89	4.20-199.81	5.31-195.24	4.50-246.54	4.90-289.74	5.15-251.15	5.00-222.00	5.00-163.31	5.00-229.71	5.00-200.87
最大扭矩(N·m) Maximum torque	50	65	130	200	300	450	600	800	1550	3000	4300	6000	13000	18000	35000

规格 Size	MDX59	MDX69	MDX79	MDX89	MDX99	MDX109
结构形式 Structure	MDF			MEM		
输入功率(kw) Input power rating	0.12-5.5		0.12-7.5		1.1-11	
传动比 Rate	1.26-5.50		1.40-6.07		1.42-5.63	
最大扭矩(N·m) Maximum torque	69		134		215	

* 最大扭矩值随不同传动比有所变化。The maximum torque indicates the maximum value of maximum torque corresponding to different transmission ratios in the specification.

2.5 MD系列主机重量表 Main machine weight form of MD series

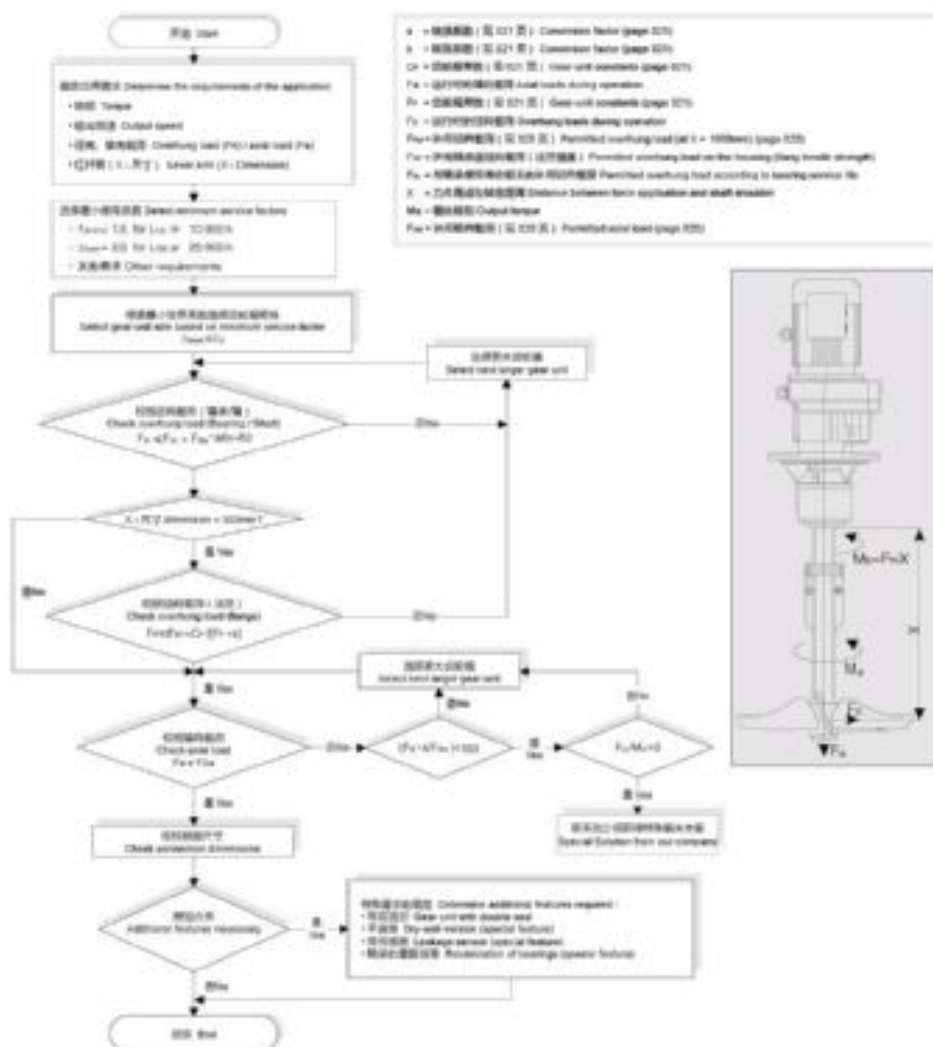
型号 Type	MDX9	MD19	MD29	MD39	MD49	MD59	MD69	MD79	MD89	MD99	MD109	MD149	MD169	MD179
重量(kg) Weight(kg)	4.5	6.5	8	15	18	23	29	35	65	92	162	248	420	782
型号 Type	MDX99	MDX109	MDX149	MDX169	MDX179									
重量(kg) Weight(kg)	4.5	6.5	8	16	18	26	32	41	72	118	168	272	430	730
型号 Type	MEM9	MEM109	MEM149	MEM169	MEM179									
重量(kg) Weight(kg)				36	48	60	100	170	258	387	600	930	1500	2500
型号 Type	MDX59	MDX69	MDX79	MDX89	MDX109									
重量(kg) Weight(kg)	11	14	24	41	68	103								
型号 Type	MDX59	MDX69	MDX79	MDX89	MDX109									
重量(kg) Weight(kg)	13	16	27	46	75	118								

2.6 MDM减速机 Model MDM Reductor

MDM 斜齿行星减速机采用法兰安装带加长轴承的三或二级斜齿行星减速机，可用于大径向载荷、大轴向载荷的情况。

The MDM helical gear reductor is the three-stage or two-stage flange-mounted helical gear reductor with the extended bearing hub and can be applied to circumstances with the higher overhung loads and axial forces.

1) MDM减速机选型 MDM Reductor Selection:



2) 许用径向和轴向载荷 Permitted overhung loads and axial forces:

根据不同的使用系数和不同的轴承使用寿命 L_{10h} 提供下述的许用径向载荷 F_{ra} 和轴向载荷 F_{ra}

The permitted overhung loads F_{ra} and axial forces F_{ra} are specified for various f_n and nominal bearing service life L_{10h}

Factor 1.55, (b=10-000)

	n [rpm]	<16	16-25	26-40	41-60	61-100	101-160	161-250	251-400
MDM59	F _{ra} [N]	400	400	400	400	400	405	410	415
	F _{ra} [N]	18600	15000	11500	9700	7100	5650	4450	3800
MDM69	F _{ra} [N]	575	575	575	580	575	585	590	600
	F _{ra} [N]	19000	58900	15300	11900	9210	7470	5870	5050
MDM79	F _{ra} [N]	1200	1200	1200	1200	1200	1200	1210	1200
	F _{ra} [N]	22000	22000	19400	15100	11400	9220	7200	6710
MDM89	F _{ra} [N]	1970	1970	1970	1970	1980	1990	2000	2010
	F _{ra} [N]	30000	30000	23600	18000	14300	11000	8940	8030
MDM99	F _{ra} [N]	2980	2980	2980	2990	3010	3050	3060	3080
	F _{ra} [N]	40000	38100	27300	20300	15900	12600	9640	7810
MDM109	F _{ra} [N]	4230	4230	4230	4230	4230	4230	3980	3830
	F _{ra} [N]	48000	41000	30300	23000	18000	13100	9560	8030
MDM139	F _{ra} [N]	8710	8710	8710	8710	7220	5860	3980	4750
	F _{ra} [N]	70000	70000	70000	67900	46900	44000	35600	32400
MDM149	F _{ra} [N]	11100	11100	11100	11100	11100	10500	8640	10600
	F _{ra} [N]	70000	70000	89700	58400	45600	38000	32800	20800
MDM169	F _{ra} [N]	14600	14600	14600	14600	14600	14700	-	-
	F _{ra} [N]	70000	70000	70000	60300	45300	38900	-	-

Factor 2.0, (b=25-000)

	n [rpm]	<16	16-25	26-40	41-60	61-100	101-160	161-250	251-400
MDM59	F _{ra} [N]	415	410	410	410	410	415	415	420
	F _{ra} [N]	12100	9600	7250	6050	4300	3350	2600	2200
MDM69	F _{ra} [N]	590	590	590	595	590	595	600	605
	F _{ra} [N]	15800	12000	9580	7330	5580	4480	3480	2930
MDM79	F _{ra} [N]	1210	1210	1210	1210	1210	1210	1220	1220
	F _{ra} [N]	20000	15400	11900	9070	6870	5280	4010	3700
MDM89	F _{ra} [N]	2000	2000	2000	2000	2000	1720	1600	1710
	F _{ra} [N]	24000	19200	14300	10800	8190	6100	5480	4880
MDM99	F _{ra} [N]	3040	3040	3040	3050	3070	3080	2540	2430
	F _{ra} [N]	29400	22000	16200	11900	8850	6840	5830	4750
MDM109	F _{ra} [N]	4330	4330	4330	4330	4330	3950	2810	2990
	F _{ra} [N]	32300	24800	17800	13000	9780	8170	6950	5620
MDM139	F _{ra} [N]	8850	8850	8850	8830	5860	4320	3200	3240
	F _{ra} [N]	70000	59900	48000	37900	33800	31700	25600	23300
MDM149	F _{ra} [N]	11400	11400	11400	11490	11400	8320	6850	8440
	F _{ra} [N]	70000	90800	45900	39900	33500	27900	24100	22600
MDM169	F _{ra} [N]	15100	15100	15100	15190	15100	13100	-	-
	F _{ra} [N]	70000	63500	51900	37900	28800	23600	-	-

3) 转换系数和许用载荷系数 Conversion factors and gear unit constants:

计算MDM系列蜗轮蜗杆减速机许用载荷系数 F_x ($X \neq 1000mm$)的转换系数

The following conversion factors and gear unit constants apply to calculating the permitted overhung load F_x ($X \neq 1000mm$) for MDM gear reductor

型号 Type	a	b	Cr($\beta=1.5$)	Cr($\beta=2.0$)	F _x
MDM59	1047	47	102000	126000	277
MDM69	1047	47	204700	210000	297.5
MDM79	1050	50	251200	257400	340.5
MDM89	1054.5	56.5	491700	502900	414
MDM99	1061	61	1091800	11124100	481
MDM109	1069	69	1536700	15652000	554.5
MDM139	1098	88	25291700	25993900	650
MDM149	1091	91	30638700	31173900	756
MDM169	1089.5	89.5	42096100	43054300	869

2.7 MD系列润滑油量表 Lubricating oil quantity form of MD series

机型号 Gear mit type	润滑油量 (升) Fill quantity in liters (L)					
	M1 ¹⁾	M2 ²⁾	M3	M4	M5	M6
MD09	0.12	0.2	0.2	0.2	0.2	0.2
MD19	0.25	0.6	0.35	0.6	0.35	0.35
MD29	0.25/0.4	0.7	0.4	0.7	0.4	0.4
MD39	0.3/1	0.9	1	1.1	0.8	1
MD49	0.7/1.5	1.6	1.5	1.7	1.5	1.5
MD59	0.8/1.7	1.9	1.7	2.1	1.7	1.7
MD69	1.1/2.3	2.6/3.5	2.8	3.2	1.8	2
MD79	1.2/3	3.8/4.3	3.6	4.3	2.5	3.4
MD89	2.3/6	6.7/8.4	7.2	7.7	6.3	6.5
MD99	4.8/9.8	11.7/14	11.7	13.4	11.3	11.7
MD109	6/13.7	16.3	16.9	19.2	13.2	15.9
MD139	10/25	28	29.5	31.5	25	25
MD149	15.4/40	46.5	48	52	39.5	41
MD169	27/70	82	79	88	66	69
MD179	60	160	190	210	160	160

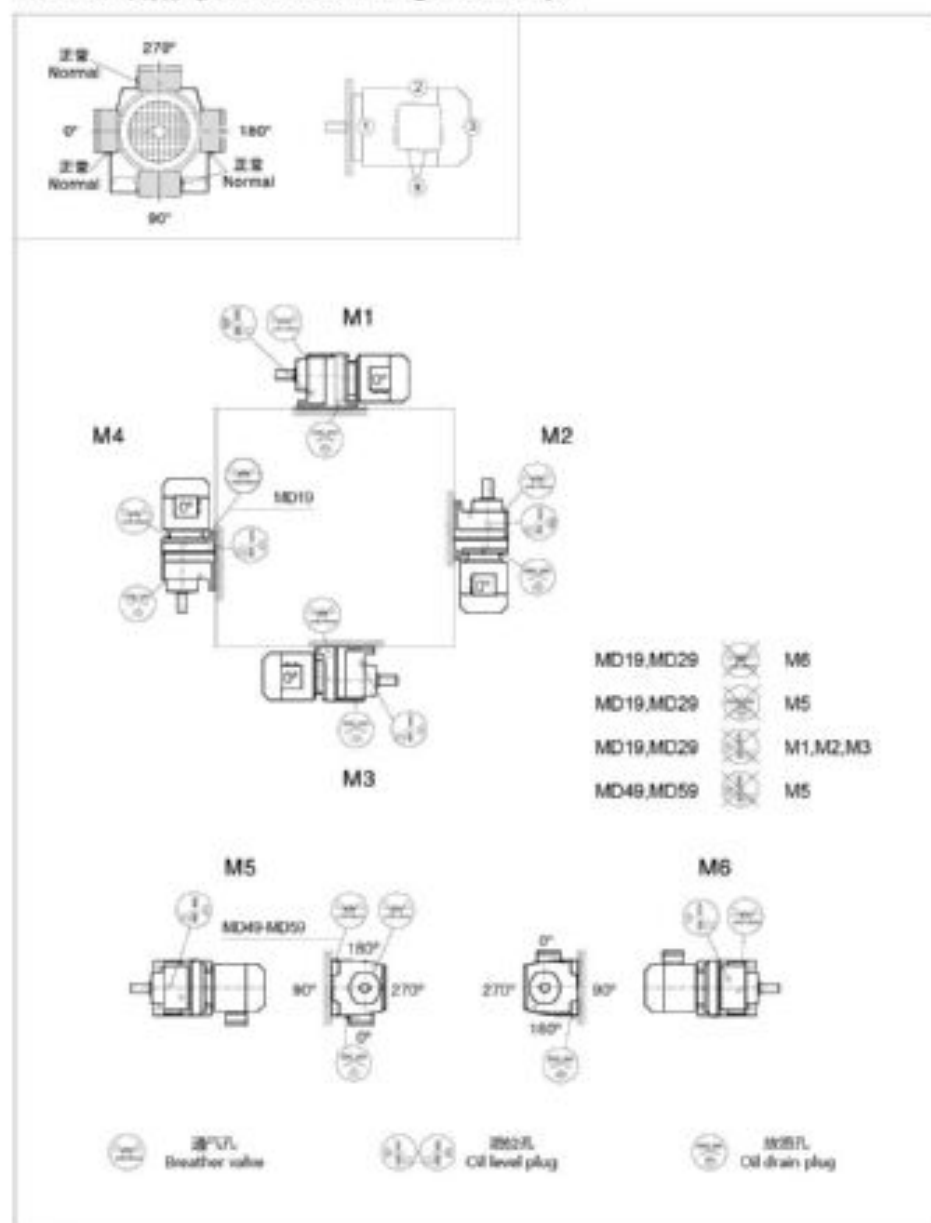
机型号 Gear mit type	润滑油量 (升) Fill quantity in liters (L)					
	M1 ¹⁾	M2 ²⁾	M3	M4	M5	M6
MDF09	0.12	0.2	0.2	0.2	0.2	0.2
MDF19	0.25	0.6	0.35	0.6	0.35	0.35
MDF29	0.25/0.4	0.7	0.4	0.7	0.4	0.4
MDF39	0.4/1	0.9	1	1.1	0.8	1
MDF49	0.7/1.5	1.6	1.5	1.7	1.5	1.5
MDF59	0.8/1.7	1.8	1.7	2	1.7	1.7
MDF69	1.2/2.5	2.7/3.6	2.7	3.1	1.9	2.1
MDF79	1.2/2.6	3.8/4.1	3.3	4.1	2.4	3
MDF89	2.4/6	6.8/7.9	7.1	7.7	6.3	6.4
MDF99	5.1/10.2	11.9/14	11.2	14	11.2	11.8
MDF109	6.3/14.9	15.9	17	19.2	13.1	15.9
MDF139	9.5/25	27	29	32.5	25	25
MDF149	15.4/42	47	48	52	42	42
MDF169	29/70	82	79	88	65	71
MDF179	60	160	190	210	120	120

机型号 Gear mit type	润滑油量 (升) Fill quantity in liters (L)					
	M1	M2	M3	M4	M5	M6
MDX59/MDXF59	0.5/0.5	0.8	1.3/1.1	1.3/1.1	0.9/0.7	0.9/0.7
MDX69/MDXF69	0.8/0.7	0.8	1.7/1.5	1.9/1.7	1.1/1	1.1/1
MDX79/MDXF79	1.1/0.9	1.5	2.6/2.4	2.7/2.5	1.6	1.6
MDX89/MDXF89	1.7/1.6	2.5	4.8/4.9	4.8/4.7	2.9	2.9
MDX99/MDXF99	2.1	3.4/3.5	7.4/7.1	7	4.8	4.8
MDX109/MDXF109	3.9/3.1	5.6/5.9	11.6/11.2	11.9/10.5	7.7/7.2	7.7/7.2

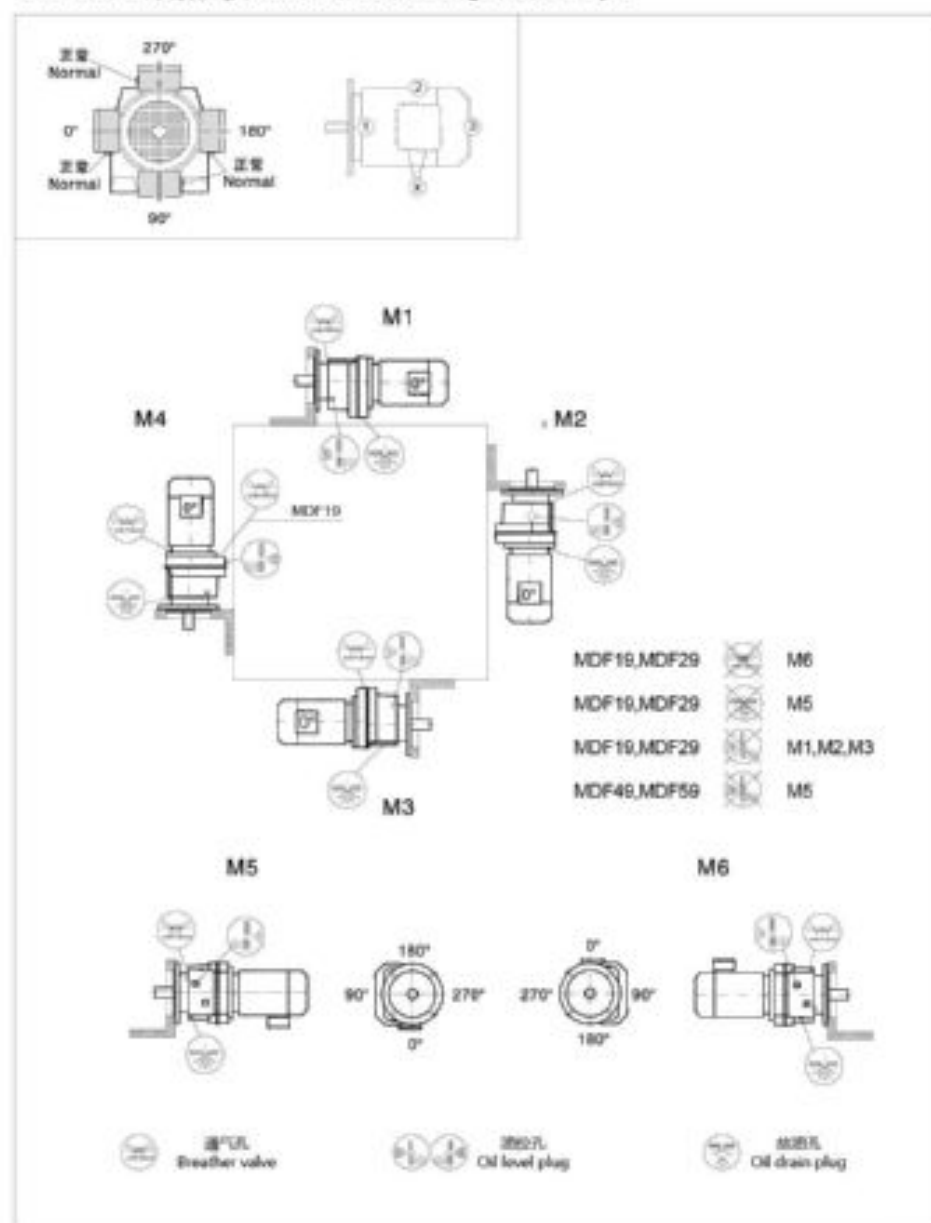
注: 1) 表示蜗轮蜗杆减速机蜗轮蜗杆轴端油室注油量
Notes: 1) The large gear unit of multi-stage gear units must be filled with the larger oil volume.

2.8 MD系列安装形式图 Installation form figure of MD series

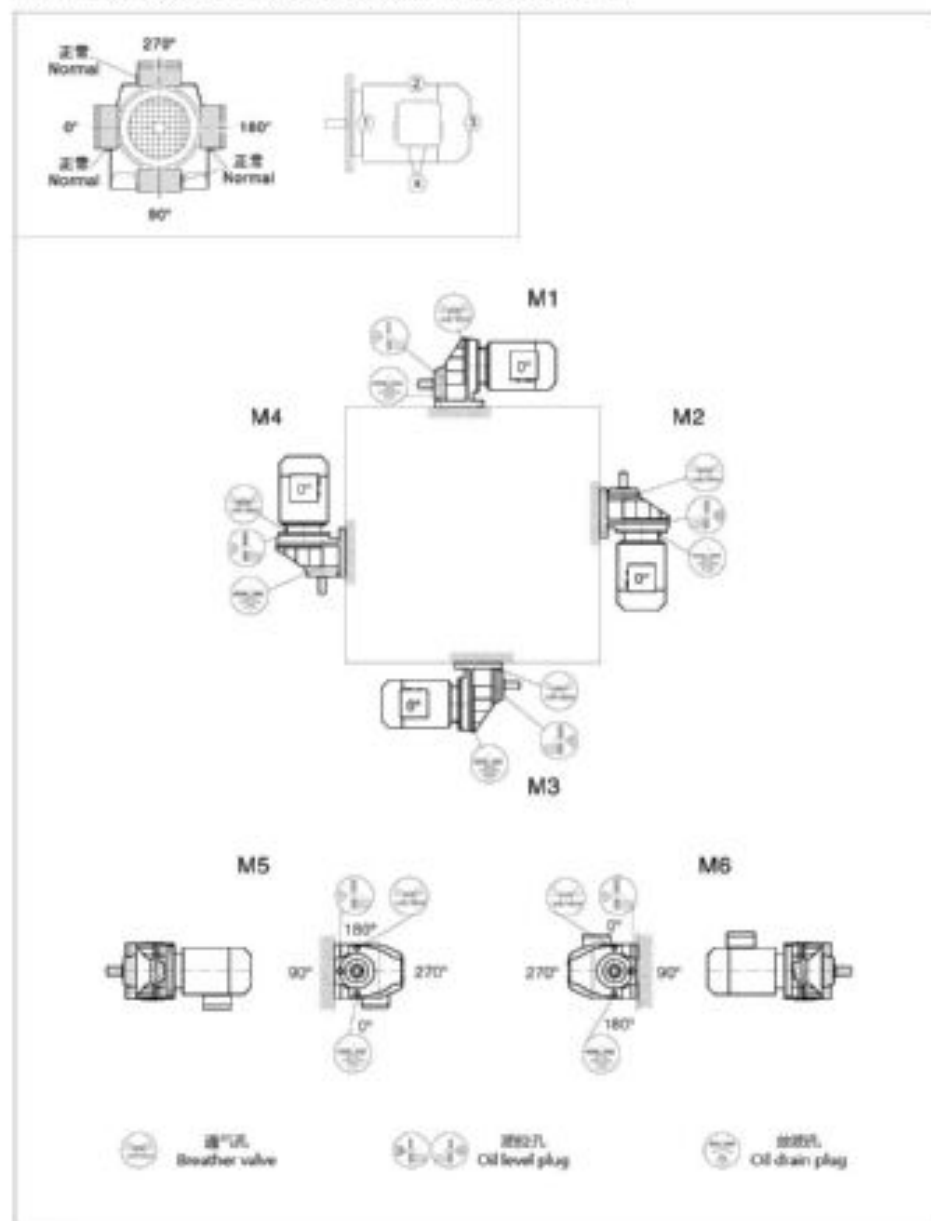
MD09-MD179安装形式图 MD09-MD179 Mounting Position Example



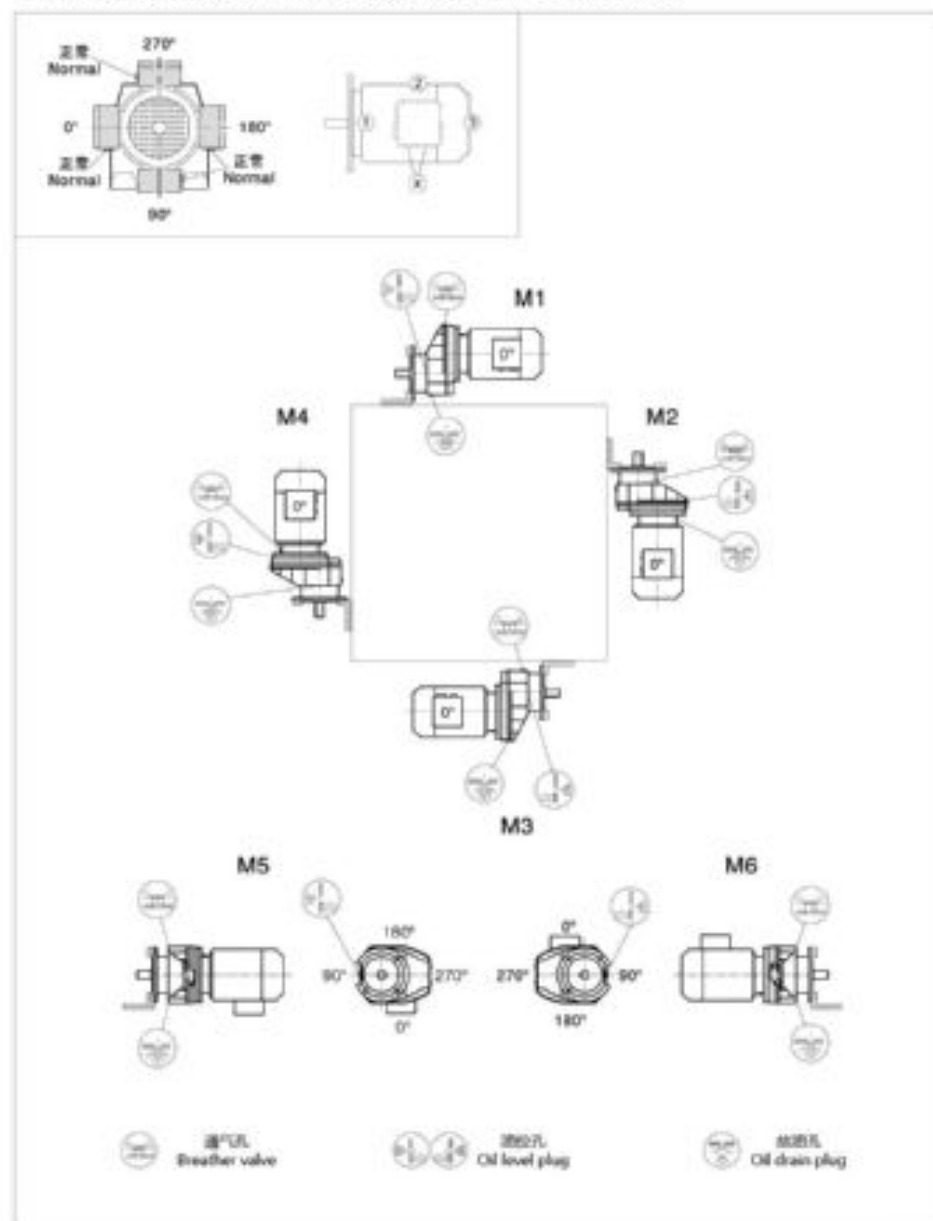
MDF09-MDF179 安装形式图 MDF09-MDF169 Mounting Position Example



MDX50-MDX100 安装形式图 MDX50-MDX100 Mounting Position Example



MDXF50-MDXF100 安装形式图 MDXF50-MDXF100 Mounting Position Example



2.9 MD系列恒功率速选型参数表

Constant power model selection parameter form of MD series

输出转速 Output speed r/min	输出扭矩 Output torque N·m	传动比 Ratio i	使用系数 Service factor K _t	机型号 Type	极数 Pole P	输出转速 Output speed r/min	输出扭矩 Output torque N·m	传动比 Ratio i	使用系数 Service factor K _t	机型号 Type	极数 Pole P
0.12KW											
0.05	13334	21542	1.00	MD	140 MD10	4P					
0.08	11172	16210	1.15	MCF	140 MD10	4P					
0.09	9731	15023	1.30								
0.10	8604	14075	1.50								
0.11	7687	12944	1.70	MD	149 MD10	4P					
0.12	6925	11183	1.95	MCF	149 MD10	4P					
0.14	5919	9943	2.2								
0.16	4733	8443	2.7								
0.19	4038	7307	3.1								
0.21	3616	6447	3.5								
0.25	3126	5568	4.1								
0.11	7689	12521	1.90	MD	139 MD10	4P					
0.12	7185	11712	1.90	MCF	139 MD10	4P					
0.13	6262	10573	1.25								
0.16	4925	8794	1.60								
0.18	4008	7429	1.95								
0.21	3679	6559	1.95								
0.24	3126	5834	2.5								
0.27	2687	5119	2.5								
0.18	4322	7583	0.95	MD	129 MD10	4P					
0.20	3616	6743	1.15	MCF	129 MD10	4P					
0.23	2917	5914	1.35								
0.27	2773	5365	1.50								
0.31	2489	4435	1.70								
0.35	2225	3896	1.90								
0.45	1642	3039	2.3								
0.30	2421	3660	1.70	MD	130 MD10	4P					
0.41	2038	3143	2.0	MCF	130 MD10	4P					
0.45	1672	2634	2.3								
0.52	1637	2653	2.6								
0.61	1411	2290	3.0								
0.67	1234	2067	3.3								
0.30	2994	4259	1.90	MD	99 MD10	4P					
0.34	2519	4004	1.15	MCF	99 MD10	4P					
0.40	2225	3491	1.30								
0.29	3175	4879	0.95	MD	99 MD10	4P					
0.32	2620	4389	1.00	MCF	99 MD10	4P					
0.37	2539	3702	1.15								
0.46	2038	3050	1.45								
0.52	1774	2666	1.65								
0.61	1450	2345	2.0								
0.68	1284	2056	2.3								
0.80	1170	1739	2.5								
0.45	3078	3065	1.40	MD	99 MD10	4P					
0.51	1842	2722	1.60	MCF	99 MD10	4P					
0.61	1540	2294	1.92								
0.67	1385	2054	2.1								
0.76	1215	1823	2.4								
0.87	1049	1583	2.9								
0.99	892	1390	3.3								
1.1	793	1220	3.9								
0.46	1735	2873	0.90	MD	80 MD10	4P					
0.70	1254	1961	1.35	MCF	80 MD10	4P					
0.53	1754	2595	0.85	MD	80 MD10	4P					
0.65	1471	2129	1.10	MCF	80 MD10	4P					
0.72	1245	1930	1.30								
0.80	1048	1733	1.40								

输出转速 Output speed r/min	输出扭矩 Output torque N·m	传动比 Ratio i	使用系数 Service factor K _t	机型号 Type	极数 Pole P	输出转速 Output speed r/min	输出扭矩 Output torque N·m	传动比 Ratio i	使用系数 Service factor K _t	机型号 Type	极数 Pole P
0.12KW											
4.1	221	336	0.90	MD	30 MD19	4P					
4.7	206	296	0.95	MCF	30 MD19	4P					
5.3	190	256	1.10								
6.0	169	226	1.25								
6.9	137	199	1.40								
8.0	121	172	1.65								
4.2	230	328	0.85	MD	30 MD19	4P					
4.8	201	289	1.00	MCF	30 MD19	4P					
5.2	189	265	1.05								
6.1	153	226	1.30								
6.8	141	202	1.40								
7.7	123	179	1.60								
6.0	190	229	0.80	MD	29 MD19	4P					
6.9	135	200	0.95	MCF	29 MD19	4P					
7.8	119	177	1.05								
8.3	114	166	1.10								
6.1	154	227	0.85	MD	29 MD19	4P					
6.8	141	203	0.90	MCF	29 MD19	4P					
7.7	123	175	1.05								
8.8	104	156	1.25								
4.8	238	395.24	3.3	MD	70	0P					
5.4	200	366.30	3.0	MCF	70	0P					
6.2	177	345.67	4.4								
4.5	242	396.81	2.4	MD	60	0P					
4.9	225	384.07	2.6	MCF	60	0P					
5.7	190	354.34	3.0								
6.5	164	317.67	3.4								
7.0	156	298.97	3.7								
7.9	138	283.94	4.1								
6.9	158	300.81	3.6	MD	60	4P					
7.0	145	284.07	3.0	MCF	60	4P					
4.8	228	388.69	1.80	MD	50	0P					
5.2	209	372.17	2.1	MCF	50	0P					
6.1	179	347.92	2.4								
7.0	156	328.77	2.7								
7.5	146	309.63	2.9								
8.4	129	284.53	3.3								
9.1	120	269.99	3.6								
7.4	147	308.89	2.9	MD	50	4P					
8.0	136	292.17	3.2	MCF	50	4P					
9.3	117	267.03	3.7								
9.1	132	326.77	4.2								
5.1	234	470.88	1.35	MD	40	0P					
5.5	200	423.94	1.45	MCF	40	0P					
6.4	169	389.99	1.70								
7.4	147	321.67	1.95								
7.6	140	376.88	2.0	MD	40	4P					
8.5	126	342.94	2.2	MCF	40	4P					
9.9	110	339.99	2.6								
11	96	321.67	3.0								
12	86	304.17	3.2								
14	80	289.89	3.6								
15	74	283.06	3.9								
6.7	163	334.02	1.15	MD	30	6P					
7.3	148	323.00	1.25	MCF	30	6P					
8.6	127	305.26	1.50								
9.9	110	283.77	1.75								
11	100	264.81	1.90								
12	90	239.99	2.1								
9	196	334.02	1.90	MD	30	4P					
11	160	323.99	1.95	MCF	30	4P					
13	130	305.26	2.3								
15	110	283.77	2.7								
18	97	264.81	2.8								
19	98	239.99	3.3								
7.3	150	323.91	0.80	MD	29	6P					
8.5	127	305.40	0.95	MCF	29	6P					
8.9	110	303.99	1.10								
11	100	264.76	1.30								
12	90	241.11	1.40								
9	196	335.99	1.15	MD	29	4P					
11	160	323.91	1.25	MCF	29	4P					
13	130	305.40	1.50								
15	110	283.99	1.70								
18	97	264.76	1.85								
19	98	241.11	2.1								
26	55	169.47	3.3								
29	48	151.30	2.8								
29	44	155.87	2.8								
29	38	140.17	3.3								
31	35	144.90	3.5								
11	160	311.04	0.80	MD	19	6P					
12	148	283.30	0.95	MCF	19	6P					
14	130	265.81	1.00								
16	110	243.35	1.15								
17	105	233.76	1.25								
19	97	214.44	1.40								
17	105	311.04	1.25	MD	19	4P					
26	55	203.30	1.45	MCF	19	4P					
21	52	195.61	1.50								
24	46	177.35	1.60								
28	43	153.76	1.90								
29	37	147.44	2.2								
31	35	144.98	2.3								
38	30	139.81	2.7								
38	29	130.20	2.8								
43	26	111.04	3.2								
49	23	103.22	3.6								
57	19	84.07	4.3								
22	50	160.32	0.95	MD	09	4P					
25	43	151.22	1.10	MCF	09	4P					
27	40	147.99	1.30								
29	37	144.86	1.50								
31	34	141.38	1.75								
32	34	140.34	1.80								
34	32	135.51	1.95								
38	29	114.05	2.65								
45	25	103.05	3.90								
48	23	100.97	4.1								
54	20	83.22	5.4								
60	18	71.73	6.8								

2.10 MD系列恒扭矩选型参数表

Constant torque model selection parameter form of MD series

输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P	输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P
130N-m					200N-m				
0.16	5612	MD 29-MD19	0.12	4P	3.1	430	MD 39-MD19	0.12	4P
0.19	4625	MD 29-MD19	0.12	4P	3.6	378	MD 39-MD19	0.12	4P
0.20	4521				4.2	328			
0.23	4050								
0.26	3217				4.6	288	MD 39-MD19	0.18	4P
0.30	4881				5.0	265	MD 39-MD19	0.18	4P
0.34	4373				5.4	236			
0.39	3846				6.5	202			
0.44	3353								
0.50	2753				7.5	170	MD 39-MD19	0.25	4P
0.57	2414				8.3	156	MD 39-MD19	0.25	4P
0.65	2160				9.7	135			
					10	127			
0.76	1822	MD 29-MD19	0.12	4P					
0.87	1580	MD 29-MD19	0.12	4P					
0.94	1474								
1.1	1270				13	104	MD 39-MD19	0.37	4P
1.2	1190				15	90	MD 39-MD19	0.37	4P
1.4	972								
1.6	843								
1.9	741								
2.1	654								
2.4	560								
2.8	490								
					300N-m				
3.1	440	MD 29-MD19	0.12	4P	0.16	1360	MD 49-MD39	0.12	4P
3.6	361	MD 29-MD19	0.12	4P	0.18	1242	MD 49-MD39	0.12	4P
4.2	321				0.23	1060			
4.8	290				0.25	9150			
5.4	256				0.26	8534			
6.1	227				0.28	7460			
6.9	203				0.30	6990			
					0.32	6171			
					0.35	5624			
7.4	179	MD 29-MD19	0.18	4P	0.38	4849			
8.5	150	MD 29-MD19	0.18	4P	0.42	4520			
9.8	131				0.45	3951			
11	118				0.48	3704			
					0.50	3268			
12	104	MD 29-MD19	0.25	4P	0.53	2996			
14	90	MD 29-MD19	0.25	4P	0.56	2463			
					0.58	2363	MD 49-MD39	0.12	4P
					0.66	2029	MD 49-MD39	0.12	4P
					0.70	1789			
					0.85	1630			
					0.97	1420			
					1.0	1330			
					1.2	1179			
					1.3	1074			
					1.5	927			
					1.8	803			
					1.8	756			
					2.5	546	MD 49-MD39	0.12	4P
					2.8	502	MD 49-MD39	0.12	4P
					3.1	429	MD 49-MD39	0.18	4P
					3.6	372	MD 49-MD39	0.18	4P
					3.8	348			
					4.4	301			
					5.1	256	MD 49-MD39	0.25	4P
					5.7	228	MD 49-MD39	0.25	4P

输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P	输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P
450N-m					600N-m				
0.16	14369	MD 59-MD39	0.12	4P	2.7	490	MD 69-MD39	0.25	4P
0.18	12005	MD 59-MD39	0.12	4P					
0.23	9990				0.84	1932	MD 69-MD39	0.12	4P
0.25	9445				0.96	1432	MD 69-MD39	0.12	4P
0.26	8496				1.1	1259			
0.28	7310				1.2	1190			
0.29	6621								
0.25	5985				1.4	1030	MD 69-MD39	0.18	4P
0.28	4909				1.4	750	MD 69-MD39	0.18	4P
0.32	4376				2.9	640			
0.36	3873				2.3	524			
0.41	3344								
0.47	2907				2.4	495	MD 69-MD39	0.25	4P
0.54	2547				3.3	436	MD 69-MD39	0.25	4P
0.61	2244				3.4	388			
0.70	1967								
					4.3	344	MD 69-MD39	0.37	4P
0.80	1732	MD 59-MD39	0.12	4P	4.7	294	MD 69-MD39	0.37	4P
0.89	1505	MD 59-MD39	0.12	4P					
0.99	1300				820N-m				
1.2	1188				0.96	16370	MD 79-MD39	0.12	4P
1.3	1034				0.98	15095	MD 79-MD39	0.12	4P
1.6	782				0.10	13885			
					0.11	12783			
1.9	678	MD 59-MD39	0.18	4P	0.13	11021			
2.2	604	MD 59-MD39	0.18	4P	0.14	10788			
2.5	537				0.16	9214			
2.9	471				0.18	7917			
					0.20	6729			
3.6	367	MD 59-MD39	0.25	4P	0.24	5836			
4.1	319	MD 59-MD39	0.25	4P	0.27	5194			
					0.31	4409			
5.1	273	MD 59-MD39	0.37	4P	0.35	3900			
5.7	241	MD 59-MD39	0.37	4P	0.40	3400			
					0.45	3023			
					0.52	2679			
					0.44	2101	MD 79-MD39	0.12	4P
					0.48	2060	MD 79-MD39	0.12	4P
					0.56	2499			
					0.65	2121			
					0.70	1877			
					0.80	1728			
					0.85	1620			
					0.97	1430			
					1.1	1303			
					1.2	1124	MD 79-MD39	0.18	4P
					1.3	1047	MD 79-MD39	0.18	4P
					1.4	915			
					1.5	836			
					1.7	757			
					1.9	671	MD 79-MD39	0.25	4P
					2.3	571	MD 79-MD39	0.25	4P
					2.3	500	MD 79-MD39	0.25	4P
					2.4	466	MD 79-MD39	0.37	4P
					3.2	436	MD 79-MD39	0.37	4P
					3.7	373			

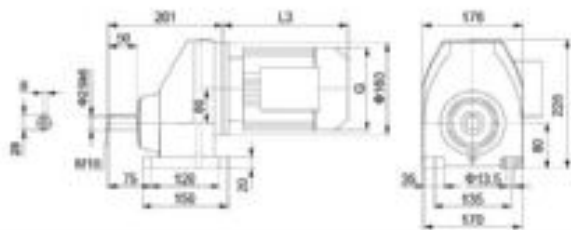
输出转速 Output speed r/min	传动比 Ratio i	行星号 Type	电动机功率 Power KW	级数 Pole P	输出转速 Output speed r/min	传动比 Ratio i	行星号 Type	电动机功率 Power KW	级数 Pole P
820N -m					1550N -m				
4.2	327	MD 79 MD209	0.55	4P	4.7	300	MD 89 MD209	1.1	4P
4.7	289	MDF 79 MD209	0.55	4P	5.5	256	MDF 89 MD209	1.1	4P
5.2	261				0.06	21789	MD 89 MD209	0.12	4P
					0.07	19332	MDF 89 MD209	0.12	4P
					0.09	17230			
					0.09	16999			
					0.10	13320			
					0.12	11158			
					0.14	9893			
					0.16	8756			
					0.18	7882			
					0.21	6900			
					0.23	5835			
					0.27	5001			
					3000N -m				
					0.33	4804	MD 99 MD209	0.99	4P
					0.38	3481	MDF 99 MD209	0.99	4P
					0.29	4679	MD 99 MD209	0.12	4P
							MDF 99 MD209	0.12	4P
					0.31	4369	MD 99 MD209	0.99	4P
					0.36	3703	MDF 99 MD209	0.99	4P
					0.44	3031			
					0.49	2668	MD 99 MD209	0.25	4P
					0.58	2245	MDF 99 MD209	0.25	4P
					0.64	2001			
					0.80	1733	MD 99 MD209	0.37	4P
					0.85	1623	MDF 99 MD209	0.37	4P
					0.96	1434			
					1.1	1207	MD 99 MD209	0.55	4P
					1.2	1084	MDF 99 MD209	0.55	4P
					1.5	804			
					1.6	675			
					1.8	755	MD 99 MD209	0.75	4P
							MDF 99 MD209	0.75	4P
					0.70	1623	MD 99 MD209	0.37	4P
					0.87	1363	MDF 99 MD209	0.37	4P
					0.99	1386			
					1.1	1226	MD 99 MD209	0.55	4P
					1.3	1057	MDF 99 MD209	0.55	4P
					1.4	936			
					1.7	824	MD 99 MD209	0.75	4P
					1.9	737	MDF 99 MD209	0.75	4P
					2.2	632	MD 99 MD209	1.1	4P
					2.5	560	MDF 99 MD209	1.1	4P
					2.9	484			
					3.3	431	MD 99 MD209	1.5	4P
					3.7	379	MDF 99 MD209	1.5	4P
					4.2	336			
					4.8	296	MD 99 MD209	2.2	4P
					5.7	249	MDF 99 MD209	2.2	4P
					6.0	234			
					2.2	633	MD 99 MD209	1.1	4P
					2.6	549	MDF 99 MD209	1.1	4P
					5.2	270	MD 99 MD209	2.2	4P
					6.2	227	MDF 99 MD209	2.2	4P

输出转速 Output speed r/min	传动比 Ratio i	行星号 Type	电动机功率 Power KW	级数 Pole P	输出转速 Output speed r/min	传动比 Ratio i	行星号 Type	电动机功率 Power KW	级数 Pole P
4300N -m					4300N -m				
0.07	2688	MD 139 MD209	0.12	4P	6.5	214	MD 109 MD209	4	4P
0.09	1700	MDF 139 MD209	0.12	4P	7.5	187	MDF 109 MD209	4	4P
0.09	1603								
0.11	1200				3.0	600	MD 109 MD209	1.5	4P
0.12	1156						MDF 109 MD209	1.5	4P
0.14	9547								
0.16	8890				3.3	426	MD 109 MD209	2.2	4P
0.18	7943				3.7	377	MDF 109 MD209	2.2	4P
					4.4	325			
0.20	6743	MD 139 MD209	0.99	4P	4.8	294	MD 109 MD209	3	4P
0.22	5954	MDF 139 MD209	0.99	4P	5.5	250	MDF 109 MD209	3	4P
0.26	5165								
0.30	4435				6.5	220	MD 109 MD209	4	4P
0.33	3896	MD 139 MD209	0.25	4P	7.3	193	MDF 109 MD209	4	4P
0.43	3039	MDF 139 MD209	0.25	4P	8.2	172			
0.34	3993	MD 139 MD209	0.99	4P					
		MDF 139 MD209	0.99	4P	8000N -m				
0.39	3343	MD 139 MD209	0.25	4P	0.95	2200	MD 139 MD209	0.12	4P
0.43	3034	MDF 139 MD209	0.25	4P	0.97	19945	MDF 139 MD209	0.12	4P
					0.98	16086			
0.52	2603	MD 139 MD209	0.37	4P	0.99	14777			
0.61	2280	MDF 139 MD209	0.37	4P	0.11	12621			
0.67	2047				0.11	1170	MD 139 MD209	0.18	4P
0.80	1693	MD 139 MD209	0.55	4P	0.12	10573	MDF 139 MD209	0.18	4P
0.89	1550	MDF 139 MD209	0.55	4P	0.15	8794			
0.97	1407				0.17	7479	MD 139 MD209	0.25	4P
1.1	1200	MD 139 MD209	0.75	4P	0.20	6559	MDF 139 MD209	0.25	4P
1.3	1055	MDF 139 MD209	0.75	4P	0.22	5934			
1.5	910	MD 139 MD209	1.1	4P	0.27	5195	MD 139 MD209	0.37	4P
1.7	815	MDF 139 MD209	1.1	4P	0.31	4404	MDF 139 MD209	0.37	4P
1.9	717				0.35	3828			
2.2	626	MD 139 MD209	1.5	4P	0.39	3454	MD 139 MD209	0.55	4P
2.7	528	MDF 139 MD209	1.5	4P	0.45	2933	MDF 139 MD209	0.55	4P
0.70	1960	MD 139 MD209	0.37	4P	0.26	6789	MD 139 MD209	0.37	4P
		MDF 139 MD209	0.37	4P	0.34	4918	MDF 139 MD209	0.37	4P
0.28	1627	MD 139 MD209	0.55	4P	0.39	3714	MD 139 MD209	0.55	4P
0.35	1369	MDF 139 MD209	0.55	4P	0.41	3359	MDF 139 MD209	0.55	4P
0.37	1403				0.46	2929			
1.1	1230	MD 139 MD209	0.75	4P	0.56	2494			
1.2	1104	MDF 139 MD209	0.75	4P					
1.5	939				0.62	2242	MD 139 MD209	0.75	4P
					0.74	1863	MDF 139 MD209	0.75	4P
2.3	614	MD 139 MD209	1.5	4P	0.98	1586	MD 139 MD209	1.1	4P
2.6	544	MDF 139 MD209	1.5	4P	1.0	1391	MDF 139 MD209	1.1	4P
2.9	480				1.1	1296			
3.4	417	MD 139 MD209	2.2	4P	1.3	1193	MD 139 MD209	1.5	4P
3.6	389	MDF 139 MD209	2.2	4P	1.4	1043	MDF 139 MD209	1.5	4P
4.4	323				1.6	988			
4.9	280	MD 139 MD209	3	4P	2.0	690	MD 139 MD209	2.2	4P
5.5	253	MDF 139 MD209	3	4P	2.3	600	MDF 139 MD209	2.2	4P

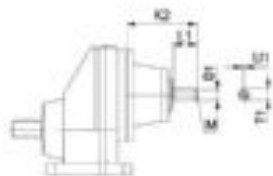
输出转速 Output speed r/min	传动比 Ratio i	配置 Type	电动机功率 Power KW	极数 Pole P	输出转速 Output speed r/min	传动比 Ratio i	配置 Type	电动机功率 Power KW	极数 Pole P
8000N -m					13000N -m				
0.51	2650	MD	0.55	4P	0.55	2555	MD	1.1	4P
0.56	2412	MD	0.55	4P	0.63	2271	MD	1.1	4P
		MD			0.72	1991	MD		
0.67	2073	MD	0.75	4P	0.83	1705	MD	1.5	4P
0.75	1939	MD	0.75	4P	0.93	1530	MD	1.5	4P
0.88	1798	MD	1.1	4P	1.1	1379	MD	2.2	4P
1.0	1650	MD	1.1	4P	1.2	1305	MD	2.2	4P
1.1	1526	MD			1.4	1029	MD		
1.3	1379	MD	1.5	4P	1.6	889	MD	3	4P
1.5	1242	MD	1.5	4P	1.8	784	MD	3	4P
1.7	831	MD	2.2	4P	2.0	695	MD	4	4P
1.9	730	MD	2.2	4P	2.3	619	MD	4	4P
2.2	629	MD			2.5	568	MD		
2.5	560	MD	3	4P	2.8	480	MD	5.5	4P
3.0	480	MD	3	4P			MD		
3.3	420	MD	4	4P	2.7	533	MD	4	4P
3.7	381	MD	4	4P			MD		
4.4	329	MD	5.5	4P	3.1	462	MD	5.5	4P
4.0	299	MD	5.5	4P	3.4	426	MD	5.5	4P
5.0	255	MD			3.9	366	MD	7.5	4P
2.5	564	MD	3	4P	4.4	326	MD	7.5	4P
2.7	512	MD	3	4P			MD		
3.1	453	MD			6.7	214	MD	11	4P
3.6	376	MD	4	4P			MD		
4.2	339	MD	4	4P	18000N -m				
4.8	297	MD	5.5	4P	0.05	27501	MD	0.55	4P
		MD			0.06	25462	MD	0.55	4P
13000N -m					0.07	20692	MD		
0.06	23401	MD	0.55	4P	0.08	17591	MD		
0.08	21342	MD	0.55	4P	0.09	15448	MD		
0.07	19210	MD	0.55	4P	0.10	14051	MD		
0.08	17023	MD	0.55	4P	0.12	11912	MD		
0.09	14975	MD	0.55	4P	0.13	10529	MD		
		MD			0.14	9639	MD		
0.11	12944	MD	0.75	4P	0.16	7780	MD	1.1	4P
0.12	11943	MD	0.75	4P	0.20	6894	MD	1.1	4P
0.13	10943	MD			0.22	6077	MD	0.55	4P
0.16	8443	MD	0.55	4P			MD		
0.18	7307	MD	0.55	4P	0.26	5407	MD	0.75	4P
0.21	6447	MD	0.55	4P	0.30	4850	MD	0.75	4P
		MD			0.33	4329	MD		
0.24	5668	MD	0.55	4P	0.36	3902	MD	1.1	4P
0.26	4920	MD	0.55	4P			MD		
0.31	4325	MD			0.53	2657	MD	1.5	4P
0.37	3754	MD	0.75	4P	0.60	2333	MD	1.5	4P
0.42	3332	MD	0.75	4P	0.66	2065	MD		
0.48	2938	MD					MD		

输出转速 Output speed r/min	传动比 Ratio i	配置 Type	电动机功率 Power KW	极数 Pole P	输出转速 Output speed r/min	传动比 Ratio i	配置 Type	电动机功率 Power KW	极数 Pole P
18000N -m					35000N -m				
0.75	1877	MD	2.2	4P	0.64	2202	MD	4	4P
0.84	1670	MD	2.2	4P	0.71	2040	MD	4	4P
0.96	1430	MD			0.79	1820	MD		
1.1	1270	MD	3	4P	0.78	1620	MD	5.5	4P
1.2	1123	MD	3	4P	1.8	1402	MD	5.5	4P
1.4	969	MD					MD		
1.7	800	MD	4	4P	1.2	1203	MD	7.5	4P
1.9	700	MD	4	4P	1.3	1130	MD	7.5	4P
		MD			1.5	960	MD		
2.2	654	MD	5.5	4P	1.9	793	MD	11	4P
2.5	579	MD	5.5	4P	2.1	700	MD	11	4P
2.8	500	MD	7.5	4P	2.4	610	MD	15	4P
3.3	430	MD	7.5	4P	2.8	531	MD	15	4P
4.6	301	MD	11	4P	3.1	473	MD	18.5	4P
5.2	274	MD	11	4P	3.3	450	MD	18.5	4P
5.0	287	MD	11	4P	3.7	401	MD	22	4P
5.3	270	MD	11	4P	4.2	350	MD	22	4P
6.4	229	MD	15	4P	4.9	280	MD	30	4P
7.3	200	MD	15	4P			MD		
5.0	298	MD	11	4P	4.4	336	MD	22	4P
		MD					MD		
5.5	264	MD	15	4P	5.4	271	MD	30	4P
6.4	227	MD	15	4P	6.3	240	MD	30	4P
7.4	198	MD					MD		
35000N -m					7.0	211	MD	37	4P
0.06	24438.649	MD	0.55	4P			MD		
0.06	23909.385	MD	0.55	4P	8.5	185	MD	45	4P
0.07	19547.948	MD					MD		
0.08	17222.711	MD					MD		
0.09	15360.485	MD					MD		
0.10	13627.941	MD					MD		
0.12	11799.083	MD	0.75	4P			MD		
0.13	10274.404	MD	0.75	4P			MD		
0.16	8973	MD	1.1	4P			MD		
0.17	8358	MD	1.1	4P			MD		
0.18	7311	MD					MD		
0.21	6523	MD					MD		
0.25	5599	MD	1.5	4P			MD		
0.26	4972	MD	1.5	4P			MD		
0.32	4448	MD	2.2	4P			MD		
0.35	3987	MD	2.2	4P			MD		
0.41	3489	MD					MD		
0.49	3034	MD	3	4P			MD		
0.51	2754	MD	3	4P			MD		
0.56	2536	MD					MD		

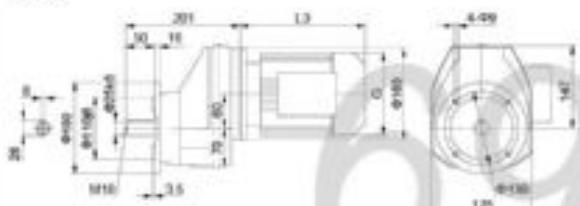
MDX69



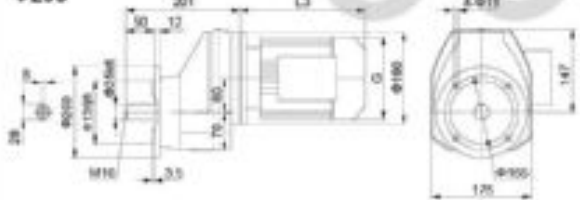
MDX..69AD



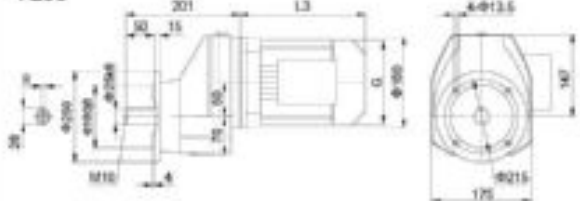
	K2	D1	L1	T1	U1	M
AD2	123	106	40	21.5	8	M8
AD3	159	246	50	27	8	M8

MDXF69
Φ160

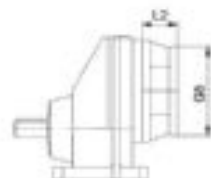
Φ200



Φ250



MDX..69AM1



需方自配电机需加联接法兰
When equipping the user's motor, the
flange is required to be connected

注：其余尺寸见相应的结构形式
Note: For other values please refer
to the specified structure

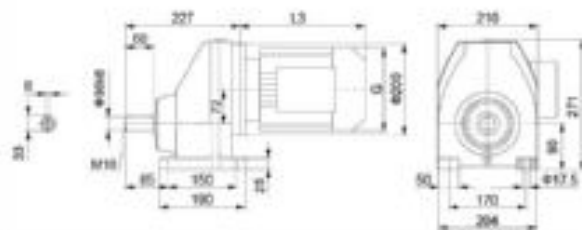
蜗轮齿数 MDXΦ系列 Gear Ratio Gear Ratio	63	71	80	90S	90L	100	112M	132S	132M				
Output Power(kw)	0.12	0.18	0.25	0.37	0.55	0.75	1.1	1.5	2.2	3.0	4.0	5.5	7.5
L3	209	241	296	319	335	365	382	434	472				
G	130	145	175	186	196	215	240	275	275				
L2	50	57	72	72	72	66	66	105	105				
G5	140	160	200	200	200	250	250	300	300				

注：1. MDX.. 系列 MDX.. MD30.
2. 若电机 G200 是外购件，请在图中注明。

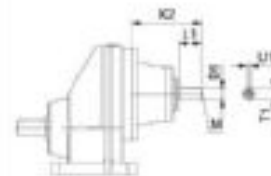
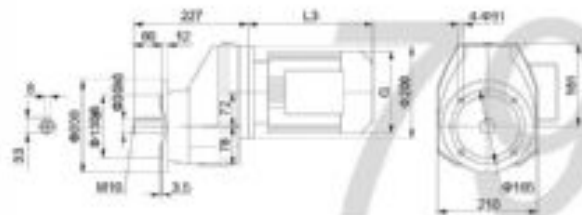
Note: 1. MDX.. series MDX.. MD30.

2. If the motor G200 is provided by purchaser himself, please check it well.

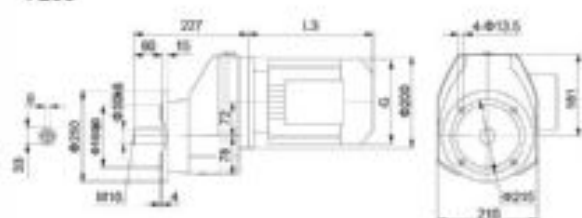
MDX79



MDX..79AD

MDXF79
Φ200

Φ250



MDX..79AM1



需方自配电机需加联接法兰
When equipping the user's motor, the
flange is required to be connected

注：其余尺寸见相应的结构形式
Note: For other values please refer
to the specified structure

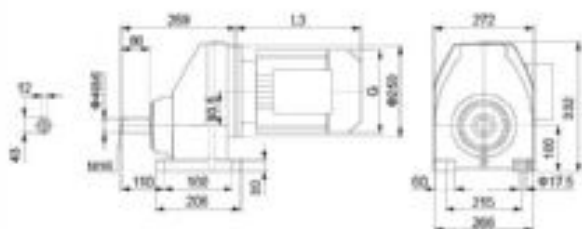
蜗轮齿数 MDXΦ系列 Gear Ratio Gear Ratio	90S	90L	100	112M	132S	132M	160M						
Output Power(kw)	1.1	1.5	2.2	3.0	4.0	5.5	7.5	11					
L3	316	341	368	396	441	479	532						
G	166	186	215	240	275	275	330						
L2	72	72	66	66	105	105	129						
G5	200	200	250	250	300	300	350						

注：1. MDX.. 系列 MDX.. MD30.
2. 若电机 G200 是外购件，请在图中注明。

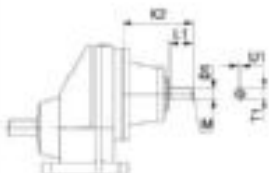
Note: 1. MDX.. series MDX.. MD30.

2. If the motor G200 is provided by purchaser himself, please check it well.

MDX89

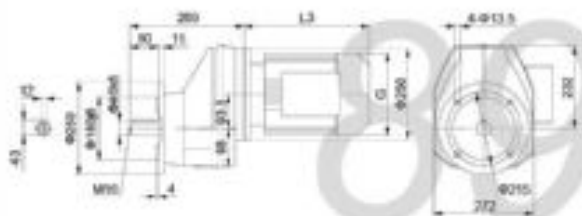


MDX..89AD

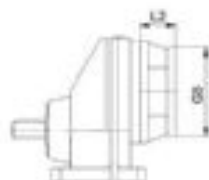


	K2	D1	L1	T1	U1	M
AD2	111	156	40	21.5	6	M6
AD3	156	206	60	31	8	M10
AD4	219	306	80	41	10	M12
AD5	232	426	110	45	14	M16

MDXF89
φ250



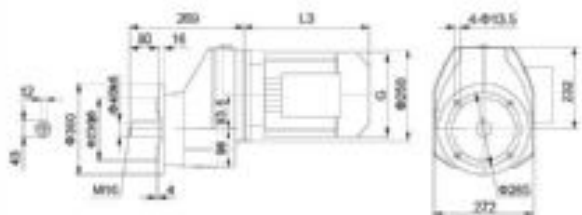
MDX..89AM1



需方自配电机加联接法兰
When equipping the user's motor, the flange is required to be connected

注：其余尺寸见相应的结构形式
Note: For other values please refer to the specified structure

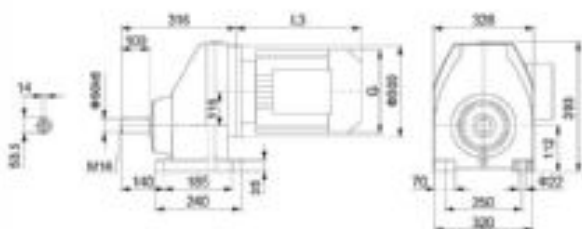
φ300



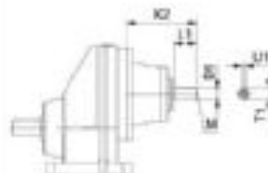
Y型蜗轮蜗杆 MDX系列 Type Power(kw)	100	112M	132S	132M	162M	162L	182M	182L
L3	363	395	441	479	532	575	607	645
G	215	240	275	275	330	330	340	340
L2	74	74	98	98	119	119	119	119
G5	250	250	300	300	350	350	350	350

注：1. *MDX* 系列MDX, MD30* Note: 1. *MDX* 系列MDX, MD30*
2. 需方自配电机加联接法兰，需方自配电机加联接法兰。
2. If the motor G2406 is provided by purchaser himself, please check if it will.

MDX99

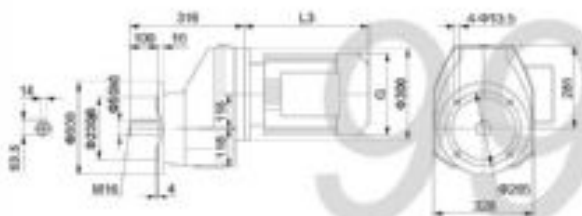


MDX..99AD



	K2	D1	L1	T1	U1	M
AD3	151	206	60	31	8	M10
AD4	214	306	80	41	10	M12
AD5	267	426	110	45	12	M16
AD6	327	486	140	51.5	14	M16

MDXF99
φ300



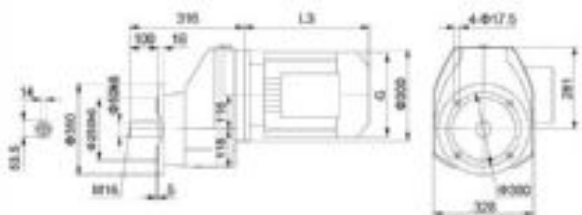
MDX..99AM1



需方自配电机加联接法兰
When equipping the user's motor, the flange is required to be connected

注：其余尺寸见相应的结构形式
Note: For other values please refer to the specified structure

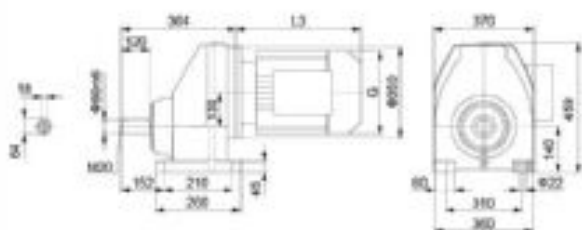
φ350



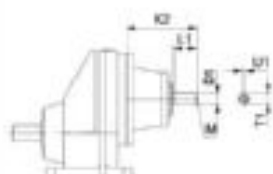
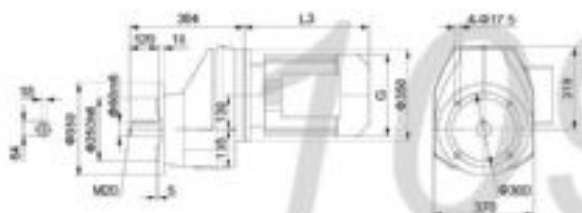
Y型蜗轮蜗杆 MDX系列 Type Power(kw)	132S	132M	162M	162L	182M	182L	200
L3	434	472	538	562	607	645	683
G	215	215	330	330	340	340	400
L2	92	92	113	113	113	113	123
G5	300	300	350	350	350	350	400

注：1. *MDX* 系列MDX, MD30* Note: 1. *MDX* 系列MDX, MD30*
2. 需方自配电机加联接法兰，需方自配电机加联接法兰。
2. If the motor G2406 is provided by purchaser himself, please check if it will.

MDX109

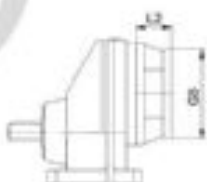


MDX..109AD

MDXF109
Φ350

	K2	DL	L1	T1	L1	M
AD3	145	206.0	60	31	8	M10
AD4	208	306.0	80	41	10	M12
AD5	261	426.0	110	45	12	M16
AD6	324	486.0	110	51.5	14	M20

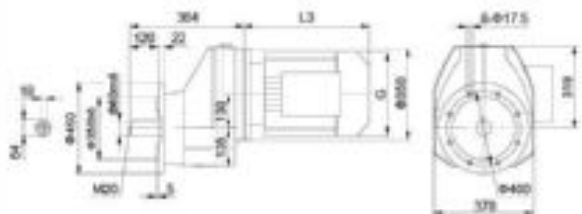
MDX..109AM1



需方自备电动机需加装法兰
When equipping the user' motor, the
flange is required to be connected

注：其余尺寸见相应的结构形式
Note: For other values please refer
to the appointed structure

Φ450



规格代号 Model Size	132M	132M	150M	180L	180M	180L	225	225S	225M
功率 (kW)	5.5	7.5	11	15	18.5	22	30	37	45
L3	423	461	508	552	585	623	683	720	745
G	275	275	330	330	380	380	420	470	470
L2	76	76	112	112	112	136	151	151	151
G5	300	300	350	350	350	350	400	400	450

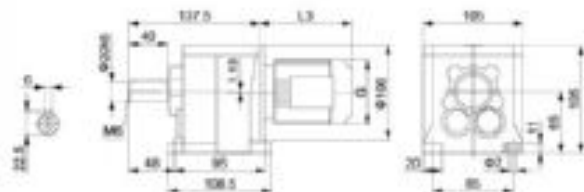
注：1. MDX..109AD, MDXF109

Note: 1. MDX..109AD, MDXF109

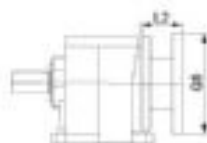
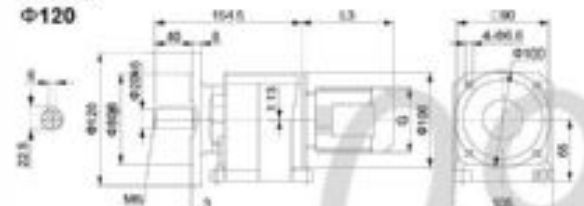
2. 需方自备电动机需加装法兰, 需方自备电动机需加装法兰

2. If the motor (G2540) is provided by purchaser himself, please check it if will.

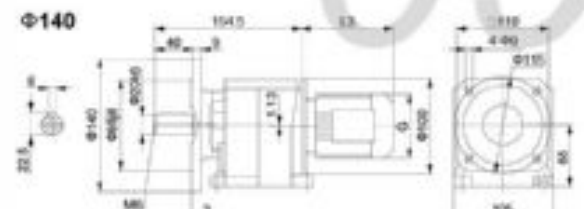
MD09



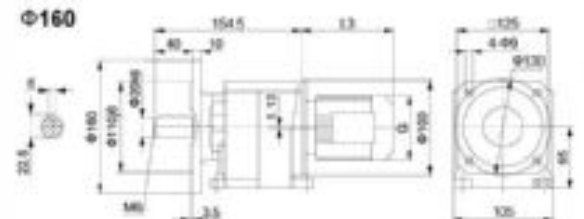
MD..09AM1

MDF09
Φ120

Φ140



Φ160



需方自备电动机需加装法兰
When equipping the user' motor, the
flange is required to be connected

注：其余尺寸见相应的结构形式
Note: For other values please refer
to the appointed structure

规格代号 Model Size	03*	31*
功率 (kW)	0.12-0.36	0.25-0.37
L3	270	265
G	130	145
L2	52	60
G5	80	105

注：1. MD..09AD, MD09

Note: 1. MD..09AD, MD09

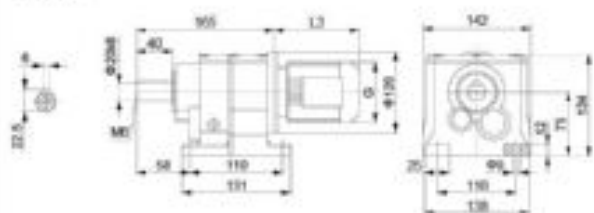
2. 需方自备电动机需加装法兰, 需方自备电动机需加装法兰

2. If the motor (G5100) is provided by purchaser himself, please check it if will.

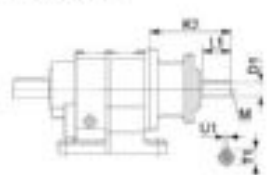
3. 03*, 31* 表示需方自备电动机需加装法兰, 03*, 31* 表示当装备需方电动机时, 只允许安装 M14 规格的电动机

3. 03*, 31* indicates when equipping the user' motor, only M14 type motors are allowed.

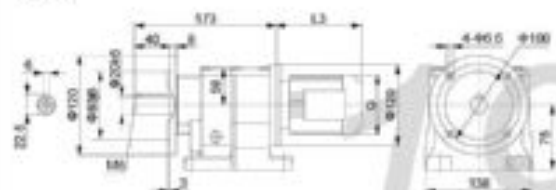
MD19



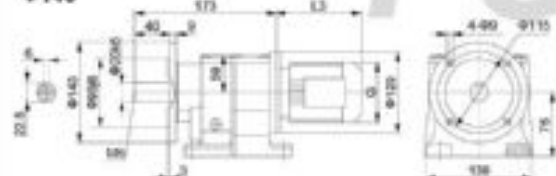
MD..19AD



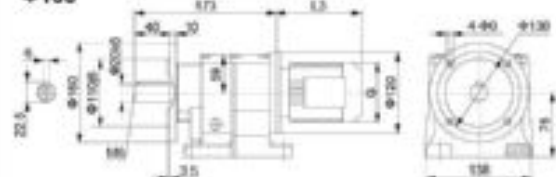
	K2	D1	L1	T1	U1	M
AD1	102	104	40	18	5	M5
AD2	130	104	40	21.5	6	M6

MDF19
Φ120

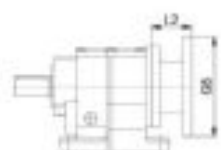
Φ140



Φ160



MD..19AM1



需方自配电机需加联接法兰
When equipping the user' motor, the
flange is required to be connected

注：其余尺寸见相应的结构形式
Note: For other values please refer
to the appelted structure

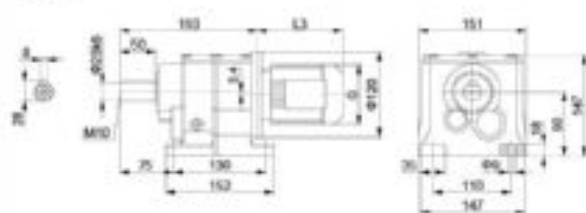
功率/额定功率 MD19 Power (kW)	63	71	80
L3	236	244	300
G	130	140	175
L2	56	58	58
G5	140	160	200

注：1. MD..19 系列 MD, MDF
2. 需方自配电机时 G5 为 100mm, 需方自配电机时 G5 为 100mm

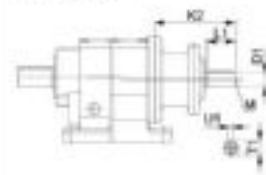
Note: 1. MD..19 series MD, MDF

2. If the motor G5=100 is provided by purchaser himself, please check it if will.

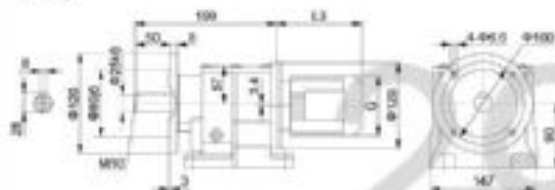
MD29



MD..29AD



	K2	D1	L1	T1	U1	M
AD1	182	184	40	18	5	M5
AD2	130	184	40	21.5	6	M6

MDF29
Φ120

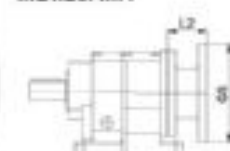
Φ140



Φ160



MD..29AM1



需方自配电机需加联接法兰
When equipping the user' motor, the
flange is required to be connected

MD..29MD19



注：其余尺寸见相应的结构形式
Note: For other values please refer
to the appelted structure

功率/额定功率 MD29 Power (kW)	63	71	80	90S	90L	100
L3	236	244	300	315	340	365
G	130	140	175	180	190	210
L2	56	58	58	56	56	62
G5	140	160	200	200	200	250

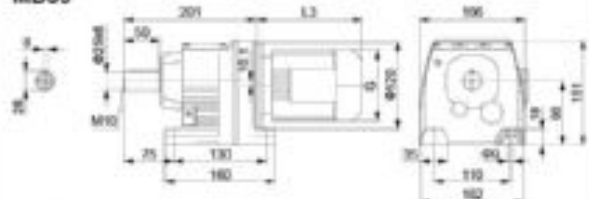
注：1. MD..29 系列 MD, MDF

2. 需方自配电机时 G5 为 100mm, 需方自配电机时 G5 为 100mm

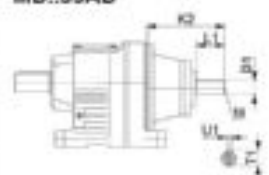
Note: 1. MD..29 series MD, MDF

2. If the motor G5=100 is provided by purchaser himself, please check it if will.

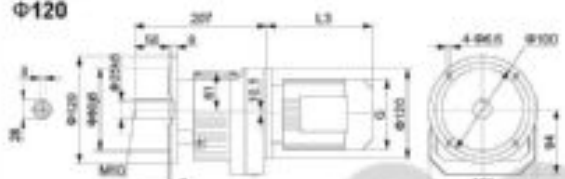
MD39



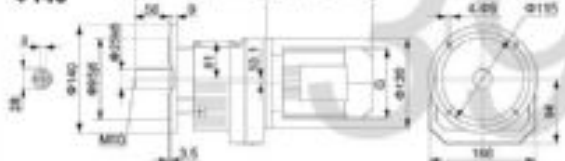
MD..39AD



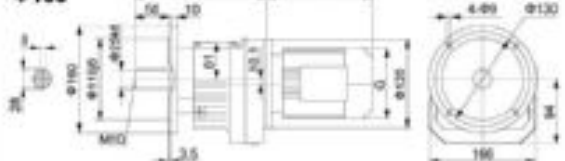
	K2	D1	L1	T1	U1	M
AD1	102	104	40	10	5	M5
AD2	130	104	40	21.5	6	M6

MDF39
Φ120

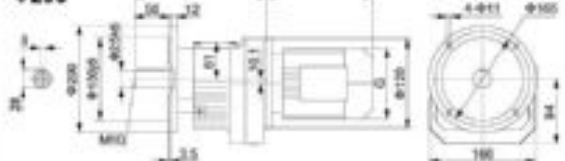
Φ140



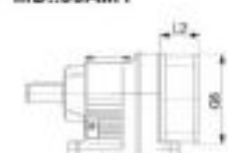
Φ160



Φ200

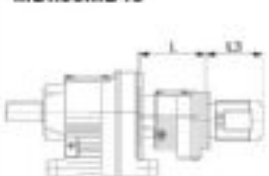


MD..39AM1



需方自购电机加装连接法兰
When equipping the user's motor, the
flange is required to be connected

MD..39MD19



MD..39MD19	
L	133

注：其余尺寸见相应结构图形式
Note: For other values please refer
to the opposite structure

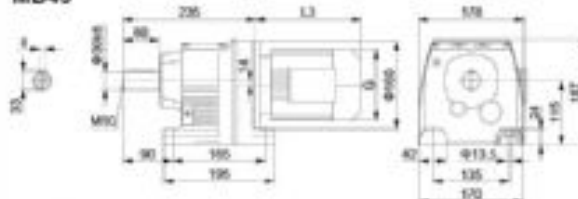
行星减速机 MD系列 行星 Power (kw)	63	71	80	90S	90L	100			
L3	236	244	300	315	340	365			
G	130	140	175	190	190	215			
L2	50	58	58	58	58	62			
G5	140	160	200	200	200	250			

注：1. MD.. 系列 MD, MDF
2. 需方自购电机时G5/G6/G7/G8/G9/G10/G11, 需方自购电机时请确认

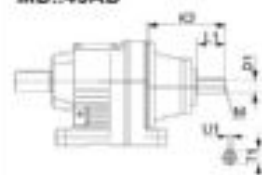
Note: 1. MD.. series MD, MDF

2. If the motor G5/G6/G7/G8/G9/G10/G11 is provided by purchaser himself, please check it well.

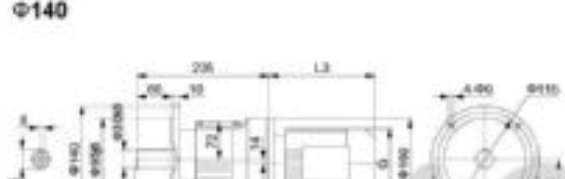
MD49



MD..49AD



	K2	D1	L1	T1	U1	M
AD2	123	104	40	21.5	6	M6
AD3	158	240	50	27	8	M8

MDF49
Φ140

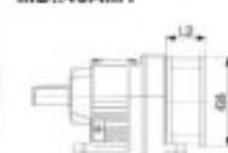
Φ160



Φ200

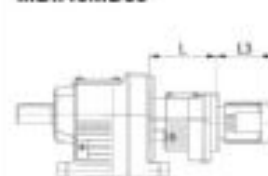


MD..49AM1



需方自购电机加装连接法兰
When equipping the user's motor, the
flange is required to be connected

MD..49MD39



MD..49MD39	
L	165

注：其余尺寸见相应结构图形式
Note: For other values please refer
to the opposite structure

行星减速机 MD系列 行星 Power (kw)	63	71	80	90S	90L	100	112M	125	
L3	209	211	296	319	336	365	392	434	
G	130	140	175	190	190	215	240	275	
L2	58	57	72	72	72	68	68	106	
G5	140	160	200	200	200	250	250	330	

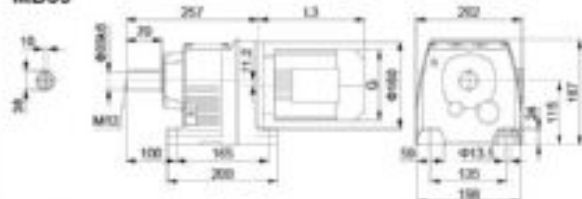
注：1. MD.. 系列 MD, MDF

2. 需方自购电机时G5/G6/G7/G8/G9/G10/G11, 需方自购电机时请确认

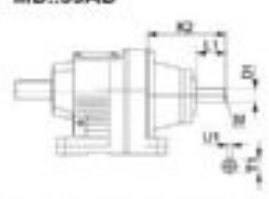
Note: 1. MD.. series MD, MDF

2. If the motor G5/G6/G7/G8/G9/G10/G11 is provided by purchaser himself, please check it well.

MD59



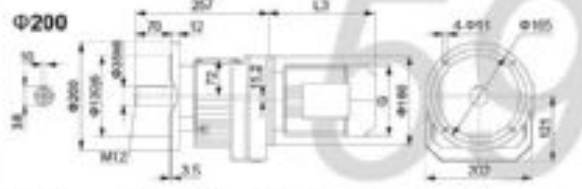
MD..59AD



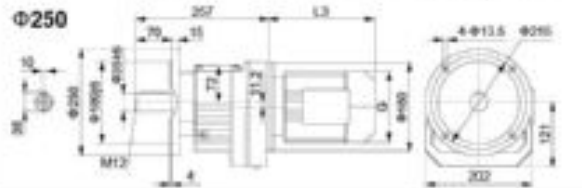
K2	D1	L1	T1	U1	M	
AD2	123	104	40	21.5	8	88
AD3	159	240	50	27	8	88

MDF59
Φ160

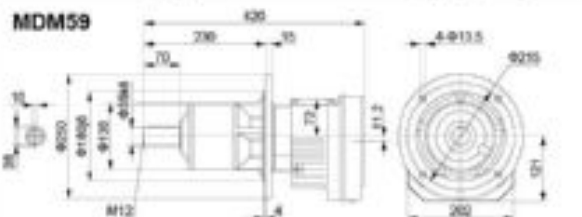
Φ200



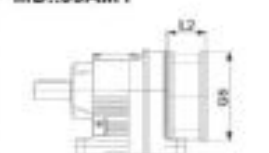
Φ250



MDM59

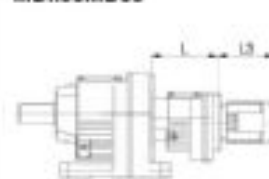


MD..59AM1



需方自配电机联接法兰
When equipping the user's motor, the flange is required to be connected

MD..59MD39



MD..59MD39

L	165
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注：其余尺寸见相应结构形式
Note: For other values please refer to the opposite structure

Y型蜗杆轴 Motor shaft Type Power(kw)	63	71	80	90S	90L	100	112M	132S	132M		
L3	209	241	296	319	335	365	382	434	472		
G	130	145	175	166	186	215	240	275	275		
L2	56	57	72	72	72	68	68	185	185		
G5	140	160	200	200	200	250	250	300	300		

注：1. MD..* 表示 MD、MEF

Note: 1. MD..* means MD、MEF

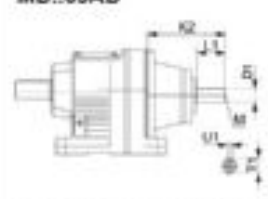
2. 需方自配电机时须加配电机联接法兰

2. If the motor (G5218) is provided by purchaser himself, please check it well.

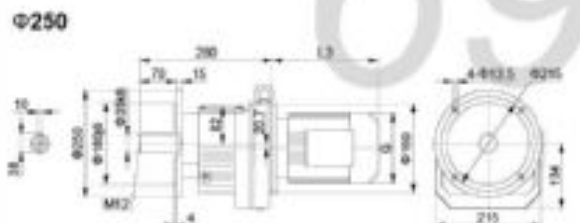
MD69



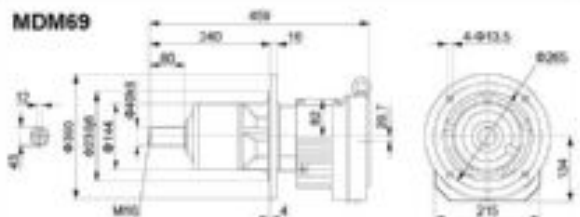
MD..69AD

MDF69
Φ200

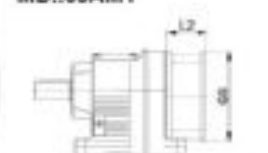
Φ250



MDM69

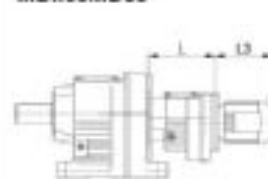


MD..69AM1



需方自配电机联接法兰
When equipping the user's motor, the flange is required to be connected

MD..69MD39



MD..69MD39

L	165
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注：其余尺寸见相应结构形式
Note: For other values please refer to the opposite structure

Y型蜗杆轴 Motor shaft Type Power(kw)	63	71	80	90S	90L	100	112M	132S	132M		
L3	209	241	296	319	335	365	382	434	472		
G	130	145	175	166	186	215	240	275	275		
L2	56	57	72	72	72	68	68	185	185		
G5	140	160	200	200	200	250	250	300	300		

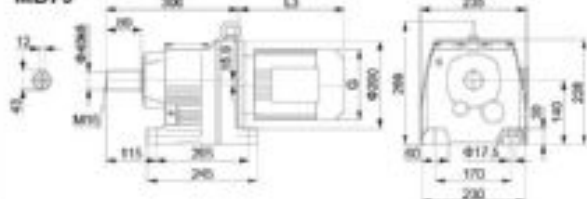
注：1. MD..* 表示 MD、MEF

Note: 1. MD..* means MD、MEF

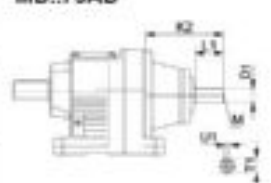
2. 需方自配电机时须加配电机联接法兰

2. If the motor (G5218) is provided by purchaser himself, please check it well.

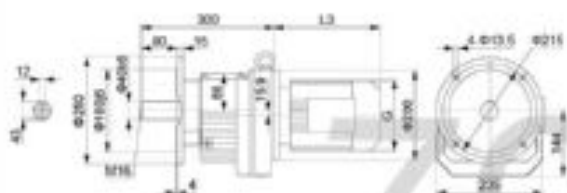
MD79



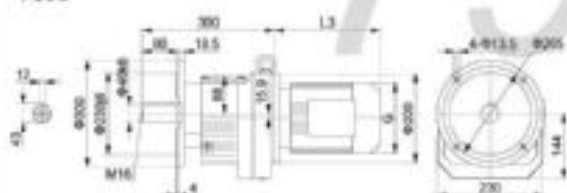
MD..79AD



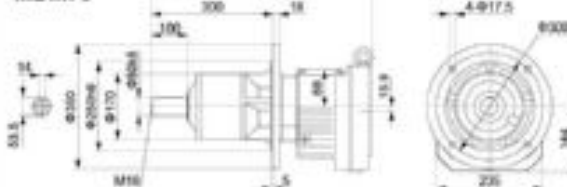
	K2	D1	L1	T1	U1	M
ADQ	110	1040	40	21.5	8	M8
ADJ	151	2460	50	27	8	M8
ADK	224	3960	80	41	10	M12

MDF79
φ250

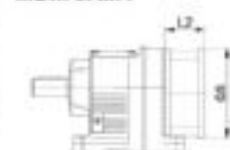
φ300



MDM79

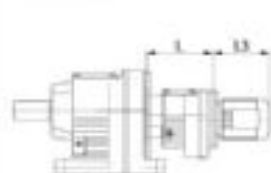


MD..79AM1



需方自配电机时请按照接法图
When equipping the user's motor, the
flange is required to be connected

MD..79MD39



MD..79MD39

L	157
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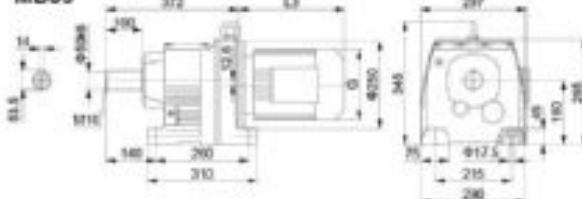
注：其余尺寸见蜗轮的蜗轮形式
Note: For other values please refer
to the opposite structure

蜗轮分度圆 蜗轮齿数 Output Power(kw)	63	71	80	90S	90L	100	112M	132S	132M	160M		
L3	200	217	300	315	341	368	396	441	479	532		
G	130	140	175	185	195	215	240	275	275	330		
L2	50	57	72	72	72	68	60	185	165	129		
G5	140	160	200	200	200	250	250	300	300	300		

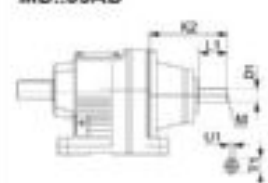
注：1. MD..79 系列 MD, MCF
2. 需方自配电机时请按照接法图，需方自配电机时请按照

Note: 1. MD..79 series MD, MCF
2. If the motor G50240 is provided by purchaser himself, please check it well.

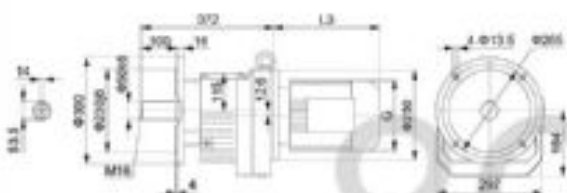
MD89



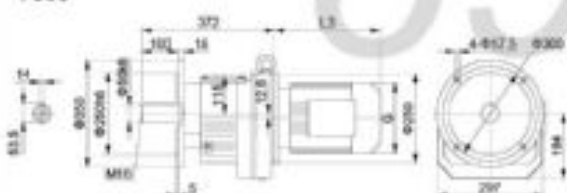
MD..89AD



	K2	D1	L1	T1	U1	M
ADQ	111	1040	40	21.5	8	M8
ADJ	156	2460	60	31	8	M10
ADK	219	3960	80	41	10	M12
AD5	292	4260	110	45	12	M16

MDF89
φ300

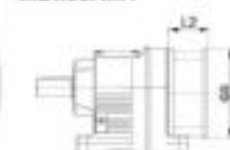
φ350



MDM89



MD..89AM1



需方自配电机时请按照接法图
When equipping the user's motor, the
flange is required to be connected

MD..89MD59



MD..89MD59

L	216
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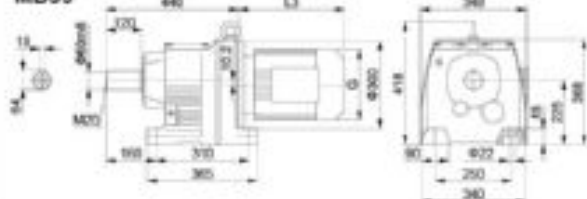
注：其余尺寸见蜗轮的蜗轮形式
Note: For other values please refer
to the opposite structure

蜗轮分度圆 蜗轮齿数 Output Power(kw)	80	90S	90L	100	112M	132S	132M	160M	180L	180M	180L	
L3	202	200	325	303	396	441	479	532	576	607	645	
G	175	185	195	215	240	275	275	330	330	360	360	
L2	62	62	62	74	74	98	98	119	119	119	119	
G5	200	200	200	250	250	300	300	350	350	350	350	

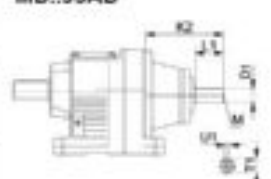
注：1. MD..89 系列 MD, MCF
2. 需方自配电机时请按照接法图，需方自配电机时请按照

Note: 1. MD..89 series MD, MCF
2. If the motor G50130 is provided by purchaser himself, please check it well.

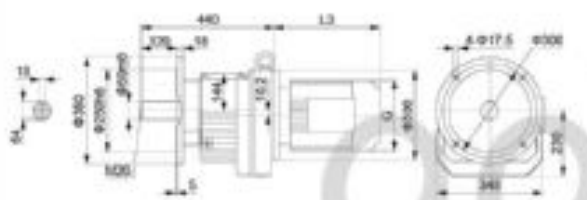
MD99



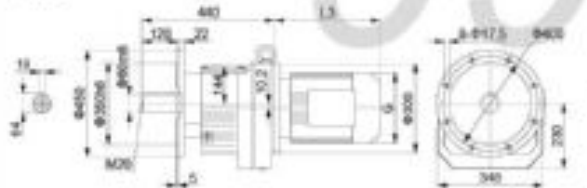
MD..99AD



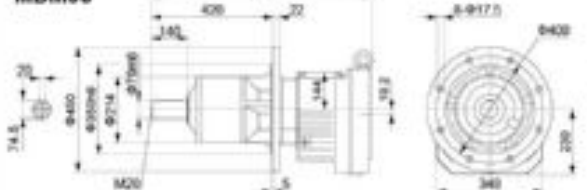
	K2	DH	L1	T1	U1	M
AD3	151	20x6	60	31	8	M10
AD4	214	30x6	80	41	10	M12
AD5	267	42x6	110	45	12	M16
AD6	327	48x6	110	51.5	14	M18

MDF99
Φ350

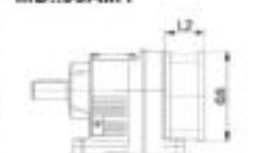
Φ450



MDM99

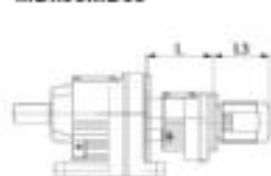


MD..99AM1



需方自配电机时请按照接法
When equipping the user's motor, the
flange is required to be connected

MD..99MD59



MD..99MD59	
L	211

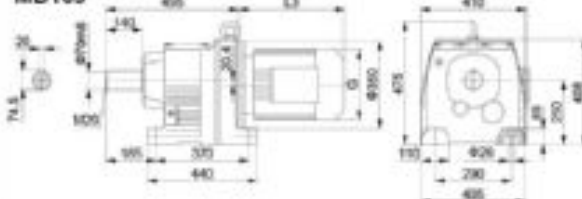
注：其余尺寸均按照图示结构
Note: For other values please refer
to the opposite structure

蜗轮蜗杆 蜗轮轴 输入 功率(kw)	80	90S	90L	100	112M	132S	132M	160M	180L	180M	180L	200L
L3	282	300	321	358	385	434	472	538	582	609	645	683
G	175	185	195	215	240	275	275	300	320	340	360	420
L2	50	58	58	58	50	92	92	113	113	113	113	123
G5	200	200	200	250	250	300	300	350	350	350	350	400

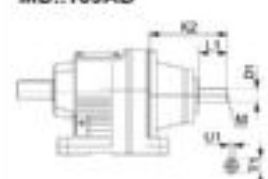
注：1. MD..99(MD, MCF)

Note: 1. MD..99 (MD, MCF)

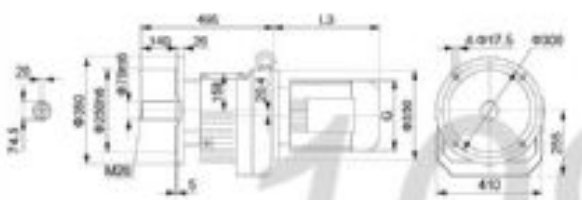
MD109



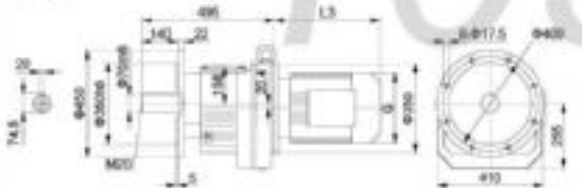
MD..109AD



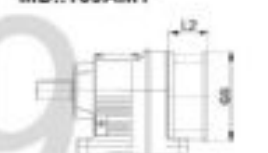
	K2	DH	L1	T1	U1	M
AD3	145	20x6	60	31	8	M10
AD4	206	30x6	80	41	10	M12
AD5	267	42x6	110	45	12	M16
AD6	327	48x6	110	51.5	14	M18

MDF109
Φ350

Φ450

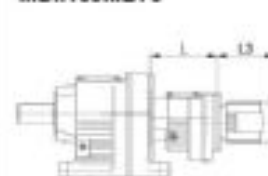


MD..109AM1



需方自配电机时请按照接法
When equipping the user's motor, the
flange is required to be connected

MD..109MD79



MD..109MD79	
L	247

注：其余尺寸均按照图示结构
Note: For other values please refer
to the opposite structure

MDM109

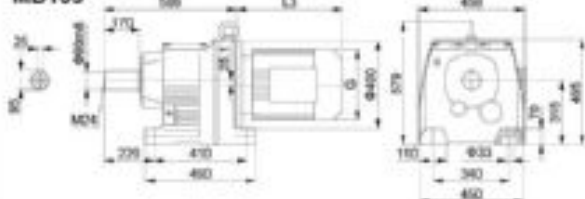


蜗轮蜗杆 蜗轮轴 输入 功率(kw)	100	112M	132S	132M	160M	180L	180M	180L	200L	225S	225M
L3	358	385	423	461	506	552	585	623	683	729	745
G	215	240	275	275	300	300	360	360	420	479	476
L2	65	65	76	76	112	112	112	112	130	151	151
G5	250	250	300	300	350	350	350	350	400	450	450

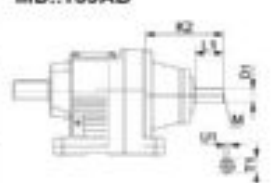
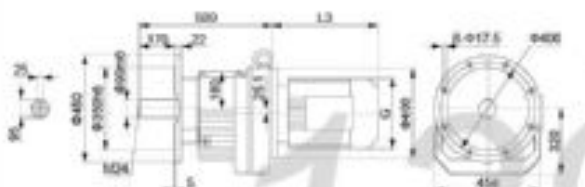
注：1. MD..109(MD, MCF)

Note: 1. MD..109 (MD, MCF)

MD139

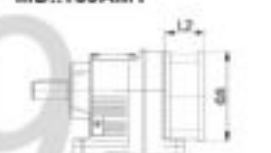


MD..139AD

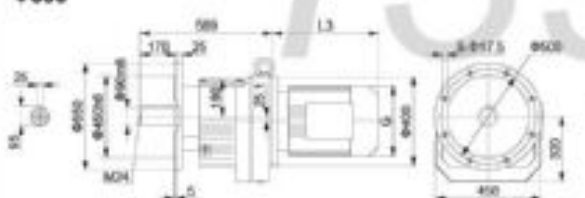
MDF139
Φ450

K2	DH	L1	T1	U1	M
AD4	201	304	80	41	10 M12
AD5	274	424	110	45	12 M16
AD6	354	494	110	51.5	14 M16
AD7	308	554	110	59	16 M20

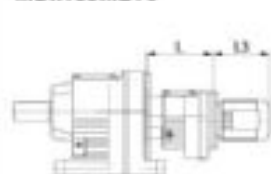
MD..139AM1



Φ550



MD..139MD79



MD..139MD79

L	240
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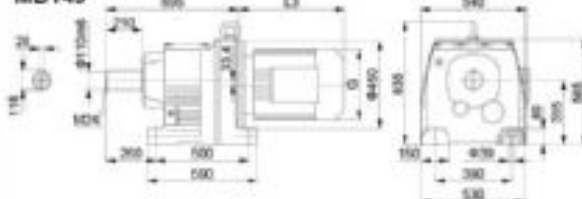
注：其余尺寸参照相应结构形式
Note: For other values please refer to the opposite structure

蜗轮蜗杆 模数 Gear Module 蜗轮齿数 Gear Z	1325	132M	150M	160L	160M	180L	180M	200L	2255	225M	250M			
蜗轮蜗杆 模数 Gear Module	5.5	7.5	11	15	16.5	22	30	37	45	55				
L3	423	461	508	552	585	623	673	720	745	794				
G	275	275	330	330	380	380	420	470	470	500				
L2	74	74	112	112	112	136	151	151	151	130				
G5	300	300	350	350	350	350	400	450	450	500				

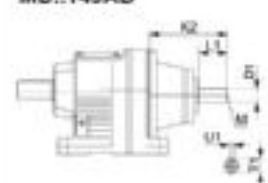
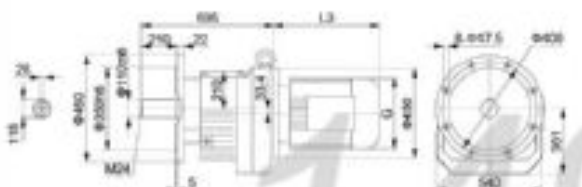
注：1. MD.. * 表示 MD, MDF

Note: 1. MD.. * means MD, MDF.

MD149

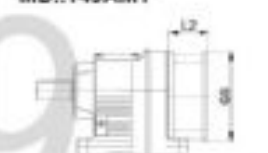


MD..149AD

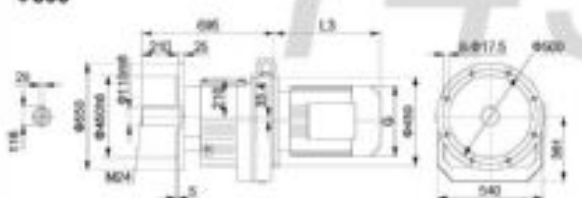
MDF149
Φ450

K2	DH	L1	T1	U1	M
AD4	183	304	80	41	10 M12
AD5	266	424	110	45	12 M16
AD6	306	484	110	51.5	14 M16
AD7	300	554	110	59	16 M20
AD8	363	704	140	74.5	20 M20

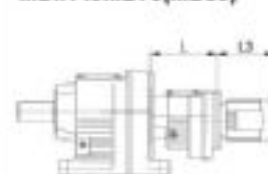
MD..149AM1



Φ550



MD..149MD79(MD89)

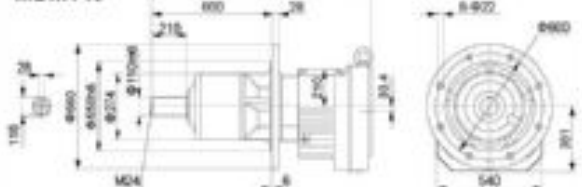


MD..149MD79 MD..149MD89

L	232	280
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注：其余尺寸参照相应结构形式
Note: For other values please refer to the opposite structure

MDM149

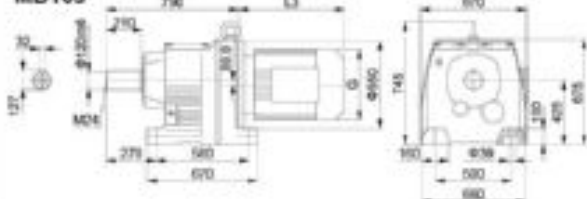


蜗轮蜗杆 模数 Gear Module 蜗轮齿数 Gear Z	150M	160L	180M	180L	200L	2255	225M	250M	2805	280M			
蜗轮蜗杆 模数 Gear Module	11	15	16.5	22	30	37	45	55	75	95			
L3	511	555	585	623	673	699	724	794	847	847			
G	330	330	380	380	420	470	470	500	500	500			
L2	112	112	112	112	136	136	136	130	130	130			
G5	350	350	350	350	400	450	450	500	500	500			

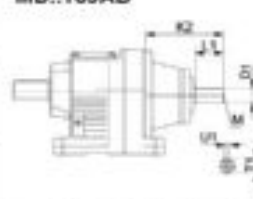
注：1. MD.. * 表示 MD, MDF

Note: 1. MD.. * means MD, MDF.

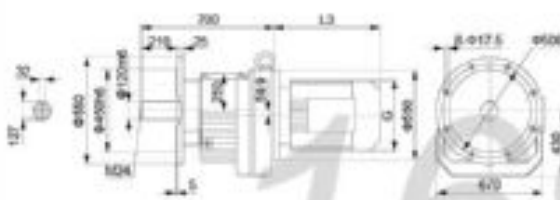
MD169



MD..169AD



K2	D1	L1	T1	U1	M
AD5	258	42x6	110	45	12 M16
AD6	298	49x6	110	51.5	14 M16
AD7	292	55x6	110	59	16 M20
AD8	374	70x6	140	74.5	20 M20

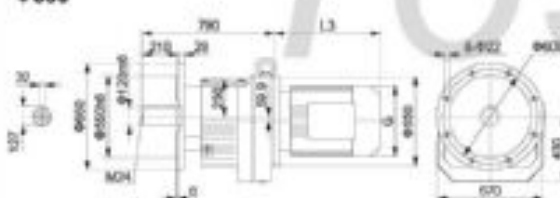
MDF169
Φ550

MD..169AM1

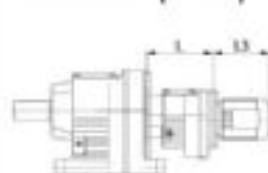


需方自备电机并遵照接法
When equipping the user's motor, the
flange is required to be connected

Φ660



MD..169MD99(MD109)



	MD..169MD99	MD..169MD109
L	320	352

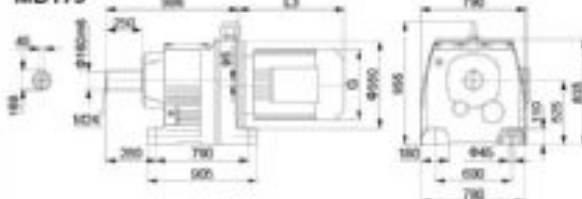
注：其余尺寸见相应结构形式
Note: For other values please refer
to the opposite structure

蜗轮蜗杆 模数 Gear Module Power(kw)	100M	150L	180M	180L	200L	225S	225M	250M	280S	280M	315S	315M	315L
L3	511	555	585	623	673	699	724	734	847	847	1100	1180	1270
G	330	330	380	380	420	470	470	510	580	580	645	645	645
L2	101	101	101	101	111	116	116	120	120	120	170	170	170
G5	350	350	350	350	400	450	450	500	500	500	660	660	660

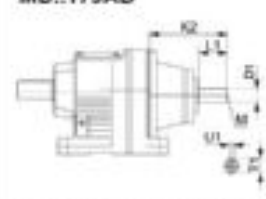
注：1. * MD.. * 指(MD), MDF

Note: 1. * MD.. * means MD, MDF

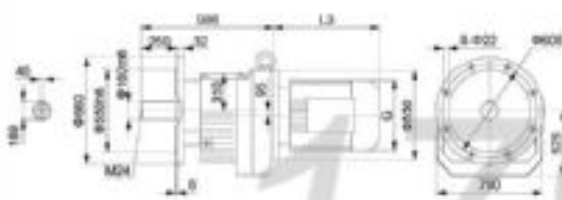
MD179



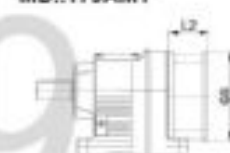
MD..179AD



K2	D1	L1	T1	U1	M
AD5	258	42x6	110	45	12 M16
AD6	298	49x6	110	51.5	14 M16
AD7	292	55x6	110	59	16 M20
AD8	374	70x6	140	74.5	20 M20

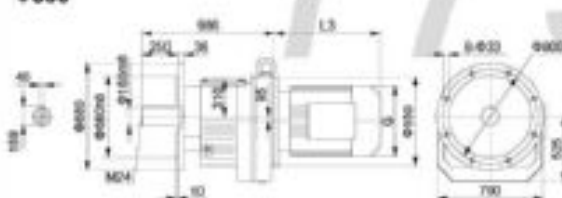
MDF179
Φ660

MD..179AM1

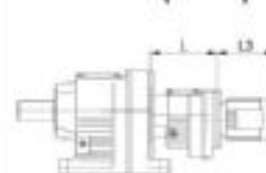


需方自备电机并遵照接法
When equipping the user's motor, the
flange is required to be connected

Φ880



MD..179MD99(MD109)



	MD..179MD99	MD..179MD109
L	320	355

注：其余尺寸见相应结构形式
Note: For other values please refer
to the opposite structure

蜗轮蜗杆 模数 Gear Module Power(kw)	100M	150L	180M	180L	200L	225S	225M	250M	280S	280M	315S	315M	315L
L3	511	555	585	623	673	699	724	734	847	847	1100	1180	1270
G	330	330	380	380	420	470	470	510	580	580	645	645	645
L2	101	101	101	101	111	116	116	120	120	120	170	170	170
G5	350	350	350	350	400	450	450	500	500	500	660	660	660

注：1. * MD.. * 指(MD), MDF

Note: 1. * MD.. * means MD, MDF

MD
SERIES

HELICAL GEAR REDUCTOR
斜齿圆柱齿轮减速机

MD

MJ
SERIES

HELICAL BEVEL GEAR REDUCTOR

MJ系列 弧齿锥齿轮硬齿面减速机





3.1 MJ系列结构型式说明 Description to structural form of MJ series

- 1) MJ型
底座安装带法兰轴行星齿轮减速机
Model MJ
Foot-mounted helical-bevel gear reducer



- 2) MJAB型
底座空心轴安装带法兰轴行星齿轮减速机
Model MJAB
Foot-mounted helical-bevel gear reducer with hollow shaft



- 3) MJF型
B5法兰安装带法兰轴行星齿轮减速机
Model MJF
Helical-bevel gear reducer in B5 flange-mounted version



- 4) MJAF型
B5法兰空心轴安装带法兰轴行星齿轮减速机
Model MJAF
Helical-bevel gear reducer in B5 flange-mounted version with hollow shaft



- 5) MJA型
空心轴安装带法兰轴行星齿轮减速机
Model MJA
Helical-bevel gear reducer with hollow shaft



- 6) MJAT型
空心轴安装带力臂固定法兰轴行星齿轮减速机
Model MJAT
Helical-bevel gear reducer in torque-arm version with hollow shaft



- 7) MJAZ型
B14法兰空心轴安装带法兰轴行星齿轮减速机
Model MJAZ
Helical-bevel gear reducer in B14 flange-mounted version with hollow shaft



- 8) MJHB型
底座及膨胀板安装带法兰轴行星齿轮减速机
Model MJHB
Foot and expansion plate installation spiral bevel gear hard tooth surface speed reducer



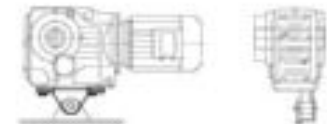
- 9) MJHF型
B5法兰及膨胀板安装带法兰轴行星齿轮减速机
Model MJHF
B5 flange and expansion plate installation parallel shaft bevel gear speed reducer



- 10) MJH型
膨胀板安装带法兰轴行星齿轮减速机
Model MJH
Expansion plate installation spiral bevel gear hard tooth surface speed reducer



- 11) MJHT型
膨胀板安装带力臂固定法兰轴行星齿轮减速机
Model MJHT
Expansion plate installation with reverse rotary arm fixation spiral bevel gear hard tooth surface speed reducer

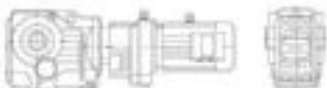


- 12) MJHZ型
B14法兰及膨胀板安装带法兰轴行星齿轮减速机
Model MJHZ
B14 flange and expansion plate installation spiral bevel gear hard tooth surface speed reducer

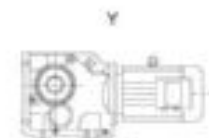


- 组合型
MJ、MD型(代表以上所有结构形式)
MJ系列与MD系列组合减速机

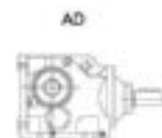
- Combined type
MJ、MD model (representing all the above structural forms)
MJ series and MD series combined speed reducer



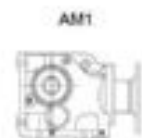
- 输入部分配置
Input allocation



电机直联型(标准配置)
Motor direct connecting type
(stand configuration)

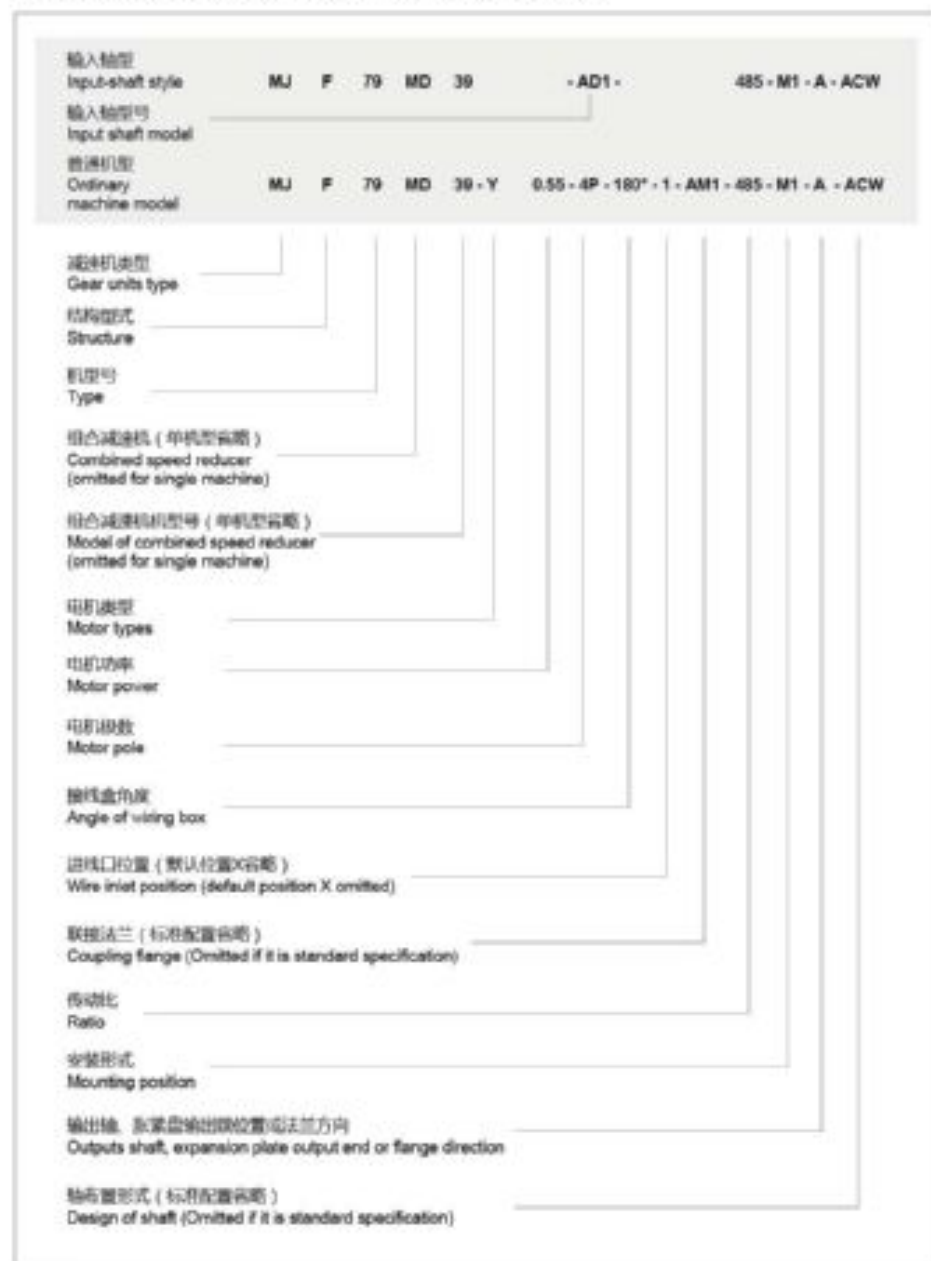


输入轴型
Input shaft type



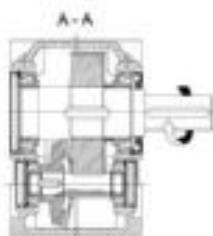
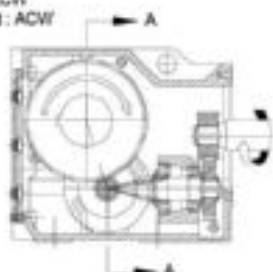
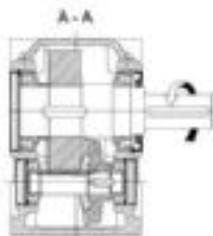
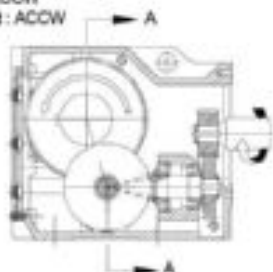
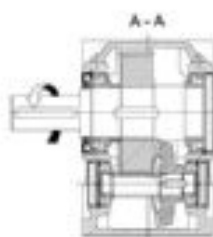
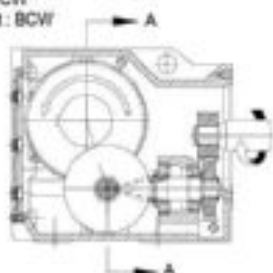
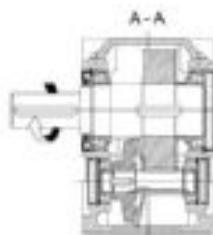
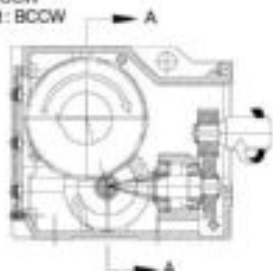
联轴器法兰型
Coupling flange type

3.2 MJ系列型号表示法 Model expression way of MJ series



减速机类型: MJ系列伞齿硬齿面减速机	Gear unit type: MJ Spiral bevel gear hard tooth surface speed reducer
结构形式: (见P096-P096页) 普通轴伸脚安装 (省略) 空心轴安装 AB B5法兰安装 F B5法兰空心轴安装 AF 空心轴安装 A 空心轴安装的转臂固定 AT B14法兰空心轴安装 AZ 膨胀盘安装 H 膨胀盘安装安装 HB B5法兰膨胀盘安装 HF B14法兰膨胀盘安装 HZ 膨胀盘安装防转臂固定 HT 未注明按普通轴伸脚安装供应	Structure: (See P096-P096) Ordinary shaft extension foot installation (omitted) Foot and hollow shaft installation AB B5 flange installation F B5 flange and hollow shaft installation AF Hollow shaft installation A Hollow shaft installation with reverse rotary arm fixation AT B14 flange and hollow shaft installation AZ Expansion plate installation H Foot and expansion plate installation HB B5 flange and expansion plate installation HF B14 flange and expansion plate installation HZ Expansion plate installation with reverse rotary arm fixation HT If there is no indication, the product is supplied according to ordinary shaft extension foot installation.
组合减速机及型号: 见P107-P134页选型参数表	Combined speed reducer and type: see model selection parameter form on P107-P134
机型号: 见P107-P137页选型参数表	Type: see model selection parameter form on P107-P137
电机类型代号: 普通电机 Y 防爆电机 YB 直流电机 Z 制动电机 YEJ 多速电机 YD 变频电机 YVP 冶金起重电机 YZ 变频制动电机 YVPEJ 起重电机 YG	Codes for Motor Types: Ordinary Motor Y Flameproof Motor YB Direct current motor Z Brake Motor YEJ Multi-speed Motor YD Variable Frequency Motor YVP Metallurgy hoisting Motor YZ Transduction braking Motor YVPEJ Roll Motor YG
电机功率, 极数: 见P107-P134页选型参数表	Motor power, pole: see model selection parameter form on P107-P134
接线盒角度, 进线口位置: 未注明的接线盒角度为0°, 进线口位置X供应, 见P103-P106页安装形式图	Angle of wiring box, wire inlet position: If there is no indication, the default angle of wiring box is 0°, and for the wire inlet position X, see installation form figure on Page P103-P106
输入轴型号: 见P135-P137页选型参数表	Input shaft model: see model selection parameter form on P135-P137
联轴器: AM1刚性联接 AM柔性联轴器联接 (具体尺寸请与我公司技术部联系)	Coupling flange: AM1 rigid connection Connection of AM flexible coupler (Please contact the technical department of our company for size details)
传动比: 见P107-P137页选型参数表	Ratio: see model selection parameter form on P107-P137
安装形式: M1, M2, M3, M4, M5, M6, 未注明按M1供应, 见P103-P106页安装形式图	Mounting position: M1, M2, M3, M4, M5, M6, if there is no indication, the product is supplied according to M1 see installation form figure on Page P103-P106
输出轴, 膨胀盘输出端位置或法兰方向: A, B, A+B, 未注明按A供应, 见P103-P106页安装形式图, 膨胀盘输出端位置见P066页	Outputs shaft, expansion plate output end or flange direction: A, B, A+B, if there is no indication, the product is supplied according to direction A. See Page P103-P106 for installation form figure. See Page P066 for position of output end of expansion plate.
轴布置形式: ACW, 标准配置安装省略, 见P066页附件图	Design of shaft: ACW, Omitted if it is standard specification, see P066

轴布置形式 Design of Shaft

轴布置形式: ACW
Design of Shaft: ACW轴布置形式: ACCW
Design of Shaft: ACCW轴布置形式: BCW
Design of Shaft: BCW轴布置形式: BCCW
Design of Shaft: BCCW

3.3 MJ系列选型参数表释义 Model selection definition form of MJ series

MJ系列恒功率选型参数表 Constant power model selection parameter form of MJ series

输出转速 Output speed r/min	输出扭矩 Output torque N·m	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type	极数 Pole P	输出转速 Output speed r/min	输出扭矩 Output torque N·m	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type	极数 Pole P
0.12KW						0.12KW					
0.06	10882	17560	1.20	MJ 129 MD79	4P	0.67	1411	2060	1.10	MJ 79 MD39	4P
0.09	5702	16006	1.30	MJF 129 MD79	4P	0.78	1205	1772	1.25	MJF 79 MD39	4P
0.06	6075	14975	1.40	MJA 129 MD79	4P	0.91	1029	1514	1.50	MJA 79 MD39	4P
0.11	7448	12295	1.72	MJAF 129 MD79	4P	1.0	931	1374	1.62	MJAF 79 MD39	4P

注: 0.12kW表示电机功率。 Note: 0.12kW indicates motor power.

MJ系列恒扭矩选型参数表 Constant torque model selection parameter form of MJ series

输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P	输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P
200N·m					400N·m				
0.20	6832	MJ 39 MD19	0.12	4P	2.4	652	MJ 49 MD39	0.18	4P
0.23	5922	MJF 39 MD19	0.12	4P	2.7	496	MJF 49 MD39	0.18	4P
0.25	5491	MJA 39 MD19	0.12	4P	3.1	426	MJA 49 MD39	0.18	4P
0.29	4759	MJAF 39 MD19	0.12	4P			MJAF 49 MD39	0.18	4P
0.33	4160								
0.38	3645				3.5	375	MJ 49 MD39	0.25	4P

注: 200N·m表示许用扭矩。 Note: 200 N·m indicates permissible torque.

MJ系列输入轴选型参数表 Model selection parameter form of input shaft type of MJ series

传动比 Ratio i	输出转速 Output speed r/min	许用扭矩 Permissible torque N·m	额定功率 Nominal Power Ratings KW	机型号 Type	传动比 Ratio i	输出转速 Output speed r/min	许用扭矩 Permissible torque N·m	额定功率 Nominal Power Ratings KW	机型号 Type
MJ39 AD..., n = 1400 1/min					MJ59 AD..., n = 1400 1/min				
				200 N·m					600 N·m
106.38	13	200	0.32	MJ 39 AD1	145.16	9.7	600	0.69	MJ 59 AD2
87.81	14	200	0.35	MJF 39 AD1	123.85	11	600	0.89	MJF 59 AD2
83.69	17	200	0.41	MJA 39 AD1	108.29	13	600	0.91	MJA 59 AD2
72.64	19	200	0.46	MJAF 39 AD1	101.68	14	600	0.97	MJAF 59 AD2
67.80	21	200	0.50		90.26	16	600	1.1	
58.60	24	200	0.57		76.56	18	600	1.3	
49.79	28	200	0.66		66.12	20	600	1.4	
44.46	31	200	0.74		60.81	23	600	1.6	

注: MD39 AD... 表示输入轴型号, n = 1400 r/min表示输入转速, 200 N·m表示该型号不同速比中最大的许用扭矩。
Note: MJ39 AD... means input shaft type, n = 1400 r/min means input speed, 200 N·m indicates the maximum permissible torque under different speed ratios in the model.

1) 选型参数表中机型号可与轴型号对应—传动轴规格。

2) 选型参数表中机型号30-150参数也适用于MJAD, MJAF, MJAT, MJA, MJH, MJHC, MJHT, MJHCC等, 选型参数表中机型号165-350参数也适用于MJH。

1) The machine types in the parameter selection list can match any transmission ratio in the column.

2) Parameters type 30-150 in model selection parameter form are also applicable to model MJHZ. Parameters type 165-350 in model selection parameter form are also applicable to model MJHT.

3.4 MJ系列输入功率及最大扭矩 Input power and maximum torque of MJ series

规格 size	30	40	50	60	70	80	90	100	120	150	160	180
结构形式 Structure	MJ, MJA, MJF, MJAF, MJAZ, MJAT, MJAB, MJH, MJHB, MJHF, MJHT, MJZ	MJ, MJA, MJH										
输入功率(kw) Input power rating	0.12-3.0	0.12-3.0	0.12-5.5	0.12-5.5	0.25-11	0.37-22	0.75-30	1.5-45	4-90	5.5-200	7.5-200	15-200
传动比 Ratio	5.36-100.38	5.62-131.67	6.52-145.15	7.26-144.79	7.24-192.18	7.21-197.37	8.7-176.04	8.69-143.47	8.68-146.67	12.06-169.50	17.34-164.50	17.10-179.00
最大扭矩(N·m) Maximum torque	200	400	600	820	1550	2700	4300	8000	13000	18000	32000	50000

*) 最大扭矩值根据不同的传动比时的最大扭矩值
 *) The maximum torque indicates the maximum value of maximum torque corresponding to different transmission ratios in this specification.

3.5 MJ系列主机重量表 Main machine weight form of MJ series

型号 Type	MJ30	MJ40	MJ50	MJ60	MJ70	MJ80	MJ90	MJ100	MJ120	MJ150	MJ160	MJ180
重量(kg) Weight(kg)	10	26	29	33.5	62	103	178	275	437	679	1110	1736
型号 Type	MJF30	MJF40	MJF50	MJF60	MJF70	MJF80	MJF90	MJF100	MJF120	MJF150		
重量(kg) Weight(kg)	21	29	33	39.5	70	113	190	280	478	757		
型号 Type	MJA30	MJA40	MJA50	MJA60	MJA70	MJA80	MJA90	MJA100	MJA120	MJA150	MJA160	MJA180
重量(kg) Weight(kg)	19	25	26	31.5	55	91	151	247	409	647	1071	1699
型号 Type	MJA70	MJA79	MJA89	MJA99	MJA109	MJA129	MJA159					
重量(kg) Weight(kg)	20	26	33	36.5	62	104	175	270	440	783		
型号 Type	MJA70	MJA79	MJA89	MJA99	MJA109	MJA129	MJA159					
重量(kg) Weight(kg)	21	29	31	36.5	62	103	169	272	460	747		

注: 1) MJAB, MJAZ, MJHB, MJH, MJHT与MJAB系列重量一致
 2) MJF与MJAF系列重量一致
 3) MJH与MJAT系列重量一致

Note: 1) The weight of main machine of MJAB, MJAZ, MJHB, MJH, MJHT is similar to that of MJAB.
 2) The weight of main machine of MJF is similar to that of MJAF.
 3) The weight of main machine of MJH is similar to that of MJAT.

3.6 MJ系列润滑油量表 Lubricating oil quantity form of MJ series

MJ., MJAB., MJHB.

机型号 Gear mt type	润滑油量 (升) Fill quantity in liters (L)					
	M1	M2	M3	M4	M5	M6
MJ_30	0.5	1	1	1.3	1	1
MJ_40	0.8	1.3	1.5	2	1.6	1.6
MJ_50	1.2	2.3	2.5	3	2.6	2.4
MJ_60	1.1	2.4	2.6	3.4	2.8	2.6
MJ_70	2.2	4.1	4.4	5.9	4.2	4.4
MJ_80	3.7	8	8.7	10.9	7.8	8
MJ_90	7	14	15.7	20	15.7	15.5
MJ_100	10	21	25.6	33.5	24	24
MJ_120	21	41.5	44	54	40	41
MJ_150	31	62	65	90	58	62
MJ_160	35	100	100	125	85	85
MJ_180	60	170	170	205	130	130

MJF.

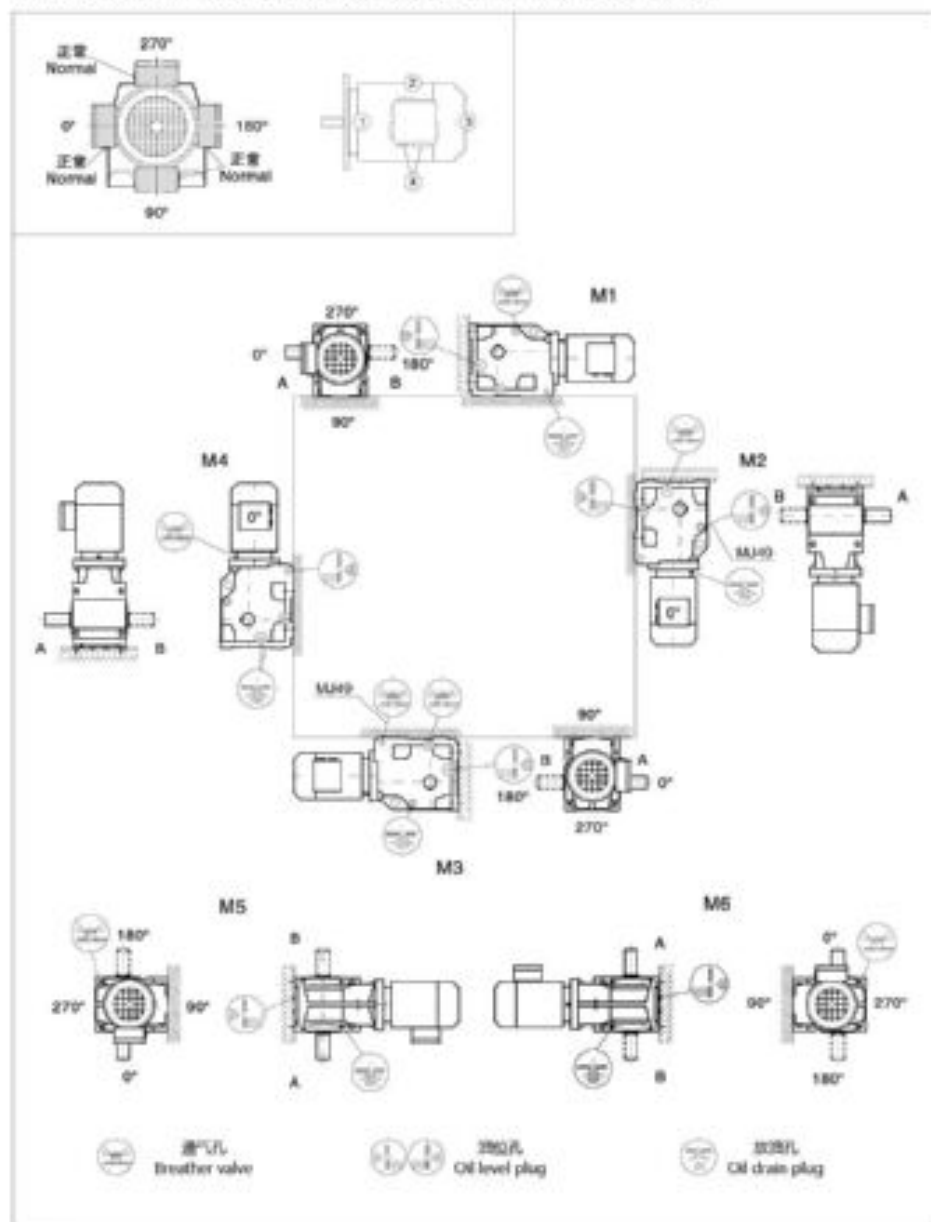
机型号 Gear mt type	润滑油量 (升) Fill quantity in liters (L)					
	M1	M2	M3	M4	M5	M6
MJF_30	0.5	1.1	1.1	1.5	1	1
MJF_40	0.8	1.3	1.7	2.2	1.6	1.6
MJF_50	1.3	2.3	2.7	3	2.9	2.7
MJF_60	1.1	2.4	2.8	3.8	2.7	2.7
MJF_70	2.1	4.1	4.4	6	4.5	4.5
MJF_80	3.7	8.2	9	11.9	8.4	8.4
MJF_90	7	14.7	17.3	21.5	15.7	16.5
MJF_100	10	22	28	35	25	25
MJF_120	21	41.5	46	55	41	41
MJF_150	31	66	69	92	62	62

MJA., MJAF., MJAZ., MJAT., MJHZ., MJHT.

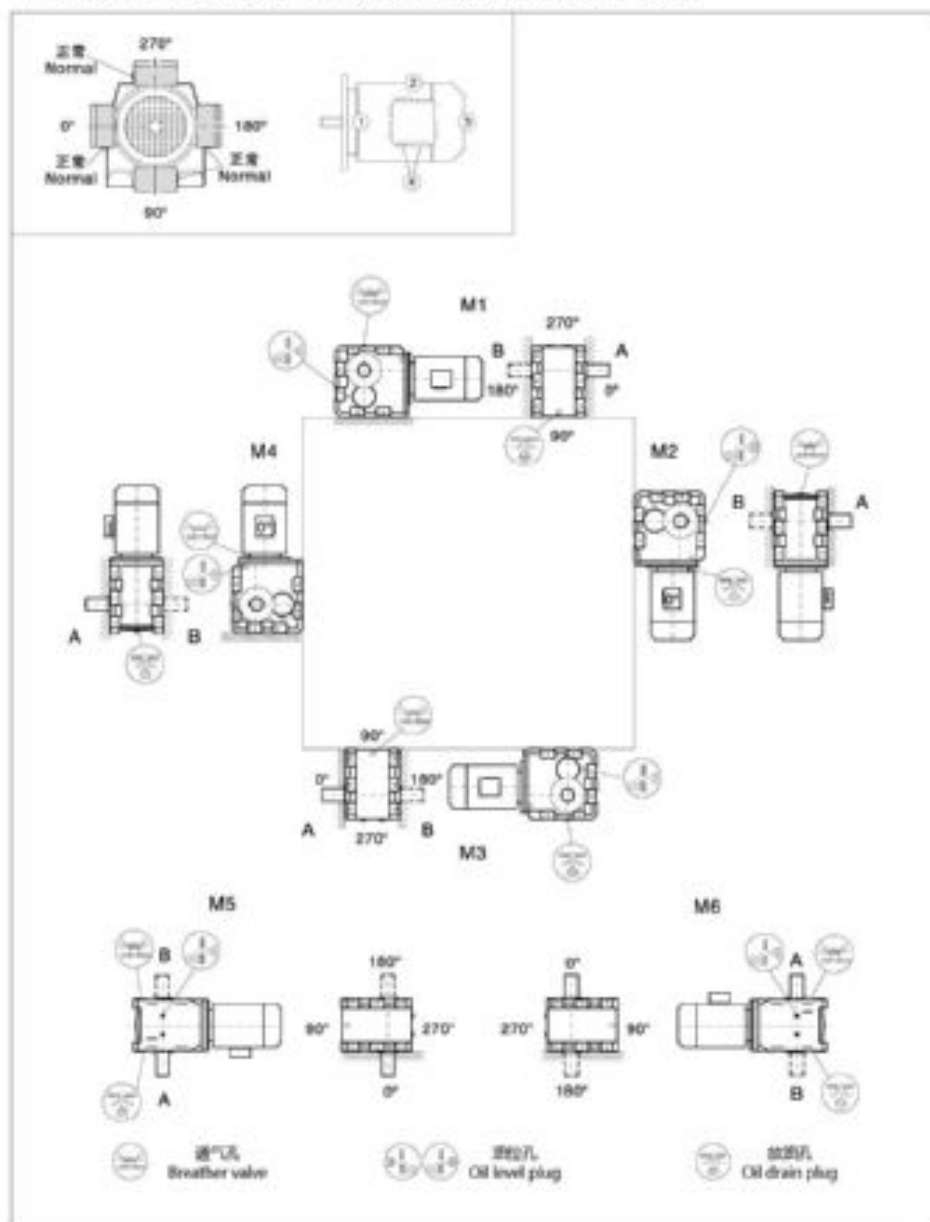
机型号 Gear mt type	润滑油量 (升) Fill quantity in liters (L)					
	M1	M2	M3	M4	M5	M6
MJ_30	0.5	1	1	1.4	1	1
MJ_40	0.8	1.3	1.6	2.1	1.8	1.8
MJ_50	1.3	2.3	2.7	3	2.9	2.7
MJ_60	1.1	2.4	2.7	3.8	2.8	2.6
MJ_70	2.1	4.1	4.6	6	4.4	4.4
MJ_80	3.7	8.2	8.8	11.1	8	8
MJ_90	7	14.7	15.7	20	15.7	15.7
MJ_100	10	20.5	24	32	24	24
MJ_120	21	41.5	43	62	40	40
MJ_150	31	60	67	87	62	62
MJ_160	35	100	100	125	85	85
MJ_180	60	170	170	205	130	130

3.7 MJ系列安装形式图 Installation form figure of MJ series

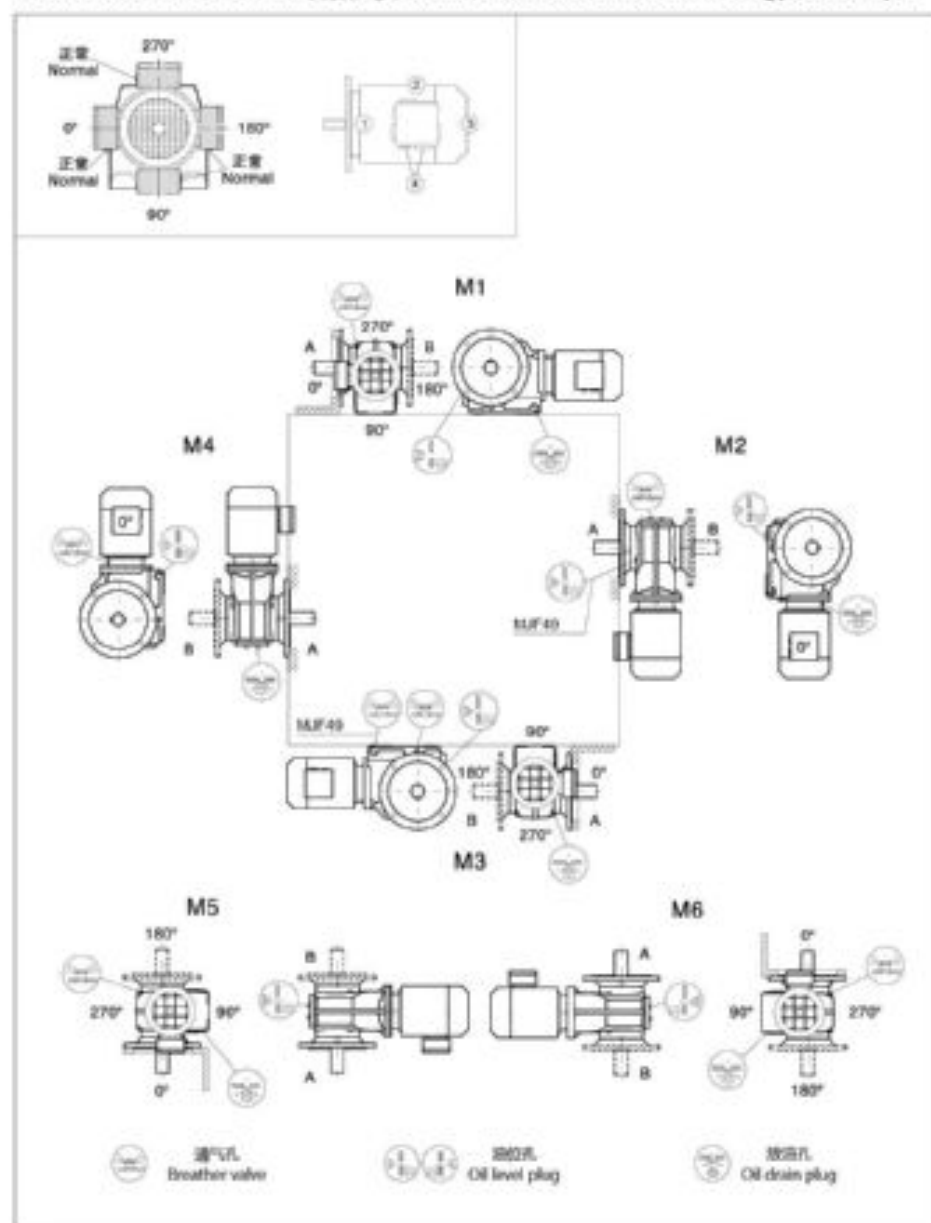
MJ/MJAB/MJHB30-150 安装形式图 MJ/MJAB/MJHB30-150 Mounting position example



MJ/MJA/MJH100-180 安装形式图 MJ/MJA/MJH100-180 Mounting position example



MJF/MJAF/MJHF/MJAZ/MJHZ30-150 安装形式: 国 MJF/MJAF/MJHF/MJAZ/MJHZ30-150 Mounting position example



MJA/MJAT/MJH/MJHT30-150 安装形式: 国 MJA/MJAT/MJH/MJHT30-150 Mounting position example

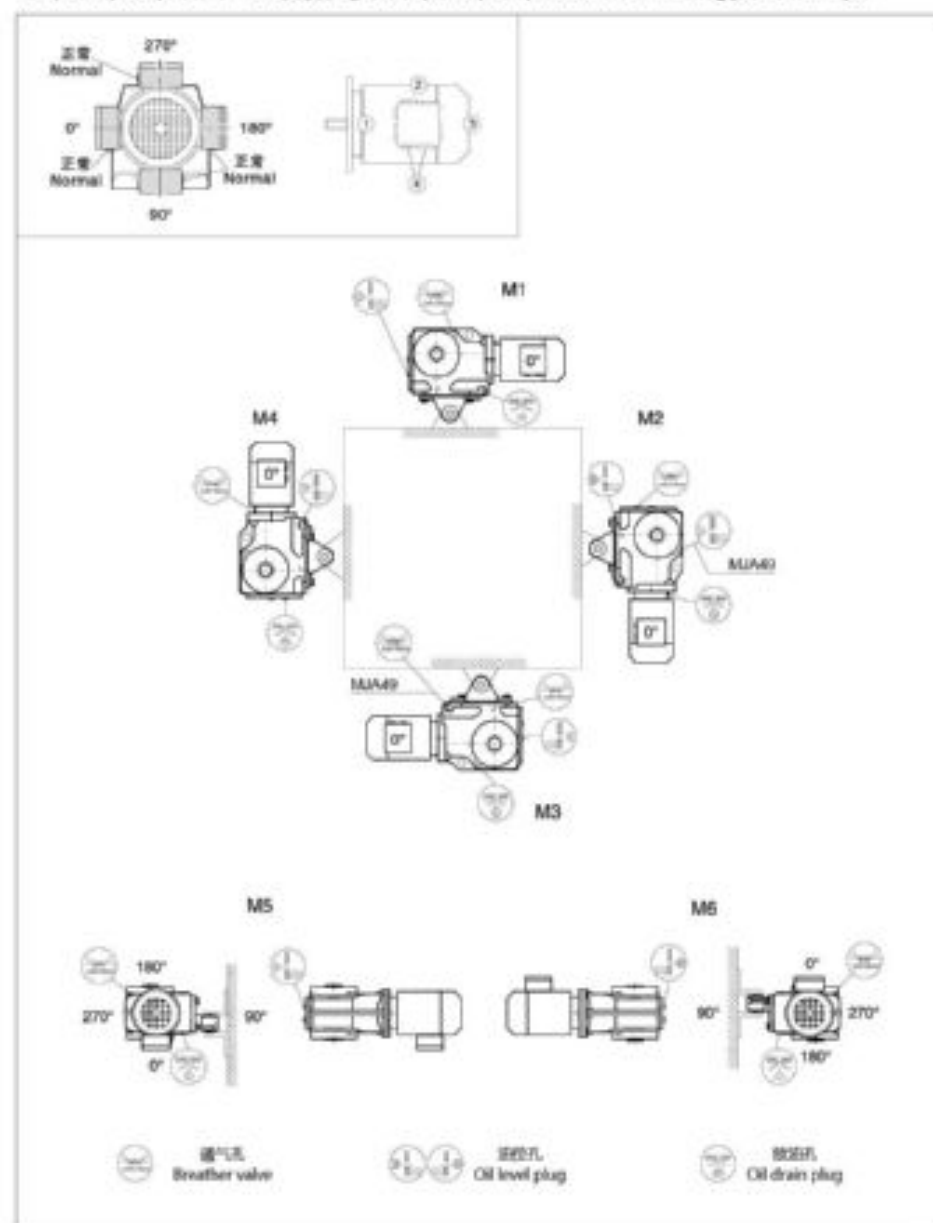


Table of Helical Bevel Gear Reductor specifications for MJ Series, 3KW output power. Columns include Output speed, Output torque, Ratio, Service factor, Type, and Pole. Data is organized into two main sections per power level, showing different gear ratios and configurations.

Table of Helical Bevel Gear Reductor specifications for MJ Series, 4KW output power. Columns include Output speed, Output torque, Ratio, Service factor, Type, and Pole. Data is organized into two main sections per power level, showing different gear ratios and configurations.

機種名	外形寸法	質量	定格電圧	定格電流	定格出力	定格回転速度	定格トルク	定格電圧	定格電流	定格出力	定格回転速度	定格トルク
MA20	100	0.8	200	0.5	10	1500	0.6	200	0.5	10	1500	0.6
MA30	120	1.0	300	0.7	15	1500	0.8	300	0.7	15	1500	0.8
MA40	140	1.2	400	0.9	20	1500	1.0	400	0.9	20	1500	1.0
MA50	160	1.5	500	1.1	25	1500	1.2	500	1.1	25	1500	1.2
MA60	180	1.8	600	1.3	30	1500	1.5	600	1.3	30	1500	1.5
MA70	200	2.2	700	1.6	35	1500	1.8	700	1.6	35	1500	1.8
MA80	220	2.6	800	1.9	40	1500	2.1	800	1.9	40	1500	2.1
MA90	240	3.0	900	2.2	45	1500	2.4	900	2.2	45	1500	2.4
MA100	260	3.5	1000	2.5	50	1500	2.8	1000	2.5	50	1500	2.8
MA110	280	4.0	1100	2.8	55	1500	3.1	1100	2.8	55	1500	3.1
MA120	300	4.5	1200	3.1	60	1500	3.4	1200	3.1	60	1500	3.4
MA130	320	5.0	1300	3.4	65	1500	3.7	1300	3.4	65	1500	3.7
MA140	340	5.5	1400	3.7	70	1500	4.0	1400	3.7	70	1500	4.0
MA150	360	6.0	1500	4.0	75	1500	4.3	1500	4.0	75	1500	4.3
MA160	380	6.5	1600	4.3	80	1500	4.6	1600	4.3	80	1500	4.6
MA170	400	7.0	1700	4.6	85	1500	4.9	1700	4.6	85	1500	4.9
MA180	420	7.5	1800	4.9	90	1500	5.2	1800	4.9	90	1500	5.2
MA190	440	8.0	1900	5.2	95	1500	5.5	1900	5.2	95	1500	5.5
MA200	460	8.5	2000	5.5	100	1500	5.8	2000	5.5	100	1500	5.8

3.11 三相誘起電動機仕様 Dimension and figure of MJ series

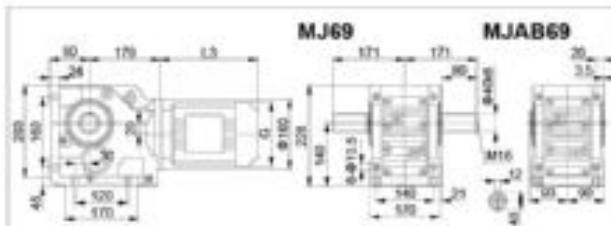
機種名	外形寸法	質量	定格電圧	定格電流	定格出力	定格回転速度	定格トルク
MA20	100	0.8	200	0.5	10	1500	0.6
MA30	120	1.0	300	0.7	15	1500	0.8
MA40	140	1.2	400	0.9	20	1500	1.0
MA50	160	1.5	500	1.1	25	1500	1.2
MA60	180	1.8	600	1.3	30	1500	1.5
MA70	200	2.2	700	1.6	35	1500	1.8
MA80	220	2.6	800	1.9	40	1500	2.1
MA90	240	3.0	900	2.2	45	1500	2.4
MA100	260	3.5	1000	2.5	50	1500	2.8
MA110	280	4.0	1100	2.8	55	1500	3.1
MA120	300	4.5	1200	3.1	60	1500	3.4
MA130	320	5.0	1300	3.4	65	1500	3.7
MA140	340	5.5	1400	3.7	70	1500	4.0
MA150	360	6.0	1500	4.0	75	1500	4.3
MA160	380	6.5	1600	4.3	80	1500	4.6
MA170	400	7.0	1700	4.6	85	1500	4.9
MA180	420	7.5	1800	4.9	90	1500	5.2
MA190	440	8.0	1900	5.2	95	1500	5.5
MA200	460	8.5	2000	5.5	100	1500	5.8

※ 三相誘起電動機仕様 Dimension and figure of MJ series

※ 三相誘起電動機仕様 Dimension and figure of MJ series

※ 三相誘起電動機仕様 Dimension and figure of MJ series

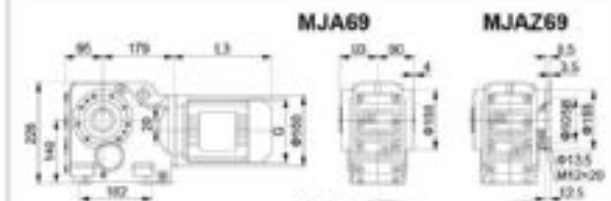
※ 三相誘起電動機仕様 Dimension and figure of MJ series



MJ..69AD



K2	D1	L1	T1	L11	M
AD2	120	1946	40	21.5	6 M8
AD3	150	2446	50	27	8 M8

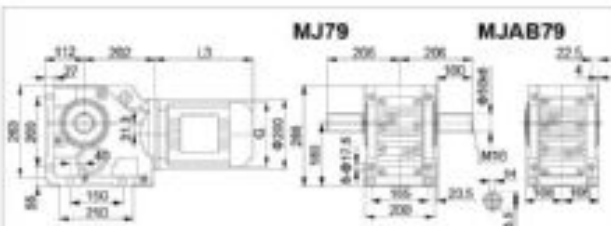


MJ..69AM1



需方自配用户电机连接法兰
When equipping the user's motor, the flange is required to be connected

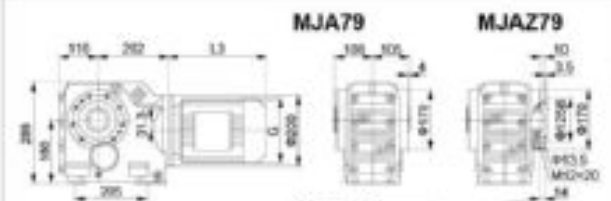
注：其余尺寸按照通用结构图式
Note: For other values please refer to the opposed structure



MJ..79AD



K2	D1	L1	T1	L11	M
AD2	136	1946	40	21.5	6 M8
AD3	151	2446	50	27	8 M8
AD4	224	3946	80	41	10 M12

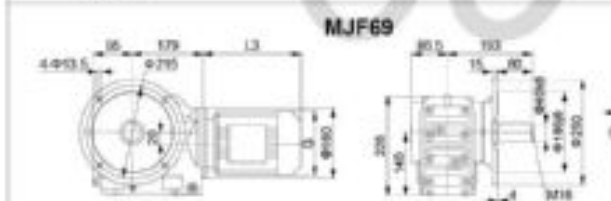


MJ..79AM1



需方自配用户电机连接法兰
When equipping the user's motor, the flange is required to be connected

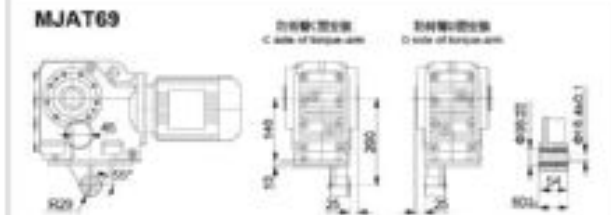
注：其余尺寸按照通用结构图式
Note: For other values please refer to the opposed structure



MJ..69MD39



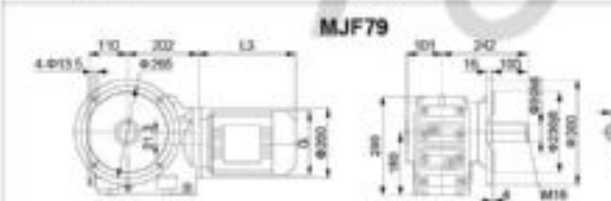
MJ..69MD39	
L	145



行星轴端 输出轴 输出轴 Power (KW)	63	71	90	90S	90L	100	112M	132S
L3	200	241	206	310	335	305	380	434
G	130	145	175	190	195	215	240	275
L2	50	57	72	72	72	68	68	100
G5	140	160	200	200	200	250	250	300

注：1. MJA, MJF, MJAF, MJAZ 为通用结构图式，其余尺寸均按通用图式。
2. MJA, MJF, MJAF, MJAZ 为通用结构图式，其余尺寸均按通用图式。
3. 详细结构图式，请参考本手册第 100-110 页。

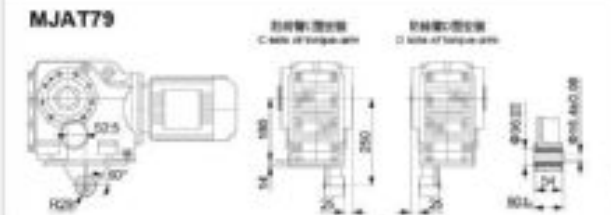
Note: 1. The housings of MJA, MJF, MJAF, MJAZ are common parts, the mounting dimensions may consult each other.
2. MJA, MJF, MJAF, MJAZ are common parts, the mounting dimensions may consult each other.
3. With expansion plate structural forms, see Page 100-110 for size details of expansion plate.



MJ..79MD39



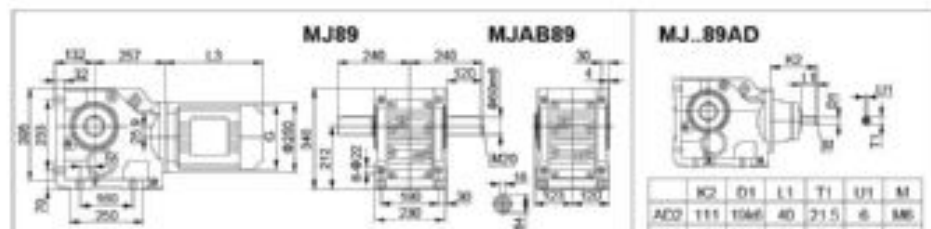
MJ..79MD39	
L	157



行星轴端 输出轴 输出轴 Power (KW)	71	80	90S	90L	100	112M	132S	132M	160M
L3	217	300	310	341	368	390	441	470	527
G	145	175	190	195	215	240	275	275	330
L2	57	72	72	72	68	68	100	100	129
G5	150	200	200	200	250	250	300	300	350

注：1. MJA, MJF, MJAF, MJAZ 为通用结构图式，其余尺寸均按通用图式。
2. MJA, MJF, MJAF, MJAZ 为通用结构图式，其余尺寸均按通用图式。
3. 详细结构图式，请参考本手册第 100-110 页。

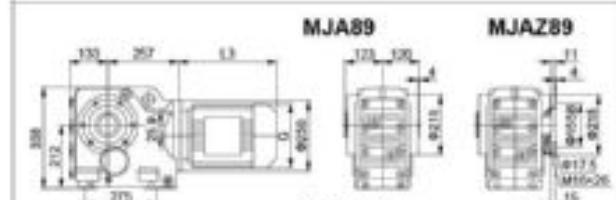
Note: 1. The housings of MJA, MJF, MJAF, MJAZ are common parts, the mounting dimensions may consult each other.
2. MJA, MJF, MJAF, MJAZ are common parts, the mounting dimensions may consult each other.
3. With expansion plate structural forms, see Page 100-110 for size details of expansion plate.



MJ..89AD



	K2	D1	L1	T1	L11	M
AC2	111	1046	40	21.5	6	M6
AC3	156	2046	60	31	8	M10
AC4	210	3046	80	41	10	M12
AC5	262	4246	110	45	12	M16

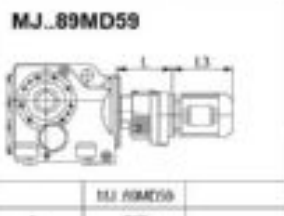
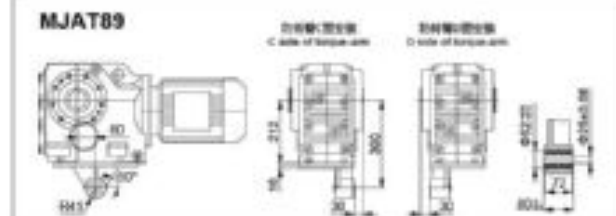
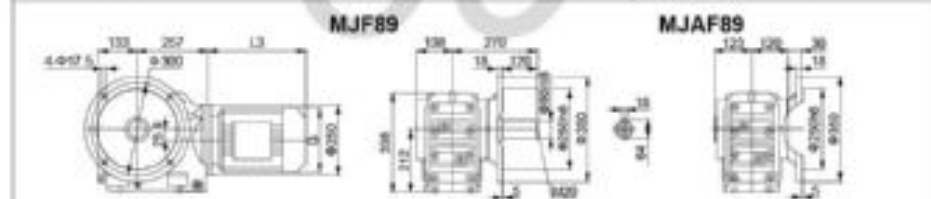
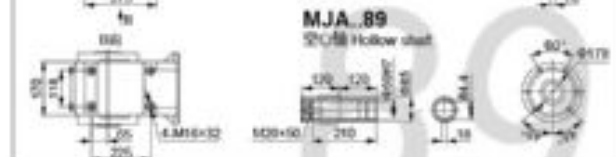


MJ..89AM1



當在自裝的機器上加裝此法
When equipping the user's motor, the flange is required to be connected

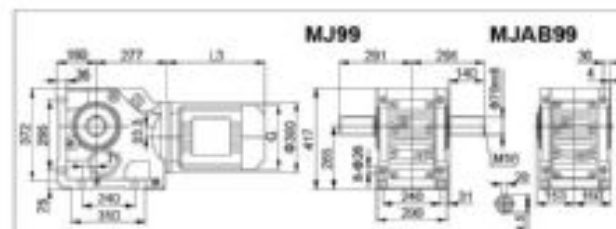
註：其餘尺寸均與圖中相同
Note: For other values please refer to the opposite structure



Y型安裝規格 Mounting size	MJ 89ME59											
	L	210										
Power (kW)	0.75	1.1	1.5	2.2	3.0	4.0	5.5	7.5	11	15	18.5	22
L3	282	300	325	363	396	441	479	532	576	627	645	
G	175	195	195	215	240	275	275	300	300	300	300	
L2	62	62	62	74	74	86	86	110	110	110	110	
G5	200	200	200	250	250	300	300	350	350	350	350	

註 1: MJA、MJF、MJAF、MJAZ與圖中機殼類型的安裝尺寸均與圖中相同
Note 1: The housings of MJA、MJF、MJAF、MJAZ are common parts, the mounting dimensions may consult each other.

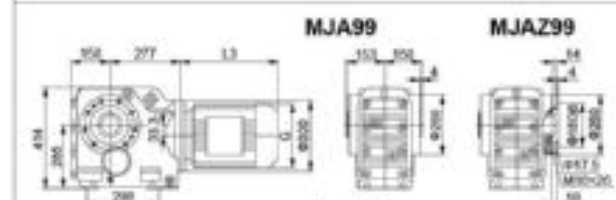
2: "MJ" 包含 MJ、MJA、MJF、MJAF、MJAZ、MJAT、MJAF、MJAZ、MJAB、MJAB、MJAF、MJAF、MJAT、MJAT、MJAT、MJAT
2: "MJ" means MJ、MJA、MJF、MJAF、MJAZ、MJAT、MJAF、MJAZ、MJAB、MJAB、MJAF、MJAF、MJAT、MJAT、MJAT、MJAT
3: 機殼安裝板的結構形式, 請參閱 P006-P010
3: With expansion plate structural forms, see Page P006-P010 for size details of expansion plate



MJ..99AD



	K2	D1	L1	T1	L11	M
AD3	151	2046	60	31	8	M10
AD4	214	3046	80	41	10	M12
AD5	267	4246	110	45	12	M16
AD6	327	5446	140	51.5	14	M18

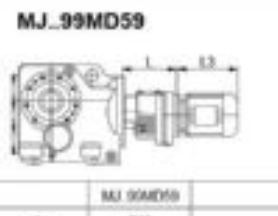
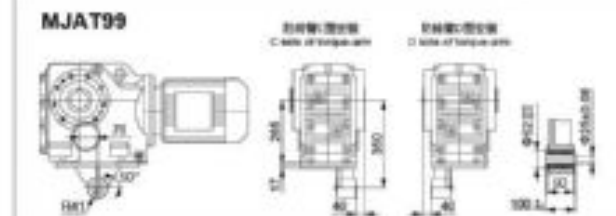
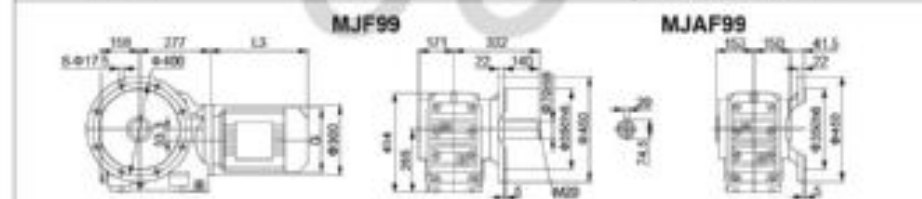
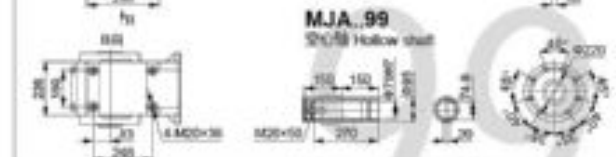


MJ..99AM1



當在自裝的機器上加裝此法
When equipping the user's motor, the flange is required to be connected

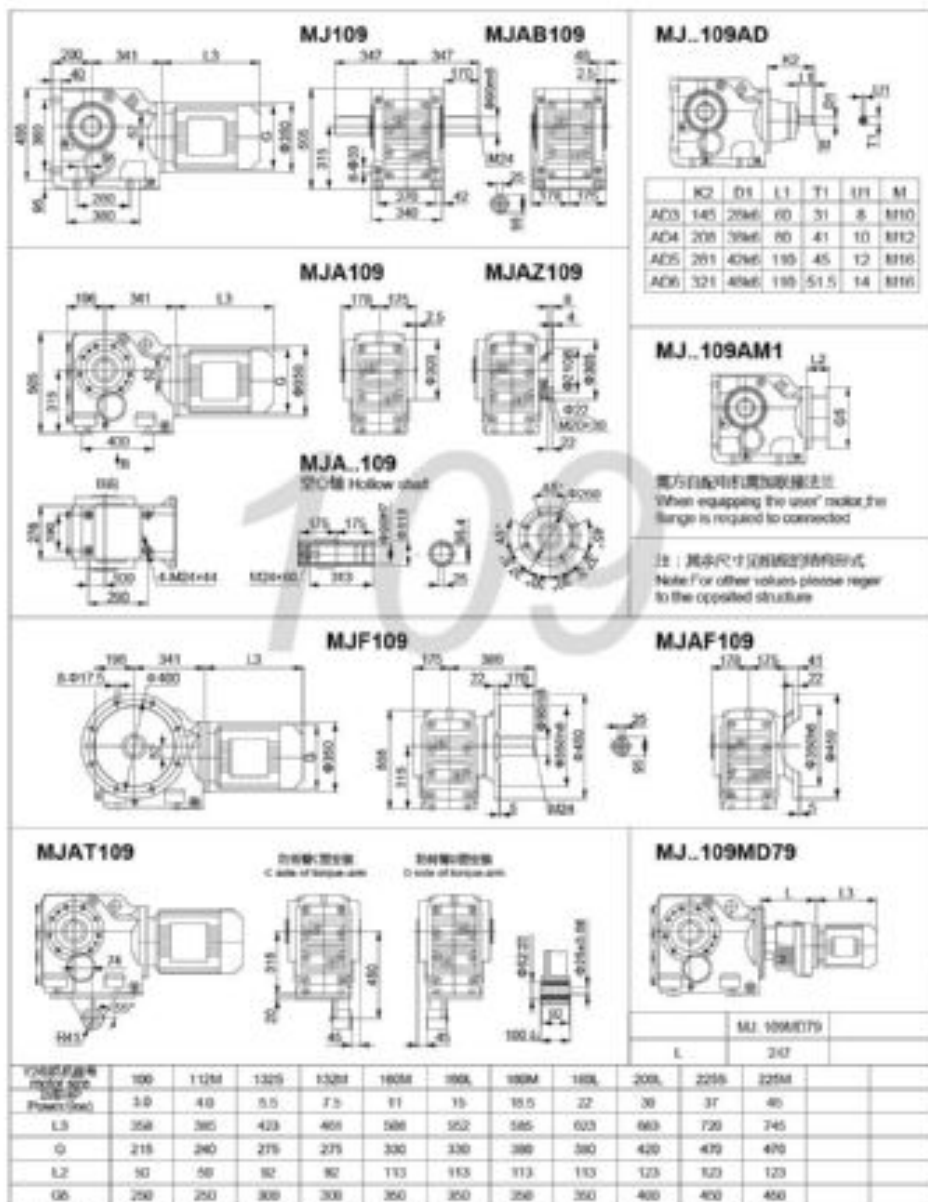
註：其餘尺寸均與圖中相同
Note: For other values please refer to the opposite structure



Y型安裝規格 Mounting size	MJ 99ME59											
	L	211										
Power (kW)	1.1	1.5	2.2	3.0	4.0	5.5	7.5	11	15	18.5	22	30
L3	308	334	368	385	434	472	536	582	627	645	680	
G	195	195	215	240	275	275	300	300	300	300	300	426
L2	62	62	62	62	62	62	113	113	113	113	113	123
G5	200	200	250	250	300	300	350	350	350	350	350	400

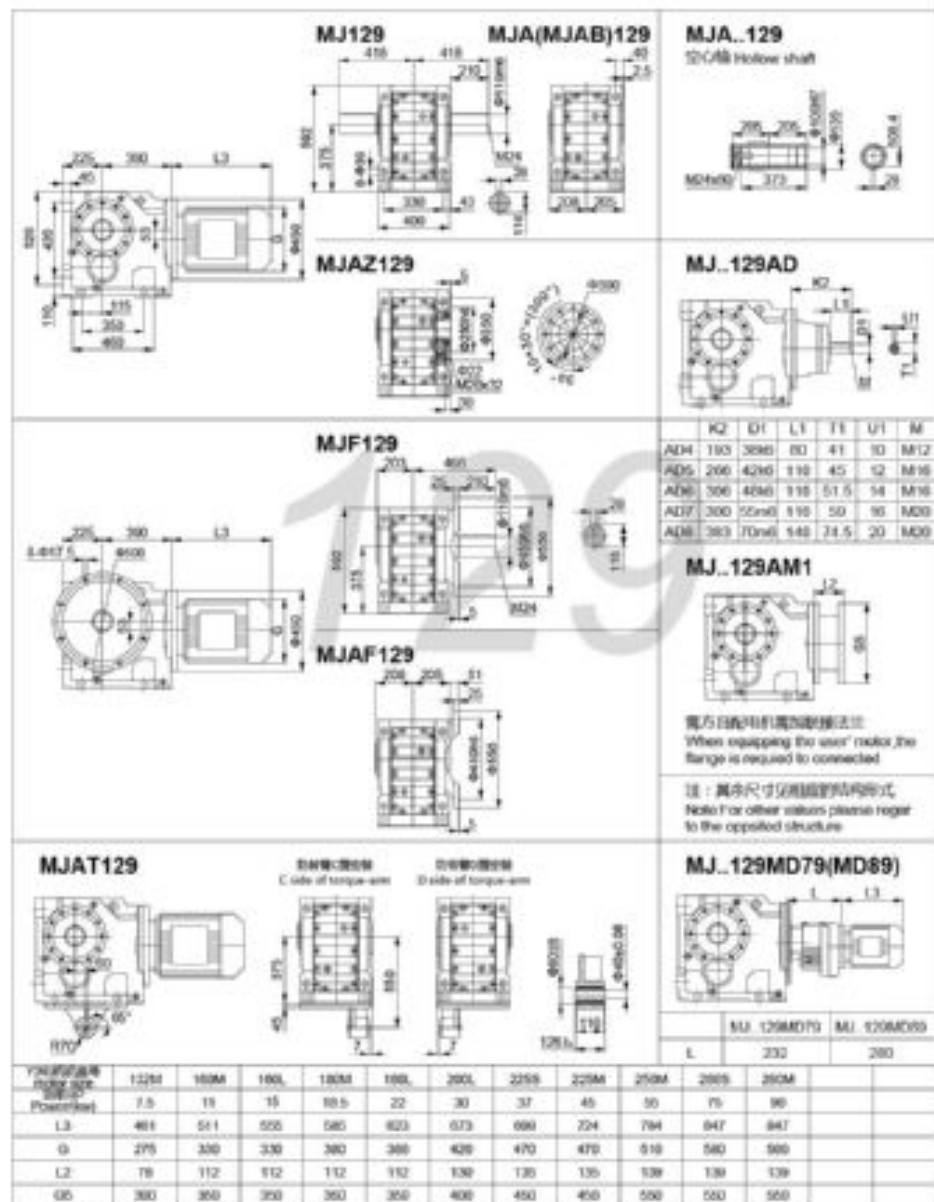
註 1: MJA、MJF、MJAF、MJAZ與圖中機殼類型的安裝尺寸均與圖中相同
Note 1: The housings of MJA、MJF、MJAF、MJAZ are common parts, the mounting dimensions may consult each other.

2: "MJ" 包含 MJ、MJA、MJF、MJAF、MJAZ、MJAT、MJAF、MJAZ、MJAB、MJAB、MJAF、MJAF、MJAT、MJAT、MJAT、MJAT
2: "MJ" means MJ、MJA、MJF、MJAF、MJAZ、MJAT、MJAF、MJAZ、MJAB、MJAB、MJAF、MJAF、MJAT、MJAT、MJAT、MJAT
3: 機殼安裝板的結構形式, 請參閱 P006-P010
3: With expansion plate structural forms, see Page P006-P010 for size details of expansion plate



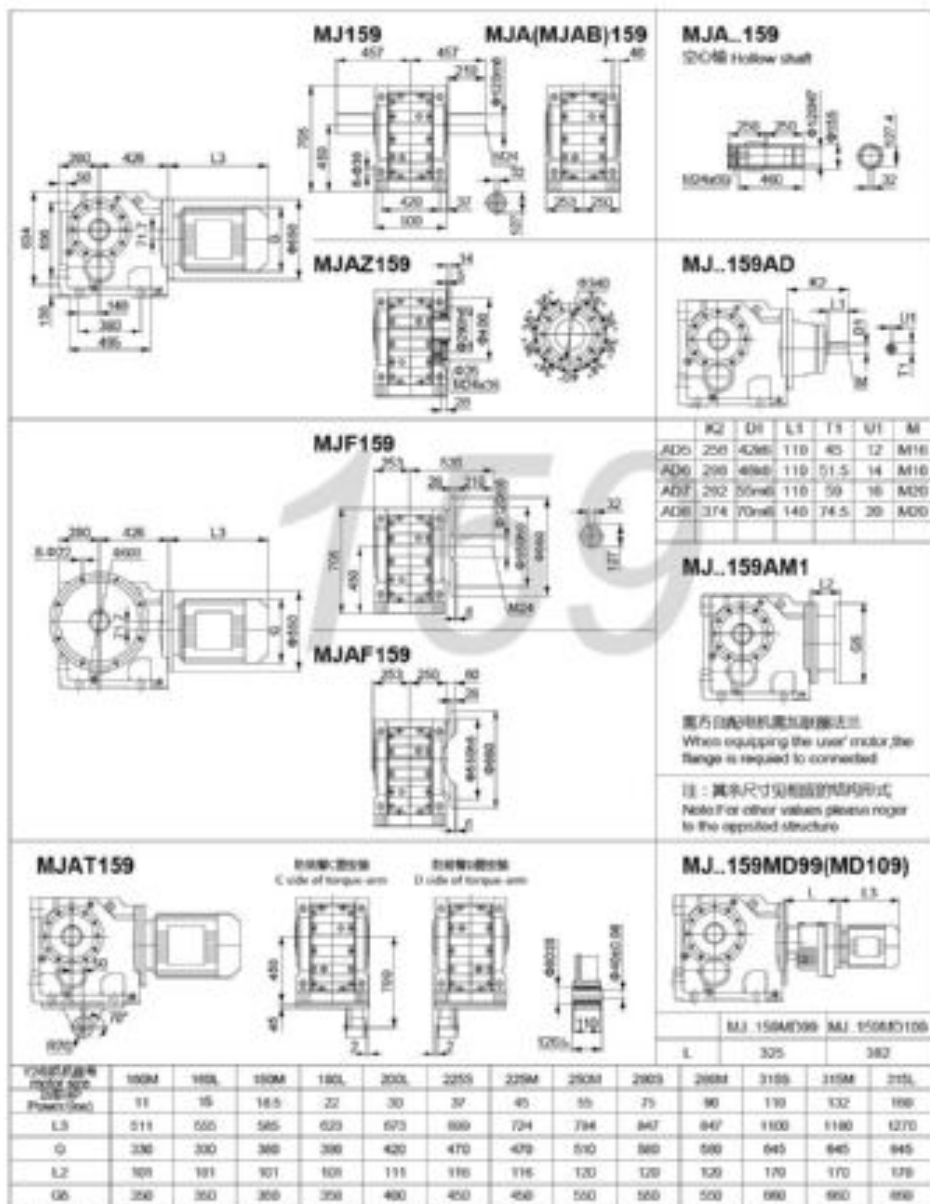
注: 1. MJA, MJF, MJAF, MJAZ系列减速机采用空心轴电机连接结构。
 2. MJ..109MD79, MJA, MJF, MJAF, MJAZ, MJAT, MJAB, MJAB, MJAF, MJAF, MJAT, MJAZ
 3. 详细结构图形式, 请参见尺寸图P004-P010

Note: 1. The bearings of MJA, MJF, MJAF, MJAZ are common parts the mounting dimensions may consult each other.
 2. MJ..109MD79, MJA, MJF, MJAF, MJAZ, MJAT, MJAB, MJAB, MJAF, MJAF, MJAT, MJAZ
 3. With expansion plate structural forms, see Page P004-P010 for size details of expansion plate.



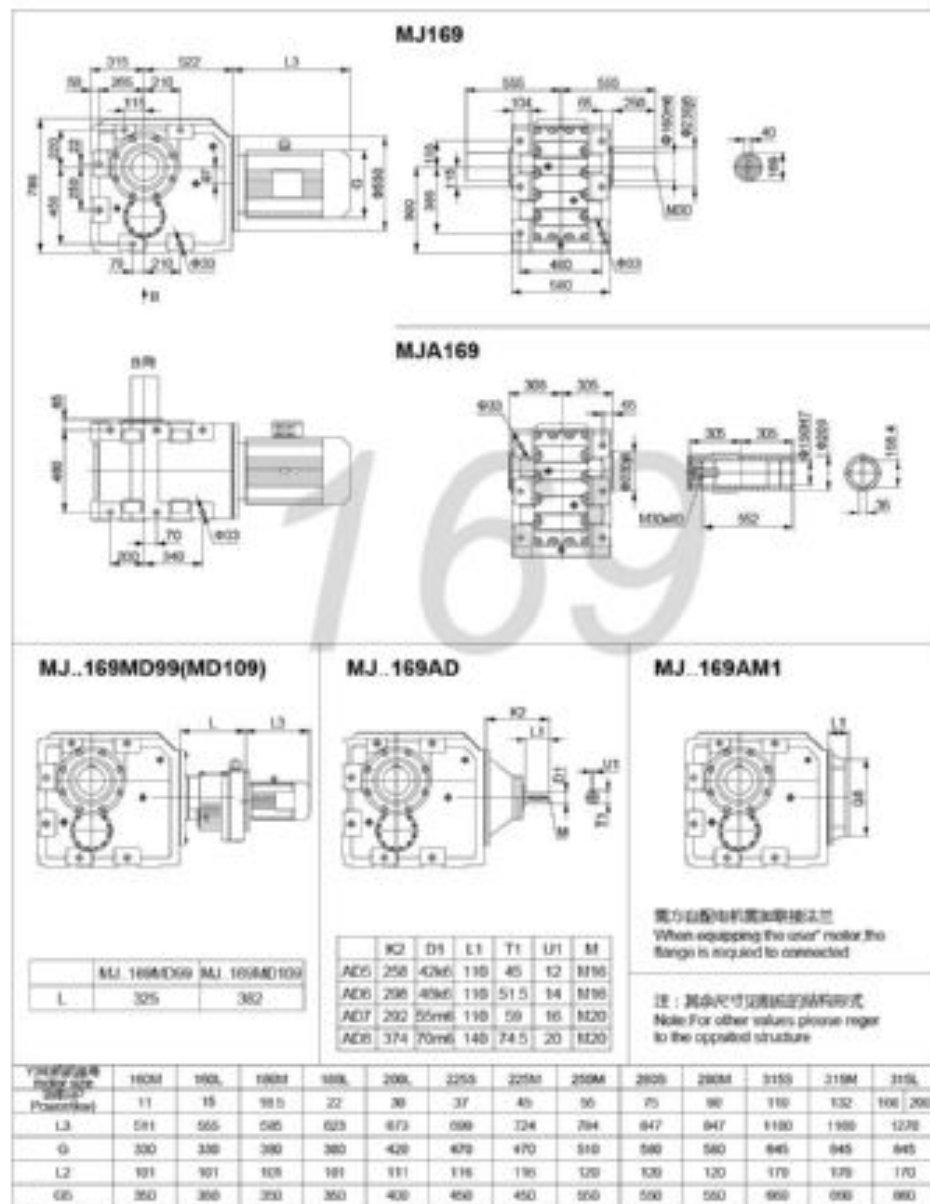
注: 1. MJA, MJF, MJAF, MJAZ系列减速机采用空心轴电机连接结构。
 2. MJ..129MD79, MJA, MJF, MJAF, MJAZ, MJAT, MJAB, MJAB, MJAF, MJAF, MJAT, MJAZ
 3. 详细结构图形式, 请参见尺寸图P004-P010

Note: 1. The bearings of MJA, MJF, MJAF, MJAZ are common parts the mounting dimensions may consult each other.
 2. MJ..129MD79, MJA, MJF, MJAF, MJAZ, MJAT, MJAB, MJAB, MJAF, MJAF, MJAT, MJAZ
 3. With expansion plate structural forms, see Page P004-P010 for size details of expansion plate.



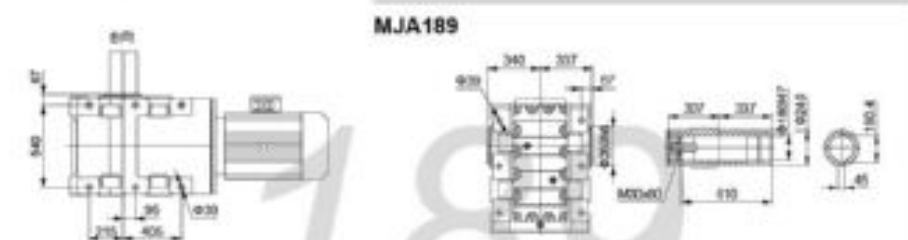
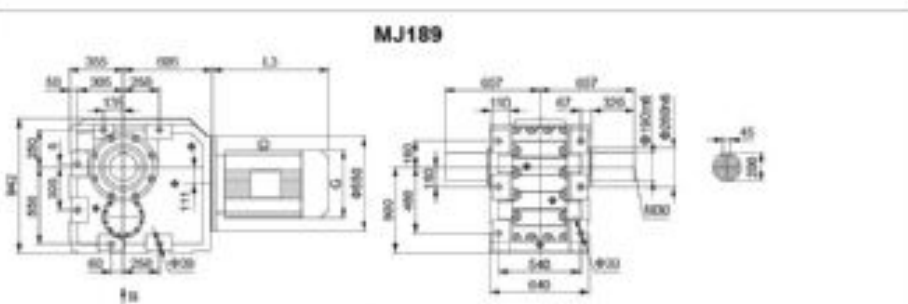
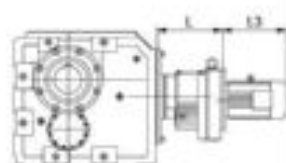
① MJA, MJF, MJAF, MJAZ为通用结构, 安装尺寸可互相参照
② MJ..159AM1, MJA, MJF, MJAF, MJAZ, MJAT, MJAD, MJAB, MJAF, MJF, MJAT, MJAZ
③ 有膨胀板结构形式, 见第95页 P95-P96

Note: ① The bearings of MJ..159, MJF, MJAF, MJAZ are common parts, the mounting dimensions may consult each other.
② MJ..159AM1, MJA, MJF, MJAF, MJAZ, MJAT, MJAB, MJAF, MJF, MJAT, MJAZ
③ With expansion plate structural forms, see Page P95-P96 for size details of expansion plate.

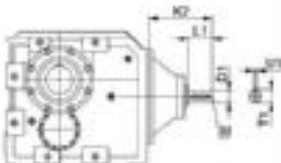


① MJA, MJF, MJAF, MJAZ为通用结构, 安装尺寸可互相参照
② MJ..169AM1, MJA, MJF, MJAF, MJAZ, MJAT, MJAD, MJAB, MJAF, MJF, MJAT, MJAZ
③ 有膨胀板结构形式, 见第95页 P95-P96

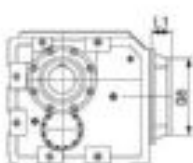
Note: ① The above shafts are common parts, and the installation sizes can be mutually referred to.
② MJ..169AM1, MJA, MJF, MJAF, MJAZ, MJAT, MJAD, MJAB, MJAF, MJF, MJAT, MJAZ
③ With expansion plate structural forms, see Page P95-P96 for size details of expansion plate.

**MJ..189MD99(MD109)**

	MJ..189MD99	MJ..189MD109
L	325	362

MJ..189AD

	K2	D1	L1	T1	L11	M
AD5	258	426	110	45	12	M16
AD6	298	490	110	51.5	14	M16
AD7	292	55end	110	58	16	M20
AD8	374	78end	140	74.5	20	M20

MJ..189AM1

需方自备电机用连接法兰
When equipping the user's motor the flange is required to be connected

注：其余尺寸见相应的结构图式
Note: For other values please refer to the opposite structure

功率/额定 电机功率 Power (kW)	100M	150L	100M	180L	200L	225L	225M	250M	200L	280L	315L	315M	355L
L3	511	555	585	625	675	690	724	724	847	847	1100	1180	1270
G	330	330	360	360	420	470	470	510	580	580	645	645	645
L2	105	101	101	105	115	116	116	120	120	120	170	170	170
G5	350	350	350	350	400	450	450	550	550	550	680	680	680

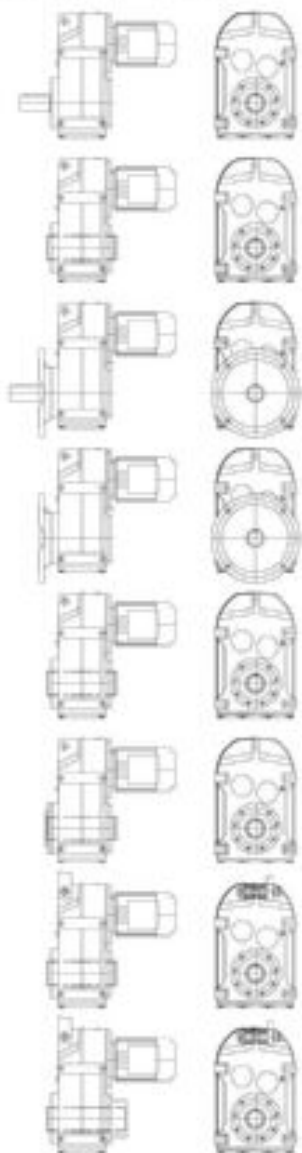
注：1.以上表格为通用规格，如有特殊规格请咨询
2. "L" 表示 MJ.. MJA.. MJL
3. 特殊规格结构图式及详细尺寸请参考 P105-P106

Note: 1. The above table are common parts, and the reduction ratio can be mutually referred to.
2. "L" means MJ.. MJA.. MJL.
3. For special structure and detailed dimensions, please refer to Page P105-P106 for details of expansion parts.

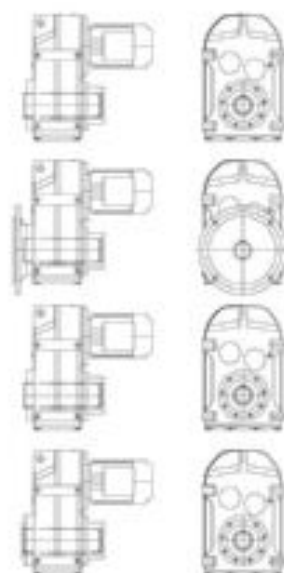


4.1 MP系列结构型式说明 Description to structural form of MP series

- 1) MP型
足脚安装平行轴斜齿减速机
Model MP
Foot-mounted parallel shaft helical gear reducer
- 2) MPAB型
足脚空心轴安装平行轴斜齿减速机
Model MPAB
Foot-mounted parallel shaft helical gear reducer with hollow shaft
- 3) MPF型
B5法兰安装平行轴斜齿减速机
Model MPF
Parallel shaft helical gear reducer in B5 flange-mounted version
- 4) MPAF型
B5法兰空心轴安装平行轴斜齿减速机
Model MPAF
Parallel shaft helical gear reducer in B5 flange-mounted version with hollow shaft
- 5) MPA型
空心轴安装平行轴斜齿减速机
Model MPA
Parallel shaft helical gear reducer with hollow shaft
- 6) MPAZ型
B14法兰空心轴安装平行轴斜齿减速机
Model MPAZ
Parallel shaft helical gear reducer in B14 flange-mounted version with hollow shaft
- 7) MPAT型
空心轴安装带臂固定平行轴斜齿减速机
Model MPAT
Hollow shaft installation parallel shaft bevel gear speed reducer with rotary arm fixation resistance
- 8) MPHT型
膨胀盘安装带臂固定平行轴斜齿减速机
Model MPHT
Expansion plate installation parallel shaft bevel gear speed reducer with rotary arm fixation resistance



- 9) MPHB型
足脚膨胀盘安装平行轴斜齿减速机
Model MPHB
Foot and expansion plate installation parallel shaft bevel gear speed reducer
- 10) MPHF型
B5法兰膨胀盘安装平行轴斜齿减速机
Model MPHF
B5 flange and expansion plate installation parallel shaft bevel gear speed reducer
- 11) MPH型
膨胀盘安装平行轴斜齿减速机
Model MPH
Expansion plate installation parallel shaft bevel gear speed reducer
- 12) MPHZ型
B14法兰膨胀盘安装平行轴斜齿减速机
Model MPHZ
B14 flange and expansion plate installation parallel shaft bevel gear speed reducer

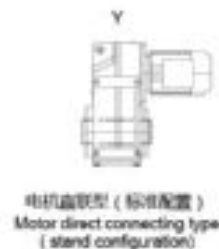


组合型
MP、MD型 (代表以上所有结构形式)
MP系列与MD系列组合减速机

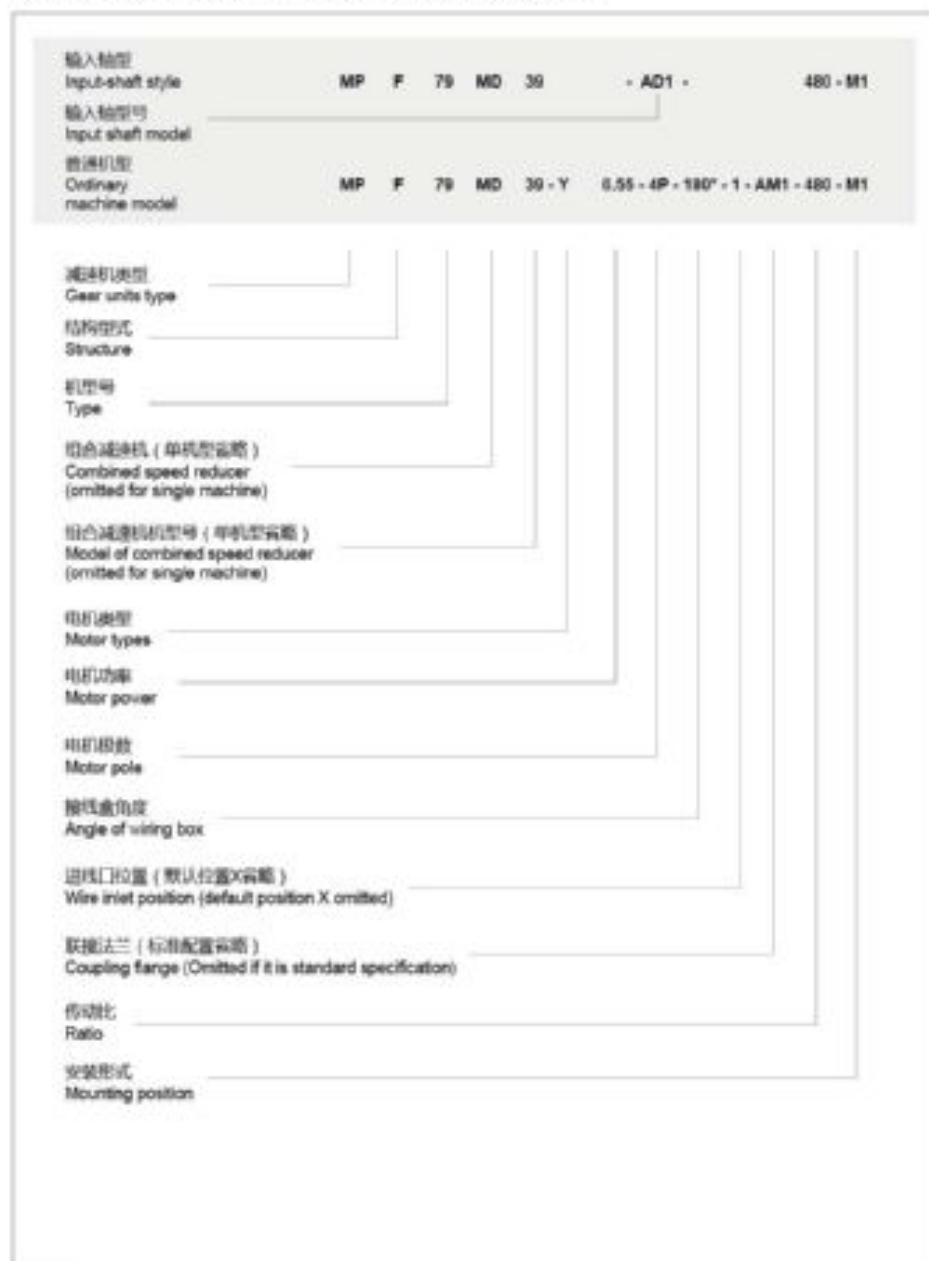
Combined type
MP、MD model (representing all the above structural forms)
MP series and MD series combined speed reducer



输入部分配置
Input allocation



4.2 MP系列型号表示法 Model expression way of MP series



减速机类型: MP系列平行轴斜齿轮减速机

Gear unit type MP series parallel shaft helical gear reductor

结构型式: (见P151-P152页)	Structure: (See P151-P152)
普通轴伸脚架安装 (省略)	Ordinary shaft extension foot installation (omitted)
底脚空心轴安装 AB	Foot and hollow shaft installation AB
B5法兰安装 F	B5 flange installation F
B5法兰空心轴安装 AF	B5 flange and hollow shaft installation AF
空心轴安装 A	Hollow shaft installation A
B14法兰空心轴安装 AZ	B14 flange and hollow shaft installation AZ
膨胀盘安装 H	Expansion plate installation H
底脚膨胀盘安装 HB	Foot and expansion plate installation HB
B5法兰膨胀盘安装 HF	B5 flange and expansion plate installation HF
B14法兰膨胀盘安装 HZ	B14 flange and expansion plate installation HZ

组合减速机及型号:

Combined speed reducer and type:

见P161-P185页选型参数表

see model selection parameter form on P161-P185

机型号: 见P161-P185页选型参数表

Type: see model selection parameter form on P161-P185

电机类型代号:

Codes for Motor Types:

普通电机 Y	Ordinary Motor Y
防爆电机 YB	Flameproof Motor YB
直流电机 Z	Direct current motor Z
制动电机 YEJ	Brake Motor YEJ
多速电机 YD	Multi-speed Motor YD
变频电机 YVP	Variable Frequency Motor YVP
冶金起重电机 YZ	Metallurgy hoisting Motor YZ
变频制动电机 YVPEJ	Transduction braking Motor YVPEJ
绕线电机 YG	Roll Motor YG

电机功率、极数: 见P161-P185页选型参数表

Motor power, pole: see model selection parameter form on P161-P185

接线盒角度、进线口位置: 未注明接线盒角度按0°, 进线口位置X默认, 见P158-P160页安装形式图

Angle of wiring box, wire inlet position: If there is no indication, the default angle of wiring box is 0°, and for the wire inlet position X, see installation form figure on Page P158-P160

输入轴型号: 见P166-P189页选型参数表

Input shaft model: see model selection parameter form on P166-P189

联接法兰: AM1刚性联接

Coupling flange: AM1 rigid connection

AM柔性联轴器联接 (具体尺寸请与我公司技术部联系)

Connection of AM flexible coupler (Please contact the technical department of our company for size details)

传动比: 见P161-P185页选型参数表

Ratio: see model selection parameter form on P161-P185

安装形式: M1, M2, M3, M4, M5, M6, 未注明按M1供货, 见P158-P160页安装形式图

Mounting position: M1, M2, M3, M4, M5, M6, if there is no indication, the product is supplied according to M1 see installation form figure on Page P158-P160.

安装形式: M1, M2, M3, M4, M5, M6, 未注明按M1供货, 见P158-P160页安装形式图

Mounting position: M1, M2, M3, M4, M5, M6, if there is no indication, the product is supplied according to M1 see installation form figure on Page P158-P160.

4.3 MP系列选型参数表释义 Model selection definition form of MP series

MP系列恒功率选型参数表 Constant power model selection parameter form of MP series

输出转速 Output speed	输出扭矩 Output torque	传动比 Ratio	使用系数 Service factor	机型号 Type	极数 Pole	输出转速 Output speed	输出扭矩 Output torque	传动比 Ratio	使用系数 Service factor	机型号 Type	极数 Pole
<i>r/min</i>	<i>N·m</i>	<i>i</i>	f_d		<i>P</i>	<i>r/min</i>	<i>N·m</i>	<i>i</i>	f_d		<i>P</i>
0.12KW						0.12KW					
0.06	13720	22499	0.84	MPA 129 MD79	4P	1.6	603	851	1.00	MPA 59 MD30	4P
0.07	11754	19198	0.89	MPAF 129 MD79	4P	1.9	515	738	1.15	MPAF 59 MD30	4P
0.08	10272	16797	1.14	MP 129 MD79	4P	2.1	446	646	1.30	MP 59 MD30	4P
0.09	9067	14638	1.29	MPF 129 MD79	4P	2.5	382	558	1.55	MPF 59 MD30	4P

注: 0.12KW指电机额定功率 Note: 0.12kW indicates motor power.

MP系列恒扭矩选型参数表 Constant torque model selection parameter form of MP series

输出转速 Output speed	传动比 Ratio	机型号 Type	电机功率 Power	极数 Pole	输出转速 Output speed	传动比 Ratio	机型号 Type	电机功率 Power	极数 Pole
<i>r/min</i>	<i>i</i>		<i>KW</i>	<i>P</i>	<i>r/min</i>	<i>i</i>		<i>KW</i>	<i>P</i>
130N·m					200N·m				
0.15	8972	MPA 29 MD19	0.12	4P	0.72	1929	MPA 39 MD19	0.12	4P
0.18	7736	MPAF 29 MD19	0.12	4P	0.82	1679	MPAF 39 MD19	0.12	4P
0.19	7211	MP 29 MD19	0.12	4P	0.89	1550	MP 39 MD19	0.12	4P
0.22	6303	MPF 29 MD19	0.12	4P	1.0	1356	MPF 39 MD19	0.12	4P
0.25	5435				1.2	1180			
0.28	4855				1.3	1044			4P

注: 130N·m 表示允许扭矩 Note: 130 N·m indicates permissible torque.

MP系列输入轴选型参数表 Model selection parameter form of input shaft type of MP series

传动比 Ratio	输出转速 Output speed	许用扭矩 Permissible torque	额定功率 Nominal Power	机型号 Type	传动比 Ratio	输出转速 Output speed	许用扭矩 Permissible torque	额定功率 Nominal Power	机型号 Type
<i>i</i>	<i>r/min</i>	<i>N·m</i>	<i>KW</i>		<i>i</i>	<i>r/min</i>	<i>N·m</i>	<i>KW</i>	
MP29 AD... , n = 1400 1/min					MP49 AD... , n = 1400 1/min				
140.74	10	130	0.18	MPA 29 AD1	190.76	7.3	400	0.35	MPA 49 AD1
129.09	11	130	0.18	MPAF 29 AD1	176.38	8.0	400	0.37	MPAF 49 AD1
109.90	13	130	0.20	MP 29 AD1	150.06	9.3	400	0.43	MP 49 AD1
94.76	15	130	0.23	MPF 29 AD1	130.07	11	400	0.50	MPF 49 AD1
88.32	16	130	0.25		121.57	12	400	0.53	
77.21	18	130	0.28		105.09	13	400	0.61	
72.37	19	130	0.30		95.29	16	400	0.71	
63.86	22	130	0.34		78.72	18	400	0.80	

注: MPA29 AD... 表示输入轴轴型, n = 1400 r/min 表示输入转速, 130 N·m 表示该型号不同传动比中最大的许用扭矩。

Note: MPA29 AD... means input shaft type, n = 1400 r/min means input speed, 130 N·m indicates the maximum permissible torque under different speed ratios in the model.

1) 选型参数表中机型号可与表中任一传动比搭配。

2) 选型参数表中机型号也可用于MPAF, MPVZ, MPV, MPV4E, MPVZ, MPVCF机型。

1) The machine types in the parameter selection list can match any transmission ratios in the column.

2) The parameters in this list also fit model MPAF, MPVZ, MPV, MPV4E, MPVZ, MPVCF.

4.4 MP系列输入功率及最大扭矩 Input power and maximum torque of MP series

规格 Size	MP29	MP30	MP49	MP59	MP69	MP79	MP99	MP99	MP109	MP129	MP159	MP169
结构形式 Structure	MP, MPAB, MPF, MPA, MPAF, MPAZ, MPV, MPV4E, MPVZ, MPVCF											
输入功率(kw) Input power rating	0.12- 5.5	0.12- 3	0.12- 3	0.12- 5.5	0.12- 5.5	0.18- 11	0.37- 22	0.55- 36	0.75- 45	4- 96	5.5- 200	7.5- 200
传动比 Rate	4.16- 140.70	3.77- 128.51	8.90- 100.76	5.16- 189.70	3.97- 228.99	4.29- 291.71	4.12- 270.66	4.57- 270.77	6.22- 254.40	4.68- 172.17	11.92- 267.43	11.55- 294.51
最大扭矩* Maximum torque	130	206	400	606	620	1500	3000	4300	7540	12000	18000	35000

* 最大扭矩指该规格不同传动比中的最大扭矩值。

* The maximum torque indicates the maximum value of maximum torque corresponding to different transmission ratios in this specification.

4.5 MP系列主机重量表 Main machine weight form of MP series

型号 Type	MP29	MP30	MP49	MP59	MP69	MP79	MP99	MP99	MP109	MP129	MP159	MP169
重量(kg) Weight(kg)	10	19	25	29	30	62.5	100	162	259	431	678	1212
型号 Type	MP129	MP130	MP149	MP159	MP169	MP179	MP199	MP199	MP109	MP129	MP159	MP169
重量(kg) Weight(kg)	11	21	28	35	41	72.5	124	215	286	478	785	1404
型号 Type	MPA20	MPA30	MPA49	MPA59	MPA69	MPA79	MPA99	MPA99	MPA109	MPA129	MPA159	MPA169
重量(kg) Weight(kg)	10	19	25	29	32	58.5	104	170	243	396	656	1256
型号 Type	MPAF29	MPAF30	MPAF49	MPAF59	MPAF69	MPAF79	MPAF99	MPAF99	MPAF109	MPAF129	MPAF159	MPAF169
重量(kg) Weight(kg)	11	20	27	34	39	65.5	117	197	263	431	717	1348

注: 1) MPA69, MPAZ, MPAF, MPV4E, MPV, MPVZ, MPVCF 主机重量较大。
2) MPA199 与 MPAF 主机重量相近。Note: 1) The weight of main machine of MPA69, MPVZ, MPAF, MPV4E, MPV, MPVCF is similar to that of MPA.
2) The weight of main machine of MPVCF is similar to that of MPV.

4.6 MP系列润滑油量表 Lubricating oil quantity form of MP series

机型号 Gear mit type	润滑油量 (升) Fill quantity in liters (L)					
	M1	M2	M3	M4	M5	M6
MP29	0.6	0.8	0.85	0.7	0.6	0.6
MP39	1	1.2	0.7	1.2	1	1.1
MP49	1.5	1.8	1.1	1.9	1.5	1.7
MP59	2.6	3.7	2.1	3.5	2.9	2.9
MP69	2.7	3.8	1.9	3.8	2.9	3.2
MP79	5	7.3	4.3	6	6	6.3
MP89	10	13	7.7	13.8	10.8	11
MP99	18.5	22.5	12.6	25.2	18.5	20
MP109	24.5	32	19.5	37.5	27	27
MP129	40.5	55	34	61	45.5	47
MP159	69	104	63	105	86	78
MP189	75	110	70	110	90	85

MPA... MPFA... MPAZ... MPAT... MPAB... MPH... MPHf... MPHZ... MPHT... MPHb...

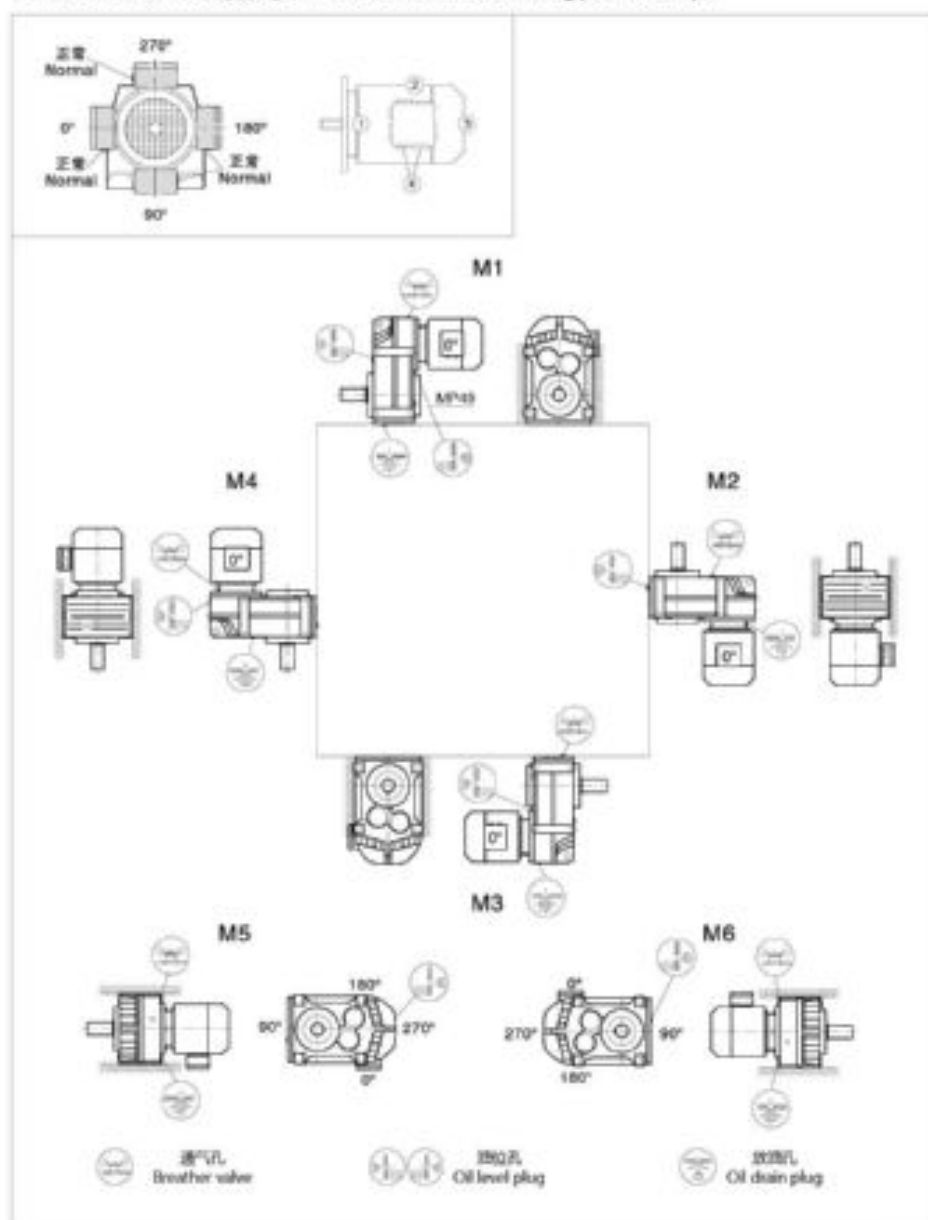
机型号 Gear mit type	润滑油量 (升) Fill quantity in liters (L)					
	M1	M2	M3	M4	M5	M6
MP..29	0.6	0.8	0.85	0.7	0.6	0.6
MP..39	1	1.2	0.7	1.2	1	1.1
MP..49	1.5	1.8	1.1	1.9	1.5	1.7
MP..59	2.7	3.8	2.1	3.8	2.9	3
MP..69	2.7	3.8	1.9	3.8	2.9	3.3
MP..79	5	7.3	4.3	6	6	6.3
MP..89	10	13	7.7	13.8	10.8	11
MP..99	18.5	22.5	12.6	25.0	18.5	20
MP..109	24.5	32	19.5	37.5	27	27
MP..129	39	55	34	61	45	46.5
MP..159	68	103	62	104	85	77
MP..189	75	110	70	110	90	85

注: MP...系列MPA... MPFA... MPAZ... MPAT... MPAB... MPH... MPHf... MPHZ... MPHT... MPHb...
Note: MP... series MPA... MPFA... MPAZ... MPAT... MPAB... MPH... MPHf... MPHZ... MPHT... MPHb...
MPF...

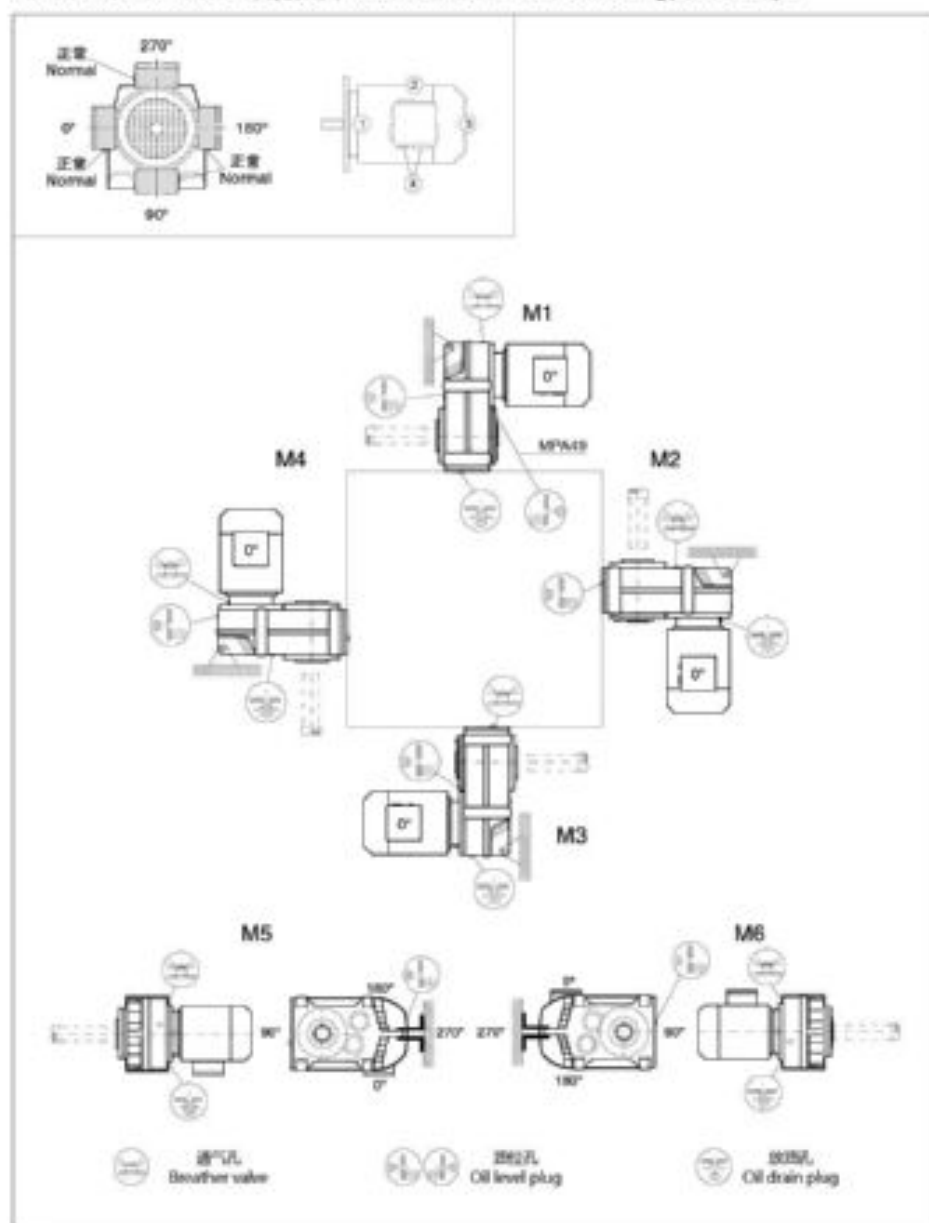
机型号 Gear mit type	润滑油量 (升) Fill quantity in liters (L)					
	M1	M2	M3	M4	M5	M6
MPF29	0.6	0.8	0.85	0.7	0.6	0.6
MPF39	1	1.2	0.7	1.3	1	1.1
MPF49	1.6	1.9	1.1	1.9	1.5	1.7
MPF59	2.6	3.8	2.1	3.7	2.9	3
MPF69	2.7	3.8	1.9	3.8	2.9	3.2
MPF79	5.1	7.3	4.3	6.1	6	6.3
MPF89	10.3	13.2	7.8	14.1	11	11.2
MPF99	19	22.5	12.6	25.5	18.9	20.5
MPF109	25.5	32	19.5	38.5	27.5	28
MPF129	41.5	56	34	63	46.5	49
MPF159	72	105	64	108	87	79
MPF189	75	110	70	110	90	85

4.7 MP系列安装形式图 Installation form figure of MP series

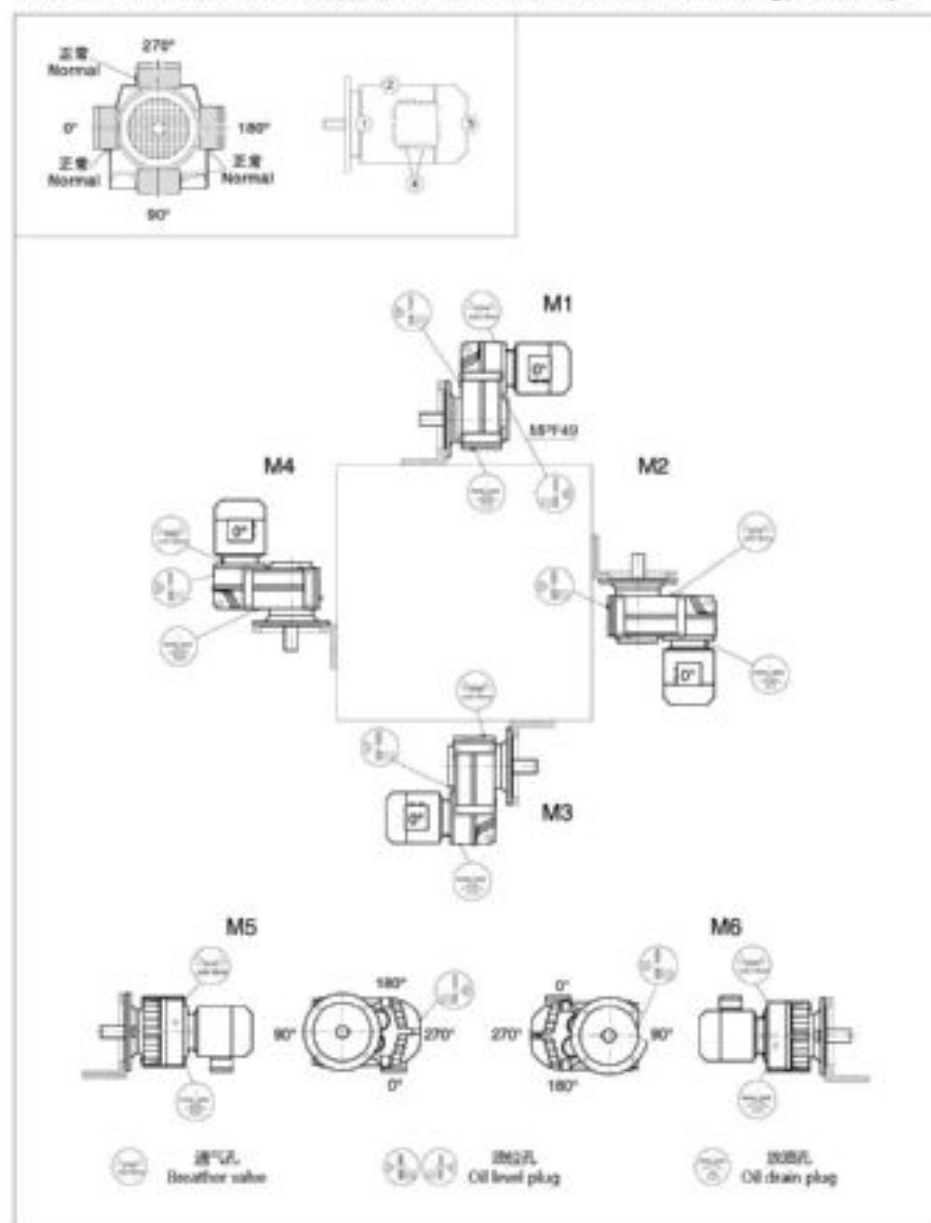
MP/MPAB/MPH29-169 安装形式图 MP/MPAB/MPH29-169 Mounting position example



MPA/MPH/MPAT/MPHT29-160 安装形式及图 MPA/MPH/MPAT/MPHT29-160 Mounting position example



MPF/MPAF/MPAZ/MPHF/MPHZ29-160 安装形式及图 MPF/MPAF/MPAZ/MPHF/MPHZ29-160 Mounting position example



4.9 MP系列恒扭矩型参数表

Constant torque model selection parameter form of MP series

输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P	输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P
130N -m					200N -m				
0.15	6972	MFA 29-MD19	0.12	4P	0.72	1026	MFA 39-MD19	0.12	4P
0.16	7736	MFA 29-MD19	0.12	4P	0.82	1678	MFA 39-MD19	0.12	4P
0.19	7211	MP 29-MD19	0.12	4P	0.89	2520	MP 39-MD19	0.12	4P
0.22	6303	MFF 29-MD19	0.12	4P	1.0	3326	MFF 39-MD19	0.12	4P
0.25	5425				1.2	4180			
0.28	4655				1.3	5044			
0.33	4043				1.5	614			
0.37	3785				1.7	698			
0.43	3247				2.0	798			
0.49	2828				2.2	916			
0.55	2505				2.3	1044			
0.62	2217				3.0	1296			
					3.4	1518			
					3.8	1804			
0.73	1886	MFA 29-MD19	0.12	4P	4.2	326	MFA 39-MD19	0.12	4P
0.84	1645	MFA 29-MD19	0.12	4P			MFA 39-MD19	0.12	4P
0.90	1526	MP 29-MD19	0.12	4P			MP 39-MD19	0.12	4P
1.0	1322	MFF 29-MD19	0.12	4P			MFF 39-MD19	0.12	4P
1.2	1140				4.4	295	MFA 39-MD19	0.18	4P
1.4	1013				5.3	250	MFA 39-MD19	0.18	4P
1.6	890				6.6	219	MP 39-MD19	0.18	4P
1.8	779				7.3	196	MFF 39-MD19	0.18	4P
2.0	682				7.9	167	MFA 39-MD19	0.25	4P
2.3	602				9.3	145	MFA 39-MD19	0.25	4P
2.6	526				10	129	MP 39-MD19	0.25	4P
							MFF 39-MD19	0.25	4P
3.0	456	MFA 29-MD19	0.12	4P	400N -m				
3.5	397	MFA 29-MD19	0.12	4P	0.11	2259	MFA 49-MD19	0.12	4P
4.0	342	MP 29-MD19	0.12	4P	0.13	10619	MFA 49-MD19	0.12	4P
4.6	302	MFF 29-MD19	0.12	4P	0.14	9686	MP 49-MD19	0.12	4P
5.2	266				0.16	8534	MFF 49-MD19	0.12	4P
5.9	236				0.19	7466			
6.7	211				0.21	6536			
					0.24	5746			
					0.27	5022			
7.1	196	MFA 29-MD19	0.18	4P	0.31	4401			
8.3	142	MFA 29-MD19	0.18	4P	0.36	3993			
11	104	MP 29-MD19	0.18	4P	0.40	3443			
		MFF 29-MD19	0.18	4P	0.46	2936			
					0.52	2629			
12	100	MFA 29-MD19	0.25	4P	0.55	2519	MFA 49-MD19	0.12	4P
14	86	MFA 29-MD19	0.25	4P	0.59	2366	MFA 49-MD19	0.12	4P
		MP 29-MD19	0.25	4P	0.64	2172	MP 49-MD19	0.12	4P
		MFF 29-MD19	0.25	4P	0.69	2025	MFF 49-MD19	0.12	4P
					0.76	1779			
					0.83	1656			
					1.0	1363			
					1.2	1192			
					1.3	1049			
					1.5	931			
					1.7	822			
					2.0	698			
0.17	6193	MFA 39-MD19	0.12	4P					
0.20	7064	MFA 39-MD19	0.12	4P					
0.21	6585	MP 39-MD19	0.12	4P					
0.24	5756	MFF 39-MD19	0.12	4P					
0.26	4963								
0.31	4434								
0.36	3975				2.1	619	MFA 49-MD19	0.18	4P
0.41	3592						MFA 49-MD19	0.18	4P
0.47	3267						MP 49-MD19	0.18	4P
0.53	2967						MFF 49-MD19	0.18	4P
0.60	2694				2.3	524	MFA 49-MD19	0.18	4P
0.69	1997				2.7	469	MFA 49-MD19	0.18	4P
					3.1	427	MP 49-MD19	0.18	4P
					3.5	376	MFF 49-MD19	0.18	4P

输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P	输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P
400N -m					600N -m				
3.3	334	MFA 49-MD19	0.25	4P	8.1	170	MFA 59-MD39	0.75	4P
4.4	295	MFA 49-MD19	0.25	4P	9.1	152	MFA 59-MD39	0.75	4P
5.2	250	MP 49-MD19	0.25	4P	10	134	MP 59-MD39	0.75	4P
		MFF 49-MD19	0.25	4P			MFF 59-MD39	0.75	4P
6.4	217	MFA 49-MD19	0.37	4P	820N -m				
7.3	190	MFA 49-MD19	0.37	4P	0.67	19199	MFA 69-MD39	0.12	4P
7.8	176	MP 49-MD19	0.37	4P	0.68	17610	MFA 69-MD39	0.12	4P
		MFF 49-MD19	0.37	4P	0.69	16002	MP 69-MD39	0.12	4P
0.7	348	MFA 49-MD19	0.55	4P	0.71	15020	MFF 69-MD39	0.12	4P
1.0	331	MFA 49-MD19	0.55	4P	0.72	13486			
		MP 49-MD19	0.55	4P	0.74	12220			
		MFF 49-MD19	0.55	4P	0.75	10933			
					0.77	9740			
					0.79	8596			
					0.23	6660			
					0.30	5341			
					0.31	4962			
					0.32	4582			
					0.34	4261			
					0.36	3974			
					0.44	3133			
					0.50	2750			
					0.57	2439			
					0.41	3371	MFA 69-MD39	0.12	4P
					0.47	2952	MFA 69-MD39	0.12	4P
					0.51	2714	MP 69-MD39	0.12	4P
					0.56	2372	MFF 69-MD39	0.12	4P
					0.66	2100			
					0.65	1931			
					0.66	1837			
					1.1	1250			
					1.2	1115	MFA 69-MD39	0.18	4P
					1.3	995	MFA 69-MD39	0.18	4P
					1.5	864	MP 69-MD39	0.18	4P
							MFF 69-MD39	0.18	4P
					1.6	776	MFA 69-MD39	0.25	4P
					2.0	634	MFA 69-MD39	0.25	4P
					2.4	538	MP 69-MD39	0.25	4P
							MFF 69-MD39	0.25	4P
					0.73	1084	MFA 69-MD39	0.12	4P
							MFA 69-MD39	0.12	4P
							MP 69-MD39	0.12	4P
							MFF 69-MD39	0.12	4P
					2.5	599	MFA 69-MD39	0.37	4P
					3.0	449	MFA 69-MD39	0.37	4P
					3.5	388	MP 69-MD39	0.37	4P
							MFF 69-MD39	0.37	4P
					4.1	339	MFA 69-MD39	0.55	4P
					4.4	294	MFA 69-MD39	0.55	4P
					5.2	261	MP 69-MD39	0.55	4P
					5.7	236	MFF 69-MD39	0.55	4P
					6.0	226	MFA 69-MD39	0.75	4P
					6.8	200	MFA 69-MD39	0.75	4P
							MP 69-MD39	0.75	4P
							MFF 69-MD39	0.75	4P

输出转速 Output speed r/min	传动比 Ratio i	行星型 Type	电动机功率 Power KW	极数 Pole P	输出转速 Output speed r/min	传动比 Ratio i	行星型 Type	电动机功率 Power KW	极数 Pole P
1500N -m					3000N -m				
0.07	1980	MFA	0.12	4P	0.41	3244	MFA	0.18	4P
0.08	1750	MFA	0.12	4P	0.46	2881	MFA	0.18	4P
0.09	1567	MF	0.12	4P			MP	0.18	4P
0.09	14976	MFF	0.12	4P			MFF	0.18	4P
0.10	1354								
0.11	1249				0.50	2576	MFA	0.25	4P
0.13	10825				0.60	2134	MFA	0.25	4P
0.14	9823				0.67	1930	MF	0.25	4P
0.16	8484						MFF	0.25	4P
0.18	7526								
0.21	6540				0.82	1689	MFA	0.37	4P
0.24	5808				0.92	1493	MFA	0.37	4P
0.27	5206						MP	0.37	4P
0.31	4420						MFF	0.37	4P
0.36	3832								
0.40	3449				1.1	1300	MFA	0.50	4P
0.53	2613				1.2	1148	MFA	0.50	4P
0.60	2284				1.4	1010	MF	0.50	4P
					1.5	887	MFF	0.50	4P
0.05	2029	MFA	0.31	4P	1.8	760	MFA	0.75	4P
		MFA	0.31	4P	2.0	674	MFA	0.75	4P
		MF	0.31	4P			MP	0.75	4P
		MFF	0.31	4P			MFF	0.75	4P
0.77	1711	MFA	0.31	4P	2.2	609	MFA	1.1	4P
0.06	1544	MFA	0.31	4P	2.7	515	MFA	1.1	4P
0.06	1354	MF	0.31	4P	3.1	452	MF	1.1	4P
		MFF	0.31	4P			MFF	1.1	4P
1.1	1393	MFA	0.25	4P	4.1	345	MFA	1.5	4P
1.2	1253	MFA	0.25	4P			MFA	1.5	4P
		MF	0.25	4P			MF	1.5	4P
		MFF	0.25	4P			MFF	1.5	4P
1.5	110	MFA	0.37	4P	4300N -m				
1.7	110	MFA	0.37	4P	0.07	20813	MFA	0.12	4P
1.9	731	MF	0.37	4P	0.09	18119	MFA	0.12	4P
		MFF	0.37	4P	0.09	15472	MF	0.12	4P
					0.10	14827	MFF	0.12	4P
2.2	615	MFA	0.50	4P	0.11	12524			
2.5	536	MFA	0.50	4P	0.13	10839			
2.8	480	MF	0.50	4P	0.14	9576			
		MFF	0.50	4P	0.17	8318			
					0.19	7326			
3.4	413	MFA	0.75	4P	0.20	6469	MFA	0.18	4P
3.8	367	MFA	0.75	4P	0.24	5615	MFA	0.18	4P
4.3	323	MF	0.75	4P	0.27	4961	MF	0.18	4P
		MFF	0.75	4P	0.30	4335	MFF	0.18	4P
3000N -m					0.33	3881	MFA	0.25	4P
0.06	23042	MFA	0.12	4P	0.39	3352	MFA	0.25	4P
0.07	20462	MFA	0.12	4P	0.46	2907	MF	0.25	4P
0.08	18238	MF	0.12	4P			MFF	0.25	4P
0.09	16677	MFF	0.12	4P					
0.10	14909				0.60	2023	MFA	0.37	4P
0.11	12955				0.62	2219	MFA	0.37	4P
0.13	10433				0.70	1879	MF	0.37	4P
0.15	9361						MFF	0.37	4P
0.17	8142								
0.19	7100				0.70	1722	MFA	0.50	4P
0.22	6273				0.84	1527	MFA	0.50	4P
0.26	5493				1.0	1307	MF	0.50	4P
0.28	4954						MFF	0.50	4P
0.31	4345	MFA	0.31	4P	1.2	1171	MFA	0.75	4P
0.36	3721	MFA	0.31	4P	1.4	1022	MFA	0.75	4P
		MF	0.31	4P			MF	0.75	4P
		MFF	0.31	4P			MFF	0.75	4P

输出转速 Output speed r/min	传动比 Ratio i	行星型 Type	电动机功率 Power KW	极数 Pole P	输出转速 Output speed r/min	传动比 Ratio i	行星型 Type	电动机功率 Power KW	极数 Pole P
4300N -m					7680N -m				
1.5	698	MFA	1.1	4P	3.8	370	MFA	4	4P
1.9	704	MFA	1.1	4P	4.3	333	MFA	4	4P
2.0	693	MF	1.1	4P			MF	4	4P
		MFF	1.1	4P			MFF	4	4P
2.3	605	MFA	1.5	4P	12000N -m				
2.7	529	MFA	1.5	4P	0.36	24671	MFA	0.12	4P
3.0	467	MF	1.5	4P	0.36	22409	MFA	0.12	4P
		MFF	1.5	4P	0.37	19196	MF	0.12	4P
3.5	408	MFA	2.2	4P			MFF	0.12	4P
3.9	363	MFA	2.2	4P	0.38	16707	MFA	0.16	4P
		MF	2.2	4P	0.39	14838	MFA	0.16	4P
		MFF	2.2	4P	0.40	13014	MF	0.16	4P
4.9	285	MFA	3	4P	0.41	11746	MFF	0.16	4P
5.7	245	MFA	3	4P					
		MF	3	4P	0.43	92271	MFA	0.25	4P
		MFF	3	4P	0.45	8041	MFA	0.25	4P
							MF	0.25	4P
							MFF	0.25	4P
7580N -m					0.46	7703	MFA	0.37	4P
0.05	20325	MFA	0.12	4P	0.46	6960	MFA	0.37	4P
0.06	17852	MFA	0.12	4P	0.47	6403	MF	0.37	4P
0.07	16033	MF	0.12	4P	0.48	5973	MFF	0.37	4P
0.08	14888	MFF	0.12	4P					
0.09	14077				0.48	5463	MFA	0.50	4P
0.12	11348	MFA	0.18	4P	0.48	4989	MFA	0.50	4P
0.13	10239	MFA	0.18	4P	0.48	4647	MF	0.50	4P
0.15	8548	MF	0.18	4P			MFF	0.50	4P
0.17	7574	MFF	0.18	4P					
0.19	6767	MFA	0.25	4P	0.49	4442	MFA	0.75	4P
0.22	5924	MFA	0.25	4P	0.48	3995	MFA	0.75	4P
0.25	5223	MF	0.25	4P			MF	0.75	4P
		MFF	0.25	4P			MFF	0.75	4P
0.30	4567	MFA	0.37	4P	0.52	3883	MFA	0.75	4P
0.36	3921	MFA	0.37	4P			MFA	0.75	4P
		MF	0.37	4P			MF	0.75	4P
		MFF	0.37	4P			MFF	0.75	4P
0.45	3337	MFA	0.50	4P	0.59	2370	MFA	1.1	4P
0.48	2750	MFA	0.50	4P	0.58	2054	MFA	1.1	4P
0.57	2300	MF	0.50	4P	0.76	1796	MF	1.1	4P
		MFF	0.50	4P			MFF	1.1	4P
0.07	2000	MFA	0.25	4P	0.87	1619	MFA	1.5	4P
0.76	1926	MFA	0.75	4P	0.98	1401	MFA	1.5	4P
		MF	0.75	4P			MF	1.5	4P
		MFF	0.75	4P			MFF	1.5	4P
0.89	1581	MFA	1.1	4P	1.2	1230	MFA	2.2	4P
1.0	1401	MFA	1.1	4P	1.3	1040	MFA	2.2	4P
1.1	1243	MF	1.1	4P	1.5	837	MF	2.2	4P
		MFF	1.1	4P			MFF	2.2	4P
1.3	1078	MFA	1.5	4P	1.7	627	MFA	3	4P
1.5	950	MFA	1.5	4P	1.9	733	MFA	3	4P
		MF	1.5	4P	2.2	653	MF	3	4P
		MFF	1.5	4P			MFF	3	4P
1.7	834	MFA	2.2	4P	2.4	553	MFA	4	4P
1.9	736	MFA	2.2	4P	2.9	496	MFA	4	4P
2.2	640	MF	2.2	4P			MF	4	4P
		MFF	2.2	4P			MFF	4	4P
2.5	560	MFA	3	4P	3.3	431	MFA	5.5	4P
2.9	480	MFA	3	4P	3.8	376	MFA	5.5	4P
3.2	430	MF	3	4P			MF	5.5	4P
		MFF	3	4P			MFF	5.5	4P



Art.-Nr.	Abbildung	MP-Teil	Material	Material	Material	Material	Material	Material
000000000		000000000	000000000	000000000	000000000	000000000	000000000	000000000
000000001		000000001	000000001	000000001	000000001	000000001	000000001	000000001
000000002		000000002	000000002	000000002	000000002	000000002	000000002	000000002
000000003		000000003	000000003	000000003	000000003	000000003	000000003	000000003
000000004		000000004	000000004	000000004	000000004	000000004	000000004	000000004
000000005		000000005	000000005	000000005	000000005	000000005	000000005	000000005

4.11 ANWENDUNGSPUNKTE Insulation size types of MP series

MP 250

MP 250 (left view) MP 250 (right view)

MP 250 (top view) MP 250 (bottom view)

MP 250 (cross-section 1)

MP 250 (cross-section 2)

MP 250 (cross-section 3)

MP 250 (cross-section 4)

MP 250 (cross-section 5)

MP 250 (cross-section 6)

MP 250 (cross-section 7)

MP 250 (cross-section 8)

MP 250 (cross-section 9)

MP 250 (cross-section 10)

MP 250 (cross-section 11)

MP 250 (cross-section 12)

MP 250 (cross-section 13)

MP 250 (cross-section 14)

MP 250 (cross-section 15)

MP 250 (cross-section 16)

MP 250 (cross-section 17)

MP 250 (cross-section 18)

MP 250 (cross-section 19)

MP 250 (cross-section 20)

MP 250 (cross-section 21)

MP 250 (cross-section 22)

MP 250 (cross-section 23)

MP 250 (cross-section 24)

MP 250 (cross-section 25)

MP 250 (cross-section 26)

MP 250 (cross-section 27)

MP 250 (cross-section 28)

MP 250 (cross-section 29)

MP 250 (cross-section 30)

MP 250 (cross-section 31)

MP 250 (cross-section 32)

MP 250 (cross-section 33)

MP 250 (cross-section 34)

MP 250 (cross-section 35)

MP 250 (cross-section 36)

MP 250 (cross-section 37)

MP 250 (cross-section 38)

MP 250 (cross-section 39)

MP 250 (cross-section 40)

MP 250 (cross-section 41)

MP 250 (cross-section 42)

MP 250 (cross-section 43)

MP 250 (cross-section 44)

MP 250 (cross-section 45)

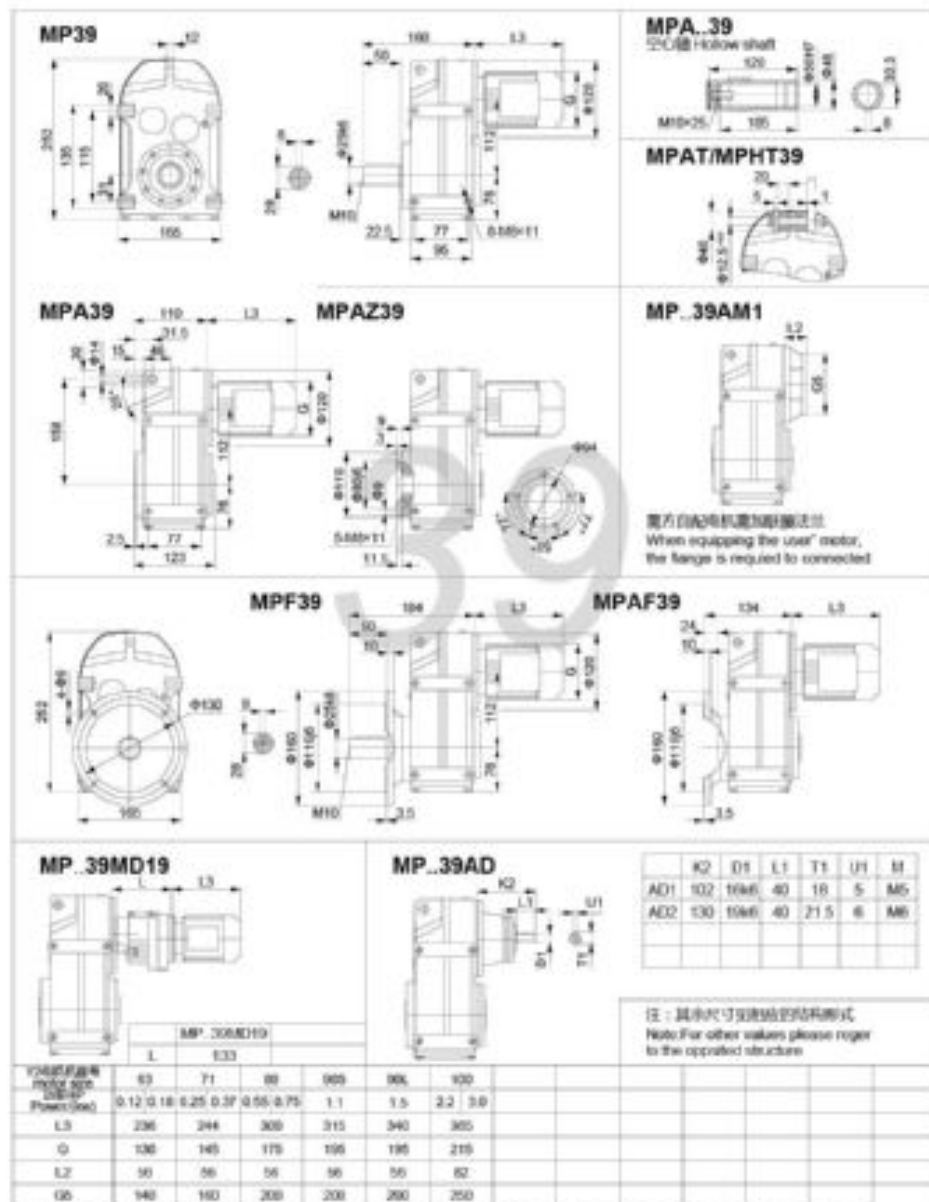
MP 250 (cross-section 46)

MP 250 (cross-section 47)

MP 250 (cross-section 48)

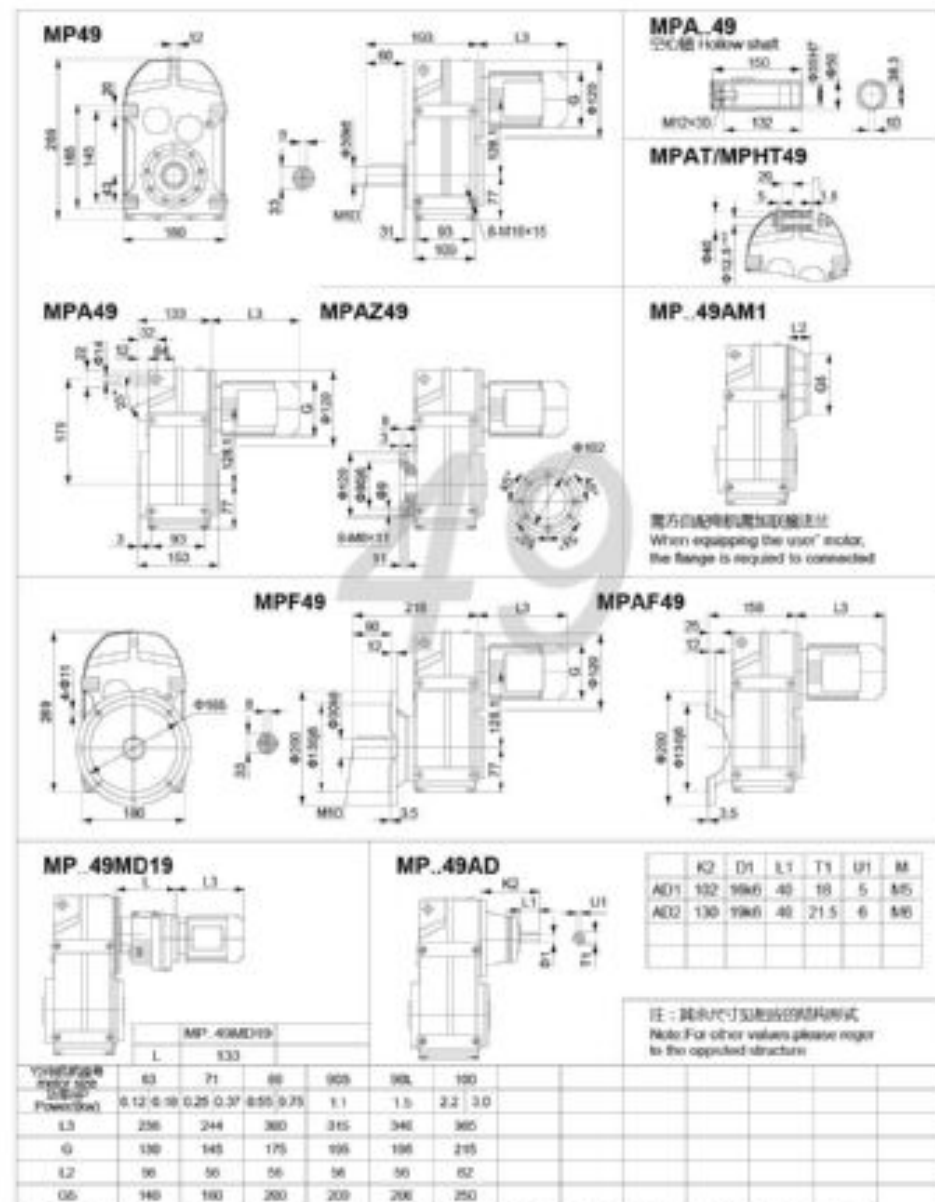
MP 250 (cross-section 49)

MP 250 (cross-section 50)



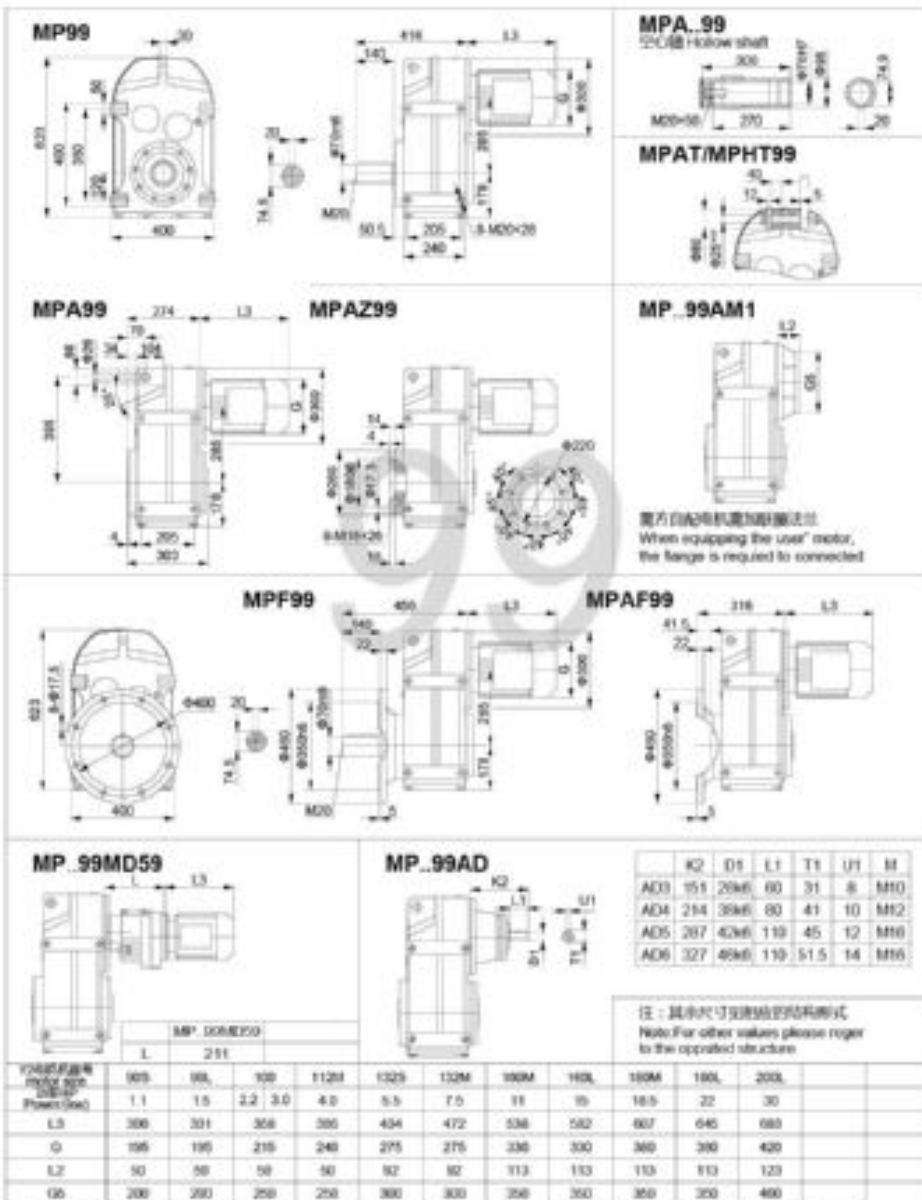
注：以上系列为通用型，部分尺寸仅供参考。
2. MP_39MD19, MPA, MPAZ, MPAT, MPHT, MPF, MPAF, MPZ, MPZC, MPZL, MPZD, MPZT, MPZV, MPZVZ, MPZVZL, MPZVZD, MPZVZT, MPZVZVZ.

注：以上系列为通用型，部分尺寸仅供参考。
2. MP_39MD19, MPA, MPAZ, MPAT, MPHT, MPF, MPAF, MPZ, MPZC, MPZL, MPZD, MPZT, MPZV, MPZVZ, MPZVZL, MPZVZD, MPZVZT, MPZVZVZ.



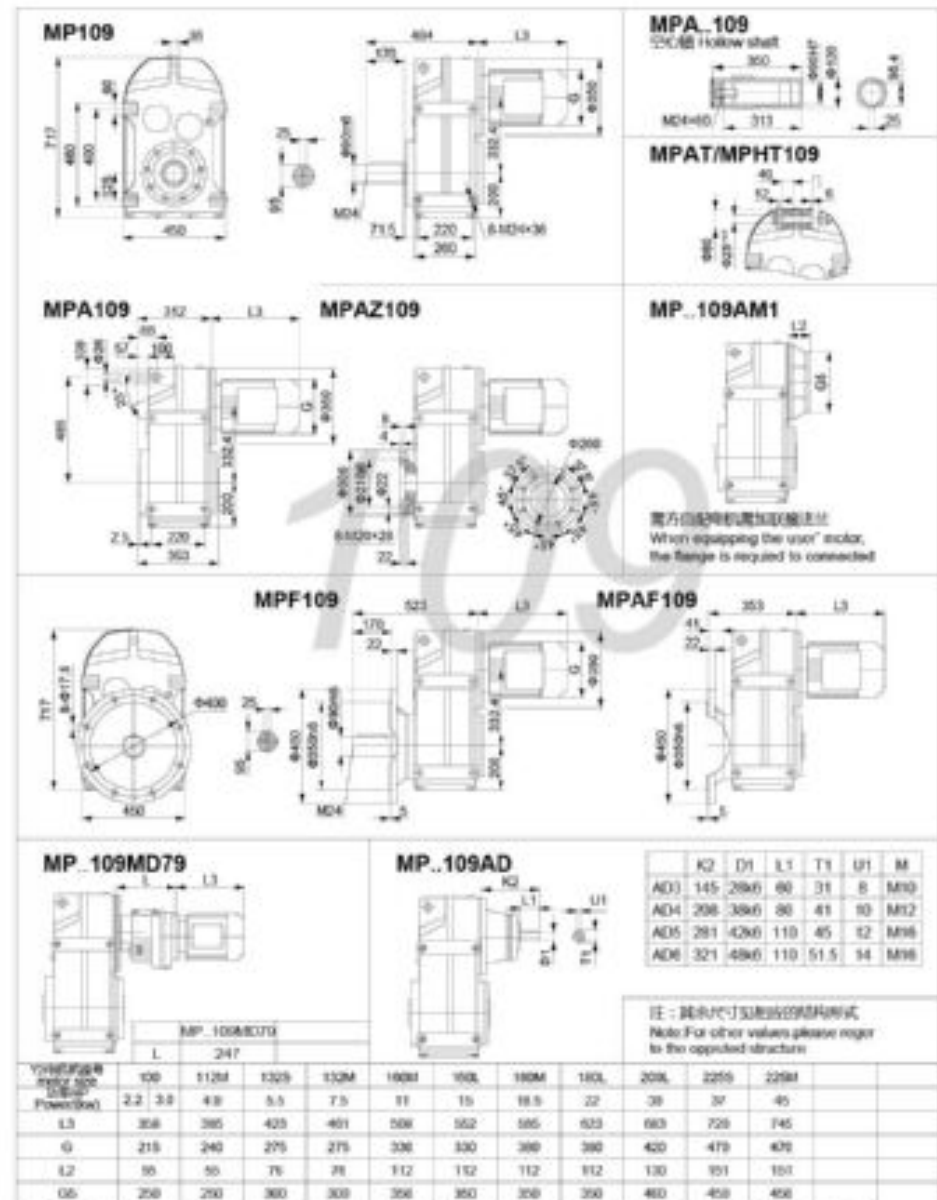
注：以上系列为通用型，部分尺寸仅供参考。
2. MP_49MD19, MPA, MPAZ, MPAT, MPHT, MPF, MPAF, MPZ, MPZC, MPZL, MPZD, MPZT, MPZV, MPZVZ, MPZVZL, MPZVZD, MPZVZT, MPZVZVZ.

注：以上系列为通用型，部分尺寸仅供参考。
2. MP_49MD19, MPA, MPAZ, MPAT, MPHT, MPF, MPAF, MPZ, MPZC, MPZL, MPZD, MPZT, MPZV, MPZVZ, MPZVZL, MPZVZD, MPZVZT, MPZVZVZ.



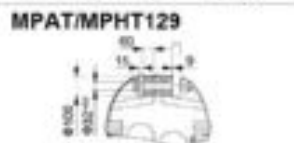
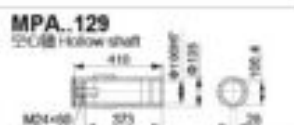
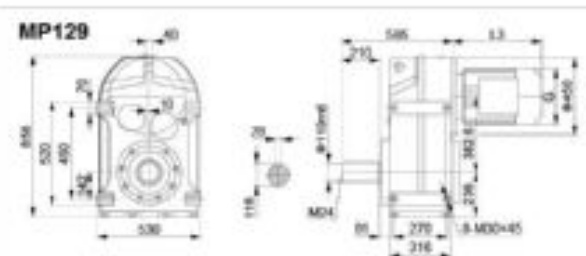
注：1.以上系列为通用型，部分尺寸仅供参考。
2.MP_99MD59, MPA, MPAZ, MPAT, MPHT, MPF, MPAF, MPZ, MPZC, MPZL, MPZD, MPZT, MPZC, MPZL, MPZD, MPZT, MPZC, MPZL, MPZD, MPZT.

注：1.以上系列为通用型，部分尺寸仅供参考。
2.MP_99MD59, MPA, MPAZ, MPAT, MPHT, MPF, MPAF, MPZ, MPZC, MPZL, MPZD, MPZT, MPZC, MPZL, MPZD, MPZT.

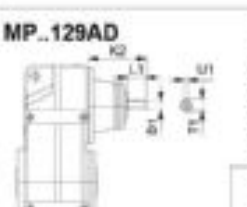
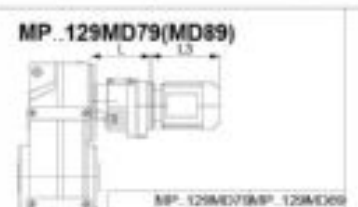
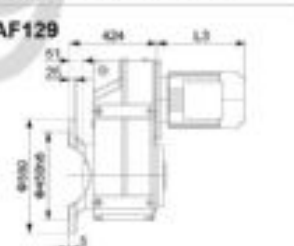
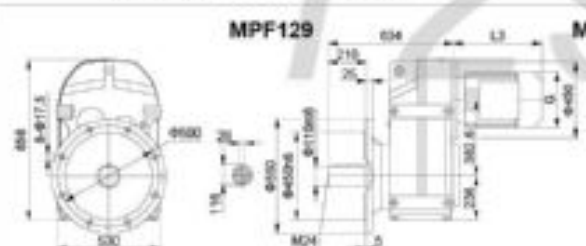


注：1.以上系列为通用型，部分尺寸仅供参考。
2.MP_109MD79, MPA, MPAZ, MPAT, MPHT, MPF, MPAF, MPZ, MPZC, MPZL, MPZD, MPZT, MPZC, MPZL, MPZD, MPZT.

注：1.以上系列为通用型，部分尺寸仅供参考。
2.MP_109MD79, MPA, MPAZ, MPAT, MPHT, MPF, MPAF, MPZ, MPZC, MPZL, MPZD, MPZT, MPZC, MPZL, MPZD, MPZT.



當方自給電動機為斜齒式時 When equipping the user's motor, the flange is required to be connected



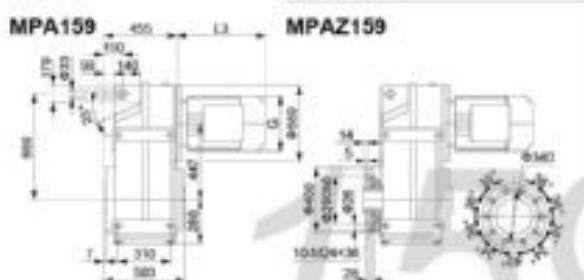
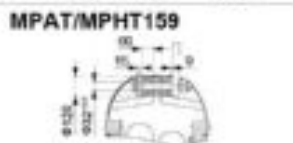
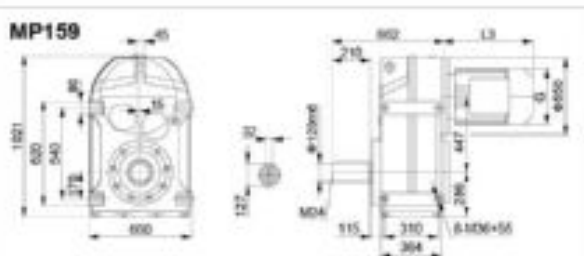
K2	D1	L1	T1	U1	M
AD4	193	3046	80	41	10
AD5	266	4246	110	45	12
AD6	306	4846	110	51.5	14
AD7	300	5546	110	59	16
AD8	363	7046	140	74.5	20

注：其中心尺寸如無說明者均按圖紙規定。 Note: For other values please refer to the applied structure.

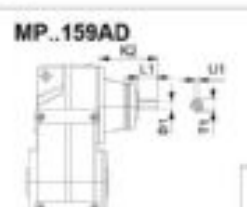
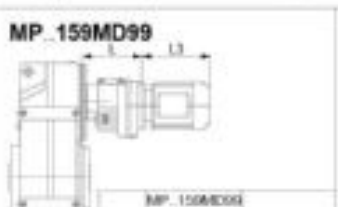
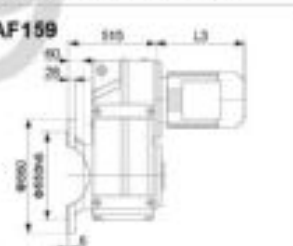
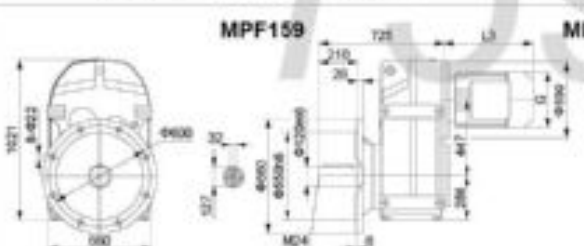
Y型輸出機 輸出功率 Power(kw)	132M	160M	180L	160L	180L	200L	225M	225M	250M	280S	300M
L3	461	511	555	585	623	673	699	724	794	847	847
G	275	300	336	366	380	420	470	470	510	560	560
L2	75	152	152	112	112	130	135	138	138	138	138
G5	300	300	350	350	350	400	450	450	500	500	500

注：以上所列之圖紙均為參考圖紙。 2) MP.129AM1, MPA, MPAZ, MPAT, MPHT, MPAT, MPAF, MPFZ, MPF, MPFZ, MPHT, MPHT, MPHT, MPHT, MPHT, MPHT.

1) L3: 最大輸出功率。 2) Y型輸出機。 3) 輸出功率。 4) 最大輸出功率。 5) 最大輸出功率。



當方自給電動機為斜齒式時 When equipping the user's motor, the flange is required to be connected



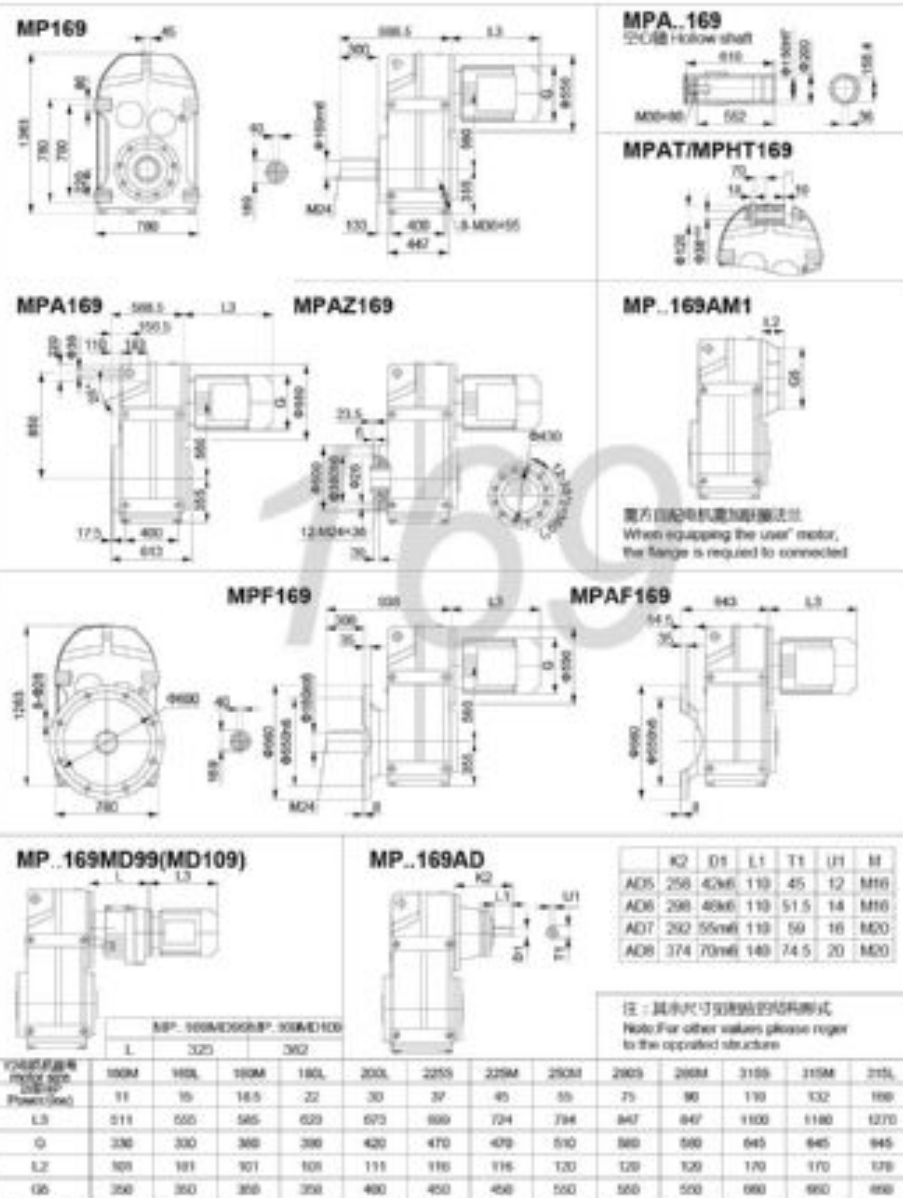
K2	D1	L1	T1	U1	M
AD5	258	4246	110	45	12
AD6	298	4846	110	51.5	14
AD7	292	5546	110	59	16
AD8	374	7046	140	74.5	20

注：其中心尺寸如無說明者均按圖紙規定。 Note: For other values please refer to the applied structure.

Y型輸出機 輸出功率 Power(kw)	100M	160L	180M	180L	200L	225M	225M	250M	280S	300M	315L
L3	511	555	585	623	673	699	724	794	847	847	1100
G	330	330	360	360	420	470	470	510	560	560	645
L2	101	168	168	101	111	110	116	120	120	120	170
G5	350	350	350	350	400	450	450	500	500	500	600

注：以上所列之圖紙均為參考圖紙。 2) MP.159AM1, MPA, MPAZ, MPAT, MPHT, MPAT, MPAF, MPFZ, MPF, MPFZ, MPHT, MPHT, MPHT, MPHT, MPHT, MPHT.

1) L3: 最大輸出功率。 2) Y型輸出機。 3) 輸出功率。 4) 最大輸出功率。 5) 最大輸出功率。



注：以上为通用规格，如有特殊需求，请联系销售。
2 MP.169MD99, MPFA, MPFAS, MPFAT, MPFAL, MPFAM, MPFAZ, MPFAZM, MPFAL, MPFALZ, MPFALM, MPFALZM.
3 详细安装尺寸图见P105-P106.

注：以上为通用规格，如有特殊需求，请联系销售。
2 MP.169MD99, MPFA, MPFAS, MPFAT, MPFAL, MPFAM, MPFAZ, MPFAZM, MPFAL, MPFALZ, MPFALM, MPFALZM.
3 详细安装尺寸图见P105-P106.

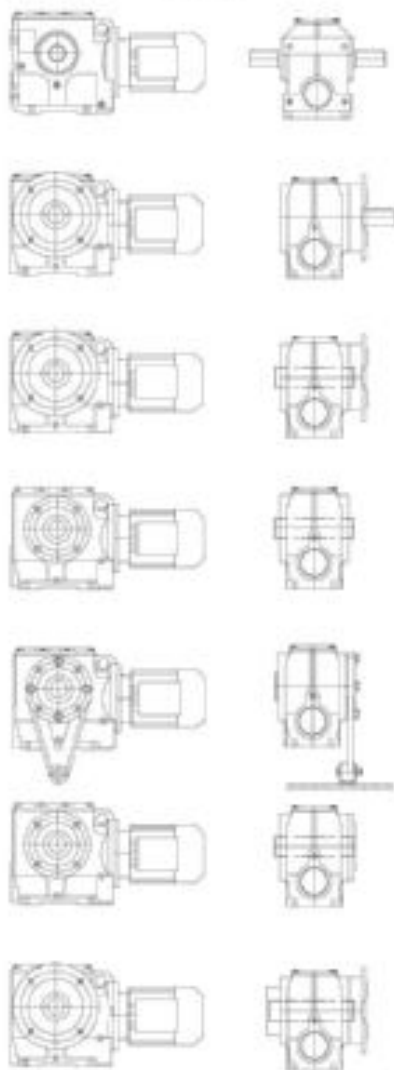
HELICAL-WORM GEAR REDUCTOR

MN系列 圆柱蜗杆减速机

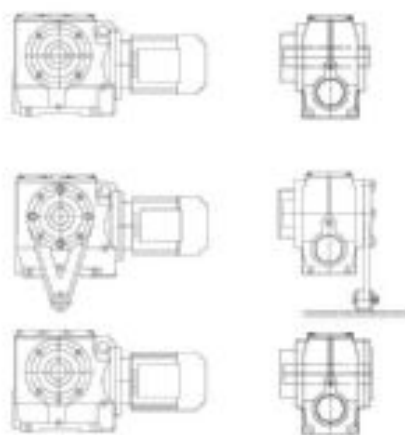


5.1 MN系列结构型式说明 Description to structural form of MN series

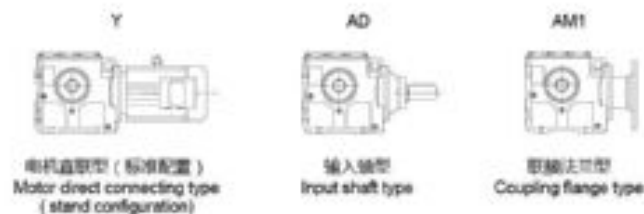
- 1) MN型
足架安装圆柱蜗杆减速机
Model MN
Foot-mounted helical-worm gear reductor
- 2) MNF型
B5法兰安装圆柱蜗杆减速机
Model MNF
B5 flange-mounted helical-worm gear reductor
- 3) MNAF型
B5法兰空心轴安装圆柱蜗杆减速机
Model MNAF
B5 flange-mounted helical-worm gear reductor
- 4) MNA型
空心轴安装圆柱蜗杆减速机
Model MNA
Helical-worm gear reductor with hollow shaft
- 5) MNAT型
空心轴安装带扭矩臂固定圆柱蜗杆减速机
Model MNAT
Helical-worm gear reductor in torque-arm version with hollow shaft
- 6) MNAZ型
B14法兰空心轴安装圆柱蜗杆减速机
Model MNAZ
B14 flange-mounted helical-worm gear reductor with hollow shaft
- 7) MNHF型
B5法兰胀紧套安装圆柱蜗杆减速机
Model MNHF
B5 flange and expansion plate installation cylindrical worm speed reductor



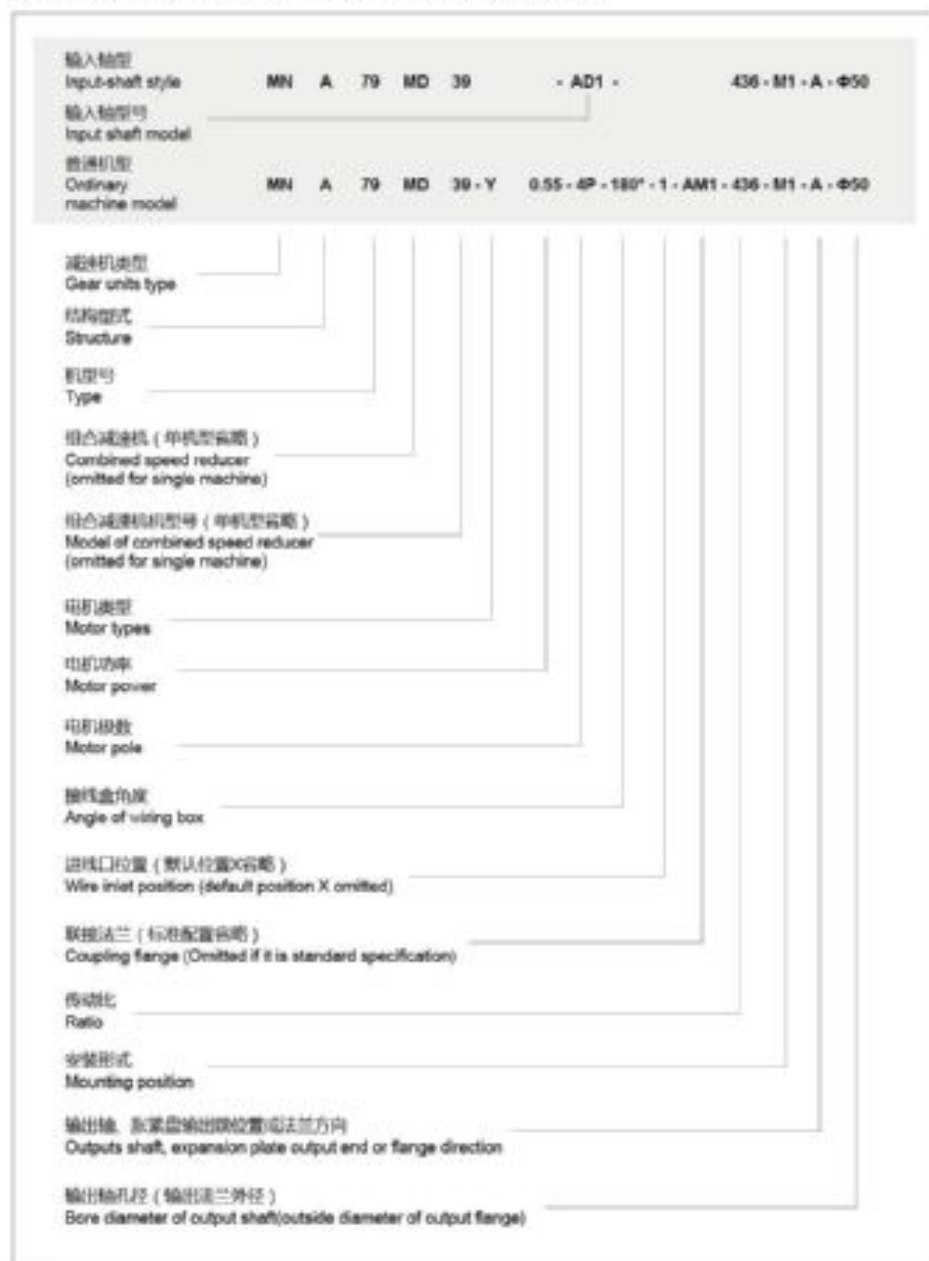
- 8) MNH型
胀紧套安装圆柱蜗杆减速机
Model MNH
Expansion plate installation cylindrical worm speed reductor
- 9) MNHT型
胀紧套安装带扭矩臂固定圆柱蜗杆减速机
Model MNHT
Expansion plate installation with reverse rotary arm fixation cylindrical worm speed reductor
- 10) MNHZ型
B14法兰胀紧套安装圆柱蜗杆减速机
Model MNHZ
Flange and expansion plate installation cylindrical worm speed reductor



- 组合型
MN、MD型 (代表以上所有结构型式)
MN系列与MD系列组合减速机
Combined type
MN、MD model (representing all the above structural forms)
MN series and MD series combined speed reductor

输入部分配置
Input allocation

5.2 MN系列型号表示法 Model expression way of MN series



减速机类型: MN蜗轮蜗杆减速机	Gear unit type: MN helical-worm gear reductor
结构型式: (见P203-P204页)	Structure: (See P203-P204)
普通轴伸脚安装 (省略)	Ordinary shaft extension foot installation (omitted)
B5法兰安装 F	B5 flange installation F
B5法兰空心轴安装 AF	B5 flange and hollow shaft installation AF
空心轴安装 A	Hollow shaft installation A
空心轴安装的转臂固定 AT	Hollow shaft installation with reverse rotary arm fixation AT
B14法兰空心轴安装 AZ	B14 flange and hollow shaft installation AZ
膨胀盘安装 H	Expansion plate installation H
B5法兰膨胀盘安装 HF	B5 flange and expansion plate installation HF
B14法兰膨胀盘安装 HZ	B14 flange and expansion plate installation HZ
膨胀盘安装的转臂固定 HT	Expansion plate installation with reverse rotary arm fixation HT
未注明轴伸脚安装按普通轴伸脚安装	If there is no indication, the product is supplied according to ordinary shaft extension foot installation.
组合减速机及型号: 见P216-P227页选型参数表	Combined speed reducer and type: see model selection parameter form on P216-P227
机型号: 见P216-P226页选型参数表	Type: see model selection parameter form on P216-P226
电机类型代号: 普通电机 Y 防爆电机 YB 直流电机 Z 制动电机 YEJ 多速电机 YD 变频电机 YVP 冶金起重电机 YZ 变频制动电机 YVPEJ 绕线电机 YG	Codes for Motor Types: Ordinary Motor Y Flameproof Motor YB Direct current motor Z Brake Motor YEJ Multi-speed Motor YD Variable Frequency Motor YVP Metallurgy hoisting Motor YZ Traction braking Motor YVPEJ Roll Motor YG
电机功率、极数: 见P216-P227页选型参数表	Motor power, pole: see model selection parameter form on P216-P227
接线盒角度, 进线口位置: 未注明按接线盒角度按0°, 进线口位置X供应, 见P210-P215页安装形式图	Angle of wiring box, wire inlet position: If there is no indication, the default angle of wiring box is 0°, and for the wire inlet position X, see installation form figure on Page P210-P215
输入轴型号: 见P226-P229页选型参数表	Input shaft model: see model selection parameter form on P226-P229
联轴器: AM1刚性联接 AM柔性联轴器联接 (具体尺寸请与我公司技术部联系)	Coupling flange: AM1 rigid connection Connection of AM flexible coupler (Please contact the technical department of our company for size details)
传动比: 见P216-P226页选型参数表	Ratio: see model selection parameter form on P216-P226
安装形式: M1, M2, M3, M4, M5, M6, 未注明按M1供应, 见P210-P215页安装形式图	Mounting position: M1, M2, M3, M4, M5, M6, if there is no indication, the product is supplied according to M1, see installation form figure on Page P210-P215
输出法兰外径: 未注明按最小法兰供应, 见P230-P236页安装尺寸图	Outer diameter of output flange: if there is no indication, the product is supplied according to the minimum flange. See installation size figure on Page P230-P236
输出轴或法兰方向: A, B, A+B, 未注明按A向供应, 见P210-P215页安装形式图, 膨胀盘输出位置见P066页	Position of output shaft or flange: A, B, A+B, if there is no indication, the product is supplied according to direction A. See installation size figure on Page P210-P215, See Page P066 for position of output end of expansion plate.
输出轴孔径(输出法兰外径): 未注明按最小孔径(外径)供应(见P230-P236页安装尺寸图)	Bore diameter of output shaft (outside diameter of output flange): if there is no indication, the product is supplied according to the minimum diameter (outside diameter), see installation size figure on Page P230-P236

5.3 MN系列选型参数表释义 Model selection definition form of MN series

MN系列恒功率选型参数表 Constant power model selection parameter form of MN series

输出转速 Output speed r/min	输出扭矩 Output torque N·m	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type	极数 Pole P	输出转速 Output speed r/min	输出扭矩 Output torque N·m	传动比 Ratio i	使用系数 Service factor f _s	机型号 Type	极数 Pole P
0.12KW						0.12KW					
0.12	4595	11267	0.90	MN 39 MD59	4P	6.9	93	201.00	1.80	MN 49	4P
0.14	3937	10078	0.95	MNF 39 MD59	4P	7.5	86	184.80	1.90	MNF 49	4P
0.16	3467	8808	1.15	MNA 39 MD59	4P	8.7	76	158.12	2.2	MNA 49	4P
0.18	3101	7854	1.30	MNAF 39 MD59	4P	10	67	137.06	2.5	MNAF 49	4P

注：0.12KW表示电动机功率。 Note: 0.12kW indicates motor power.

MN系列恒扭矩选型参数表 Constant torque model selection parameter form of MN series

输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P	输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P
92N·m					165N·m				
0.14	10037	MN 39 MD19	0.12	4P	1.4	958	MN 49 MD19	0.12	4P
0.16	8654	MNF 39 MD19	0.12	4P	1.6	857	MNF 49 MD19	0.12	4P
0.17	8086	MNA 39 MD19	0.12	4P	1.8	745	MNA 49 MD19	0.12	4P
0.20	7051	MNAF 39 MD19	0.12	4P	2.1	653	MNAF 49 MD19	0.12	4P
0.23	6079				2.4	576			
0.25	5431				2.7	511			

注：92N·m表示许用扭矩。 Note: 92N·m indicates permissible torque.

MN系列输入轴型选型参数表 Model selection parameter form of input shaft type of MN series

传动比 Ratio i	输出转速 Output speed r/min	许用扭矩 Permissible torque N·m	额定功率 Nominal Power Ratings KW	机型号 Type	传动比 Ratio i	输出转速 Output speed r/min	许用扭矩 Permissible torque N·m	额定功率 Nominal Power Ratings KW	机型号 Type
MN39 AD... , n = 1400 1/min					MN49 AD... , n = 1400 1/min				
144.40	9.7	92	0.19	MN 39 AD1	36.96	38	155	0.82	MN 49 AD2
122.94	11	91	0.22	MNF 39 AD1	33.00	42	155	0.91	MNF 49 AD2
105.00	13	88	0.23	MNA 39 AD1	28.18	50	155	1.0	MNA 49 AD2
96.80	14	87	0.25	MNAF 39 AD1	26.40	53	155	1.1	MNAF 49 AD2
86.36	16	86	0.27		22.24	63	152	1.3	
					21.75	64	150	0.80	
80.96	17	85	0.29	MN 39 AD1	18.48	76	150	1.0	
71.44	20	84	0.31	MNF 39 AD1	16.80	85	150	1.2	

注：MN39 AD... 表示输入轴型型号，n = 1400 r/min 表示输入转速，92 N·m 表示许用扭矩不同传动比中最大允许值。
Note: MN39 AD... means input shaft type, n = 1400 r/min means input speed, 92 N·m indicates the maximum permissible torque under different speed ratios in the model.

- 1) 选型参数表中任何传动比均可以匹配任何传动比。
- 2) 选型参数表中任何传动比均适用于 MNA2、MNA7、MNA1、MNA-F、MNA-U、MNA-T 机型。

5.4 MN系列输入功率及最大扭矩 Input power and maximum torque of MN series

规格 Size	30	49	59	69	79	89	99
结构形式 Structure	MN、MNA、MNF、MNAF、MNA7、MNAZ、MNA-F、MNA-U、MNA-T、MNA-U						
输入功率(kw) Input power rating	0.12-0.75	0.12-1.5	0.12-2.2	0.18-4.0	0.37-7.5	0.37-15	0.75-22
传动比 Rate	19.27-157.43	11.12-201.00	10.76-201.00	10.85-217.41	11.38-256.47	11.13-302.46	11.33-266.40
最大扭矩(N·m) Maximum torque	92	170	265	520	1270	2200	4000

注：1) 最大扭矩值是在不同传动比中对应最大许用扭矩。
2) The maximum torque indicates the maximum value of maximum torque corresponding to different transmission ratios in this specification.

5.5 MN系列主机重量表 Main machine weight form of MN series

型号 Type	MN30	MN40	MN50	MN60	MN70	MN80	MN90
重量(kg) Weight(kg)	11	17	22	29	49	91	158
型号 Type	MNF30	MNF40	MNF50	MNF60	MNF70	MNF80	MNF90
重量(kg) Weight(kg)	13	21	26	35	59	111	188
型号 Type	MNA30	MNA40	MNA50	MNA60	MNA70	MNA80	MNA90
重量(kg) Weight(kg)	11	16	22	30	49	88	153
型号 Type	MNAF30	MNAF40	MNAF50	MNAF60	MNAF70	MNAF80	MNAF90
重量(kg) Weight(kg)	12	20	25	34	55	104	178

注：1) MNAZ、MNA、MNA-U、MNA-T、MNA-F 主机重量与 MNA 类似。
2) MNA-F 主机重量与 MNA 类似。
Note: 1) The weight of main machine of MNAZ、MNA、MNA-U、MNA-T is similar to that of MNA.
2) The weight of main machine of MNA-F is similar to that of MNA.

5.6 MN系列润滑油量表 Lubricating oil quantity form of MN series

MN... MNF...

机型号 Gear mt type	润滑油量 (升) Fill quantity in liters (L)					
	M1	M2	M3 ^①	M4	M5	M6
MN 30	0.25	0.4	0.5	0.6	0.4	0.4
MN 40	0.35	0.8	0.7	1.1	0.5	0.8
MN 50	0.6	1.2	1	1.5	1.3	1.3
MN 60	1	2.0	2.0/3.1	3.2	2.6	2.6
MN 70	1.9	4.2	3.7/5.4	6	4.4	4.4
MN 80	3.3	8.1	6.9/10.4	12	8.4	8.4
MN 90	3.8	15	13.4/18	22.5	17	17

MNA... MNAZ... MNAF... MNAT... MNH... MNHZ... MNHF... MNHT...

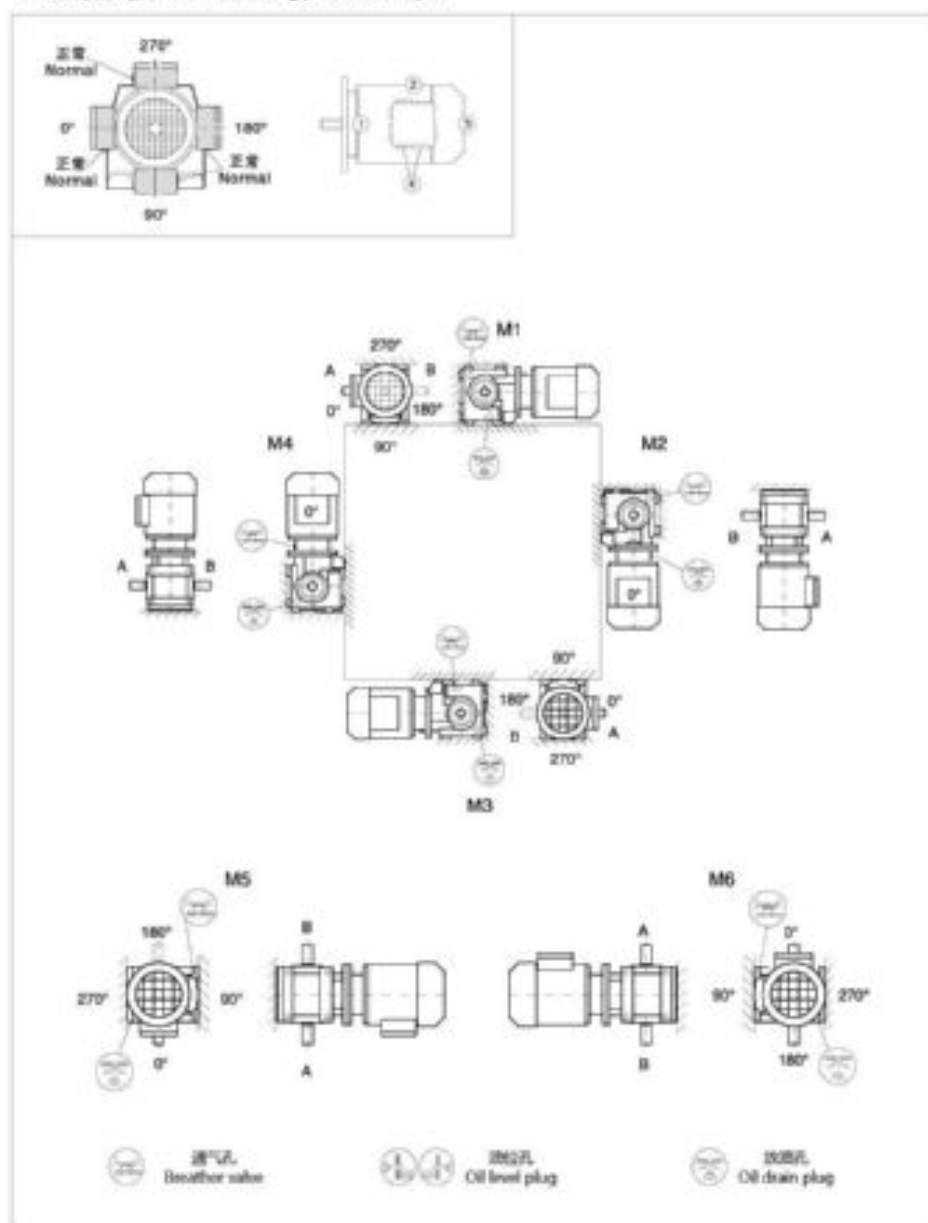
机型号 Gear mt type	润滑油量 (升) Fill quantity in liters (L)					
	M1	M2	M3 ^①	M4	M5	M6
MNA 30	0.25	0.4	0.5	0.6	0.4	0.4
MNA 40	0.4	0.8	0.7	1.1	0.8	0.8
MNA 50	0.6	1.1	1	1.5	1.2	1.2
MNA 60	1	2.0	1.8/2.6	2.9	2.5	2.5
MNA 70	1.8	3.9	3.6/5	5.9	4.5	4.5
MNA 80	3.8	7.4	6.8/7	11.2	8	8
MNA 90	7	14	11.4/18	21	15.7	15.7

注：① 表示该级为双级蜗轮蜗杆传动时油量为大值。

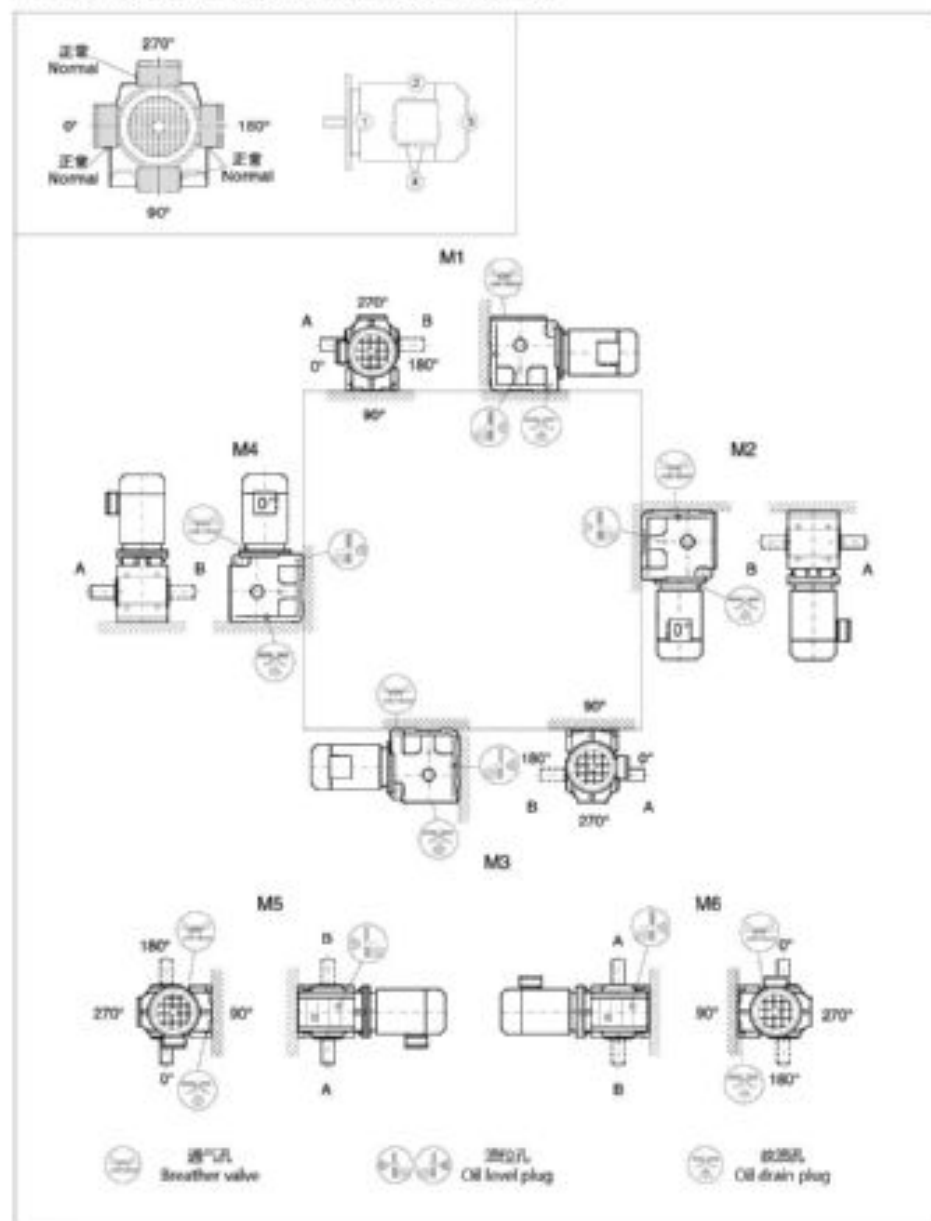
Note: ① The large gear unit of multi-stage gear units must be filled with the larger of values.

5.7 MN系列安装形式图 Installation form figure of MN series

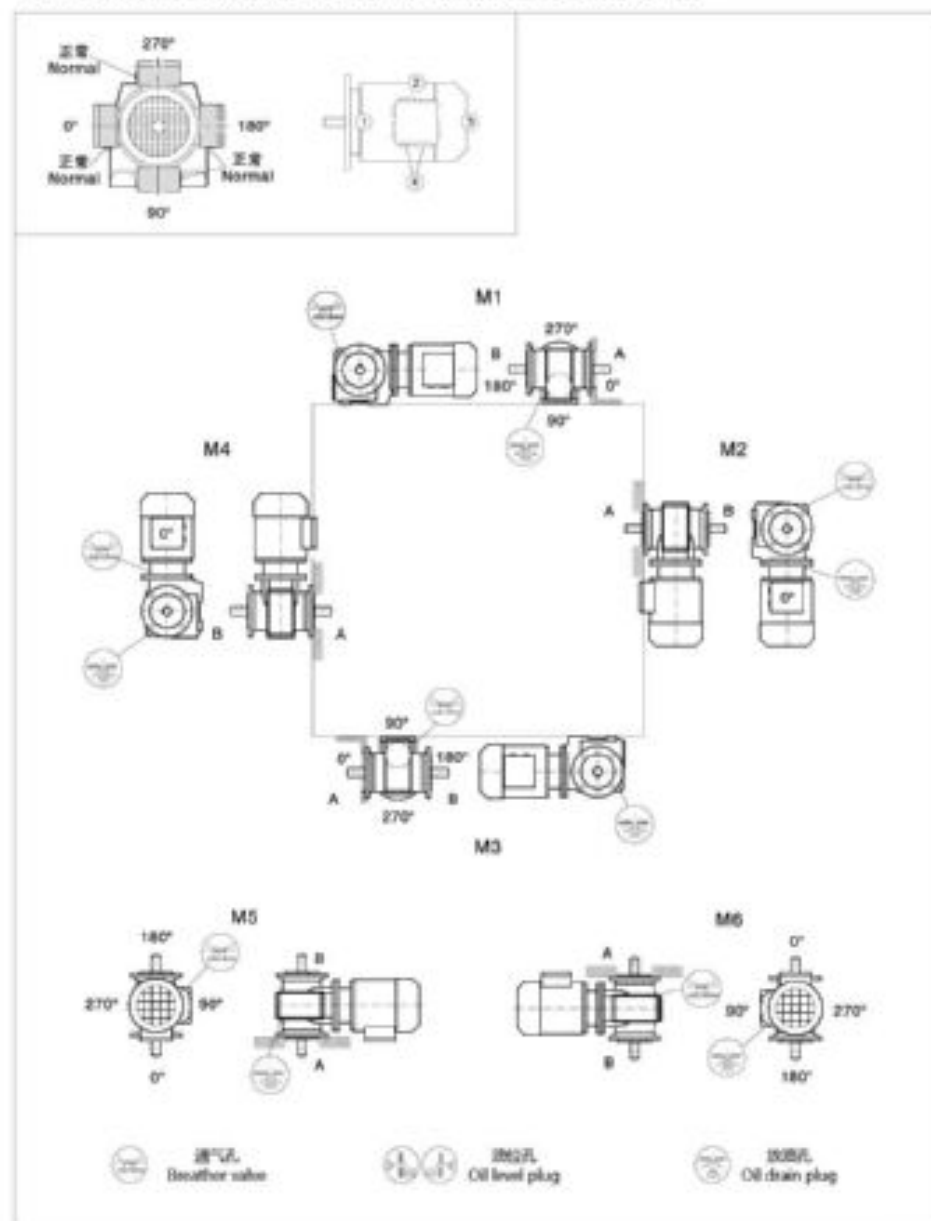
MN30安装形式图 MN30 Mounting position example



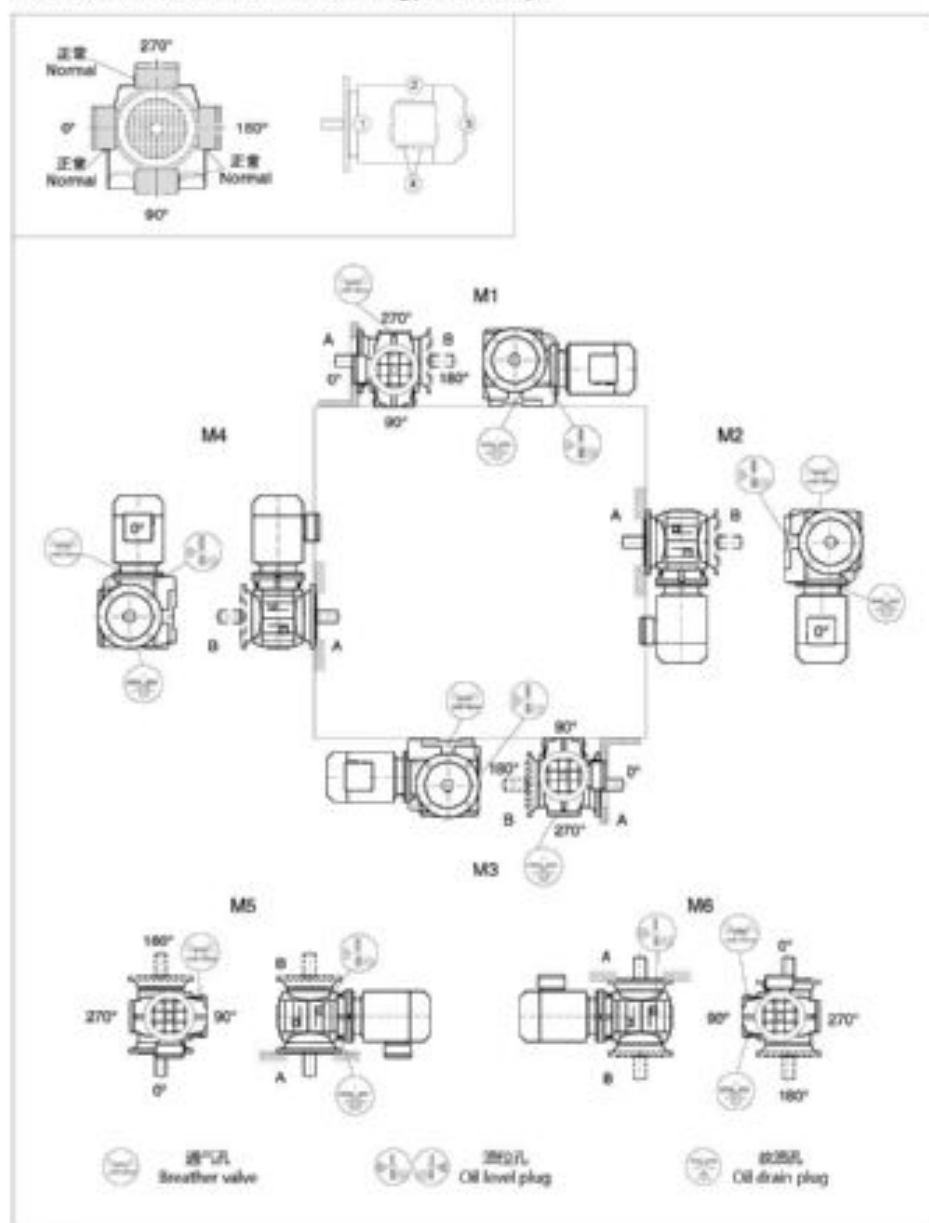
MN40-MN90 安装形式图 MN40-MN90 Mounting position example



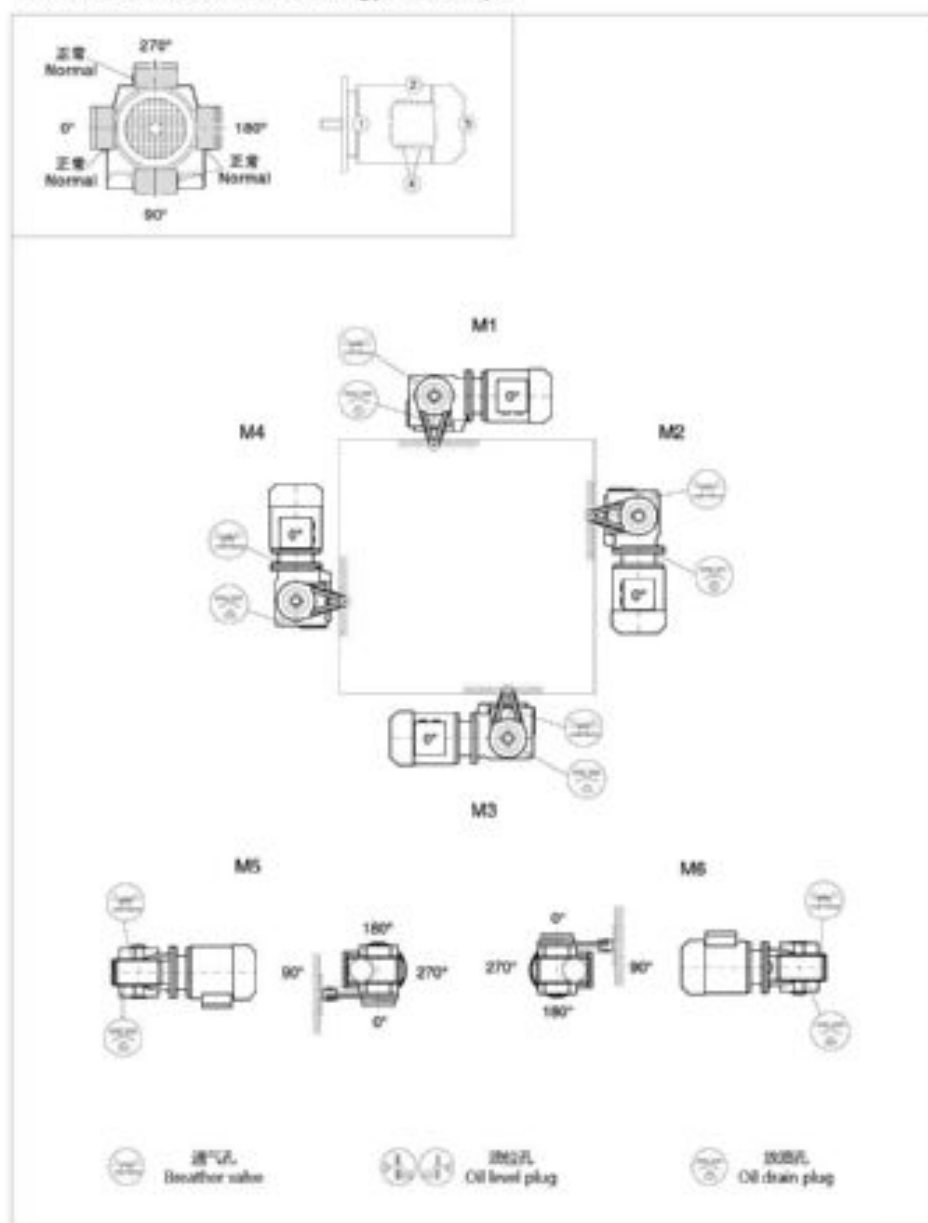
MNF/MNAF/MNHF30 安装形式图 MNF/MNAF/MNHF30 Mounting position example



MNF/MNAF/MNAZ/MNHF/MNHZ40-00 安装形式图
MNF/MNAF/MNAZ/MNHF/MNHZ40-00 Mounting position example

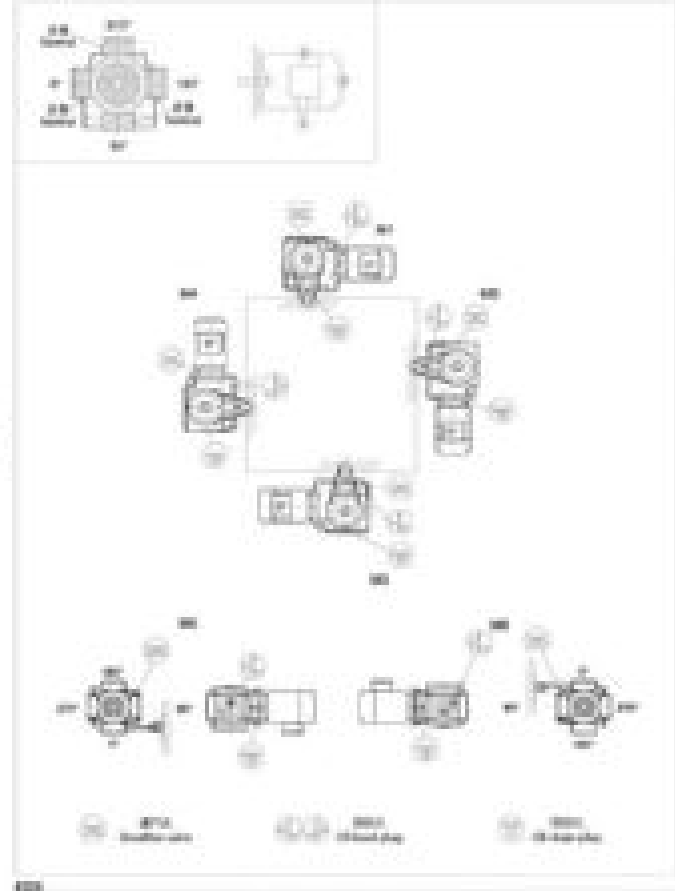


MNA30/MNAT30/MNH30/MNHT30 安装形式图
MNA30/MNAT30/MNH30/MNHT30 Mounting position example



1. 2025.01.01

 2. 2025.01.01



1. 2025.01.01

 2. 2025.01.01

Item No.	Part No.	Part Name	Q'ty	Unit	Material	Remarks
1	1000000000	1000000000	1	PC	1000000000	
2	1000000000	1000000000	1	PC	1000000000	
3	1000000000	1000000000	1	PC	1000000000	
4	1000000000	1000000000	1	PC	1000000000	
5	1000000000	1000000000	1	PC	1000000000	
6	1000000000	1000000000	1	PC	1000000000	
7	1000000000	1000000000	1	PC	1000000000	
8	1000000000	1000000000	1	PC	1000000000	
9	1000000000	1000000000	1	PC	1000000000	
10	1000000000	1000000000	1	PC	1000000000	
11	1000000000	1000000000	1	PC	1000000000	
12	1000000000	1000000000	1	PC	1000000000	

输出转速 Output speed r/min	输出扭矩 Output torque N·m	传动比 Ratio i	使用系数 Service factor K _s	机型号 Type	级数 Pole	输出转速 Output speed r/min	输出扭矩 Output torque N·m	传动比 Ratio i	使用系数 Service factor K _s	机型号 Type	级数 Pole
0.37KW						0.55KW					
22	95	83.33	0.80	MN 30	4P	6.3	300	211.41	1.00	MNF 50	4P
30	86	40.91	0.80	MNF 30	4P	7.2	445	190.11	1.50	MNF 50	4P
35	78	42.45	0.95	MNA 30	4P	7.9	423	176.58	1.05	MNA 50	4P
37	70	37.70	1.05	MNAF 30	4P	8.4	377	168.45	1.30	MNAF 50	4P
43	62	32.95	1.15			10	326	134.88	1.55		
45	58	30.89	1.20			11	301	121.33	1.65		
54	52	27.20	1.30			13	260	106.75	1.85		
57	47	24.77	1.40			15	240	100.60	1.95		
67	40	20.54	1.55			16	238	95.63	2.3		
88	42	20.22	1.20			19	303	76.99	2.1		
78	39	18.95	1.30			21	188	65.98	2.4		
84	34	16.48	1.45			0.65KW					
89	30	15.45	1.60			9.8	324	94.08	0.85	MN 50	6P
102	26	13.63	1.70			11	286	84.00	0.95	MNF 50	6P
115	25	12.08	1.85			13	247	71.75	1.00	MNA 50	6P
134	22	10.27	2.0			15	217	67.20	1.05	MNAF 50	6P
						17	229	52.21	1.50		
						18	210	48.80	1.25		
						21	185	42.98	1.35		
						25	153	35.94	1.55		
0.55KW						0.65KW					
1.0	2774	1336	0.80	MN 80ME50	4P	8.8	359	158.12	0.80	MN 50	4P
1.1	2541	1198	0.85	MNF 80ME50	4P	9.9	325	137.05	0.90	MNF 50	4P
1.3	2130	1033	1.10	MNA 80ME50	4P	11	286	126.10	0.95	MNA 50	4P
1.5	1891	924	1.30	MNAF 80ME50	4P	12	265	110.73	1.00	MNAF 50	4P
1.6	1796	831	1.35			14	231	94.08	1.25		
1.8	1642	721	1.55			16	206	84.00	1.40		
2.2	1388	620	1.75			18	176	71.75	1.55		
2.4	1280	554	1.85			20	168	67.20	1.65		
3.1	982	431	2.4			26	150	52.21	1.45		
3.1	1139	430	1.00	MN 70ME30	4P	28	149	48.80	1.70		
3.5	1025	381	1.15	MNF 70ME30	4P	33	123	42.98	1.60		
4.2	860	327	1.35	MNA 70ME30	4P	38	106	36.84	2.1		
4.7	772	289	1.50	MNAF 70ME30	4P	43	95	32.00	2.4		
5.4	679	249	1.70			50	82	27.33	2.7		
						53	77	25.90	3.1		
						63	66	21.57	3.3		
						65	68	21.88	2.4		
						0.75KW					
						86	390	84.00	0.80	MN 40	4P
						88	172	71.75	0.95	MNF 40	4P
						20	165	67.20	1.00	MNA 40	4P
						25	153	53.04	0.95	MNAF 40	4P
						27	143	50.33	1.80		
						32	125	43.50	1.85		
						37	107	36.90	1.30		
						41	97	33.00	1.55		
						46	84	28.30	1.70		
						52	38	26.40	2.0		
						62	67	22.24	2.1		
						63	69	21.75	1.60		
						73	39	16.48	1.80		
						83	53	16.90	1.95		
						87	45	14.89	2.3		
						103	42	13.28	2.0		
						122	36	11.12	2.0		
						0.90KW					
						44	88	30.80	0.80	MN 30	4P
						46	79	27.26	0.85	MNF 30	4P
						57	68	24.17	0.95	MNA 30	4P
						68	60	20.54	1.05	MNAF 30	4P
						73	57	18.85	1.2		
						83	52	16.48	0.95		
						85	46	15.45	1.90		
						100	43	13.63	1.85		
						113	37	12.08	1.30		
						132	33	10.27	1.35		

输出转速 Output speed r/min	输出扭矩 Output torque N·m	传动比 Ratio i	使用系数 Service factor K _s	机型号 Type	级数 Pole	输出转速 Output speed r/min	输出扭矩 Output torque N·m	传动比 Ratio i	使用系数 Service factor K _s	机型号 Type	级数 Pole
0.75KW						0.75KW					
11	4588	1229	0.85	MN 80ME50	4P	13	336	71.75	0.80	MN 30	6P
13	3843	1073	1.00	MNF 80ME50	4P	17	335	67.20	0.85	MNF 30	6P
15	3331	924	1.05	MNA 80ME50	4P	19	281	56.91	1.00	MNA 30	6P
17	2987	829	1.30	MNAF 80ME50	4P	19	288	48.80	0.80	MNAF 30	6P
19	2344	714	1.80			21	253	42.98	1.00		
22	2328	627	1.70			1.1KW					
26	1972	538	1.90			17	4381	826	0.80	MN 90ME30	4P
29	1768	485	2.2			2.0	3138	714	1.25	MNF 90ME30	4P
						2.2	3411	627	1.35	MNA 90ME30	4P
						2.4	2892	536	1.35	MNAF 90ME30	4P
						2.8	2622	485	1.50		
						3.3	2317	426	1.70		
						2.2	2725	626	0.80	MN 80ME30	4P
						2.5	2578	554	0.85	MNF 80ME30	4P
						2.9	2269	481	1.00	MNA 80ME30	4P
						3.2	1968	431	1.20	MNAF 80ME30	4P
						3.7	1840	378	1.35		
						4.3	1570	322	1.55		
						5.0	1389	281	1.75		
						5.5	1383	254	1.85		
						6.3	1214	221	1.85		
						6.8	1128	204	1.65		
						1.5KW					
						6.4	1800	298	1.00	MN 70ME30	4P
										MNF 70ME30	4P
										MNA 70ME30	4P
										MNAF 70ME30	4P

5.9 MN系列恒扭矩型参数表

Constant torque model selection parameter form of MN series

输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P	输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P
52N -m					185N -m				
0.14	10037	MN 30 MD10	0.12	4P	1.4	954	MN 40 MD10	0.12	4P
0.16	8024	MNF 30 MD10	0.12	4P	1.6	857	MNF 40 MD10	0.12	4P
0.17	8000	MNA 30 MD10	0.12	4P	1.8	745	MNA 40 MD10	0.12	4P
0.20	7051	MNAF 30 MD10	0.12	4P	2.1	651	MNAF 40 MD10	0.12	4P
0.23	6079				2.4	576			
0.25	5431				2.7	511			
0.29	4647				3.1	439			
0.31	4155								
0.36	3633				3.4	390	MN 40 MD10	0.18	4P
0.48	2647				3.9	335	MNF 40 MD10	0.18	4P
0.56	2473				4.6	290	MNA 40 MD10	0.18	4P
0.64	2192						MNAF 40 MD10	0.18	4P
0.73	1890								
0.83	1660				5.0	254	MN 40 MD10	0.25	4P
0.95	1456				5.7	228	MNF 40 MD10	0.25	4P
1.1	1272				6.5	199	MNA 40 MD10	0.25	4P
1.2	118				6.9	186	MNAF 40 MD10	0.25	4P
1.4	987				7.8	167			
1.6	875								
1.8	779	MN 30 MD10	0.12	4P	9.2	149	MN 40 MD10	0.37	4P
2.1	656	MNF 30 MD10	0.12	4P	11	134	MNF 40 MD10	0.37	4P
2.3	597	MNA 30 MD10	0.12	4P			MNA 40 MD10	0.37	4P
2.6	522	MNAF 30 MD10	0.12	4P			MNAF 40 MD10	0.37	4P
3.0	450								
3.5	401				330N -m				
3.9	354				0.11	12900	MN 50 MD10	0.12	4P
4.6	305				0.12	11989	MNF 50 MD10	0.12	4P
5.2	265				0.13	10334	MNA 50 MD10	0.12	4P
6.0	230				0.15	8992	MNAF 50 MD10	0.12	4P
6.8	203				0.18	7960			
					0.20	6987			
					0.23	6065			
					0.26	5292			
					0.30	4637			
					0.34	4092			
					0.38	3620			
					360N -m				
					0.44	3138	MN 50 MD10	0.12	4P
					0.50	2767	MNF 50 MD10	0.12	4P
					0.57	2433	MNA 50 MD10	0.12	4P
					0.64	2156	MNAF 50 MD10	0.12	4P
					0.74	1864			
					0.83	1668			
					0.97	1434			
					1.1	1267			
					1.3	1055			
					1.4	962	MN 50 MD10	0.12	4P
					1.6	865	MNF 50 MD10	0.12	4P
					1.8	781	MNA 50 MD10	0.12	4P
					2.1	696	MNAF 50 MD10	0.12	4P
					2.3	646	MN 50 MD10	0.18	4P
					2.6	567	MNF 50 MD10	0.18	4P
					3.0	495	MNA 50 MD10	0.18	4P
					3.4	434	MNAF 50 MD10	0.18	4P
					4.0	382	MN 50 MD10	0.25	4P
					4.4	333	MNF 50 MD10	0.25	4P
					4.8	291	MNA 50 MD10	0.25	4P
							MNAF 50 MD10	0.25	4P

输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P	输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P
300N -m					1270N -m				
0.5	221	MN 50 MD10	0.37	4P	0.05	25493	MN 70 MD36	0.12	4P
0.7	201	MNF 50 MD10	0.37	4P	0.06	21767	MNF 70 MD36	0.12	4P
0.75	194	MNA 50 MD10	0.37	4P	0.07	19807	MNA 70 MD36	0.12	4P
		MNAF 50 MD10	0.37	4P	0.08	17013	MNAF 70 MD36	0.12	4P
					0.09	14958			
					0.11	13190			
					0.12	11949			
					0.14	9887			
					0.16	8687			
					0.18	7735			
					0.20	6725			
					0.23	5843			
					0.26	5214			
					0.30	4618			
					0.35	3982			
					0.39	3549			
					0.43	3086	MN 70 MD36	0.18	4P
							MNF 70 MD36	0.18	4P
							MNA 70 MD36	0.18	4P
							MNAF 70 MD36	0.18	4P
					1240N -m				
					0.50	2748	MN 70 MD36	0.12	4P
					0.58	2389	MNF 70 MD36	0.12	4P
							MNA 70 MD36	0.12	4P
							MNAF 70 MD36	0.12	4P
					0.63	2074	MN 70 MD36	0.18	4P
					0.73	1810	MNF 70 MD36	0.18	4P
					0.76	1745	MNA 70 MD36	0.18	4P
					0.82	1591	MNAF 70 MD36	0.18	4P
					0.93	1367	MN 70 MD36	0.25	4P
					1.0	1231	MNF 70 MD36	0.25	4P
							MNA 70 MD36	0.25	4P
							MNAF 70 MD36	0.25	4P
					1.2	1043	MN 60 MD36	0.18	4P
					1.4	915	MNF 60 MD36	0.18	4P
							MNA 60 MD36	0.18	4P
							MNAF 60 MD36	0.18	4P
					1.6	808	MN 60 MD36	0.18	4P
					1.9	718	MNF 60 MD36	0.18	4P
							MNA 60 MD36	0.18	4P
							MNAF 60 MD36	0.18	4P
					2.1	635	MN 60 MD36	0.25	4P
					2.4	544	MNF 60 MD36	0.25	4P
							MNA 60 MD36	0.25	4P
							MNAF 60 MD36	0.25	4P
					2.6	469	MN 60 MD36	0.37	4P
					3.3	424	MNF 60 MD36	0.37	4P
					3.7	373	MNA 60 MD36	0.37	4P
							MNAF 60 MD36	0.37	4P
					4.3	320	MN 60 MD36	0.55	4P
					4.9	291	MNF 60 MD36	0.55	4P
					5.5	248	MNA 60 MD36	0.55	4P
					6.1	221	MNAF 60 MD36	0.55	4P
					7.0	199	MN 60 MD36	0.75	4P
							MNF 60 MD36	0.75	4P
							MNA 60 MD36	0.75	4P
							MNAF 60 MD36	0.75	4P
					8.3	167	MN 70 MD36	1.1	4P
					8.8	158	MNF 70 MD36	1.1	4P
					9.6	143	MNA 70 MD36	1.1	4P
					10.4	131	MNAF 70 MD36	1.1	4P



输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P	输出转速 Output speed r/min	传动比 Ratio i	机型号 Type	电动机功率 Power KW	极数 Pole P
2500N-m					4200N-m				
0.06	2503	MN	0.02	4P	0.04	33618	MN	0.02	4P
0.06	24230	MNF	0.02	4P	0.04	31254	MNF	0.02	4P
0.07	19920	MNA	0.02	4P	0.05	27847	MNA	0.02	4P
0.08	16600	MNAF	0.02	4P	0.06	24941	MNAF	0.02	4P
0.08	16695				0.06	24537			
0.08	14827				0.07	19749			
0.10	13068				0.09	10233			
0.12	11106				0.09	34976			
0.14	0940				0.11	12752			
0.16	0633				0.12	11267			
0.18	7507				0.14	10078			
0.21	6759								
0.22	5900	MN	0.05	4P	0.21	6060	MN	0.05	4P
0.25	5192	MNF	0.05	4P	0.17	7154	MNF	0.05	4P
0.29	4640	MNA	0.05	4P	0.20	6648	MNA	0.05	4P
		MNAF	0.05	4P	0.23	5780	MNAF	0.05	4P
					0.27	4919			
0.34	3667	MN	0.25	4P	0.29	4448	MN	0.25	4P
		MNF	0.25	4P	0.32	4003	MNF	0.25	4P
		MNA	0.25	4P	0.38	3440	MNA	0.25	4P
		MNAF	0.25	4P			MNAF	0.25	4P
0.37	3400	MN	0.25	4P	0.44	3111	MN	0.37	4P
0.45	2910	MNF	0.25	4P	0.52	2645	MNF	0.37	4P
		MNA	0.25	4P	0.60	2308	MNA	0.37	4P
		MNAF	0.25	4P			MNAF	0.37	4P
0.53	2574	MN	0.37	4P	0.65	2090	MN	0.55	4P
0.58	2357	MNF	0.37	4P	0.73	1953	MNF	0.55	4P
0.68	2037	MNA	0.37	4P	0.86	1726	MNA	0.55	4P
		MNAF	0.37	4P			MNAF	0.55	4P
0.78	1800	MN	0.55	4P	1.0	1394	MN	0.75	4P
0.84	1617	MNF	0.55	4P	1.1	1229	MNF	0.75	4P
1.0	1330	MNA	0.55	4P	1.3	1073	MNA	0.75	4P
1.1	1190	MNAF	0.55	4P			MNAF	0.75	4P
1.3	1033	MN	0.75	4P	1.5	924	MN	1.1	4P
1.5	904	MNF	0.75	4P	1.7	828	MNF	1.1	4P
1.7	831	MNA	0.75	4P			MNA	1.1	4P
		MNAF	0.75	4P			MNAF	1.1	4P
1.9	721	MN	1.1	4P	2.0	714	MN	1.5	4P
2.2	628	MNF	1.1	4P	2.2	627	MNF	1.5	4P
2.6	544	MNA	1.1	4P	2.6	536	MNA	1.5	4P
		MNAF	1.1	4P			MNAF	1.5	4P
2.9	491	MN	1.5	4P	2.9	485	MN	2.2	4P
		MNF	1.5	4P	3.4	420	MNF	2.2	4P
		MNA	1.5	4P	3.8	374	MNA	2.2	4P
		MNAF	1.5	4P			MNAF	2.2	4P
2450N-m					2400N-m				
3.2	431	MN	1.5	4P	4.3	326	MN	3	4P
3.7	378	MNF	1.5	4P	4.9	288	MNF	3	4P
		MNA	1.5	4P			MNA	3	4P
		MNAF	1.5	4P			MNAF	3	4P
2400N-m					2400N-m				
4.4	322	MN	2.2	4P	5.8	251	MN	4	4P
5.0	281	MNF	2.2	4P	6.5	218	MNF	4	4P
		MNA	2.2	4P			MNA	4	4P
		MNAF	2.2	4P			MNAF	4	4P

5.10 MN系列输入轴型选型参数表

Model selection parameter form of input shaft type of MN series

传动比 Ratio i	输出转速 Output speed r/min	许用扭矩 Permissible torque N·m	额定功率 Nominal Power Ratings KW	机型号 Type	传动比 Ratio i	输出转速 Output speed r/min	许用扭矩 Permissible torque N·m	额定功率 Nominal Power Ratings KW	机型号 Type
MN39 AD... , n = 1400 1/min					MN49 AD... , n = 1400 1/min				
				92 N-m					170 N-m
141.40	9.7	92	0.18	MN	39 AD1	30.96	39	155	MN
122.04	11	91	0.23	MNF	39 AD1	33.00	42	155	MNF
106.00	13	88	0.23	MNA	39 AD1	20.18	50	155	MNA
98.80	14	87	0.25	MNAF	39 AD1	20.40	53	155	MNAF
86.36	16	84	0.27			22.24	63	152	
						21.25	64	110	
80.00	17	85	0.29	MN	39 AD1	18.40	76	110	MN
71.44	20	84	0.31	MNF	39 AD1	16.50	85	110	MNF
63.33	22	82	0.34	MNA	39 AD1	14.06	99	110	MNA
						13.20	106	109	
						11.52	126	108	
53.83	26	80	0.38	MN	39 AD2				
				MNF	39 AD2				
				MNA	39 AD2				
				MNAF	39 AD2				
MN59 AD... , n = 1400 1/min					MN69 AD... , n = 1400 1/min				
									295 N-m
40.91	36	81	0.36	MN	59 AD1	201.00	70	295	MN
40.40	35	81	0.41	MNF	59 AD1	184.00	78	295	MNF
37.70	37	79	0.43	MNA	59 AD1	158.12	89	295	MNA
32.05	42	78	0.48	MNAF	59 AD1	137.05	99	295	MNAF
30.80	45	76	0.49			128.00	118	295	
27.26	51	75	0.55			119.73	133	290	
24.37	56	74	0.60			84.06	151	290	
						84.00	171	295	
20.54	68	73	0.69	MN	59 AD2	71.25	201	290	MN
				MNF	59 AD2	67.39	211	285	MNF
				MNA	59 AD2	56.81	251	286	MNA
				MNAF	59 AD2	52.21	277	245	MNAF
						48.80	291	245	
20.22	69	62	0.68	MN	59 AD1	42.18	331	245	MN
18.65	74	62	0.58	MNF	59 AD1	35.84	359	245	MNF
16.48	85	60	0.55	MNA	59 AD1	32.00	448	245	MNA
				MNAF	59 AD1	27.33	511	245	MNAF
						25.60	551	245	
						21.57	651	245	
						21.09	661	168	
15.45	91	49	0.57	MN	59 AD2	17.92	791	188	MN
13.63	103	48	0.63	MNF	59 AD2	16.00	881	188	MNF
12.08	116	48	0.70	MNA	59 AD2	13.67	102	189	MNA
10.27	130	47	0.81	MNAF	59 AD2	12.00	109	188	MNAF
						10.78	130	189	
MN49 AD... , n = 1400 1/min					MN69 AD... , n = 1400 1/min				
				170 N-m					520 N-m
201.00	70	170	0.34	MN	49 AD1	217.41	6.4	520	MN
184.80	78	170	0.28	MNF	49 AD1	190.11	7.4	520	MNF
158.12	89	170	0.30	MNA	49 AD1	178.50	7.8	520	MNA
137.05	99	168	0.33	MNAF	49 AD1	150.45	8.8	520	MNAF
128.80	111	168	0.35			134.40	101	520	
110.73	123	168	0.39			121.33	121	520	
94.00	135	168	0.45						
84.00	147	167	0.49						
71.25	166	167	0.57						
67.26	171	167	0.60						
62.12	181	155	0.58						
58.61	201	165	0.70	MN	49 AD2	101.75	131	520	MN
				MNF	49 AD2	100.80	141	520	MNF
				MNA	49 AD2	95.83	161	520	MNA
				MNAF	49 AD2	78.00	181	520	MNAF
						70.16	201	486	
						62.57	211	520	
						65.88	211	486	
						58.48	241	486	
53.84	261	155	0.57	MN	49 AD1	58.80	241	500	MN
50.33	281	155	0.60	MNF	49 AD1				MNF
43.00	321	155	0.70	MNA	49 AD1				MNA
				MNAF	49 AD1				MNAF

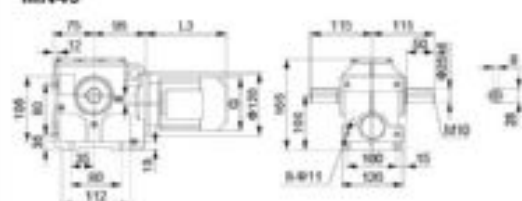


ASU Course Number	ASU Course Title	ASU Course Description	ASU Course Prerequisites	ASU Course Corequisites	ASU Course Credit Hours
ASU 101	Introduction to ASU	...	None	None	3
ASU 102	Introduction to ASU	...	None	None	3
ASU 103	Introduction to ASU	...	None	None	3
ASU 104	Introduction to ASU	...	None	None	3
ASU 105	Introduction to ASU	...	None	None	3
ASU 106	Introduction to ASU	...	None	None	3
ASU 107	Introduction to ASU	...	None	None	3
ASU 108	Introduction to ASU	...	None	None	3
ASU 109	Introduction to ASU	...	None	None	3
ASU 110	Introduction to ASU	...	None	None	3

5.11 ASU 101-109 Introduction to ASU

ASU Course Number	ASU Course Title	ASU Course Description	ASU Course Prerequisites	ASU Course Corequisites	ASU Course Credit Hours
ASU 101	Introduction to ASU	...	None	None	3
ASU 102	Introduction to ASU	...	None	None	3
ASU 103	Introduction to ASU	...	None	None	3
ASU 104	Introduction to ASU	...	None	None	3
ASU 105	Introduction to ASU	...	None	None	3
ASU 106	Introduction to ASU	...	None	None	3
ASU 107	Introduction to ASU	...	None	None	3
ASU 108	Introduction to ASU	...	None	None	3
ASU 109	Introduction to ASU	...	None	None	3

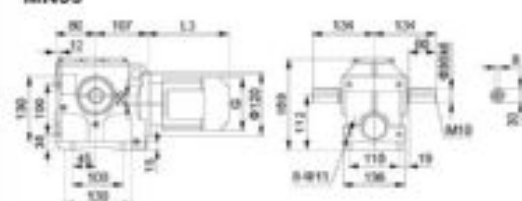
MN49

MNA_49 20C齿 Hollow shaft
Φ25H7

Φ30H7



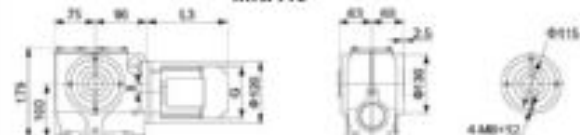
MN59

MNA_59 20C齿 Hollow shaft
Φ30H7

Φ35H7



MNA49



MN89

MNA..89 2-孔轴 Hollow shaft
Φ60H7
Φ70H7

MNA89

MNAZ89

MN..89AD

KQ	D1	L1	T1	U1	M
AD2	111	106	40	21.5	6 M6
AD3	156	206	60	31	8 M10
AD4	210	266	80	41	10 M12
AD5	292	426	110	45	12 M16

MNF89 **MNAF89**

MN..89AM1

需方自配电机加联轴器法兰
When equipping the user's motor,
the flange is required to be connected

MNAT89

MN..89MD59

L	MN..89MD59
	210

注：其他尺寸参照相应系列
Note: For other values please refer
to the copied structure

Y轴输出轴 输出轴 Power (kw)	80	90	90L	100	112H	132H	132M	160H	160L
L3	292	300	325	300	395	441	479	532	576
G	175	195	195	215	240	270	279	300	300
L2	62	62	62	74	74	86	86	119	119
G5	200	200	200	250	250	300	300	350	350

注：1.MNA, MNF, MNAF, MNAZ轴孔为通孔，安装时不可任意堵塞
2.MN..89MD59, MNA, MNF, MNAF, MNAZ, MNAZT, MNAZT, MNAZT, MNAZT, MNAZT, MNAZT
3.轴孔为通孔，安装时不可任意堵塞
Note: 1.The bearings of MNA, MNF, MNAF, MNAZ are common parts,the mounting dimension may consult each other.
2.'MN..' means MN, MNA, MNF, MNAF, MNAZ, MNAZT, MNAZT, MNAZT, MNAZT, MNAZT, MNAZT.
3.With expansion plate structural form,see PageP039-P042 for size details of expansion plate.

MN99

MNA..99 2-孔轴 Hollow shaft
Φ70H7
Φ90H7

MNA99

MNAZ99

MN..99AD

KQ	D1	L1	T1	U1	M
AD3	151	206	60	31	8 M10
AD4	214	306	80	41	10 M12
AD5	287	426	110	45	12 M16
AD6	327	496	110	51.5	14 M18

MNF99 **MNAF99**

MN..99AM1

需方自配电机加联轴器法兰
When equipping the user's motor,
the flange is required to be connected

MNAT99

MN..99MD59

L	MN..99MD59
	211

注：其他尺寸参照相应系列
Note: For other values please refer
to the copied structure

Y轴输出轴 输出轴 Power (kw)	90L	100	112M	132H	132M	160M	160L	160M	160L
L3	301	358	380	434	472	528	567	607	645
G	195	215	240	270	279	300	330	360	360
L2	60	60	60	82	82	113	113	113	113
G5	200	250	250	300	300	350	350	350	350

注：1.MNA, MNF, MNAF, MNAZ轴孔为通孔，安装时不可任意堵塞
2.MN..99MD59, MNA, MNF, MNAF, MNAZ, MNAZT, MNAZT, MNAZT, MNAZT, MNAZT, MNAZT
3.轴孔为通孔，安装时不可任意堵塞
Note: 1.The bearings of MNA, MNF, MNAF, MNAZ are common parts,the mounting dimension may consult each other.
2.'MN..' means MN, MNA, MNF, MNAF, MNAZ, MNAZT, MNAZT, MNAZT, MNAZT, MNAZT, MNAZT.
3.With expansion plate structural form,see PageP039-P042 for size details of expansion plate.

235

236

MN
SERIES



HELICAL-WORM GEAR REDUCTOR
(蜗轮蜗杆减速机)

MN

MTH
MTB
SERIES













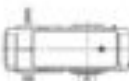






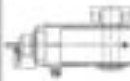


HIGH POWER REDUCTOR

MTH MTB系列 大功率减速机



齿轮箱 基本类型概述

Gear Units Summary of Basic Types

卧式安装 Horizontal mounting position					
平行轴齿轮箱 Helical gear units 类型 MTH1...MTH2...MTH3...MTH4... 1...4-级, $i_n=1.25-450$					
MTH.SH 	MTH.HH 	MTH.DH 	MTH.KH 	MTH.FH 	MTH.HM, MTH.DM MTH.KM, MTH.FM 
直交轴齿轮箱 Bevel-helical gear units 类型 MTB2...MTB3...MTB4... 2...4-级, $i_n=5-400$					
MTB.SH 	MTB.HH 	MTB.DH 	MTB.KH 	MTB.FH 	MTB.HM, MTB.DM MTB.KM, MTB.FM 
立式安装 Vertical mounting position					
平行轴齿轮箱 Helical gear units 类型 MTH2.V, MTH3.V, MTH4.V 2...4-级, $i_n=6.3-450$					
MTH.SV 	MTH.HV 	MTH.DV 	MTH.KV 	MTH.FV 	
直交轴齿轮箱 Bevel-helical gear units 类型 MTB2.V, MTB3.V, MTB4.V 2...4-级, $i_n=5-400$					
MTB.SV 	MTB.HV 	MTB.DV 	MTB.KV 	MTB.FV 	

齿轮箱 基本类型概述

Gear Units Summary of Basic Types

<p>MTB 3 SH 11 - 25 - A - CW / AC4</p> 	
<p>附件代码 / Accessories Code AC1 = 法兰盖 / Flanged-on pump AC2 = 电动机 / Motor pump AC3 = 油箱 / Oil box AC4 = 冷却风扇 / Cooling fan AC5 = 冷却盘管 / Cooling coil AC6 = 冷却器 / Oil cooler AC7 = 迷宫式密封 / Labyrinth seals AC8 = 轴套式密封 / Sacroite seals AC9 = 电机安装法兰 / Motor bolt housing AC10 = 扭力臂 / Torque support AC11 = 浮动底座 / Swing bases AC12 = 比邻盖罩底座 / Housing base rails AC13 = 逆止器 / Backstop AC14 = 电机支架 / Motor brackets AC15 = 法兰安装 / Housing flange</p> <p>MTB输入轴旋转方向 / The direction of the MTB series input shaft 面对输入轴方向 / View onto the input shaft CW = 顺时针 / clockwise CCW = 逆时针 / counterclockwise</p>	
<p>轴布置形式 / Design of shaft 公称传动比 i_n (Pages 295-298) Nominal ratio (Pages 295-298)</p>	
<p>规格 / Size 3...25</p>	
<p>安装形式 / Mounting H = 卧式安装 / Horizontal M = 卧式安装, 不带脚架 / Horizontal design without feet V = 立式安装 / Vertical</p>	
<p>输出轴布置形式 / Output shaft design S = 实心轴 / Solid shaft H = 空心轴 / Hollow shaft D = 带收缩盘的空心轴 / Hollow shaft for shrink disk K = 带花键的空心轴, 按 DIN 5480 Hollow shaft with involute splines acc. to DIN 5480 F = 法兰轴 / Flanged shaft</p>	
<p>传动级数 / No. of stages 1, 2, 3 级 / or 4</p>	
<p>类型 / Type MTH = 平行轴齿轮箱 / Helical gear units MTB = 直交轴齿轮箱 / Bevel-helical gear units</p>	
<p>示例 MTB3SH11-25-A-CW/AC4 直交轴齿轮箱, 3级传动, 实心轴输出, 卧式安装, 规格11, 传动比$i=25$, 布置形式A, 输入轴顺时针旋转, 带冷却风扇 Example MTB3SH11-25-A-CW/AC4 Bevel-helical gear unit, 3-stage, solid output shaft design, horizontal mounting position, size 11, $i=25$, design A, Clockwise rotation of the input shaft, with cooling fan</p>	

齿轮箱 目录

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MTH3..H	MTH3..H	311-316
MTH4..H	MTH4..H	317-322
MTB2..H	MTB2..H	323-326
MTB3..H	MTB3..H	327-332
MTB4..H	MTB4..H	333-336
MTH2..V	MTH2..V	339-342
MTH3..V	MTH3..V	343-346
MTH4..V	MTH4..V	347-350
MTB2..V	MTB2..V	351-354
MTB3..V	MTB3..V	355-356
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齿轮箱 目录

Gear Units Contents

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齿轮箱 性能特点

设计

齿轮箱采用全新的设计，其独特的创新在于：

- 零件种类减少，而规格数量增多；
- 传动功率增大，运转可靠性提高；
- 可以采用非接触式和密封的迷宫式密封装置；
- 可以适用于从小型到大型的法兰轴；(请咨询)

安装方式

可以提供卧式安装和立式安装的齿轮箱；

也可提供其他安装形式，请咨询；

标准齿轮箱可以通过增加不同附件，如轴的安装法兰、齿轮箱浮动底座或底座等，更好的满足客户需求；

噪音特性

采用最新设计理念，通过以下途径显著改善了齿轮箱的噪音特性：

- 采用吸收噪音的箱体结构；
- 采用特有的功能接触齿；

密封性能

齿轮箱不仅具有优异的传动效率，而且具有良好的密封性能，主要通过以下方法：

- 增大了箱体的表面积；
- 可以采用非接触式的迷宫密封装置；
- 采用大风扇和新型的导热风扇罩；

依据标准的最大允许温度选择齿轮箱，这样，不仅提高了运行可靠性，而且也同时降低了维护成本及维护费用；

零件

齿轮箱采用新的模块化单元结构，从而显著减少了零件种类。

Gear Units Characteristic features

Design

Gear units are a completely new design. Advantages are:

- More sizes with a reduced variety of parts;
- Higher operational reliability combined with increased power capacity;
- Non-contacting wear-resistant labyrinth seals are possible;
- Flanged output shafts to facilitate assembly of gear units in confined spaces (on request);

Mounting position

Gear units can be supplied for either horizontal or vertical installation;

Other arrangements are also possible on request;

The basic gear units can be optimally adapted to customer requirements by fitting different add-on pieces like motor bell housings, gear unit swing-bases or backstop;

Noise behaviour

New concepts were applied to clearly improve the noise emission of the gear units by:

- Designing noise-absorbing housings;
- Achieving exceptionally large contact ratios;

Thermal conduction

Gear units not only have a high efficiency but also a favourable thermal conduction:

- Through enlarged housing surface areas;
- Because non-contacting labyrinth seals can be used;
- Because large fans incorporating a new type of air conduction fan cover are being used;

The selection of gear units is based on a lower maximum oil temperature. By that, the operational reliability will be increased and the cost of maintenance reduced due to longer oil change intervals;

Storing

Gear units have been designed according to a new unit construction principle. Through this, the variety of parts could be reduced.

齿轮箱 一般说明

注意事项！

必须严格遵守以下事项！

- 样本中的规格只供识别，并不具有约束力，公司保留变更尺寸的权利；
- 所注重量仅为平均值，并不具有约束力；
- 为防止意外事故发生，所有旋转部件均应按照使用者所在国家和地区的安全规范由用户加装保护；
- 试车之前必须认真阅读操作说明；
- 齿轮箱在供货时已处于准运行状态，运行前需加注润滑油；

- 本样本中所注重量只作为参考；
- 实际注油量应以铭牌上的标记为准；
- 请查看铭牌上或齿轮箱铭牌上的数据；

- 齿轮箱在供货时已配置了径向轴封；
- 如需其他类型的轴封等请咨询；
- 转动方向是指从输入轴到输出轴的旋转方向；

在尺寸图上用单线的符号说明如下：

- ① = 油尺
- ② = 透气孔
- ③ = 放油孔
- ④ = 加油孔

地脚螺栓的最小强度等级为 8.8 级。

Gear Units General information

Attention!

The following items are absolutely to be observed!

- Illustrations are examples only and are not strictly binding. Dimensions are subject to change.
- The weights are mean values and not strictly binding.
- To prevent accidents, all rotating parts should be guarded according to local and national safety regulations.
- Prior to commissioning, the operating instructions must be observed. The gear units are delivered ready for operation but without oil filling.
- Oil quantities given are guide values only. The exact quantity of oil depends on the marks on the oil dipstick.
- The oil viscosity has to correspond to the data given on the name plate.
- The gear units are supplied with radial shaft seals. Other sealing variants on request.
- Directions of rotation referring to output shaft.

Explanation of symbols used in the dimensioned drawings:

- ① = Oil dipstick
- ② = Breather
- ③ = Oil drain
- ④ = Oil filler

Foundation bolts of min. priority class 8.8.

齿轮箱 选型指南
额定功率

Gear Units Guidelines for the Selection
Constant Mechanical Power

1. 确定齿轮箱类型和规格
Determination of gear unit type and size

1.1 确定传动比
Find the transmission ratio

$$i_g = \frac{n_1}{n_2}$$

1.2 确定齿轮箱额定功率
Determine nominal power rating of the gear unit

$$P_{2N} > P_2 \times i_1 \times i_2 \times \dots$$

如果不能满足下列条件, 请与我们联系。
It is not necessary to consult us, if:

$$3.33 \times P_2 > P_{2N}$$

1.3 校核最大扭矩, 例如峰值扭矩, 启动扭矩或制动扭矩
Check for maximum torque, e.g. peak operating, starting or braking torque

$$P_{2N} > \frac{T_A \times n_1}{9550} \times i_2$$

根据 i_g 和 P_{2N} 在额定功率表中确定的齿轮箱的规格和传动级数
Gear unit sizes and number of reduction stages are given in rating tables depending on i_g and P_{2N}

1.4 校核输出轴上允许附加作用力, 见第 205 和 206 页
Check whether additional forces on the output shaft are permissible; see pages 205 and 206

1.5 校核实际传动比见第 291 至 294 页
Check whether the actual ratio i as per tables on pages 291 - 294 is acceptable

2. 确定供油方式
Determination of oil supply

安装方式 / Mounting position	
卧式安装 / Horizontal	立式安装 / Vertical
<p>可供选择的供油方式:</p> <ul style="list-style-type: none"> - 飞溅润滑 - 浸油润滑 - 强制润滑 <p>所有带飞溅的零部件均在润滑油中 All parts to be lubricated are lying in the oil or are splash lubricated Forced lubrication on request</p>	<p>可供选择的供油方式:</p> <ul style="list-style-type: none"> - 浸油润滑 - 采用法兰或电机驱动打油润滑 - 强制润滑 <p>此供油方式和选择标准见第 373 至 384 页</p> <p>Possible oil supply variations:</p> <ul style="list-style-type: none"> - Dip lubrication - Forced lubrication by means of flanged on pump or motor pump - Forced lubrication <p>For preferred variants and criteria for selection, see pages 373 - 384</p>

齿轮箱 选型指南
热容量计算

Gear Units Guidelines for the Selection
Thermal Capacity

1. 确定所需的热容量 P_r
Date required:
所需的数据:
• 类型
• 规格
• 额定传动比
• 环境温度
• 输入转速 (1000/1200/1500/1800 min⁻¹)
• 齿轮箱润滑油品牌

3. Determination of required thermal capacity P_r
Date required:
• Type
• Size
• Nominal ratio
• Ambient temperature
• Input speed (1000/1200/1500/1800 min⁻¹)
• Gear unit with lubrication

计算须知如下假设:
• 工作周期: 100%/h
• 室内大空间 ** 安装 (4m/s - 风速 > 1.4m/s)
• 海拔高度至 1000 m
• 齿轮箱采用矿物油 ISO-VG 460 润滑油

For the calculation below the following has been assumed:
• Operating cycle: 100%/h
• Installation in a large hall ** (4m/s > wind velocity > 1.4m/s)
• Altitude up to 1000 m
• Gear unit with mineral oil ISO-VG 460

假定应用条件 / Assumptions corresponding to operating conditions

假定应用条件有变化
Assumptions deviating from operating conditions

1) 不需要辅助冷却装置 / Without auxiliary cooling $P_r = P_{2N} \times i_g \times i_2$ $P_{2N} = \dots$ $i_g = \dots$ $i_2 = \dots$	$P_r = P_{2N}$ (见第 255 至 260 页 / see pages 255 - 260)	$P_r > P_{2N}$ 齿轮箱不带辅助冷却装置可以满足要求 Gear unit without auxiliary cooling is sufficient
2) 冷却风扇 / fan 3) 冷却盘管 / cooling coil 4) 冷却风扇和冷却盘管 / fan and cooling coil 5) 水-油冷却器 / water-air-oil cooler	$P_r = P_{2N}$ $P_r < P_{2N}$: 需要辅助冷却装置 / auxiliary cooling required	
2) 可以采用冷却风扇 / fan possible $P_r = P_{2N} \times i_g \times i_2$ $P_{2N} = \dots$ $i_g = \dots$ $i_2 = \dots$	$P_r = P_{2N}$ (见第 255 至 260 页 / see pages 255 - 260)	$P_r > P_{2N}$ 齿轮箱带冷却风扇可以满足要求 Gear unit with fan is sufficient
3) 冷却盘管 / cooling coil 4) 冷却风扇和冷却盘管 / fan and cooling coil 5) 水-油冷却器 / water-air-oil cooler	$P_r = P_{2N}$ $P_r < P_{2N}$: 需要辅助冷却装置 / auxiliary cooling required	
3) 可以采用冷却盘管 / Cooling coil possible $P_r = P_{2N} \times i_g \times i_2$ $P_{2N} = \dots$ $i_g = \dots$ $i_2 = \dots$	$P_r = P_{2N}$ (见第 255 至 260 页 / see pages 255 - 260) *	$P_r > P_{2N}$ 齿轮箱带冷却盘管可以满足要求 Gear unit with cooling coil is sufficient
4) 冷却风扇和冷却盘管 / fan and cooling coil 5) 水-油冷却器 / water-air-oil cooler	$P_r = P_{2N}$ $P_r < P_{2N}$: 需要辅助冷却装置 / auxiliary cooling required	
4) 可以同时采用冷却风扇和冷却盘管 / Fan and cooling coil possible $P_r = P_{2N} \times i_g \times i_2$ $P_{2N} = \dots$ $i_g = \dots$ $i_2 = \dots$	$P_r = P_{2N}$ (见第 255 至 260 页 / see pages 255 - 260) *	$P_r > P_{2N}$ 齿轮箱同时带冷却风扇和冷却盘管可以满足要求 Gear unit with fan and cooling coil is sufficient
5) 水-油冷却器 / water-air-oil cooler	$P_r = P_{2N}$ $P_r < P_{2N}$: 需要辅助冷却装置 / auxiliary cooling required	

重新变化后的条件重新计算
Recalculation with other assumptions

$P_r > P_{2N}$
 $P_r < P_{2N}$

齿轮箱所选用的冷却装置可以满足要求
Gear unit with selected cooling is sufficient

请与我们联系!
下列选项可能需要进行调整:
• 润滑油品牌/润滑油粘度/注油量
• 齿轮箱安装基础和轴式结构
• 采用润滑油品牌

Consult us!
Variation of the following items is possible:
• Oil grade/viscosity/level
• Gear unit on foundation or shaft-mounted gear unit
• Application of an oil supply system

* 冷却盘管入口温度为 20°C
* Values refer to a cooling water inlet temperature of 20°C

** 室内小空间: 风速 < 1.4m/s
和室外: 风速 < 4m/s; 请参见第 11 页
** Consult us when small conditions apply: wind velocity < 1.4m/s or in the open (wind velocity > 4m/s)

可能需要的辅助冷却装置取决于用户的工作条件 (例如注油、冷却水温度等)。
The type of the possibly required additional cooling is dependent on the operating condition at the customer's (oil, cooling water connection, etc.).

齿轮箱 符号说明
可变速率

Gear Units Guidelines for the Selection
Variable Power Rating

在以恒定转速和可变功率运行工作机上，其齿轮箱应根据功率功率配置。因此在一个工作周期中，其不同阶段 I、II、...、n 所需的功率分别为 $P_1, P_2, P_3, \dots, P_n$ ，这些功率分量与各自的时间分量 X_1, X_2, \dots, X_n 相对应。根据以下数据按下列公式计算当量功率 P_{2eq} ：

For driven machines with constant speeds and variable power ratings the gear unit can be designed according to the equivalent power rating. For this, a working cycle whose phases I, II, ... n require power $P_1, P_2, P_3, \dots, P_n$ and the respective power ratings apply to time fractions X_1, X_2, \dots, X_n is taken as a basis. The equivalent power rating can be calculated from these specifications with the formula:

$$P_{2eq} = \sqrt[4.6]{P_1^{4.6} \times \frac{X_1}{100} + P_2^{4.6} \times \frac{X_2}{100} + \dots + P_n^{4.6} \times \frac{X_n}{100}}$$

然后按照第 1.3 ... 1.5 章和第 1 章确定齿轮规格，需满足：

The size of the gear unit can be determined analogously to points 1. 1 ... 1. 5 and 3, as follows:

$$P_{2eq} \geq P_{2eq} \times f_1 \times f_2 \times f_3$$

然后，在 P_{2eq} 确定后，按照以下条件检查各个时间分量及其相应的时间功率分量：

Then, when P_{2eq} has been determined, the power and time fractions must be checked by applying the following requirements:

- 1) 各个功率分量 P_1, P_2, \dots, P_n 应大于 $0.4 \times P_{2eq}$ 。
- 2) 各个功率分量 P_1, P_2, \dots, P_n 不能超过 $1.4 \times P_{2eq}$ 。
- 3) 功率分量 P_1, P_2, \dots, P_n 中大于 P_{2eq} 的分量所对应的时间分量 X_1, X_2, \dots, X_n 总和不得超过 10%。

- 1) The individual power fractions P_1, P_2, \dots, P_n must be greater than $0.4 \times P_{2eq}$.
- 2) The individual power fractions P_1, P_2, \dots, P_n must not exceed $1.4 \times P_{2eq}$.
- 3) If power fractions P_1, P_2, \dots, P_n are greater than P_{2eq} , the sum of time fractions X_1, X_2, \dots, X_n must not exceed 10%.

如果以上三个条件中的任何一项不满足，则必须重新计算 P_{2eq} 。

If any one of the three requirements is not met, P_{2eq} must be recalculated.

特别应加以注意的是在计算 P_{2eq} 时应将输入的短时峰值功率不能大于 $P_{2eq} = 2 \times P_{2eq}$ 。

It must be borne in mind that a brief peak power rating not included in the calculation of P_{2eq} must not be greater than $P_{2eq} = 2 \times P_{2eq}$.

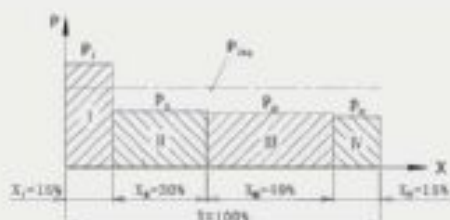
在以可变转速和恒定功率运行的情况下，齿轮箱应按当量扭矩计算。

In applications where the torque is variable but the speed constant the gear unit can be designed on the basis of the so-called equivalent torque.

对某些特定应用，具有有限寿命设计的齿轮箱使用以满负荷进行了，如闸车驱动（闸门驱动机构）推煤输送机（ $n_1 < 4 \text{ min}^{-1}$ ）等。

A gear unit design which is finite-life fatigue-resistant can be sufficient for certain applications, for example, sporadic operation (lock-gate drives) or slow output speeds ($n_1 < 4 \text{ min}^{-1}$).

示例：
服务分类



齿轮箱 符号说明

Gear Units Key to Symbols

- 符号说明
- E_c = 每小时工作周期，以 % 表示（例如 $E_c = 80\% / h$ ）
 - f_1 = 工作系数（表 1）
见第 251 页
 - f_2 = 燃油系数（表 2）
见第 252 页
 - f_3 = 峰值扭矩系数（表 3）
见第 252 页
 - f_4 = 环境温度系数（表 4）
见第 252 页
 - f_5 = 环境温度系数（表 5）
见第 252 页
 - f_6 = 齿轮油润滑系数
对于立式安装齿轮箱见第 252 页（表 6）
对于卧式安装齿轮箱 $f_6 = 1$

- Key to symbols:
- E_c = Operating cycle per hour in %
e.g. $E_c = 80\% / h$
 - f_1 = Factor for driven machine (table 1)
page 251
 - f_2 = Factor for prime mover (table 2)
page 252
 - f_3 = Peak torque factor (table 3)
page 252
 - f_4 = Thermal factors (table 4)
page 252
 - f_5 = Thermal factors (table 5)
page 252
 - f_6 = Oil supply factor for vertical gear units (table 6)
page 252
For horizontal gear units $f_6 = 1$

- i = 实际传动比
- i_n = 额定传动比
- i_r = 要求传动比
- n_1 = 输入转速 (min^{-1})
- n_2 = 输出转速 (min^{-1})
- P_d = 要求的功率
- P_{2eq} = 齿轮箱的额定热容量
不带辅助冷却装置
见第 255 - 290 页
- P_{2eq} = 齿轮箱的额定热容量
带冷却装置
见第 255 - 290 页
- P_{2eq} = 齿轮箱的额定热容量
带内置式冷却装置
见第 255 - 290 页
- P_{2eq} = 齿轮箱的额定热容量
同时带内置式冷却装置和冷却风扇
见第 255 - 290 页
- P_{2eq} = 齿轮箱的额定功率 (kW)
见第 253 - 287 页的图表
- P_1 = 工作额定功率 (kW)
- t = 环境温度 ($^{\circ}\text{C}$)
- T_{in} = 输入轴最大允许
的峰值工作扭矩和
启动扭矩或制动扭矩 (Nm)
- T_{2eq} = 额定输出扭矩 (kNm)
见第 254 - 288 页
- S_s = 减速机的安全系数（表 6）
见第 252 页

- i = Actual ratio
- i_n = Nominal ratio
- i_r = Required ratio
- n_1 = Input speed (min^{-1})
- n_2 = Output speed (min^{-1})
- P_d = Required thermal capacity
- P_{2eq} = Thermal capacity for gear units without
auxiliary cooling, pages 255-290
- P_{2eq} = Thermal capacity for gear units with fan
cooling, pages 255-290
- P_{2eq} = Thermal capacity for gear units with built-in
cooling cool, pages 255-290
- P_{2eq} = Thermal capacity for gear units with built-in
cooling fan and fan, pages 255-290
- P_{2eq} = Nominal power rating of gear unit (kW)
see rating tables, pages 253-287
- P_1 = Power rating of driven machine (kW)
- t = Ambient temperature ($^{\circ}\text{C}$)
- T_{in} = Max. torque occurring on input shaft
e.g. peak operating, starting, or braking
torque (Nm)
- T_{2eq} = Nominal output torque (kNm)
pages 254-288
- S_s = Safety coefficient of reducer (table 6)
pages 252

- P_{2eq} = 当量功率 (kW)
- $P_1, P_2, P_3, \dots, P_n$
= 与数据表中列出的功率分量 (kW)
- $X_1, X_2, X_3, \dots, X_n$
= 与数据表中列出的时间分量 (%)

- P_{2eq} = Equivalent power rating (kW)
- $P_1, P_2, P_3, \dots, P_n$
= Fractions of power rating (kW) obtained
from service classification
- $X_1, X_2, X_3, \dots, X_n$
= Fractions of time (%) obtained from
service classification

齿轮箱 选型指南
计算示例

Gear Units Guidelines for the Selection
Calculation Example

已知:

电动机
电机功率: $P_1 = 75 \text{ kW}$
电机转速: $n_1 = 1500 \text{ min}^{-1}$
最大启动转矩: $T_A = 720 \text{ Nm}$

工作机
皮带输送机功率: $P_2 = 66 \text{ kW}$
转速: $n_2 = 26 \text{ min}^{-1}$
每天运行时间: 12 h / 日
每小时启动次数: 7
每小时工作周期: $E_c = 100\%$
环境温度: 30°C
室内大空间安装: 风速 $\geq 1.4 \text{ m/s}$
海拔高度: 海平面
重要性与安全要求: 一般

齿轮箱设计
直交轴式结构
安装方式: 卧式安装
输出轴 d_2 : 位于齿轮箱右侧, 布置形式 C, 实心轴
输出轴 d_2 的旋转方向: 逆时针旋转

要求:
选择比的标准类型和规格
1. 选择齿轮箱类型和规格
1.1 确定传动比

$$i_2 = \frac{n_1}{n_2} = \frac{1500}{26} = 57.7 \quad i_2 = 58$$

1.2 确定齿轮箱额定功率

$$P_{2N} \geq P_2 \times i_1 \times i_2 \times S_2 = 66 \times 1.3 \times 1 \times 1.1 = 94.38 \text{ kW}$$

从功率表中选择类型 MTH35H, 齿轮箱规格 9, 对应的额定功率 $P_{2N} = 100 \text{ kW}$

1.3 启动扭矩校验

$$P_{2N} \geq \frac{T_A \times n_1}{9550} \times i_2 = \frac{720 \times 1500}{9550} \times 0.65 = 73.5 \text{ kW} \quad P_{2N} = 100 \text{ kW} > 73.5 \text{ kW}$$

2. 确定润滑和密封方式
齿轮箱采用浸油润滑

Known criteria:

PRIME MOVER
Electric motor: $P_1 = 75 \text{ kW}$
Motor speed: $n_1 = 1500 \text{ rev}^{-1}$
Max. starting torque: $T_A = 720 \text{ Nm}$

DRIVEN MACHINE
Belt conveyor: $P_2 = 66 \text{ kW}$
Speed: $n_2 = 26 \text{ min}^{-1}$
Duty: 12 h / day
Starts per hour: 7
Operating cycle per hour: $E_c = 100\%$
Ambient temperature: 30°C
Installation in a large hall: wind velocity $\geq 1.4 \text{ m/s}$
Altitude: sea level
Reliability: normal

GEAR UNIT DESIGN
Bevel helical gear unit
Mounting position: horizontal
Output shaft d_2 : on right hand side design C, solid shaft
Direction of rotation of output shaft d_2 : CCW

Required:
Type and size of gear unit
1. Selection of gear unit type and size
1.1 Calculation of transmission ratio

1.2 Determination of the gear unit normal power rating

Selected from power rating table: type MTH35H, gear unit size 9, with $P_{2N} = 100 \text{ kW}$

1.3 Checking the starting torque

2. Determination of oil supply
Gear unit with dip-lubrication

齿轮箱 选型指南
计算示例

Gear Units Guidelines for the Selection
Calculation Example

1. 确定所需的热容量 P_{th}
所需的数据
• 类型 MTH35H • 规格 09
• 额定传动比: $i_2 = 58$
• 环境温度: $t = 30^\circ\text{C}$
• 输入转速: $n_1 = 1500 \text{ min}^{-1}$
• 齿轮箱采用浸油润滑

3. Determination of required thermal capacity P_{th}
Data required
• Type MTH35H • Size 09
• Nominal ratio: $i_2 = 58$
• Ambient temperature: $t = 30^\circ\text{C}$
• Input speed: $n_1 = 1500 \text{ min}^{-1}$
• Gear unit with lubrication

计算依据如下假设:
• 工作周期: 100%/h
• 室内大空间** 安装 (4m/s - 风速 $\geq 1.4 \text{ m/s}$)
• 海拔高度: 1000 m
• 齿轮箱采用矿物油 ISO-VG 460 浸油

For the calculation below the following has been assumed:
• Operating cycle: 100%/h
• Installation in a large hall** (4m/s - wind velocity $\geq 1.4 \text{ m/s}$)
• Altitude up to 1000 m
• Gear unit with mineral oil ISO-VG 460

假设应用条件有变化
Assumptions deviating from operating conditions

1) 不需要辅助冷却装置 / Without auxiliary cooling
 $P_{th} = P_{2N} \times i_1 \times i_2$
 $P_{th} = 64.8 \text{ kW}$
 $i_1 = 0.88$
 $i_2 = 1.0$ (见第 285 页 / see page 285)

2) 冷却风扇 / fan
3) 冷却盘管 / cooling coil
4) 冷却风扇和冷却盘管 / fan and cooling coil
5) 水-油冷却器 / water-air-oil cooler

2) 可以采用冷却风扇 / Fan possible
 $P_{th} = P_{2N} \times i_1 \times i_2$
 $P_{th} = 123.2 \text{ kW}$
 $i_1 = 0.88$
 $i_2 = 1.0$ (见第 285 页 / see page 285)

3) 可以采用冷却盘管 / Cooling coil possible
 $P_{th} = P_{2N} \times i_1 \times i_2$
 $P_{th} = 174 \text{ kW}$
 $i_1 = 0.93$
 $i_2 = 1.0$ (见第 285 页 / see page 285)**

4) 可以同时采用冷却风扇和冷却盘管 / Fan and cooling coil possible
 $P_{th} = P_{2N} \times i_1 \times i_2$
 $P_{th} = 224.1 \text{ kW}$
 $i_1 = 0.93$
 $i_2 = 1.0$ (见第 285 页 / see page 285)**

根据变化后的条件重新计算
Recalculation with other assumptions

请与我们的联系!
下列选项可能需要进行:
• 润滑油品种/润滑油粘度/油膜量
• 基础安装方式和机械密封式齿轮箱
• 采用浸油润滑

Consult us!
Variation of the following items is possible:
• Oil grade/viscosity/film
• Gear unit on foundation or shaft-mounted gear unit
• Application of an oil supply system

所选择的 $i_2 = 58$ 的齿轮箱 MTH35H9 需要适当的冷却装置, 根据用户不同的应用条件至少应配备一个冷却风扇或一个冷却盘管。

For the selected gear unit MTH35H9 with $i_2 = 58$ suitable auxiliary cooling is to be provided. Dependent on the operating conditions of the customer's, at least a fan or a cooling coil is to be provided.

** 室内小空间 (风速 $< 1.4 \text{ m/s}$) 和室外 (风速 $\geq 4 \text{ m/s}$) - 请参见我们的!

** Consult us when small confined space (wind velocity $< 1.4 \text{ m/s}$) or in the open (wind velocity $\geq 4 \text{ m/s}$)

齿轮箱 服务系数

Gear Units Service Factors

表 1 工作机系数 f_1 / Table 1 Factor for driven machine f_1			
工作机 Driven machines		工作机运行 时间, 小时/天 h/d	工作机 Driven machines
污水处理	Waste water treatment		输送机 Conveyors
渣浆泵 (中心传动)	Thickeners (central drive)	-- -- 1.2	斗式输送机 Bucket conveyors
过滤器	Filter presses	1.0 1.3 1.6	刮板输送机 Hauling winches
泥浆泵	Mud pumps	0.8 1.0 1.3	辊压机 Rollers
鼓风机	Blowers	-- 1.6 2.0	皮带输送机 < 150 kW Belt conveyors < 150 kW
带式输送机	Belted equipment	1.0 1.2 1.3	皮带输送机 > 150 kW Belt conveyors > 150 kW
站房、原料给料式输送机	Combined longitudinal and rotary take	1.0 1.3 1.6	输送机 -- Goods lifts --
预干燥器	Pre-dryers	-- 1.1 1.3	乘客电梯 -- Passenger lifts --
搅拌机	Screw pumps	-- 1.3 1.6	带式输送机 -- Apron conveyors --
水轮机	Water turbines	-- -- 2.0	输送机 -- Roll handling gears --
泵	Pumps		变频器 Frequency converters
离心泵	Centrifugal pumps	1.0 1.2 1.3	往复压缩机 Reciprocating compressors
容积式泵	Positive-displacement pumps		起重机械 -- Cranes --
1个活塞	1 piston	1.3 1.4 1.6	绞车 -- Hoisting gears --
> 1个活塞	> 1 piston	1.2 1.4 1.6	提升机 -- Hoisting gears --
破碎机	Dredgers		冷却塔 Cooling towers
斗式输送机	Bucket conveyors	-- 1.6 1.8	冷却器 -- Cooling lower fans
抽浆泵	Dumping devices	-- 1.3 1.6	鼓风机 (隔墙和垂直式) Blowers (wall and axial)
移动式输送机	Container travelling gears	1.2 1.6 1.8	食品工业 Food industry
斗式输送机	Bucket wheel excavators		制糖生产 Cane sugar production
用于卸煤的	As pick-up	-- 1.7 1.7	甘蔗压榨机 -- Cane knives --
用于搬运生土	For pick-up material	-- 2.2 2.2	甘蔗磨 -- Cane mills --
切割式头	Cutter heads	-- 2.2 2.2	制糖生产 Beet sugar production
切割器	Steering gears	-- 1.4 1.8	甜菜压榨机 -- Beet cossettes masticators --
等速机 --	Plate bending machines --	-- 1.0 1.0	萃取厂 Extractor plants
化学工业	Chemical industry		机械制冷器 Mechanical refrigerators
离心机	Centrifuges	-- -- 1.6	果汁榨汁机 Juice boilers
输送机	Trough mills	-- 1.6 1.8	制糖清洗机械 Sugar beet washing machines
橡胶辊压机	Rubber rollers	-- 1.5 1.5	甘蔗压榨机 Sugar beet cutters
冷却器	Cooling drums	-- 1.3 1.4	造纸机械 Paper machines
混合机、用于 均匀介质	Mixers for uniform media	1.0 1.3 1.4	各种类型 -- of all kind --
非均匀介质	non-uniform media	1.4 1.6 1.7	纸浆机 Pulper mills
搅拌机、用于 均匀介质	Agitators for media with uniform density	1.0 1.3 1.6	离心式压缩机 Centrifugal compressors
非均匀介质	non-uniform density	1.2 1.4 1.6	索道 Cableways
大功率气体吸收	non-uniform gas absorption	1.4 1.6 1.8	材料输送机 Material ropeways
锅炉	Boilers	1.0 1.3 1.5	到站-到站输送机 To-and-to system aerial ropeways
离心机	Centrifuges	1.0 1.2 1.3	带式输送机 T-bar Mills
金属加工机械	Metal working mills		连续输送机 Continuous ropeways
磨粉机	Flour mills	1.0 1.0 1.2	水泥工业 Cement industry
磨粉机	Grinding machines	1.0 1.2 1.3	混凝土搅拌机 Concrete mixers
冷却床传送器	Cooling bed transfer frames	-- 1.6 1.6	破碎机 -- Breakers --
辊压机	Roller straighteners	-- 1.6 1.6	破碎机 -- Rotary kilns --
输送机	Roller tables		管式磨机 Tube mills
连续式	continuous	-- 1.6 1.6	分离器 Separators
间歇式	intermittent	-- 2.0 2.0	破碎机 Roll crushers
可逆式输送机	Reversing tube mills	-- 1.6 1.6	
剪切机	Shears		
连续式 --	continuous --	-- 1.3 1.3	
间歇式 --	crank type --	1.0 1.0 1.2	
连续式输送机 --	Continuous casting drives --	-- 1.4 1.4	
轧机	Rolls		
可逆式开卷机	Reversing blooming mills	-- 2.5 2.5	
可逆式热轧机	Reversing slabbing mills	-- 2.5 2.5	
可逆式冷轧机	Reversing wire mills	-- 1.6 1.6	
可逆式薄板轧机	Reversing sheet mills	-- 2.0 2.0	
可逆式中厚板轧机	Reversing plate mills	-- 1.8 1.8	
连续式冷轧机	Roll adjustment drives	0.8 1.0 --	

齿轮箱 服务系数

Gear Units Service Factors

工作机的额定功率 P_n 的确定：
 *) 按照大型和中型额定功率
 **) 按照小型和微型额定功率
 ***) 按照小型和微型额定功率

Design for power rating of driven machine P_n :
 *) Designed power corresponding to max. torque
 **) Load can be exactly classified, for instance, according to FEM 1001
 ***) A check for thermal capacity is absolutely essential

所列各系数均为经验值，使用这些系数的前提条件是标准机械设备的符合制造商设计规范和规格条件。如有特殊情况，请与我们联系。对于特殊系列的工作机，请与我们联系。

The listed factors are empirical values. Prerequisite for their application is that the machinery and equipment mentioned correspond to generally accepted design and load specifications. In case of deviations from standard conditions, please refer to us. For driven machines which are not listed in this table, please refer to us.

1) 日常运行时间，以小时计

Effective daily operating period under load in hours

表 2 原动机系数 f_2	表 2 Factor for prime mover f_2	表 3 安全系数	表 3 Safety coefficient
电机、液压马达、汽轮机	Electric motors, hydraulic motors, turbines	1.0	一般工业、机械、采矿、冶金、化工、造纸、纺织、食品、医药、农业、林业、水利、电力、船舶、航空、航天、国防、科研、教育、医疗、环保、能源、交通、通信、金融、服务、其他
4-6缸柴油机	Piston engines 4-6 cylinders, cyclic variation 1: 100 to 1: 200	1.25	更高的安全要求
1-3缸柴油机	Piston engines 1-3 cylinders, cyclic variation up to 1: 100	1.3	更高的安全要求
表 3 峰值扭矩系数 f_3	表 3 Peak torque factor f_3	更高的安全要求	
每小时峰值次数 1-5 6-30 31-100 > 100	Load peaks per hour 1-5 6-30 31-100 > 100	更高的安全要求	
单向负载	Steady direction of load	0.8 0.85 0.7 0.85	更高的安全要求
双向负载	Alternating direction of load	0.7 0.85 1.15 1.25	更高的安全要求
表 4 环境温度系数	表 4 Thermal factor	更高的安全要求	
环境温度 / Ambient	10°C 15°C 20°C 25°C 30°C 35°C 40°C 45°C 50°C	更高的安全要求	
f_4	1.11 1.06 1.00 0.94 0.88 0.82 0.75 0.69 0.63	更高的安全要求	
表 5 环境温度系数	表 5 Thermal factor	更高的安全要求	
环境温度 / Ambient	10°C 15°C 20°C 25°C 30°C 35°C 40°C 45°C 50°C	更高的安全要求	
f_5	1.05 1.03 1.00 0.97 0.93 0.90 0.87 0.84 0.81	更高的安全要求	
表 6 立式安装系数	表 6 On supply factor for vertical gear units	更高的安全要求	
齿轮箱类型 Gear unit type	供油方式 Oil supply	尺寸 / Sizes 4-12	尺寸 / Sizes 13-18
WTH2.V WTH3.V WTH4.V	浸油润滑 Dip lubrication	不带辅助冷却装置 without Auxiliary cooling	不带辅助冷却装置 without Auxiliary cooling
	强制润滑 Forced lubrication	带风扇 with Fan	带风扇和冷却盘管 with Fan and cooling coil
WTS2.V WTS3.V WTS4.V	浸油润滑 Dip lubrication	不带辅助冷却装置 without Auxiliary cooling	不带辅助冷却装置 without Auxiliary cooling
	强制润滑 Forced lubrication	带风扇 with Fan	带风扇和冷却盘管 with Fan and cooling coil

齿轮箱 热容量 / $n_2=1500 \text{ min}^{-1}$
类型 MTH1... / 规格 3-26

Gear Units Thermal Capacities / $n_2=1500 \text{ min}^{-1}$
Type MTH1... / Sizes 3-26

N ₂	热容量 P ₀ (kW) / Thermal capacities P ₀ (kW)																									
	齿轮箱规格 / Gear unit sizes																									
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
1.25	P _{0A}	250	302	406	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	307	498	948	1276	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	432	1117	1537	1921	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1.4	P _{0A}	212	262	447	375	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	299	580	937	1285	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	460	1194	1523	1992	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1.6	P _{0A}	213	420	590	498	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	294	655	994	1276	1944	2060	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	438	1063	1452	1982	3039	3267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1.8	P _{0A}	241	435	554	525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	300	625	894	1259	1890	2161	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	478	1019	1450	1953	3106	3325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	P _{0A}	234	427	553	599	509	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	295	593	862	1207	1947	2181	1626	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	485	964	1382	1873	3026	3213	2626	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2.24	P _{0A}	227	423	544	625	631	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	278	589	779	1151	1802	2172	1719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	431	913	1284	1760	2964	3236	2983	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2.5	P _{0A}	211	405	525	614	678	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	281	618	793	1079	1810	2102	1746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	389	848	1172	1674	2819	3028	2672	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2.8	P _{0A}	199	394	503	694	795	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	251	475	733	1091	1698	2002	1748	1636	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	389	777	1189	1805	2647	3075	2947	2687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3.15	P _{0A}	200	415	792	828	1055	1033	816	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	226	481	881	1237	1856	2021	2223	2487	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	348	779	1442	1941	2879	3204	3624	4025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3.55	P _{0A}	183	407	649	778	998	1014	803	678	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	254	480	791	1124	1685	2040	2367	2367	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	314	745	1301	1769	2617	3023	3307	3639	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	P _{0A}	166	374	591	677	964	1012	938	801	623	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	181	410	696	937	1534	1870	1943	2263	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	280	665	1147	1483	2387	2856	3159	3625	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4.5	P _{0A}	180	380	611	795	994	1155	1051	1102	1069	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	194	413	696	1049	1498	1892	2076	2282	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	298	680	1137	1648	2330	3062	3339	3779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5	P _{0A}	165	373	599	738	1020	1227	1365	1360	1325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	173	390	659	930	1427	1811	2023	2260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	286	631	1080	1481	2342	2842	3255	4202	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6.8	P _{0A}	146	330	525	704	967	1104	1266	1423	1604	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	151	337	577	866	1307	1875	1787	2267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	232	545	949	1375	2106	2585	2980	3741	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

* 请与供应商联系

P_{0A} (kW) 齿轮箱不带辅助冷却装置**)P_{0B} (kW) 齿轮箱带外部冷却装置**)P_{0C} (kW) 齿轮箱带内部冷却装置**)P_{0D} (kW) 齿轮箱带内部冷却和内置冷却装置**)

**) Values refer to:

Operating cycle: 100%
Installation in a large hall
Altitude up to 1000 m

*) Consult us

P_{0A} (kW) Gear units without auxiliary cooling **)P_{0B} (kW) Gear units with fan **)P_{0C} (kW) Gear units with built-in cooling coil **)P_{0D} (kW) Gear units with fan and built-in cooling coil **)

**) Values refer to:

Operating cycle: 100%
Installation in a large hall
Altitude up to 1000 m

齿轮箱 热容量 / $n_2=1800 \text{ min}^{-1}$
类型 MTH1... / 规格 3-26

Gear Units Thermal Capacities / $n_2=1800 \text{ min}^{-1}$
Type MTH1... / Sizes 3-26

N ₂	热容量 P ₀ (kW) / Thermal capacities P ₀ (kW)																									
	齿轮箱规格 / Gear unit sizes																									
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
1.25	P _{0A}	210	260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	314	660	861	1068	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	514	1184	1554	1921	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1.4	P _{0A}	214	327	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	308	652	898	1086	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	500	1184	1554	1983	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1.6	P _{0A}	215	379	397	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0B}	294	643	848	1146	1665	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0C}	482	1131	1513	2002	2704	2485	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	P _{0D}	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1.8	P _{0A}	252	471	480																						

齿轮箱 热容量 / $n_p=1000 \text{ min}^{-1}$
类型 MTH2.. / 规格 4-26

Gear Units Thermal Capacities / $n_p=1000 \text{ min}^{-1}$
Type MTH2.. / Sizes 4-26

		热容量 P_{20} (kW) / Thermal capacities P_{20} (kW)																								
n_n		齿轮箱规格 / Gear unit sizes																								
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
6.3	P_{20}	54.1	66.3	80.3	93	106	118	134	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	106	143	172	201	230	260	309	378	461	563	685	829	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	130	169	205	245	295	358	435	530	645	785	955	1150	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	162	204	247	295	358	435	530	645	785	955	1150	1390	-	-	-	-	-	-	-	-	-	-	-		
7.1	P_{20}	58.1	70	83.8	97	111	125	145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	109	148	174	206	245	295	358	435	530	645	785	955	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	121	160	197	247	300	363	441	545	670	820	1000	1200	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	156	206	254	310	379	465	570	700	860	1050	1270	1530	-	-	-	-	-	-	-	-	-	-	-		
8	P_{20}	64.4	78.3	94.1	111	130	152	181	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	104	140	172	208	250	300	360	440	540	660	810	1000	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	115	150	187	229	275	330	405	500	615	760	935	1140	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	155	205	260	320	385	465	570	700	860	1050	1270	1530	-	-	-	-	-	-	-	-	-	-	-		
9	P_{20}	63.4	77.3	93.1	110	130	150	180	212	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	101	138	169	205	245	295	358	435	530	645	785	955	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	108	144	175	210	250	300	360	440	540	660	810	1000	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	150	204	260	320	385	465	570	700	860	1050	1270	1530	-	-	-	-	-	-	-	-	-	-	-		
10	P_{20}	61.1	75.4	91.3	108	128	150	180	214	254	304	364	444	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	98.7	131	163	200	242	292	352	432	532	652	802	1002	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	100	136	168	205	245	295	358	435	530	645	785	955	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	138	212	265	327	395	475	580	710	860	1050	1270	1530	-	-	-	-	-	-	-	-	-	-	-		
11.2	P_{20}	49.3	63.4	79.3	97.2	117	140	175	218	272	338	418	518	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	97	126	151	185	214	249	290	348	425	525	655	815	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	97	126	151	185	214	249	290	348	425	525	655	815	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	130	205	265	335	415	510	630	780	950	1160	1430	1780	-	-	-	-	-	-	-	-	-	-	-		
12.5	P_{20}	47.8	60	75.3	93.2	113	138	174	220	278	350	438	550	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	87.8	123	152	191	235	288	358	445	555	695	870	1080	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	87.8	123	152	191	235	288	358	445	555	695	870	1080	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	126	201	260	330	410	505	630	790	980	1210	1490	1840	-	-	-	-	-	-	-	-	-	-	-		
14	P_{20}	45.5	59	74.8	93.7	114	139	175	222	282	358	448	562	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	82.9	116	145	185	229	280	345	430	540	675	845	1050	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	82.9	116	145	185	229	280	345	430	540	675	845	1050	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	118	195	254	324	405	500	620	780	980	1220	1500	1840	-	-	-	-	-	-	-	-	-	-	-		
16	P_{20}	41.8	56.8	73.7	93.6	115	141	178	228	292	372	468	588	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	75.7	108	138	178	223	278	348	438	558	708	898	1138	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	75.7	108	138	178	223	278	348	438	558	708	898	1138	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	107	171	229	299	380	475	595	755	965	1225	1525	1885	-	-	-	-	-	-	-	-	-	-	-		
18	P_{20}	40.1	54.4	71.3	91.2	114	140	178	230	298	388	498	638	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	72.1	103	134	177	224	280	350	445	565	725	915	1145	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	72.1	103	134	177	224	280	350	445	565	725	915	1145	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	100	167	227	300	385	490	625	805	1040	1340	1710	2160	-	-	-	-	-	-	-	-	-	-	-		
20	P_{20}	38.3	51.1	67.9	87.8	110	138	178	235	305	395	515	665	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	70.2	96.8	125	165	210	270	345	445	575	745	965	1245	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	70.2	96.8	125	165	210	270	345	445	575	745	965	1245	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	97.4	150	205	275	360	465	595	775	1020	1340	1750	2250	-	-	-	-	-	-	-	-	-	-	-		
22.4	P_{20}	36.4	47.5	65	86.1	110	140	185	248	328	435	575	755	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	64.9	89.4	121	160	205	275	375	505	675	905	1205	1585	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	64.9	89.4	121	160	205	275	375	505	675	905	1205	1585	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	88.9	137	188	254	340	455	615	825	1115	1495	2015	2725	-	-	-	-	-	-	-	-	-	-	-		
25	P_{20}	35.3	46.4	65.5	88.6	114	146	195	265	355	475	635	855	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	68.9	94.4	128	175	225	305	415	555	755	1035	1415	1925	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	68.9	94.4	128	175	225	305	415	555	755	1035	1415	1925	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	92.4	142	195	265	360	485	655	905	1235	1675	2275	3105	-	-	-	-	-	-	-	-	-	-	-		
28	P_{20}	31.5	42.6	60.7	83.8	110	145	195	275	375	505	695	965	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	60.5	81.6	111	150	195	265	365	495	675	935	1285	1775	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	60.5	81.6	111	150	195	265	365	495	675	935	1285	1775	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	81.5	125	170	235	320	435	595	825	1125	1525	2055	2815	-	-	-	-	-	-	-	-	-	-	-		

[*] 请与制造商联系
 P_{20} (kW) 齿轮箱不带辅助冷却**)
 P_{20} (kW) 齿轮箱内部冷却**)
 P_{20} (kW) 齿轮箱内部冷却**)
 P_{20} (kW) 齿轮箱内部冷却和内部冷却**)
 P_{20} (kW) 齿轮箱带风扇和内部冷却**)
 **) Values refer to:
 Operating cycle: 100%
 Installation in a large hall
 Altitude up to 1000 m

齿轮箱 热容量 / $n_p=1200 \text{ min}^{-1}$
类型 MTH2.. / 规格 4-26

Gear Units Thermal Capacities / $n_p=1200 \text{ min}^{-1}$
Type MTH2.. / Sizes 4-26

		热容量 P_{20} (kW) / Thermal capacities P_{20} (kW)																								
n_n		齿轮箱规格 / Gear unit sizes																								
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
6.3	P_{20}	48.2	59.3	74.4	87.5	100	113	131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	112	148	180	216	258	306	366	444	540	666	822	1014	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	126	168	204	246	294	354	432	534	654	810	1008	1260	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	176	234	288	354	444	564	726	954	1266	1680	2250	3000	-	-	-	-	-	-	-	-	-	-	-		
7.1	P_{20}	51.8	64.4	80.4	97.3	115	134	164	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	118	155	192	234	282	342	420	516	636	792	1008	1296	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	127	168	204	246	294	354	432	534	654	810	1008	1260	-	-	-	-	-	-	-	-	-	-	-		
	P_{20}	160	216	270	336	426	546	714	954	1284	1728	2304	3096	-	-	-	-	-	-	-	-	-	-	-		
8	P_{20}	50.9	63.5	80.5	97.5	116																				

齿轮箱 热容量 / $n_2=1500 \text{ min}^{-1}$
类型 MTH2.. / 规格 4-26

Gear Units Thermal Capacities / $n_2=1500 \text{ min}^{-1}$
Type MTH2.. / Sizes 4-26

h	k	热容量 P_0 (kW) / Thermal capacities P_0 (kW)																									
		齿轮箱规格 / Gear unit sizes																									
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26			
6.3	P_{0a}	48.3	48.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0b}	130	170	256	322	426	442	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0c}	146	226	307	342	740	1137	1267	1413	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0d}	210	307	405	774	1124	1730	1824	2150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
7.1	P_{0a}	51.6	53.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0b}	137	177	252	323	453	480	338	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0c}	148	226	336	318	740	1190	1289	1305	1454	1443	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0d}	214	307	499	730	1177	1729	1861	1860	2199	2200	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
8	P_{0a}	51.4	56.4	58.3	64.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0b}	130	175	191	249	276	322	328	460	501	527	580	432	390	-	-	-	-	-	-	-	-	-	-	-		
	P_{0c}	142	219	236	323	307	436	545	720	961	1171	1319	1306	1332	1507	1500	-	-	-	-	-	-	-	-	-		
	P_{0d}	200	276	341	479	342	707	732	1098	1387	1700	1925	1860	1910	2261	2260	-	-	-	-	-	-	-	-	-		
9	P_{0a}	52.4	55.3	57.8	73.2	77.2	86.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0b}	135	174	156	246	275	324	333	484	545	600	666	541	536	384	340	-	-	-	-	-	-	-	-	-		
	P_{0c}	135	211	235	351	352	477	571	686	968	1159	1335	1332	1386	1590	1608	-	-	-	-	-	-	-	-	-		
	P_{0d}	190	265	344	458	518	682	736	1033	1405	1679	1927	1889	1975	2300	2400	-	-	-	-	-	-	-	-	-		
10	P_{0a}	51.4	51.1	70.9	77.7	84.2	96	95.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0b}	135	180	190	241	273	330	336	480	571	634	710	612	617	710	691	-	-	-	-	-	-	-	-	-		
	P_{0c}	136	196	205	338	453	505	607	943	1138	1305	1316	1383	1411	1649	-	-	-	-	-	-	-	-	-	-		
	P_{0d}	182	282	331	435	498	648	710	987	1375	1628	1896	1961	1964	2374	2447	-	-	-	-	-	-	-	-	-		
11.2	P_{0a}	50.4	51.2	72.3	83.4	88	96.3	103	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0b}	119	180	191	246	267	329	331	500	572	674	738	648	659	784	787	-	-	-	-	-	-	-	-	-		
	P_{0c}	130	180	201	294	321	427	479	682	882	1136	1274	1289	1304	1582	1601	-	-	-	-	-	-	-	-	-		
	P_{0d}	174	268	315	438	475	610	670	986	1283	1640	1836	1796	1913	2323	2437	-	-	-	-	-	-	-	-	-		
12.5	P_{0a}	49.5	52.1	70.3	85.8	88.3	104	106	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0b}	113	157	191	242	258	325	322	512	582	680	742	685	691	801	840	-	-	-	-	-	-	-	-	-		
	P_{0c}	119	182	204	289	320	415	454	655	837	1058	1215	1272	1302	1579	1608	-	-	-	-	-	-	-	-	-		
	P_{0d}	169	260	309	425	450	580	644	978	1218	1523	1756	1790	1836	2211	2364	-	-	-	-	-	-	-	-	-		
14	P_{0a}	47.8	50.4	69.3	81.7	83.2	108	108	140	153	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0b}	126	150	174	224	253	298	310	484	583	647	774	690	726	875	906	-	-	-	-	-	-	-	-	-		
	P_{0c}	126	171	193	259	304	393	425	611	641	691	1235	1266	1268	1511	1600	-	-	-	-	-	-	-	-	-		
	P_{0d}	186	243	279	384	449	602	653	914	1223	1434	1761	1897	1832	2271	2342	-	-	-	-	-	-	-	-	-		
16	P_{0a}	44.1	57.8	66.9	76.8	84.0	104	110	144	169	190	193	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0b}	96.9	140	180	210	257	281	303	480	582	650	751	710	731	875	910	-	-	-	-	-	-	-	-	-		
	P_{0c}	96.1	157	191	239	297	362	414	581	627	687	1125	1196	1226	1429	1528	-	-	-	-	-	-	-	-	-		
	P_{0d}	141	225	273	352	438	518	584	830	1107	1296	1628	1684	1726	2098	2236	-	-	-	-	-	-	-	-	-		
18	P_{0a}	42.7	56.4	67.8	77.3	85.8	101	111	143	175	181	200	170	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0b}	94.4	134	167	202	237	268	286	443	540	621	731	690	748	884	910	-	-	-	-	-	-	-	-	-		
	P_{0c}	92.4	148	177	229	286	328	362	527	789	890	1057	1119	1218	1387	1442	-	-	-	-	-	-	-	-	-		
	P_{0d}	132	213	255	328	395	486	555	790	1155	1297	1526	1578	1718	2029	2154	-	-	-	-	-	-	-	-	-		
20	P_{0a}	42	53.3	64	73.1	83.3	100	107	142	170	176	202	170	182	-	-	-	-	-	-	-	-	-	-	-		
	P_{0b}	90.1	126	150	188	222	257	278	428	525	588	670	665	712	860	910	-	-	-	-	-	-	-	-	-		
	P_{0c}	92.4	136	162	200	247	326	362	450	702	820	941	1036	1130	1340	1380	-	-	-	-	-	-	-	-	-		
	P_{0d}	128	198	235	310	353	465	512	747	1059	1190	1360	1455	1597	1956	2079	-	-	-	-	-	-	-	-	-		
22.4	P_{0a}	38.9	48.7	61.3	70.7	82.4	92.6	101	120	159	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0b}	85.2	116	144	181	213	239	261	367	489	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0c}	81.3	125	150	200	236	293	337	454	637	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0d}	117	181	223	305	346	430	478	660	954	1380	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
25	P_{0a}	57.8	57.8	77.2	-	98.9	136	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0b}	134	134	197	252	470	627	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0c}	142	142	218	323	617	862	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0d}	200	200	318	458	898	1240	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
26	P_{0a}	54.1	54.1	75.5	93.4	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0b}	125	125	190	236	439	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0c}	130	130	206	282	582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0d}	187	187	302	417	819	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

* 请与制造商联系
 P_{0a} (kW) 齿轮箱不带辅助冷却装置**
 P_{0b} (kW) 齿轮箱带外部冷却装置**
 P_{0c} (kW) 齿轮箱带内置冷却装置**
 P_{0d} (kW) 齿轮箱带外部冷却和内置冷却装置**
** Values refer to:
Operating cycle: 100%
Installation in a large hall
Altitude up to 1000 m

齿轮箱 热容量 / $n_2=1800 \text{ min}^{-1}$
类型 MTH2.. / 规格 4-26

Gear Units Thermal Capacities / $n_2=1800 \text{ min}^{-1}$
Type MTH2.. / Sizes 4-26

h	k	热容量 P_0 (kW) / Thermal capacities P_0 (kW)																									
		齿轮箱规格 / Gear unit sizes																									
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26			
6.3	P_{0a}	42.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0b}	144	181	265	319	396	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0c}	157	230	375	458	730	1102	1227	1413	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0d}	236	361	574	832	1154	1678	1862	2150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
7.1	P_{0a}	44.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0b}	150	189	282	325	426	367	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	P_{0c}	159	241	355	356	736	1127	1182	1261	1447	1430	-															

齿轮箱 热容量 / $n_n=1000 \text{ min}^{-1}$ 类型 MTH3.. / 规格 5-26

Gear Units Thermal Capacities / $n_n=1000 \text{ min}^{-1}$ Type MTH3.. / Sizes 5-26

Table with columns for gear unit size (5-26) and thermal capacity (P_0a, P_0b, P_0c, P_0d) in kW. Includes sub-tables for gear unit sizes.

*) 请与制造商联系 P_0a (kW) 齿轮箱不带辅助冷却装置**) P_0b (kW) 齿轮箱带辅助冷却装置**) P_0c (kW) 齿轮箱带内置冷却装置**) P_0d (kW) 齿轮箱带冷却和内置冷却装置**) **) 表中数据按: 每小时工作周期: 100% 安装在大型厂房 海拔高度至 1000 m

*) Consult us P_0a (kW) Gear units without auxiliary cooling **) P_0b (kW) Gear units with fan **) P_0c (kW) Gear units with built-in cooling coil **) P_0d (kW) Gear units with fan and built-in cooling coil **) **) Values refer to: Operating cycle: 100% Installation in a large hall Altitude up to 1000 m

齿轮箱 热容量 / $n_n=1200 \text{ min}^{-1}$ 类型 MTH3.. / 规格 5-26

Gear Units Thermal Capacities / $n_n=1200 \text{ min}^{-1}$ Type MTH3.. / Sizes 5-26

Table with columns for gear unit size (5-26) and thermal capacity (P_0a, P_0b, P_0c, P_0d) in kW. Includes sub-tables for gear unit sizes.

*) 请与制造商联系 P_0a (kW) 齿轮箱不带辅助冷却装置**) P_0b (kW) 齿轮箱带辅助冷却装置**) P_0c (kW) 齿轮箱带内置冷却装置**) P_0d (kW) 齿轮箱带冷却和内置冷却装置**) **) 表中数据按: 每小时工作周期: 100% 安装在大型厂房 海拔高度至 1000 m

*) Consult us P_0a (kW) Gear units without auxiliary cooling **) P_0b (kW) Gear units with fan **) P_0c (kW) Gear units with built-in cooling coil **) P_0d (kW) Gear units with fan and built-in cooling coil **) **) Values refer to: Operating cycle: 100% Installation in a large hall Altitude up to 1000 m

齿轮箱 热容量 / $n_1=1500 \text{ min}^{-1}$ 类型 MTH3... / 规格 5-26

Gear Units Thermal Capacities / $n_1=1500 \text{ min}^{-1}$ Type MTH3... / Sizes 5-26

Table with columns for gear ratio (i) and gear unit sizes (5-26). Rows are grouped by gear unit type (e.g., 22.4, 25, 28, 31.5, 35.5, 40, 45, 50, 56, 63, 71, 80, 90, 100, 112). Each row contains P0A, P0B, P0C, P0D values.

Consult us
P0A (kW) Gear units without auxiliary cooling **
P0B (kW) Gear units with fan **
P0C (kW) Gear units with built-in cooling coil **
P0D (kW) Gear units with fan and built-in cooling coil **
*) Values refer to: Operating cycle: 100% Installation in a large hall Altitude up to 1000 m

齿轮箱 热容量 / $n_1=1800 \text{ min}^{-1}$ 类型 MTH3... / 规格 5-26

Gear Units Thermal Capacities / $n_1=1800 \text{ min}^{-1}$ Type MTH3... / Sizes 5-26

Table with columns for gear ratio (i) and gear unit sizes (5-26). Rows are grouped by gear unit type (e.g., 22.4, 25, 28, 31.5, 35.5, 40, 45, 50, 56, 63, 71, 80, 90, 100, 112). Each row contains P0A, P0B, P0C, P0D values.

Consult us
P0A (kW) Gear units without auxiliary cooling **
P0B (kW) Gear units with fan **
P0C (kW) Gear units with built-in cooling coil **
P0D (kW) Gear units with fan and built-in cooling coil **
*) Values refer to: Operating cycle: 100% Installation in a large hall Altitude up to 1000 m

齿轮箱 热容量 / $n_n = 1000 \text{ min}^{-1}$
 类型 MTH4... / 规格 7-26

Gear Units Thermal Capacities / $n_n = 1000 \text{ min}^{-1}$
 Type MTH4... / Sizes 7-26

		热容量 P_{G0} (kW) / Thermal capacities P_{G0} (kW)																										
i_{G0}		齿轮箱规格 / Gear unit sizes																										
		7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26							
100	P_{G0}	43.0		60.8		80.1		120		161		190		253		346		*		*								
112	P_{G0}	42		58.2		89.4		117		154	166	175	185	243	250	340	350	*	*	*	*							
125	P_{G0}	40.8	46.8	56.4	61.1	85.8	99.7	114	128	140	160	167	177	235	249	330	344	*	*	*	*							
140	P_{G0}	38.7	44.9	54.8	58.5	83	98.9	110	125	144	153	161	171	227	241	313	324	*	*	*	*							
160	P_{G0}	37.2	43.6	51.8	56.7	79	95.3	104	121	138	148	154	165	219	230	301	317	*	*	*	*							
180	P_{G0}	35.8	41.4	49.4	54.9	75.2	91.8	100	118	130	142	151	158	208	224	297	304	*	*	*	*							
200	P_{G0}	34.4	39.9	47.8	51.8	72	87.6	96.2	111	132	139	146	156	201	214	280	300	*	*	*	*							
224	P_{G0}	32.4	38.2	45.9	49.0	69	84.4	93.7	107	123	136	136	151	193	206	268	280	*	*	*	*							
250	P_{G0}	31	37	43.8	48.2	65.0	79.7	88.1	104	117	126	130	141	183	196	253	279	*	*	*	*							
280	P_{G0}	30.1	34.7	42.5	46.2	63.1	76.7	86.3	99.1	113	120	126	130	176	188	243	256	*	*	*	*							
315	P_{G0}	29.4	33.3	40.5	44.1	61.0	72.7	82.8	95.5	108	116	121	130	172	181	233	245	*	*	*	*							
355	P_{G0}	28.1	32.3	39.8	42.8	58.8	69.8	78.9	91.8	105	111	118	124	164	177	222	236	*	*	*	*							
400	P_{G0}		31.6		40.8		66.3		66.3		109		125		168		225	*	*	*	*							
450	P_{G0}		30.1		40.1		64.9		64.2									*	*	*	*							

 热容量 / $n_n = 1200 \text{ min}^{-1}$
 类型 MTH4... / 规格 7-26

 Thermal Capacities / $n_n = 1200 \text{ min}^{-1}$
 Type MTH4... / Sizes 7-26

		热容量 P_{G0} (kW) / Thermal capacities P_{G0} (kW)																											
i_{G0}		齿轮箱规格 / Gear unit sizes																											
		7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26								
100	P_{G0}	45.4		63.1		82.4		121		160		179		246		329		*		*									
112	P_{G0}	43.9		60.8		82.4		120		158	167	175	185	241	257	329	335	*	*	*	*								
125	P_{G0}	42.7	49	58.8	63.7	89	103	117	132	152	162	169	179	237	250	325	336	*	*	*	*								
140	P_{G0}	40.8	47.1	57.1	61.1	86.5	102	114	129	148	158	164	175	231	245	314	320	*	*	*	*								
160	P_{G0}	39.1	45.7	54.1	59.4	82.5	98.4	108	126	143	153	159	170	224	238	305	319	*	*	*	*								
180	P_{G0}	37.7	43.6	52	57.7	80	96.2	105	123	142	148	157	166	216	232	308	313	*	*	*	*								
200	P_{G0}	36.3	42	50.3	54.5	75.7	92.1	103	117	139	146	153	163	211	224	292	313	*	*	*	*								
224	P_{G0}	34.2	40.3	48.4	52.4	72.0	89	98.8	113	130	144	144	158	204	217	283	299	*	*	*	*								
250	P_{G0}	32.7	38	46.2	50.8	69.2	84	94	110	123	133	137	148	193	209	267	285	*	*	*	*								
280	P_{G0}	31.7	36.6	44.8	48.7	65.0	80.9	91.1	104	120	128	135	141	186	198	257	269	*	*	*	*								
315	P_{G0}	31.1	35.1	42.8	46.5	64.9	76.7	87.3	100	114	122	127	137	182	191	248	258	*	*	*	*								
355	P_{G0}	29.8	34	42	45.2	61.8	73.8	83.3	96.9	112	118	124	131	173	187	235	248	*	*	*	*								
400	P_{G0}		33.4		43.1		72		93.2		115		128		177		236	*	*	*	*								
450	P_{G0}		31.7		42.3		68.5		68.8									*	*	*	*								

 (*) 请与我们的联系
 P_{G0} (kW) 齿轮箱不带辅助冷却装置**

 **) 参考数据表
 每小时工作周期: 100%
 在室内大空间安装
 海拔高度至 1000 m

 (*) Consult us
 P_{G0} (kW) Gear units without auxiliary cooling **)

 **) Values refer to:
 Operating cycle: 100%
 Installation in a large hall
 Altitude up to 1000 m

齿轮箱 热容量 / $n_n = 1500 \text{ min}^{-1}$
 类型 MTH4... / 规格 7-26

Gear Units Thermal Capacities / $n_n = 1500 \text{ min}^{-1}$
 Type MTH4... / Sizes 7-26

		热容量 P_{G0} (kW) / Thermal capacities P_{G0} (kW)																											
i_{G0}		齿轮箱规格 / Gear unit sizes																											
		7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26								
100	P_{G0}	46.7		67.0		89.1		130		172		190		264		348		*		*									
112	P_{G0}	47.1		65.1		89.1		129		167	179	180	196	259	276	352	358	*	*	*	*								
125	P_{G0}	45.8	52.5	63.1	68.3	95.5	110	126	143	163	174	181	190	254	268	348	359	*	*	*	*								
140	P_{G0}	43.5	50.5	61.3	65.0	92.8	110	123	139	156	169	170	188	240	263	336	356	*	*	*	*								
160	P_{G0}	41.9	49.1	58	63.7	88.5	106	118	135	153	164	171	182	240	265	337	343	*	*	*	*								
180	P_{G0}	40.4	46.7	56.8	61.9	85.8	103	113	132	152	159	169	177	237	249	329	335	*	*	*	*								
200	P_{G0}	38.9	45.1	54	58.5	81.3	98.9	110	126	149	157	164	175	225	240	314	335	*	*	*	*								
224	P_{G0}	36.7	43.2	53	56.2	78.1	95.5	106	121	140	154	154	170	219	233	303	321	*	*	*	*								
250	P_{G0}	35.1	41.9	49.6	54.5	74.2	90.2	100	116	132	143	147	159	205	224	287	305	*	*	*	*								
280	P_{G0}	34	39.3	46.2	50.3	71.4	86.8	97.7	112	128	135	143	151	199	213	276	289	*	*	*	*								
315	P_{G0}	33.3	37.8	45.9	49.0	69.7	82.2	93.7	108	122	132	136	147	195	204	264	278	*	*	*	*								
355	P_{G0}	31.8	36.5	45.1	48.5	66.3	79.2	89.4	104	120	128	133	141	185	200	252	267	*	*	*	*								
400	P_{G0}		35.8		46.2		77.3		100		123		138		190		255	*	*	*	*								
450	P_{G0}		34		45.4		73.5		95.3									*	*	*	*								

 热容量 / $n_n = 1800 \text{ min}^{-1}$
 类型 MTH4... / 规格 7-26

 Thermal Capacities / $n_n = 1800 \text{ min}^{-1}$
 Type MTH4... / Sizes 7-26

		热容量 P_{G0} (kW) / Thermal capacities P_{G0} (kW)																											
i_{G0}		齿轮箱规格 / Gear unit sizes																											
		7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26								
100	P_{G0}	51.1		70.7		102		134		174		191		263		335		*		*									
112	P_{G0}	49.5		68.2		103		133		171	183	189	201	262	279	349	351	*	*	*	*								
125	P_{G0}	48.1	55.2	66.3	71.7	99.8	115	131	147	168	179	186	197	259	273	350	358	*	*	*	*								
140	P_{G0}	45.9	53.2	64.5	69	97.3	115	128	145	165	175	183	194	255	271	343	351	*	*	*	*								
160	P_{G0}	44.2	51.7	61.1	67.1	93	111	122	142	160	171	179	190	249	265	336	350	*	*	*	*								
180	P_{G0}	42.7	49.4	58.9	65.3	90.4	108	119	139	150	167	177	185	243	261	342	348	*	*	*	*								
200	P_{G0}	41.2	47.7	57.1	61.9	85.8	104	115	133	157	165	173	184	238	253	329	352	*	*	*	*								
224	P_{G0}	38.9	45.7	55	59.5	82.7	101	112	128	148	163	163	180	232	247	321	340	*	*	*	*								
250	P_{G0}	37.1	44.3	52.5	57.7	78.5	95.4	106	125	140	151	155	168	220	237	304	323	*	*	*	*								
280	P_{G0}	36	41.6	51	55.3	75.6	91.8	103	118	136	143	151	160	211	226	292	306	*	*	*	*								

齿轮箱 额定功率
类型 MTB2.. / 规格 4-26

Gear Units Nominal Power Ratings
Type MTB2.. / Sizes 4-26

No	n ₁	n ₂	额定功率 P _{2N} (kW) / Nominal power ratings P _{2N} (kW)																									
			齿轮箱规格 / Gear unit sizes																									
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26					
5	1800	360	229	354		718	927		1736*		2585*		4528*															
	1500	300	191	285		596	809		1445		2154		3833*															
	1200	240	153	230		477	641		1156		1723		3063*															
	1000	200	127	195		387	525		953		1436		2554															
5.5	1800	371	268	315		638	1005		1616*		2331*		4105*	4537*														
	1500	288	173	263		533	839		1349		1983		3423*	3784*														
	1200	214	138	210		428	670		1077		1589		2733*	3025*	4369*													
	1000	179	116	170		356	560		901		1304		2286	2530	3654*													
6.3	1800	396	185	281	350	589	712	896	1138	1553*	1763*	2015*	2361*	2833*	4222*													
	1500	238	124	234	289	473	593	745	947	1251	1465	1630	2123	2239*	3513*	4859*												
	1200	180	123	187	238	378	473	594	756	998	1169	1469	1995	2098*	2856*	3879*												
	1000	159	103	150	189	318	396	487	632	835	978	1226	1418	2164	2347*	3248*												
7.1	1800	354	184	250	319	506	633	795	1019	1385*	1619*	2018*	2321*	2816*	3894*													
	1500	211	136	207	265	419	525	660	859	1157	1345	1676	1938	2514*	3260*	4328*												
	1200	169	109	166	212	336	421	529	672	927	1077	1343	1541	2336*	2585*	3435*	4279*											
	1000	141	91	138	177	280	351	441	561	773	896	1120	1288	1948	2140	2879	3396*											
8	1800	325	146	221	282	447	560	704	895	1279*	1486*	1894*	2136*	2199*	3486*	4594*												
	1500	189	122	185	236	374	469	588	748	1063	1242	1578	1821	2099	2912*	3638*	4527*											
	1200	150	97	147	188	298	373	469	588	848	981	1256	1437	2073	2324*	3062*	3812*											
	1000	125	81	123	157	248	311	381	487	708	825	1047	1197	1837	2052	2690	3090											
9	1800	300	129	190	251	387	498	626	795	1130*	1303*	1699*	1961*	2754*	3596*	4693*	4816*											
	1500	187	108	164	209	332	418	522	664	944	1140	1419	1694	2308	2698	3493*	4291*											
	1200	133	86	130	167	264	331	416	529	752	908	1128	1317	1838	2091	2715*	3200*											
	1000	111	72	106	136	220	276	347	441	627	757	942	1099	1534	1720	2266	2675											
10	1800	180	116	177	226	358	448	563	718	1011*	1248*	1529*	1862*	2483*	2790*	3675*	4336*											
	1500	150	97	147	188	298	373	469	588	848	1041	1273	1551	2073	2324*	3062*	3812*											
	1200	120	77	118	150	236	299	375	477	679	830	1019	1241	1658	1859	2455*	2894*											
	1000	100	64	98	126	198	249	313	387	565	694	849	1001	1280	1549	2041	2498											
11.2	1800	161	104	158	202	330	401	504	640	910*	1117*	1367*	1766*	2329*	2485*	3283*	3877*											
	1500	134	86	131	168	266	333	419	523	757	930	1137	1422	1852	2076	2726*	3273*											
	1200	107	69	105	134	212	266	336	426	606	742	908	1136	1478	1658	2184*	2578*											
	1000	89	57	87	111	177	221	279	364	509	617	756	944	1230	1379	1817	2143											
12.5	1800	144				180				358			572		909*		1528*		2231*		3458*							
	1500	120				150				298			477		803		1274		1859		2896*							
	1200	96				120				236			381		666		1019		1487		2312*							
	1000	80				100				196			316		555		848		1239		1926							
14	1800	129				162				321			513		805*		1269*		1869*									
	1500	107				134				266			426		742		1136											
	1200	86				106				214			342		587		913											
	1000	71				89				176			282		482		753											

□ 立式安装时齿轮箱应采用垂直润滑
□ 强制润滑
□ Forced lubrication required on horizontal gear units
□ Gear units only on request

齿轮箱 额定输出扭矩
类型 MTB2.. / 规格 4-26

Gear Units Nominal Output Torques
Type MTB2.. / Sizes 4-26

No	n ₁	n ₂	额定输出扭矩 T _{2N} (kNm) / Nominal output torques T _{2N} (kNm)																									
			齿轮箱规格 / Gear unit sizes																									
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26					
5	6.1	9.4								19			29.0		46						68.6		122					
5.5	6.2	9.4								19			29.0		48.1						69.0		122	135	195			
6.3	6.2	9.4								19	18	29.8	29.0	38	62.2	58.8					73.8	85.2	130	145	195			
7.1	6.2	9.4								19	19	23.8	29.9	38	52.4	60.9					75.9	87.3	132	148	195	230		
8	6.2	9.4								19	19	23.8	29.9	38	54	63.1					81.5	132	148	195	230			
9	6.2	9.4								19	19	23.8	29.9	38	54	68.2					81.1	144.8	132	148	195	230		
10	6.2	9.4								19	19	23.8	29.9	38	54	68.3					81.1	144.8	132	148	195	230		
11.2	6.2	9.4								19	19	23.8	29.9	38	54	68.3					81.1	141	132	148	195	230		
12.5	6.6	9.4		10	17					29.8	38	38	36.1	66.0	79.5	101	132	148	161	230	330	330	340	340	340			
14	6.6	9.4		12	16.2					23.8	29.8	38	36.7	66.3	71.9	101	137	148	161	230	262	298	300	300	405			
16	6.6	10.5		12	16.8	21.5				31	35.8	59.9	66.3	65.8	99.1	142	164	206	230	278	298	300	300	423				
18	6.7	11.3		13.3	21.1	23.1	22.9			27.5	38	68.9	66.7	160	146	160	200	248	268	300	322	330	330	438				
20	6.7	11.6		13.3	21.7	28	25.7			33.3	61.8	73.7	93.7	103	163	167	200	248	268	300	320	320	423	450				
22.4	6.7	11.6		14.2	21.7	28.5	26.7			41.8	65.8	78.6	93.7	108	163	173	200	248	268	300	345	420	470	580	600			
25	6.7	11.6		15.2	21.7	27.2	25.7			46.8	65.8	77.2	93.7	103	163	173	200	248	268	300	345	420	470	580	600			
28	6.7	11.6		15.2	21.7	27.2	25.7			46.8	63.8	77.2	93.7	103	163	173	200	248	268	300	345	420	470	580	600			
31.8	6.7	11.6		15.2	21.7	27.2	25.7			46.8	61.8	77.2	93.7	103	163													

齿轮箱 热容量 / $n=1000 \text{ min}^{-1}$
类型 MTB2... / 规格 4-26Gear Units Thermal Capacities / $n=1000 \text{ min}^{-1}$
Type MTB2... / Sizes 4-26

n	%	热容量 P _{th} (kW) / Thermal capacities P _{th} (kW)																								
		齿箱规格 / Gear unit sizes																								
4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26				
5	P _{th}	49.3	58.8	77.4	87.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	113	195	248	297	487	684	788	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	137	208	319	368	677	1344	1621	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	194	291	408	478	984	1836	2383	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
5.6	P _{th}	47.7	60.8	78.9	90.2	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	109	193	252	292	481	686	804	898	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	132	199	299	367	643	1289	1763	2055	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	187	292	432	505	943	1789	2333	2889	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
6.3	P _{th}	47	56.7	68.3	75.8	88.9	88.4	98.3	122	142	-	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	105	145	170	216	261	265	300	441	506	637	771	779	838	856	-	-	-	-	-	-	-	-			
	P _{th}	126	185	224	259	369	333	450	589	676	1132	1411	1627	1782	1909	-	-	-	-	-	-	-	-			
	P _{th}	179	263	329	393	548	480	643	834	1340	1574	1954	2168	2366	2530	-	-	-	-	-	-	-	-			
7.1	P _{th}	45	57.2	69	74.3	88.9	86.1	88.3	132	158	151	176	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	99	137	168	203	248	250	284	436	548	637	768	798	815	838	857	-	-	-	-	-	-	-			
	P _{th}	116	171	207	244	307	306	420	546	631	1097	1362	1508	1640	1787	1919	-	-	-	-	-	-	-			
	P _{th}	164	243	299	362	508	451	594	808	1279	1543	1806	2028	2204	2386	2566	-	-	-	-	-	-	-			
8	P _{th}	42.8	54.8	67.2	72.1	86.1	87.4	87.7	129	155	154	181	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	92.9	128	157	192	239	237	267	400	488	568	706	708	764	793	874	-	-	-	-	-	-	-			
	P _{th}	127	187	237	278	323	303	363	482	617	978	1185	1358	1531	1621	1793	-	-	-	-	-	-	-			
	P _{th}	152	225	276	328	459	419	541	719	1129	1376	1603	1830	2059	2174	2402	-	-	-	-	-	-	-			
9	P _{th}	41	52.7	64.5	70.2	82.7	85.8	85.3	129	152	150	180	189	176	-	-	-	-	-	-	-	-	-			
	P _{th}	87.8	121	148	182	218	226	251	383	480	565	699	684	730	774	823	-	-	-	-	-	-	-			
	P _{th}	98.8	144	218	212	287	267	362	454	791	874	1152	1383	1388	1540	1624	-	-	-	-	-	-	-			
	P _{th}	141	206	299	318	424	366	500	679	1094	1206	1629	1741	1853	2079	2188	-	-	-	-	-	-	-			
10	P _{th}	34.6	49.3	61.1	66.4	79.2	81.9	81.7	125	150	157	188	172	162	176	-	-	-	-	-	-	-	-			
	P _{th}	72.8	111	138	169	202	212	237	359	447	525	642	643	704	737	798	-	-	-	-	-	-	-			
	P _{th}	78.9	129	200	192	274	244	325	417	706	860	1018	1179	1268	1431	1546	-	-	-	-	-	-	-			
	P _{th}	112	180	278	298	392	363	482	626	972	1206	1444	1598	1760	1935	2085	-	-	-	-	-	-	-			
11.2	P _{th}	33.5	44.4	58.4	59.8	76.1	74.3	89	114	150	145	185	182	181	189	187	-	-	-	-	-	-	-			
	P _{th}	70.3	95.6	121	150	192	187	226	319	426	476	613	581	662	668	780	-	-	-	-	-	-	-			
	P _{th}	76.4	113	183	168	257	212	307	381	659	734	962	1030	1182	1267	1439	-	-	-	-	-	-	-			
	P _{th}	107	182	282	282	388	316	438	543	918	1046	1356	1411	1618	1700	1940	-	-	-	-	-	-	-			
12.5	P _{th}	64.5	72.2	85.1	85.1	145	145	183	269	356	415	518	475	518	584	636	-	-	-	-	-	-	-			
	P _{th}	119	179	212	212	400	400	579	788	986	1181	1463	1388	1539	1676	1930	-	-	-	-	-	-	-			
	P _{th}	163	234	280	280	604	604	882	1239	1629	2029	2429	2289	2639	2939	3339	-	-	-	-	-	-	-			
	P _{th}	225	307	401	401	845	845	1255	1730	2255	2830	3455	3130	3655	4280	4905	-	-	-	-	-	-	-			
14	P _{th}	49	65.2	77	77	131	131	168	254	340	415	518	475	518	584	636	-	-	-	-	-	-	-			
	P _{th}	108	158	189	189	353	353	514	769	1014	1259	1504	1388	1539	1676	1930	-	-	-	-	-	-	-			
	P _{th}	142	205	243	243	522	522	763	1118	1473	1928	2383	2133	2488	2943	3398	-	-	-	-	-	-	-			
	P _{th}	198	282	348	348	730	730	1022	1473	1928	2383	2838	2538	2993	3448	3903	-	-	-	-	-	-	-			

* 请与供应商联系

P_{th} (kW) 齿箱端子带辅助冷却装置**)P_{th} (kW) 齿箱带风扇冷却**)P_{th} (kW) 齿箱带内置风冷装置**)P_{th} (kW) 齿箱带内置风冷和内置冷却装置**)

**) 条件值仅供参考

每小时工作周期: 100%
安装在大型设备
海拔高度至 1000 m

* Consult us

P_{th} (kW) Gear units without auxiliary cooling **)P_{th} (kW) Gear units with fan **)P_{th} (kW) Gear units with built-in cooling coil **)P_{th} (kW) Gear units with fan and built-in cooling coil **)

**) Values refer to:

Operating cycle: 100%
Installation in a large hall
Altitude up to 1000 m齿轮箱 热容量 / $n=1200 \text{ min}^{-1}$
类型 MTB2... / 规格 4-26Gear Units Thermal Capacities / $n=1200 \text{ min}^{-1}$
Type MTB2... / Sizes 4-26

n	%	热容量 P _{th} (kW) / Thermal capacities P _{th} (kW)																								
		齿箱规格 / Gear unit sizes																								
4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26				
5	P _{th}	47.2	53.4	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	132	178	278	325	500	645	840	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	153	208	353	441	744	1467	1968	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	228	336	536	657	1085	1953	2384	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
5.6	P _{th}	47.5	56.5	70.8	75.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	109	177	205	219	312	489	724	798	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	147	222	326	408	709	1414	1918	2224	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	221	330	501	614	1058	1990	2434	2726	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
6.3	P _{th}	47.3	56.6	65.1	70.5	81.4	78.6	83.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	125	189	197	249	298	301	337	480	591	657	769	740	778	782	-	-	-	-	-	-	-	-			
	P _{th}	141	206	283	295	431	379	510	625	1076	1245	1551	1776	1944	2076	-	-	-	-	-	-	-	-			
	P _{th}	212	298	419	408	638	568	748	844	1500	1740	2150	2311	2498	2630	-	-	-	-	-	-	-	-			
7.1	P _{th}	45.8	56.4	67.5	71.4	83.8	82.4	88.8	108	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	117	161	194	207	286	286	325	480	588	683	817	792	800	811	848	-	-	-	-	-	-	-			
	P _{th}	129	190	286	272	397	340	468	604	1029	1211	1481	1660	1800	1894	2096	-	-	-	-	-	-	-			
	P _{th}	194	289	412	424	590	543	689	920	1401	1723	2124	2378	2584	2763	2923	-	-	-	-	-	-	-			
8	P _{th}	43.8	54.8	66.7	70.6	83	80	87.2	112	127	-	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	110	151	185	225	267	274	328	451	555	642	767	735	807	800	868	-	-	-	-	-	-	-			
	P _{th}	119	175	264	252	359	315	428	535	804	1081	1360	1483	1683	1786	1965	-	-	-	-	-	-	-			
	P _{th}	181	266	382	395	539	490	631	830	1203	1582	1984	2032	2373	2378	2608	-	-	-	-	-	-	-			
9	P _{th}	42.3	53.2	64.8	68.7	81.1	83.2	87.1	118	140	136	-	-	-	-	-	-	-	-	-	-	-	-			
	P _{th}	105	144	178	214	253	284	292	437	554	636	775	732	773	807	847	-	-	-	-	-	-	-			
	P _{th}	110	161	243	236	331	297	392	505	877	1013	1275	1415	1608	1607	1796	-	-	-	-	-	-	-			
	P _{th}	187	244	323	323	498	465	589	788	1301	1484	1967	1994	2303	2308	2474	-	-	-	-	-	-	-			
10	P _{th}	35.9</																								

齿轮箱 额定功率 类型 MTB3... / 规格 4-26

Gear Units Nominal Power Ratings Type MTB3... / Sizes 4-26

Table with columns for gear unit sizes (4-26) and nominal power ratings (P2N in kW) for various gear ratios (1.5, 14, 18, 30, 32.4, 35, 40, 45, 50, 60, 70, 80, 90, 100).

Formal lubrication required on horizontal gear units. Gear units only on request.

齿轮箱 额定输出扭矩 类型 MTB3... / 规格 4-26

Gear Units Nominal Output Torques Type MTB3... / Sizes 4-26

Table with columns for gear unit sizes (4-26) and nominal output torques (T2N in kNm) for various gear ratios (5, 5.5, 6.3, 7.1, 8, 10, 11.2, 12.5, 14, 16, 18, 20, 22.4, 25, 28, 31.5, 35.5, 40, 45, 50, 56, 63, 71, 80, 90, 100, 112, 125, 140, 160, 180, 200, 224, 250, 280, 315, 355, 400).

MTB2

MTB4

齿轮箱 热容量 / $n=1500 \text{ min}^{-1}$
类型 MTB3... / 规格 4-26

Gear Units Thermal Capacities / $n=1500 \text{ min}^{-1}$
Type MTB3... / Sizes 4-26

热容量 P₀ (kW) / Thermal capacities P₀ (kW)

h	齿轮箱规格 / Gear unit sizes																								
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
12.5	P _{0A}	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	
	P _{0B}	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	
	P _{0C}	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	

请与经销商联系 其他规格见类型 MTB2 Consult us For additional notes, see type MTB2

齿轮箱 热容量 / $n=1800 \text{ min}^{-1}$
类型 MTB3... / 规格 4-26

Gear Units Thermal Capacities / $n=1800 \text{ min}^{-1}$
Type MTB3... / Sizes 4-26

热容量 P₀ (kW) / Thermal capacities P₀ (kW)

h	齿轮箱规格 / Gear unit sizes																								
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
12.5	P _{0A}	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	
	P _{0B}	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	
	P _{0C}	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	

请与经销商联系 其他规格见类型 MTB2 Consult us For additional notes, see type MTB2

齿轮箱 额定功率
类型 MTB4... / 规格 5-26

Gear Units Nominal Power Ratings
Type MTB4... / Sizes 5-26

i _n		额定功率 P ₂₅ (kW) / Nominal power ratings P ₂₅ (kW)																								
		齿轮箱规格 / Gear unit sizes																								
i _n	n ₁	n ₂	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
80	1800	23	27	32	37	43	49	56	64	72	81	91	101	112	124	137	150	164	179	195	211	228	245	263	281	
	1500	18.8	22	26	30	35	40	46	52	59	67	76	85	95	106	118	130	144	159	174	190	207	224	242	260	
	1200	15	18	21	24	28	32	37	42	48	55	63	71	80	90	101	112	124	137	150	164	179	195	211	228	
	1000	12.5	15	18	21	25	29	33	38	43	49	56	64	73	82	92	103	114	126	139	152	166	181	196	212	
90	1800	25	30	35	41	47	54	61	69	78	88	98	109	120	132	145	159	173	189	205	222	239	257	275	294	
	1500	19.7	23	27	31	36	41	47	54	62	71	80	90	101	112	124	137	150	164	179	195	211	228	245	263	
	1200	15.2	18	21	24	28	32	37	42	48	55	63	71	80	90	101	112	124	137	150	164	179	195	211	228	
	1000	11.5	14	17	20	23	27	31	35	40	45	51	58	66	74	82	91	101	112	124	137	150	164	179	195	
100	1800	16	19	22	26	30	35	40	46	52	59	67	76	85	95	106	118	130	144	159	174	190	207	224	242	
	1500	12.5	15	18	21	24	28	32	37	42	48	55	63	71	80	90	101	112	124	137	150	164	179	195	211	
	1200	10	12	14	16	19	22	25	29	33	38	43	49	56	64	73	82	92	103	114	126	139	152	166	181	
	1000	7.5	9	11	13	15	18	21	24	28	32	37	42	48	55	63	71	80	90	101	112	124	137	150	164	
112	1800	18	21	25	30	35	41	47	54	61	69	78	88	98	109	120	132	145	159	173	190	207	224	242	260	
	1500	14	17	20	23	27	31	36	41	47	54	62	71	80	90	101	112	124	137	150	164	179	195	211	228	
	1200	10.7	12	14	16	19	22	25	29	33	38	43	49	56	64	73	82	92	103	114	126	139	152	166	181	
	1000	8.0	10	12	14	16	19	22	25	29	33	38	43	49	56	64	73	82	92	103	114	126	139	152	166	
125	1800	14.4	17	20	23	27	31	36	41	47	54	61	69	78	88	98	109	120	132	145	159	174	190	207	224	
	1500	11	13	15	17	20	23	27	31	36	41	47	54	62	71	80	90	101	112	124	137	150	164	179	195	
	1200	8.8	11	13	15	17	20	23	27	31	36	41	47	54	62	71	80	90	101	112	124	137	150	164	179	
	1000	6	7	9	10	12	14	16	19	22	25	29	33	38	43	49	56	64	73	82	92	103	114	126	139	
140	1800	12.8	15	18	21	25	29	34	39	45	51	58	66	75	84	94	105	116	128	141	155	169	184	199	214	
	1500	10.7	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	143	156	170	184	
	1200	8.6	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	143	156	170	
	1000	7.1	8.6	11	13	15	18	21	25	29	34	39	45	51	58	66	75	84	94	105	116	128	141	155	169	
160	1800	11.3	13	15	18	21	25	30	35	40	46	53	60	68	77	86	96	107	118	130	143	156	170	184	199	
	1500	8.4	11	13	15	18	21	25	30	35	40	46	53	60	68	77	86	96	107	118	130	143	156	170	184	
	1200	7.5	9.1	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	143	156	
	1000	6.3	7.6	9	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	143	
180	1800	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	143	156	170	184	
	1500	8.3	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	143	156	170	
	1200	6.7	8.1	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	143	156	
	1000	5.6	6.8	8	9	11	13	15	18	21	25	29	34	39	45	51	58	66	75	84	94	105	116	128	141	
200	1800	9	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	143	156	170	
	1500	7.6	9.1	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	143	156	
	1200	6	7.2	8.7	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	143	
	1000	5	6	7.1	8	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	
224	1800	8.7	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	143	156	170	
	1500	6.4	8.5	9.7	11	13	15	18	21	25	29	34	39	45	51	58	66	75	84	94	105	116	128	141		
	1200	4.8	6.4	7.8	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	143	
	1000	4	5	6	7	9	11	13	15	18	21	25	29	34	39	45	51	58	66	75	84	94	105	116	128	
250	1800	7.2	8.7	11	13	15	18	21	25	29	34	39	45	51	58	66	75	84	94	105	116	128	141	155	169	
	1500	5	6	7.2	8.7	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	
	1200	4.8	5.8	7	8	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	
	1000	4	4.8	6	7	9	11	13	15	18	21	25	29	34	39	45	51	58	66	75	84	94	105	116	128	
280	1800	6.4	7.7	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	143	156	
	1500	5.4	6.6	8.7	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	143	
	1200	4.3	5.2	6.3	7.7	9	11	13	15	18	21	25	29	34	39	45	51	58	66	75	84	94	105	116	128	
	1000	3.6	4.3	5.3	6.3	7.7	9	11	13	15	18	21	25	29	34	39	45	51	58	66	75	84	94	105	116	
315	1800	5.7	6.8	8.2	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	143	
	1500	4.8	5.8	7	8	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	
	1200	3.8	4.4	5.1	6.1	7.3	8.7	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	
	1000	3.2	3.7	4.1	4.8	5.1	6.1	7.3	8.7	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	
350	1800	5.1	6	7	8	10	12	14	16	19	22	26	30	35	40	46	53	60	68	77	86	96	107	118	130	
	1500	4.2	5	6	7	9	11	13	15	18	21	25	29	34	39	4										

齿轮箱 热容量 / $n_n=1000 \text{ min}^{-1}$
类型 MTB4.. / 规格 5-26

Gear Units Thermal Capacities / $n_n=1000 \text{ min}^{-1}$
Type MTB4.. / Sizes 5-26

		热容量 P_0 (kW) / Thermal capacities P_0 (kW)																									
		齿轮箱规格 / Gear unit sizes																									
n_n		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26				
80	P_{DA}	26.6	42.4	60	80.6	121		162		183		250		281	*	*	*										
90	P_{DA}	27.9	41	58.6	87.9	118		150	167	175	189	240	256	339	355	*	*	*	*								
100	P_{DA}	26.6	30.6	36.9	45.3	55.6	60.4	64.4	70.1	112	130	140	160	164	180	227	246	319	344	*	*	*	*	*			
112	P_{DA}	25.6	29.9	37.4	44	53.5	59	60.4	67.6	107	126	139	151	157	169	216	232	308	332	*	*	*	*	*			
125	P_{DA}	24.5	28.6	35.7	41.6	51	56	57	63.2	102	119	132	144	149	161	205	221	291	313	*	*	*	*	*			
140	P_{DA}	23.4	27.5	33.9	40.1	48.1	52.9	53.8	58.8	97.6	114	128	137	144	154	196	211	281	294	*	*	*	*	*			
160	P_{DA}	21.5	26.3	30.9	36.2	44	51.3	56.4	65.1	92.4	110	121	130	138	148	187	203	265	284	*	*	*	*	*			
180	P_{DA}	21.1	25.1	30.1	35.4	42.9	48.7	48.6	60.6	87.2	103	114	124	128	139	175	191	248	268	*	*	*	*	*			
200	P_{DA}	20.4	23.1	28.9	33.2	42	44.6	43.2	52.8	85.2	98.5	112	117	126	132	174	178	240	261	*	*	*	*	*			
224	P_{DA}	19	22.7	27.8	32.4	39.3	43.4	59.4	71.8	79.9	83.2	105	116	117	130	163	178	224	243	*	*	*	*	*			
250	P_{DA}	18.5	21.8	26.9	32.1	37.9	40.5	57.5	70.1	77.3	80.6	102	106	114	122	158	168	217	237	*	*	*	*	*			
280	P_{DA}	17.6	20.4	25.2	30	36.1	38.8	56	68.8	73	85.2	95	104	107	117	148	161	207	226	*	*	*	*	*			
315	P_{DA}	16.5	19.8	23.8	28.8	33.9	36.4	51.3	63.7	69.6	82.4	89.7	98.5	101	110	140	153	193	210	*	*	*	*	*			
355	P_{DA}		19		27.1		36.6		65.8		77.8		83.4		104		144		196		*	*	*	*			
400	P_{DA}		17.7		25.4		34.3		56.7		76.1										*	*	*	*			

热容量 / $n_n=1200 \text{ min}^{-1}$
类型 MTB4.. / 规格 5-26

Thermal Capacities / $n_n=1200 \text{ min}^{-1}$
Type MTB4.. / Sizes 5-26

		热容量 P_0 (kW) / Thermal capacities P_0 (kW)																									
		齿轮箱规格 / Gear unit sizes																									
n_n		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26				
80	P_{DA}	30.5	45.1	63.5	84.9	125		165		183		248		294	*	*	*										
90	P_{DA}	29.9	43.7	62.2	83.3	123		159	170	178	189	240	256	327	336	*	*	*	*	*							
100	P_{DA}	28.5	32.7	41.4	49.2	59.1	64.1	69.9	76	117	136	150	163	167	182	228	247	311	330	*	*	*	*	*			
112	P_{DA}	27.5	32	39.9	45.9	56.9	62.7	64.9	72	112	132	144	155	161	173	219	236	306	314	*	*	*	*	*			
125	P_{DA}	26.3	30.6	38.2	44.4	54.4	59.7	61.5	68.4	106	125	138	149	154	166	210	226	291	309	*	*	*	*	*			
140	P_{DA}	25.1	29.5	36.3	42.9	51.4	57.5	57.3	64.1	103	120	134	143	149	159	204	217	284	294	*	*	*	*	*			
160	P_{DA}	23.1	28.2	33.2	41	47	54.9	50.7	60.4	97.8	116	127	136	142	153	194	210	271	288	*	*	*	*	*			
180	P_{DA}	22.7	27	32.4	39	46	53.3	49	60.9	89.8	110	120	131	135	148	183	200	266	276	*	*	*	*	*			
200	P_{DA}	21.9	24.9	32.1	35.7	45.1	47.8	67.7	78.7	81	106	119	125	134	140	183	189	251	261	*	*	*	*	*			
224	P_{DA}	20.4	24.4	30	34.9	42.3	46.7	63.8	77	85.6	88.8	112	123	125	136	174	190	237	256	*	*	*	*	*			
250	P_{DA}	20	23.5	29	34.6	40.8	45.9	61.9	73.4	82.1	87.4	109	119	122	131	180	190	232	243	*	*	*	*	*			
280	P_{DA}	19	22	27.2	32.3	38	43	59.3	71	78.8	82	102	113	115	127	180	174	224	237	*	*	*	*	*			
315	P_{DA}	17.8	21.4	25.5	31.1	36.6	41.5	55.4	68.7	75.2	80	98.9	106	109	119	152	166	200	227	*	*	*	*	*			
355	P_{DA}		20.5		29.2		38.6		65.8		84		99.7		113		150		211		*	*	*	*			
400	P_{DA}		18.1		27.4		37.3		61.2		80										*	*	*	*			

* 请与制造商联系。
 P_{DA} (kW) 齿轮箱不带辅助冷却**)
**) 典型值情况
每小時工作周期: 100%
在室內大型安裝
海拔高度至 1000 m

* Consult us
 P_{DA} (kW) Gear units without auxiliary cooling **)
**) Values refer to:
Operating cycle: 100%
Installation in a large hall
Altitude up to 1000 m

齿轮箱 热容量 / $n_n=1500 \text{ min}^{-1}$
类型 MTB4.. / 规格 5-26

Gear Units Thermal Capacities / $n_n=1500 \text{ min}^{-1}$
Type MTB4.. / Sizes 5-26

		热容量 P_0 (kW) / Thermal capacities P_0 (kW)																									
		齿轮箱规格 / Gear unit sizes																									
n_n		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26				
80	P_{DA}	31.7	46.9	66.1	88.6	130		171		189		256		298	*	*	*										
90	P_{DA}	31.1	45.5	64.7	88.9	128		164	175	183	195	248	264	337	345	*	*	*	*	*							
100	P_{DA}	29.8	34	43.1	50.2	61.5	66.7	72.4	78	121	140	150	160	173	186	236	255	321	339	*	*	*	*	*			
112	P_{DA}	28.6	33.3	41.5	48.8	59.2	65.3	68.3	76	116	137	149	161	167	179	227	245	315	333	*	*	*	*	*			
125	P_{DA}	27.4	31.8	39.7	46.2	56.6	62.1	64.8	72	112	130	143	155	163	172	218	234	300	318	*	*	*	*	*			
140	P_{DA}	26.1	30.7	37.8	44.8	55.5	60.4	62.4	70.8	107	125	139	149	155	165	211	226	294	304	*	*	*	*	*			
160	P_{DA}	24.1	29.4	34.5	42.7	49	57.2	59.8	68.1	101	121	132	143	147	157	202	218	281	296	*	*	*	*	*			
180	P_{DA}	23.6	28.1	33.7	42.7	47.9	54.3	57.8	66.5	114	125	136	147	150	160	205	220	286	298	*	*	*	*	*			
200	P_{DA}	22.8	26.9	33.5	37.3	47	49.8	50.8	61.9	94.7	109	124	130	139	148	191	199	260	271	*	*	*	*	*			
224	P_{DA}	21.3	25.4	31.2	36.4	44	46.6	66.5	80.2	89.1	104	117	128	133	144	181	189	248	259	*	*	*	*	*			
250	P_{DA}	20.8	24.5	30.2	36	42.5	47.8	64.5	78.6	88.6	101	114	120	127	136	176	187	241	252	*	*	*	*	*			
280	P_{DA}	19.8	22.9	29.4	33.7	40.8	44.8	61.8	74	82.1	95.9	108	117	125	132	167	182	233	247	*	*	*	*	*			
315	P_{DA}	18.8	22.3	28.8	32.4	38.2	43.2	57.8	71.8	79.4	92.7	103	110	113	124	158	172	217	236	*	*	*	*	*			
355	P_{DA}		21.3		30.4		41.3		68.4		87.8		103		117		160		230		*	*	*	*			
400	P_{DA}		19.9		28.6		38.9		63.8		83.4										*	*	*	*			

热容量 / $n_n=1800 \text{ min}^{-1}$
类型 MTB4.. / 规格 5-26

Thermal Capacities / $n_n=1800 \text{ min}^{-1}$
Type MTB4.. / Sizes 5-26

		热容量 P_0 (kW) / Thermal capacities P_0 (kW)																									
		齿轮箱规格 / Gear unit sizes																									
n_n		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26				
80	P_{DA}	33	49.8	68.1	90	130		169		184		245		312	*	*	*										
90	P_{DA}	32.3	47.2	66.8	87.9	128		163	173	178	190	239	253	311	311	*	*	*	*	*	*						
100	P_{DA}	30.9	35.4	44.8	52	63.8	69.8	74.7	82	123	142	153	166	173	180	230	247	301	312	*	*	*	*	*			
112	P_{DA}	29.8	34.7	43.2	50.6	61.4	67.5	70.7	78	118	136	150	161	165	177	223	238	300	302	*	*	*	*	*			
125	P_{DA}	28.5	33.2	41.4	48	58.8	64.3	67.3	75	115	133	144	155	160	171	216	231	290	305	*	*	*	*	*			
140	P_{DA}	27.3	32	39.4	46.5	56.8	62.2	65.1	73	110	128	141	150	155	166	212	224	285	294	*	*	*	*	*			
160	P_{DA}	25.2	30.7	36.1	44.5	51	59.5	62.2	70.2	104	124	135	146	150	162	204	220	278	292	*	*	*	*	*			
180	P_{DA}	24.7	29.4	35.2	43.5	50	58.6	61.8	70.8	118	129	140	145	155	164	211	226	285	295	*	*	*	*	*			
200	P_{DA}	23.9	27.1	33	38.9	48.1	52	73.4	85.2	98.3	113	128	134	143	150	196	201	264	274	*	*	*	*	*			
224	P_{DA}	22.3	26.7	32.7	38.1	46.1	50.9	69.5	83.7	92.9	108	121	130	136	149	187	200	253	273	*	*	*	*	*			
25																											

齿轮箱

实际传动比
Type MTH1, MTH2, MTH3, MTH4 / 规格 3-14

Gear Units

Actual Ratio
Type MTH1, MTH2, MTH3, MTH4 / Size 3-14

Table with 15 columns (labeled 3 to 14) and 40 rows of gear unit data. Includes a large 'MTH1' watermark.

齿轮箱

实际传动比
Type MTH1, MTH2, MTH3, MTH4 / 规格 15-26

Gear Units

Actual Ratio
Type MTH1, MTH2, MTH3, MTH4 / Size 15-26

Table with 15 columns (labeled 15 to 26) and 40 rows of gear unit data. Includes a large 'MTH1' watermark.

齿轮箱

实际传动比
类型 MTB2、MTB3、MTB4 / 规格 4-14

Gear Units

Actual Ratios
Type MTB2...MTB3...MTB4 / Sizes 4-14

4	实际传动比 / Actual ratios 1												
	齿轮箱规格 / Gear unit sizes												
	4	5	6	7	8	9	10	11	12	13	14		
5.0	4.036	5.096	--	4.865	--	5.032	--	4.897	--	4.967	--		
5.6	5.490	5.468	--	5.303	--	5.483	--	5.334	--	5.413	--		
6.3	6.296	6.386	6.205	6.296	6.136	6.381	6.271	6.296	6.226	6.380	6.196		
7.1	6.959	7.058	6.802	6.860	6.725	7.053	6.875	7.037	7.036	7.108	6.967		
8.0	7.540	7.687	7.915	7.890	7.828	8.101	8.000	7.994	8.005	8.108	7.915		
9.0	8.003	8.017	8.749	8.960	8.646	8.919	8.642	8.693	8.947	8.817	8.847		
10	9.572	10.108	9.490	9.823	9.936	10.099	10.157	9.965	10.154	10.108	10.049		
11.2	10.789	10.923	10.928	10.615	10.804	10.914	11.045	10.769	11.052	10.923	10.928		
12.5	12.034	12.703	12.526	12.433	12.385	12.554	12.662	12.334	12.670	12.482	12.526		
14	13.484	13.964	13.538	13.515	13.385	14.137	13.683	13.821	13.692	13.721	13.538		
16	15.461	15.835	15.628	16.275	15.773	15.852	15.693	15.520	15.889	16.264	15.552		
18	17.482	17.407	17.387	17.082	17.041	17.363	17.324	17.363	17.572	17.378	17.007		
20	19.614	19.845	19.729	19.948	20.648	20.259	19.840	19.744	19.895	20.278	20.378		
22.4	21.919	21.964	21.575	22.148	22.308	22.208	22.520	21.843	22.114	22.226	22.282		
25	25.380	25.421	24.345	25.446	25.152	25.843	25.400	25.186	25.503	25.864	25.131		
28	27.826	27.861	27.231	28.125	27.923	28.853	27.842	27.536	27.817	28.587	27.648		
31.5	30.196	30.245	31.508	30.991	32.084	30.995	32.400	31.975	30.921	30.838	32.057		
35.5	34.771	34.827	34.557	35.131	35.401	35.679	35.611	34.771	35.382	35.708	35.432		
40	38.487	39.551	37.486	38.596	38.468	40.922	38.846	39.861	40.654	40.836	40.700		
45	43.077	43.146	43.166	43.523	44.208	44.202	44.730	43.077	44.209	44.236	44.259		
50	49.060	49.130	49.021	49.588	50.304	50.341	51.280	49.060	50.691	50.383	50.737		
56	55.152	55.240	53.477	55.123	54.677	56.992	55.417	55.152	54.789	56.638	54.831		
63	60.808	60.906	60.904	61.438	62.499	62.390	63.134	60.808	62.376	62.448	62.446		
71	68.293	69.404	68.487	70.011	70.259	71.132	70.951	68.293	70.121	71.161	70.200		
80	--	77.598	75.480	79.267	77.405	79.497	78.228	80.949	77.313	82.116	77.400		
90	--	86.720	86.022	86.986	86.274	88.842	88.143	89.969	86.101	90.016	88.200		
100	--	106.413	96.178	102.572	99.948	102.868	99.667	103.259	102.021	104.750	101.780		
112	--	119.130	107.484	112.498	111.694	112.824	111.384	114.529	114.262	115.777	111.569		
125	--	119.466	124.455	122.035	129.300	122.389	126.971	123.804	131.287	125.500	129.831		
140	--	137.587	136.499	140.525	141.846	140.933	141.452	142.562	145.106	144.621	143.498		
160	--	156.225	146.071	159.595	153.871	160.047	153.443	161.897	167.408	165.791	158.863		
180	--	175.427	170.508	174.892	177.184	174.587	176.682	178.615	181.258	179.166	179.248		
200	--	194.098	193.621	199.272	201.215	198.847	200.856	201.145	205.841	204.050	205.487		
224	--	218.199	211.254	202.801	214.508	203.387	210.898	208.121	224.554	220.386	222.965		
250	--	240.578	240.572	245.752	248.885	246.464	249.300	248.313	256.742	252.913	252.907		
280	--	274.147	276.443	280.040	281.608	280.955	280.256	284.101	287.497	286.204	284.310		
315	--	302.121	298.161	308.618	309.861	309.513	309.000	313.091	316.984	317.612	313.470		
360	--	--	339.788	--	353.097	--	352.116	--	361.214	--	367.210		
400	--	--	374.460	--	389.127	--	388.046	--	398.073	--	393.660		

齿轮箱

实际传动比
类型 MTB2...MTB3...MTB4 / 规格 15-26

Gear Units

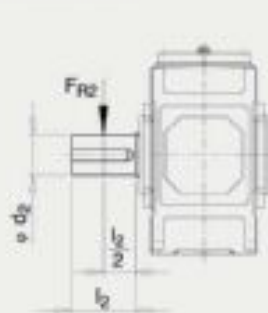
Actual Ratios
Type TB2...MTB3...MTB4 / Sizes 15-26

实际传动比 / Actual ratios 1												
齿轮箱规格 / Gear unit sizes												
15	16	17	18	19	20	21	22	23	24	25	26	4
4.963	--	--	--	--	--	--	--	--	--	--	--	5.0
5.639	5.630	5.514	--	--	--	--	--	--	--	--	--	5.6
6.340	6.362	6.234	--	--	--	--	--	--	--	--	--	6.3
7.130	7.182	7.012	7.299	--	--	--	--	--	--	--	--	7.1
8.101	8.096	7.985	8.143	--	--	--	--	--	--	--	--	8.0
8.610	9.180	8.662	9.250	--	--	--	--	--	--	--	--	9.0
10.099	9.990	9.900	10.099	--	--	--	--	--	--	--	--	10
10.954	11.456	10.731	11.531	--	--	--	--	--	--	--	--	11.2
12.172	12.380	12.770	12.462	12.662	--	12.256	--	--	--	--	--	12.5
13.810	13.632	13.790	14.654	13.790	13.699	13.902	13.719	--	--	--	--	14
15.215	15.665	16.226	16.014	15.190	15.840	15.436	15.538	--	--	--	--	16
17.262	17.290	17.522	18.620	17.267	17.252	17.510	17.279	--	--	--	--	18
19.379	19.581	19.762	20.348	19.807	19.888	19.883	19.570	19.591	--	19.284	--	20
21.900	21.062	22.203	22.060	22.156	22.368	22.470	22.222	22.198	21.990	21.793	22.206	22.4
24.916	24.642	25.409	25.806	25.048	25.276	25.400	25.113	25.027	24.780	24.620	25.085	25
27.947	28.263	28.396	29.027	28.175	28.576	28.671	28.989	29.181	28.015	27.711	28.369	26
31.634	31.588	32.259	32.079	32.905	32.143	32.450	31.933	31.979	31.513	31.478	31.900	31.5
34.400	35.893	35.080	37.463	34.804	36.533	35.294	36.275	34.775	35.797	34.231	36.248	35.5
38.435	39.021	40.215	40.738	38.899	38.706	40.461	39.448	39.964	38.997	38.341	39.417	40
42.617	44.732	43.460	46.782	43.117	43.510	43.725	43.221	43.082	44.626	42.407	43.187	46
48.536	48.341	48.496	50.489	48.106	48.190	48.798	48.869	49.065	48.226	48.297	48.833	50
54.982	55.055	55.641	57.479	56.200	56.022	56.981	56.656	56.158	54.924	54.294	55.615	56
60.158	61.892	61.348	64.016	60.860	62.975	61.722	62.567	60.815	61.744	58.863	62.520	63
68.953	68.239	68.909	71.243	68.368	68.438	70.326	68.984	69.301	68.076	68.216	68.933	71
78.131	77.761	76.506	81.184	79.877	79.127	77.639	78.610	78.497	77.573	78.180	78.901	80
86.545	88.625	83.865	88.848	87.670	81.242	87.739	86.772	86.448	85.031	88.260	89.933	90
99.864	97.150	97.589	97.281	102.020	100.017	99.821	98.061	98.353	96.779	100.414	101.633	100
110.158	113.052	107.865	113.333	112.759	116.389	111.565	111.565	109.924	110.097	112.228	115.629	112
126.036	124.962	123.904	125.263	120.526	128.641	126.733	124.890	124.870	123.049	127.467	129.292	126
137.999	143.932	134.739	143.889	140.861	147.789	137.815	141.843	135.796	138.790	138.634	146.903	140
157.741	156.062	154.402	156.471	161.479	160.690	157.993	154.020	155.865	152.002	158.038	159.639	160
170.467	178.830	168.923	179.375	174.496	184.212	170.755	178.576	168.294	174.252	171.749	183.098	180
194.143	193.365	190.107	193.846	196.732	199.033	194.448	190.821	191.596	198.310	195.833	197.772	200
218.249	208.252	213.712	220.700	223.408	226.782	218.602	217.954	215.377	214.464	210.891	226.240	224
240.634	247.686	238.831	246.182	246.302	254.674	241.012	244.309	237.467	241.094	242.444	253.298	250
274.216	272.967	268.510	273.636	280.692	281.015	274.641	269.369	270.802	265.822	276.274	279.178	280
302.191	311.040	295.909	311.818	305.334	320.226	302.066	306.952	298.215	302.913	304.465	318.133	315
--	342.784	--	343.636	--	352.962	--	358.273	--	353.823	--	350.886	356
--	--	--	--	--	--	--	--	--	--	--	--	400

齿轮箱 输出轴 d_2 上允许的附加径向力¹⁾ 空心轴 (S)

Gear Units Permissible Additional Radial Forces on Output Shaft d_2 ¹⁾ Solid Shaft (S)

作用力在轴伸中部
Application of force on centre of shaft end



允许的作用力方向
Permissible direction of force

表 1 / Table 1

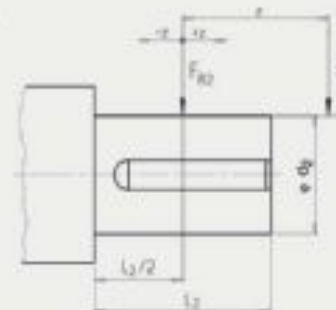
允许的附加径向力 F_{R2} (kN)、作用在输出轴轴伸中部¹⁾
Permissible additional radial forces F_{R2} in kN with application of force on centre of shaft end¹⁾

类型 Type	布置形式 Design	齿轮箱规格 / Gear unit sizes ^{1) 2)}																
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
MTH34	A/B	21	-	21	-	21	-	21	-	21	-	21	-	21	-	21	-	
MTH26	A/B/G/H	-	10	22	22	30	30	30	40	64	64	100	100	140	205	205	205	
	C/D	-	10	13	13	18	18	10	28	35	35	112	112	85	135	135	135	
MT326	A/C	-	13	27	27	37	37	38	55	78	78	160	160	190	210	210	210	
	B/D	-	12	15	15	17	17	10	30	35	38	110	110	75	145	100	100	
MTH35	A/B/G/H	-	-	29	29													
MTH45	C/D	-	-	-	-	40	40	40	60	85	85	190	190	185	265	265	265	
MT335	A/C	-	14			29	29											
MT345	A/C	-	-															
MTH36	C/D	-	-	18	18													
MTH45	A/B	-	-	-	-	26	26	18	40	50	50	150	150	120	185	185	190	
MT335	B/D	-	9			18	18											
MT345	B/D	-	-															

齿轮箱 输出轴 d_2 上允许的附加径向力¹⁾ 空心轴 (S)

Gear Units Permissible Additional Radial Forces on Output Shaft d_2 ¹⁾ Solid Shaft (S)

作用力不在轴伸中部
Application of force outside
the centre of the shaft end



F_{R22} 允许的外部径向力
Permissible external radial force

F_{R2} 允许的附加径向力, 根据第 200 页
上的表 1 确定
Permissible additional radial force
acc. to table 1 page 200

k 作用力系数根据下表确定
Factor of application of force acc.
to table

$$F_{R22} = F_{R2} \times k$$

表 2 / Table 2

作用力系数 k / Factor of application of force k

规格 Size	距离 z, mm / Distance z in mm												
	-200	-150	-100	-75	-50	-25	0	25	50	75	100	150	200
3				1.21	1.09	1.00	0.85	0.74	0.65	0.58	0.48		
4				1.17	1.08	1.00	0.86	0.76	0.68	0.62	0.52	0.44	
5+6				1.22	1.14	1.06	1.00	0.88	0.79	0.72	0.66	0.56	0.49
7+8				1.19	1.12	1.06	1.00	0.89	0.81	0.74	0.68	0.58	0.51
9+10			1.22	1.15	1.10	1.05	1.00	0.90	0.82	0.76	0.70	0.61	0.54
11+12			1.18	1.13	1.08	1.04	1.00	0.91	0.84	0.78	0.73	0.64	0.57
13+14	1.24	1.15	1.11	1.07	1.03	1.00	0.92	0.86	0.80	0.75	0.67	0.60	0.55
15+16	1.20	1.12	1.09	1.06	1.03	1.00	0.93	0.87	0.82	0.77	0.69	0.63	0.58
17+18	1.25	1.17	1.11	1.06	1.03	1.00	0.94	0.88	0.84	0.79	0.72	0.66	0.60

1) 表中数值为最小值, 在 $f_2 > 1.2$ 时可以满足要求。
如果给出了力的作用角和旋转方向, 则在绝大多数
情况下可以承受更大的附加力。
请与我们联系。
在必要时可以采用一个加强型输出轴(V)。

2) 详情请见
3) 当作用力不在轴伸中部时, 请参阅第 200 页。

4) 按照最佳的最低性能等级为 8.8,
基础必须干燥, 不得有油脂。

详情请见:

- 输入轴 d_1 上允许的附加径向力。
- 双轴空心轴上允许的附加径向力
(设计型式 E、F 和 I)。
- 19-26 号齿轮箱上允许的附加径向力。

1) Values in below are minimum values. They are
valid for $f_2 > 1.2$. If the angle of application
of force and the direction of rotation are given,
significantly higher additional forces can
usually be allowed.
Please consult us.
If necessary, a reinforced output shaft (V)
can be used.

2) on request
3) For application of force outside the centre of
the shaft end, see page 200.

4) Use foundation bolts of min. property class
8.8.
Foundation must be dry and grease-free.

On request:

- Permissible additional radial forces on input
shaft d_1 .
- Permissible additional radial forces on solid
output shafts on both sides (assemblies E,
F and I).
- Permissible additional radial forces for gear
unit sizes 19-26.

齿轮箱 转动惯量 J_0

类型 MTH1...MTH2...MTH3...MTH4... / 规格 3-14

转动惯量 J_0 (kgm²) 是指相对于齿轮箱输出轴 d_0 的转动惯量。
 可按下列公式计算: $J_0 = J_1' + J_2$
 J_1 (kgm²) 是指相对于齿轮箱输入轴 d_1 的转动惯量。
 如果输入轴 d_1 带有冷却风扇, 则应加上 J_1

Gear Units Mass Moments of Inertia J_0
 Type MTH1...MTH2...MTH3...MTH4... / Sizes 3-14

The mass moment of inertia J_0 in kgm² refers to the output shaft d_0 of a gear unit and is calculated with the following formula: $J_0 = J_1' + J_2$
 The mass moment on events J_1 in kgm² refers to the input shaft d_1 of a gear unit without fan.
 For shaft d_1 with fan, J_1 has to be added

h	齿轮箱规格 / Gear unit sizes													
	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.25	0.02855	-	0.10709	-	0.42300	-	0.92078	-	-	-	-	-	-	-
1.4	0.02589	-	0.14349	-	0.38958	-	0.84322	-	-	-	-	-	-	-
1.6	0.02413	-	0.12952	-	0.33919	-	0.72861	-	1.74877	-	3.74077	-	-	-
1.8	0.01974	-	0.10903	-	0.30115	-	0.66018	-	1.58798	-	3.20267	-	-	-
2.0	0.01820	-	0.08932	-	0.27147	-	0.59704	-	1.43757	-	2.80382	-	-	-
2.24	0.01677	-	0.06623	-	0.23984	-	0.53840	-	1.29628	-	2.41258	-	-	-
2.5	0.01479	-	0.05187	-	0.21952	-	0.48396	-	1.16499	-	2.13083	-	-	-
2.8	0.01347	-	0.03768	-	0.20156	-	0.43328	-	1.04854	-	1.88640	-	-	-
3.15	0.00915	-	0.03006	-	0.17403	-	0.37098	-	0.84214	-	1.67273	-	-	-
3.55	0.00807	-	0.04369	-	0.12886	-	0.27326	-	0.72968	-	1.47389	-	-	-
4.0	0.00702	-	0.03787	-	0.10584	-	0.23726	-	0.64640	-	1.29073	-	-	-
4.5	0.00622	-	0.03979	-	0.08623	-	0.19989	-	0.49392	-	0.96887	-	-	-
5.0	0.00481	-	0.03756	-	0.07442	-	0.17089	-	0.40818	-	0.80380	-	-	-
5.6	0.00384	-	0.03733	-	0.06407	-	0.14314	-	0.33371	-	0.72803	-	-	-
6.3	0.003	-	0.045	-	0.100	-	0.290	-	0.290	-	0.290	-	-	-
7.1	-	0.01603	0.02380	-	0.03059	-	0.39124	-	0.52103	-	1.10185	-	-	-
8.0	-	0.01340	0.03912	-	0.07563	-	0.16602	-	0.45456	-	0.80987	-	-	-
9.0	-	0.01138	0.03923	0.02969	0.06030	0.11062	0.14592	0.23996	0.32684	0.43958	0.62523	1.28887	-	-
10	-	0.01020	0.03927	0.03020	0.06905	0.09446	0.12771	0.19611	0.32026	0.55219	0.70590	1.1130	-	-
11.2	-	0.00860	0.01857	0.02877	0.06058	0.07736	0.11180	0.16827	0.27967	0.47805	0.62735	0.89870	-	-
12.5	-	0.00757	0.01819	0.02506	0.04457	0.06294	0.09506	0.14895	0.25168	0.37960	0.50525	0.80433	-	-
14	-	0.00627	0.01818	0.02098	0.03719	0.05194	0.07208	0.10934	0.18353	0.28160	0.37500	0.50636	-	-
16	-	0.00542	0.01813	0.01969	0.02467	0.03260	0.04113	0.10158	0.16348	0.25672	0.36123	0.50190	-	-
18	-	0.00484	0.00913	0.01343	0.02084	0.02872	0.04110	0.06196	0.10613	0.17937	0.31417	0.47348	-	-
20	-	0.00320	0.00718	0.01158	0.02005	0.02844	0.04385	0.06832	0.12189	0.18813	0.30554	0.40563	-	-
22.4	-	0.00276	0.00649	0.00949	0.01712	0.02542	0.04039	0.05732	0.10480	0.15545	0.23989	0.34428	-	-
25	-	0.00236	0.00565	0.00854	0.01578	0.02327	0.03414	0.04836	0.08840	0.13789	-	0.20627	-	-
28	-	-	-	0.00710	-	0.01986	-	0.04442	-	0.11733	-	0.25717	-	-
31.5	-	-	-	0.00398	-	0.01734	-	0.03798	-	0.08840	-	-	-	-
35	-	0.006	0.070	0.018	0.048	0.048	0.048	0.100	0.100	0.200	0.200	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-	-	-
125	-	-	-	-	-	-	-	-	-	-	-	-	-	-
140	-	-	-	-	-	-	-	-	-	-	-	-	-	-
160	-	-	-	-	-	-	-	-	-	-	-	-	-	-
180	-	-	-	-	-	-	-	-	-	-	-	-	-	-
200	-	-	-	-	-	-	-	-	-	-	-	-	-	-
224	-	-	-	-	-	-	-	-	-	-	-	-	-	-
250	-	-	-	-	-	-	-	-	-	-	-	-	-	-
280	-	-	-	-	-	-	-	-	-	-	-	-	-	-
315	-	-	-	-	-	-	-	-	-	-	-	-	-	-
355	-	-	-	-	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-	-	-	-
450	-	-	-	-	-	-	-	-	-	-	-	-	-	-

齿轮箱 转动惯量 J_0

类型 MTH1...MTH2...MTH3...MTH4... / 规格 15-26

转动惯量 J_0 (kgm²) 是指相对于齿轮箱输出轴 d_0 的转动惯量。
 可按下列公式计算: $J_0 = J_1' + J_2$
 J_1 (kgm²) 是指相对于齿轮箱输入轴 d_1 的转动惯量。
 如果输入轴 d_1 带有冷却风扇, 则应加上 J_1

Gear Units Mass Moments of Inertia J_0
 Type MTH1...MTH2...MTH3...MTH4... / Sizes 15-26

The mass moment of inertia J_0 in kgm² refers to the output shaft d_0 of a gear unit and is calculated with the following formula: $J_0 = J_1' + J_2$
 The mass moment on events J_1 in kgm² refers to the input shaft d_1 of a gear unit without fan.
 For shaft d_1 with fan, J_1 has to be added

h	齿轮箱规格 / Gear unit sizes													
	15	16	17	18	19	20	21	22	23	24	25	26	28	30
1.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-	-	-
125	-	-	-	-	-	-	-	-	-	-	-	-	-	-
140	-	-	-	-	-	-	-	-	-	-	-	-	-	-
160	-	-	-	-	-	-	-	-	-	-	-	-	-	-
180	-	-	-	-	-	-	-	-	-	-	-	-	-	-
200	-	-	-	-	-	-	-	-	-	-	-	-	-	-
224	-	-	-	-	-	-	-	-	-	-	-	-	-	-
250	-	-	-	-	-	-	-	-	-	-	-	-	-	-
280	-	-	-	-	-	-	-	-	-	-	-	-	-	-
315	-	-	-	-	-	-	-	-	-	-	-	-	-	-
355	-	-	-	-	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-	-	-	-
450	-	-	-	-	-	-	-	-	-	-	-	-	-	-

齿轮箱 转动惯量 J_1
类型 MTB2.. MTB3.. MTB4.. / 规格 4-14

转动惯量 J_1 (kgm²) 是指相对于输出轴输入轴 d_1 的转动惯量。
可按下列公式计算: $J_1 = J_1' + J_2$
转动惯量 J_1 (kgm²) 是指相对于输出轴输入轴 d_1 的转动惯量。
如果输入轴 d_1 带有伞形风扇, 则加上 J_3 。

Table with 14 columns for gear unit sizes (4 to 14) and rows for mass moments of inertia (0.5 to 400 kgm²).

Gear Units Mass Moments of Inertia J_1
Type MTB2.. MTB3.. MTB4.. / Sizes 4-14

The mass moment of inertia J_1 , in kgm² refers to the output shaft d_1 of a gear unit and is calculated with the following formula: $J_1 = J_1' + J_2$
The mass moment of inertia J_1 , in kgm² refers to the input shaft d_1 of a gear unit without fan.
For shaft d_1 , with fan, J_3 has to be added.

Table with 14 columns for gear unit sizes (4 to 14) and rows for mass moments of inertia (0.5 to 400 kgm²).

齿轮箱 转动惯量 J_1
类型 MTB2.. MTB3.. MTB4.. / 规格 15-26

转动惯量 J_1 (kgm²) 是指相对于输出轴输入轴 d_1 的转动惯量。
可按下列公式计算: $J_1 = J_1' + J_2$
转动惯量 J_1 (kgm²) 是指相对于输出轴输入轴 d_1 的转动惯量。
如果输入轴 d_1 带有伞形风扇, 则加上 J_3 。

Gear Units Mass Moments of Inertia J_1
Type MTB2.. MTB3.. MTB4.. / Sizes 15-26

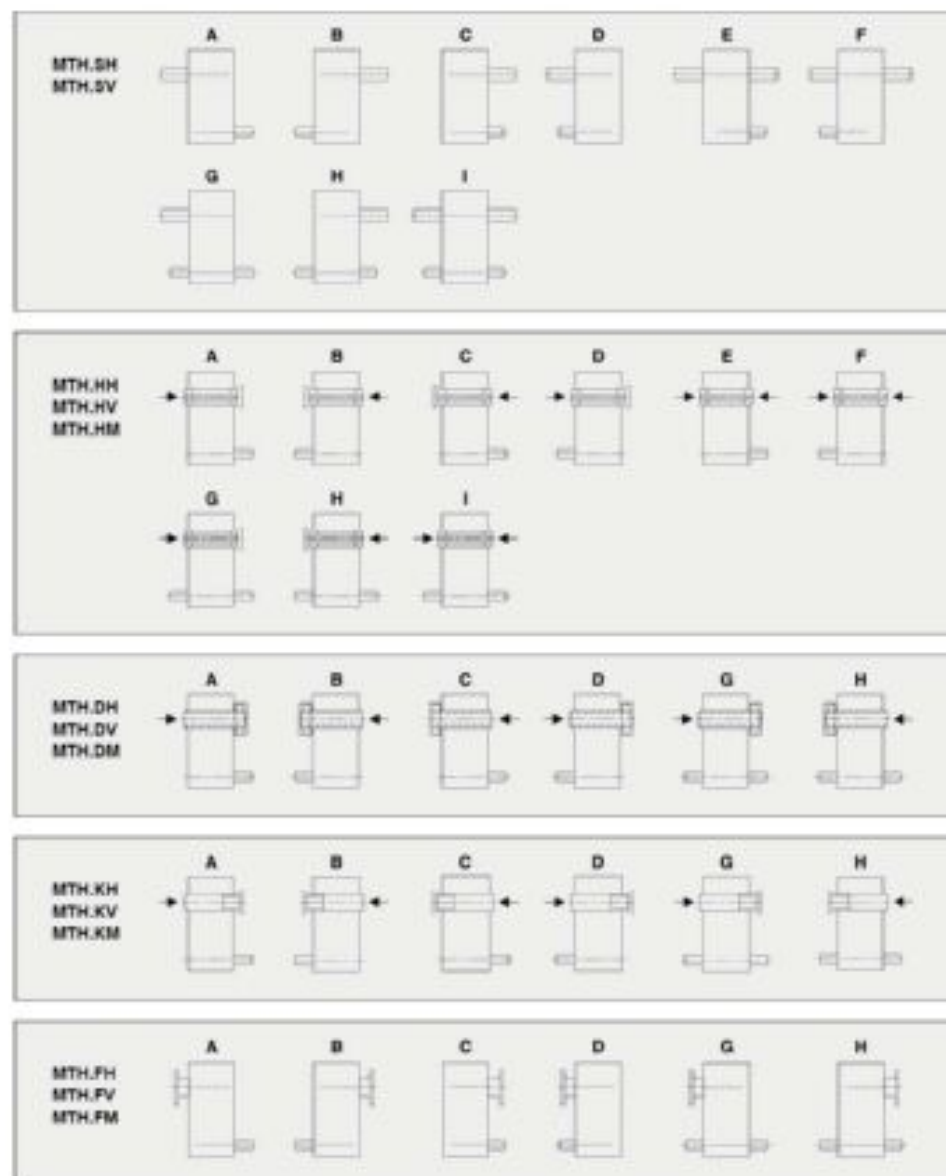
The mass moment of inertia J_1 , in kgm² refers to the output shaft d_1 of a gear unit and is calculated with the following formula: $J_1 = J_1' + J_2$
The mass moment of inertia J_1 , in kgm² refers to the input shaft d_1 of a gear unit without fan.
For shaft d_1 , with fan, J_3 has to be added.

Table with 26 columns for gear unit sizes (15 to 26) and rows for mass moments of inertia (0.5 to 400 kgm²).

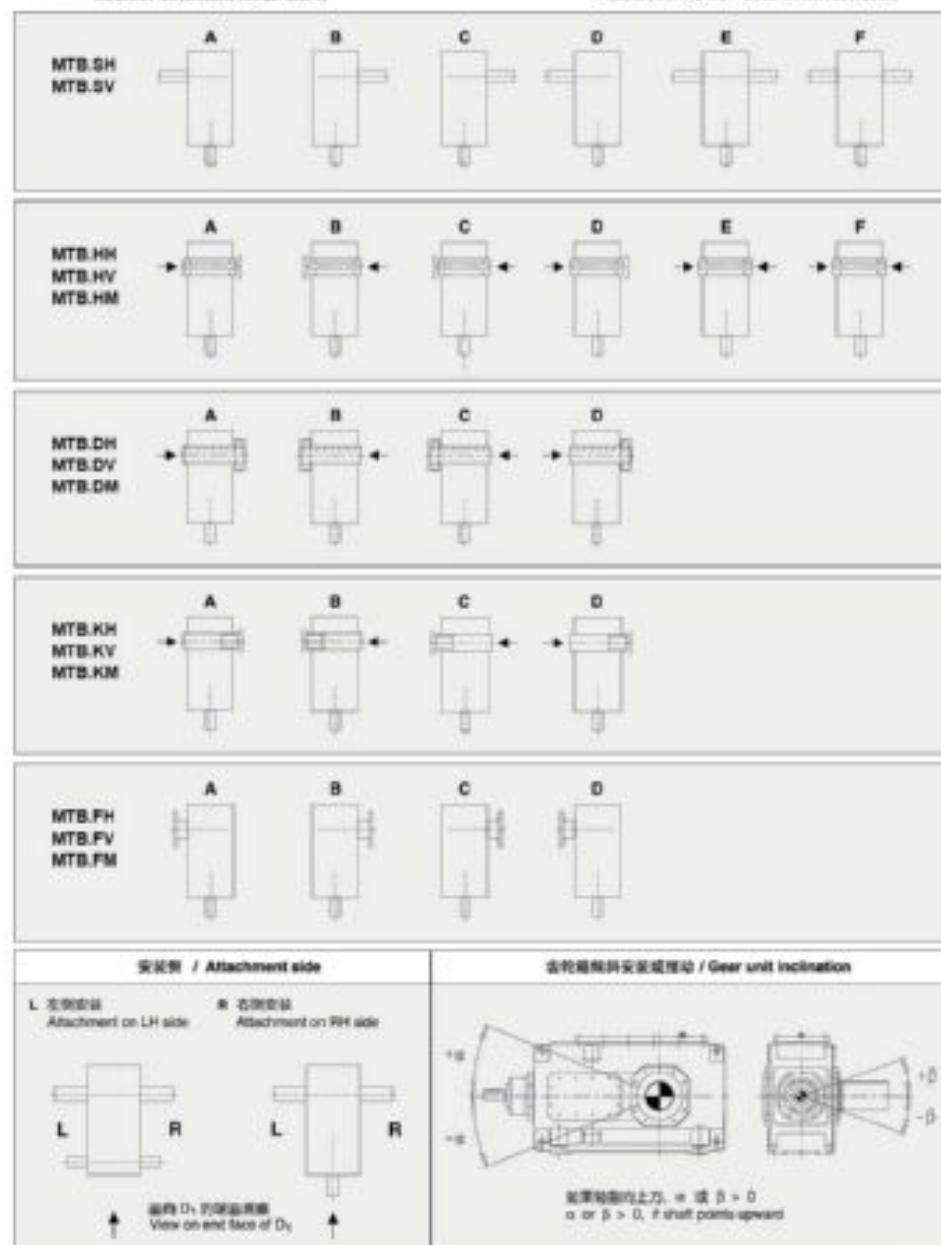
MTB2

齿轮箱 布置形式

Gear Units Assemblies

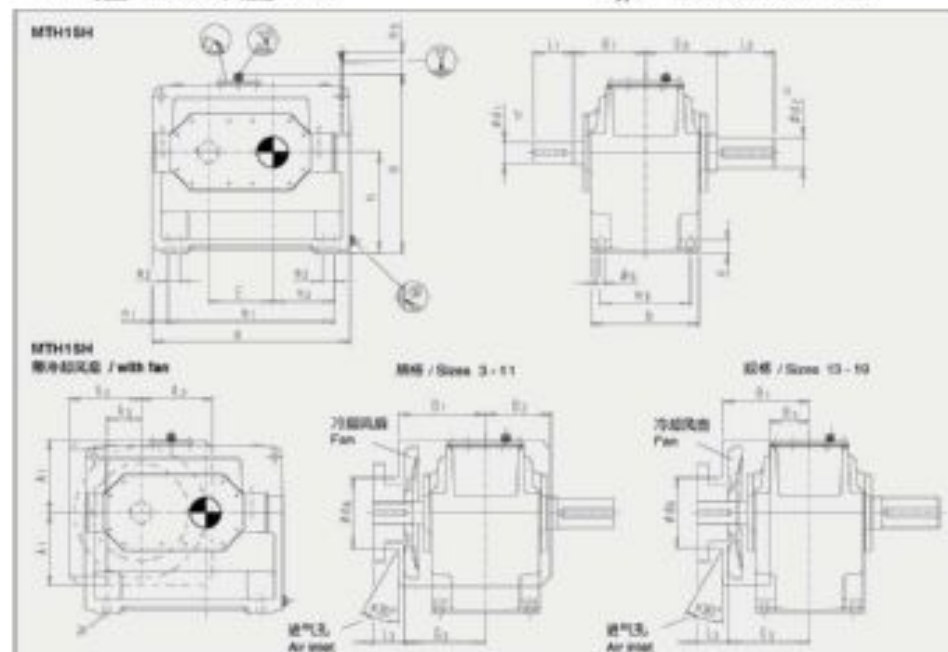


→ 箭头表示工作机轴安装插入方向
The arrow indicates the direction of insertion of the driven machine shaft

齿轮箱 布置形式
安装侧 / 齿轮轴倾斜安装或倾斜Gear Units Assemblies
Attachment Side / Gear Unit Inclination

齿轮箱 单级传动/卧式安装
类型 MTH15H / 规格 3-19

Gear Units Single Stage / Horizontal
Type MTH15H / Sizes 3-19



规格 Size	输入轴 / Input												冷却风扇 / Fan												布置形式 Design
	$i_0 = 1.25 - 2.0$ $i_0 = 1.6 - 2.0$				$i_0 = 3.15 - 4$				$i_0 = 4.5 - 5.6$				冷却风扇 / Fan				布置形式 Design								
	d_1	l_1	l_2	d_3	b	l_3	d_5	l_5	d_7	l_7	G_1	G_2	A_1	A_2	A_3	B_1		B_2	B_3	d_6	A	B			
3	80	125	105	45	100	80	30	80	80	130	190	150	145	80	205	130	-	130	-	130			A	B	
5	85	160	130	60	135	95	40	110	80	210	240	225	215	115	255	185	-	190	-	190	A	B			
7	100	200	165	75	140	95	50	140	105	250	285	255	250	120	300	230	-	245	-	245			A	B	
9	110	250	195	90	165	130	60	160	120	290	315	300	295	140	330	265	-	265	-	265	A	B			
11	130	240	205	110	205	170	80	170	135	325	350	360	350	160	375	320	-	320	-	320			A	B	
13	150	245	200	130	245	200	100	210	165	365	410	415	405	-	430	-	150	390	-	390	A	B			
15	180	290	240	150	250	200	125	250	200	390	410	500	430	-	430	-	120	420	-	420			A	B	
17	200	300	280	170	290	240	140	250	200	400	450	550	430	-	470	-	150	445	-	445	A	B			
19	220	340	290	190	340	290	160	300	250	440	490	630	475	-	510	-	130	445	-	445			A	B	

规格 Size	齿轮箱 / Gear units												A	B
	a	b	c	E	h_1	h_2	H	H_1	H_2	H_3	H_4	H_5		
3	420	200	28	130	200	85	375	310	-	160	55	110	19	
5	580	285	35	185	290	100	525	440	-	240	70	160	24	
7	690	375	45	225	350	75	620	540	-	315	75	195	28	
9	805	425	50	295	420	50	735	625	-	390	90	225	35	
11	960	515	60	320	500	40	875	770	-	440	95	280	35	
13	1100	590	70	370	580	40	1020	870	-	490	115	315	42	
15	1295	645	80	442	600	30	1155	1025	-	490	135	370	48	
17	1410	615	80	490	670	-	1235	1175	130	530	120	425	42	
19	1590	690	90	555	780	-	1395	1290	150	590	150	465	48	

齿轮箱 单级传动/卧式安装
类型 MTH15H / 规格 3-19

Gear Units Single Stage / Horizontal
Type MTH15H / Sizes 3-19



规格 Size	d_2	L_2	G_2
3	60	125	170
5	85	160	270
7	105	200	290
9	125	210	270
11	150	240	320
13	180	310	360
15	220	350	360
17	240	400	400
19	270	450	440

规格 Size	润滑油量 / Oil quantity (l) ¹⁾		重量 Weight (kg) ¹⁾	冷却盘管 / Cooling coil		规格 Size	D_{10}	Φ_{10}	H_{10}	L_{10}	α
	轴封 Shaft seal	迷宫式轴封 Labyrinth seal		冷却盘管 Cooling coil	输出轴 / Output						
3	7	5.2	528			3	40	200	74	4	
5	22	18	302			5	66	270	90	4	
7	42	34	547			7	124	370	135	4	
9	66	57	862			9	116	365	170	8	
11	120	100	1515			11	146	425	130	8	
13	175	155	2365			13	152	480	150	8	
15	190	196	3200			15	172	560	130	8	
17	270	225	4250			17	200	600	145	8	
19	390	330	5800			19	安装轴套 on request				

冷却盘管接口尺寸 G1/2"
Water connection for cooling coil G1/2"

冷却盘管适用于淡水、海水和精处理过的水
Cooling coil suitable for fresh, sea and brackish water

冷却水流量, 冷却水压力: 8 bar
Cooling water quantity required, max. cooling water pressure: 8 bar

尺寸以mm为单位
Dimensions in mm

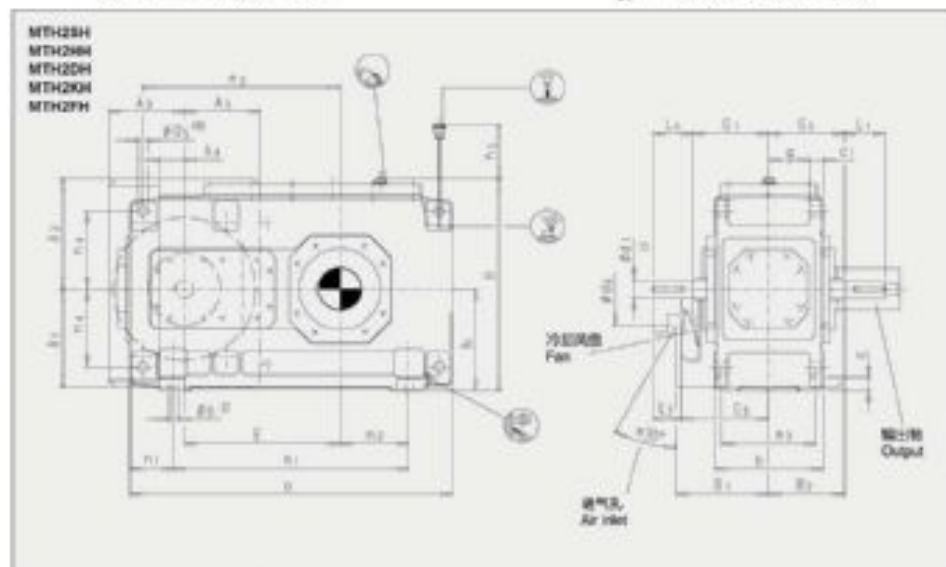
1) 轴:
 • $\Phi 6 - \Phi 50$, $e_8 - e_9$
 • 键槽按 GB/T1095-1979
 • 有关键槽位置 363-372 页

2) 在安装时请仔细阅读以下注意事项
 * 参考图
 ** 请注油时

2) Remove air guide cover before fitting the foundation bolts
 *) Approximate values
 For shaft seals, see pages 389-391
 **) Without oil filling

齿轮箱 两阶段/卧式安装
类型 MTH2.H / 规格 4-12

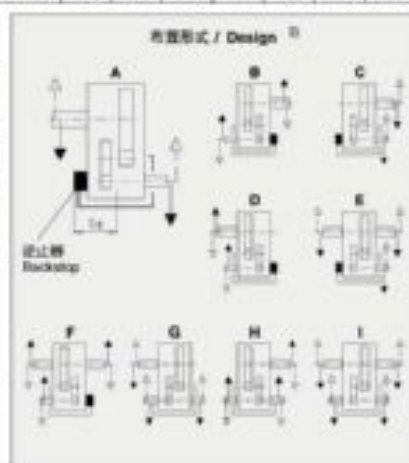
Gear Units Two Stage / Horizontal
Type MTH2.H / Sizes 4-12



规格 Size	输入轴 / Input						布置形式 / Design		冷却风扇 / Fan								
	k ₁ = 5.3 - 11.2 k ₂ = 8 - 14			k ₁ = 12.5 - 22.4 k ₂ = 16 - 28			G, H, I 仅用于 / only for k ₂ **		A ₁ , A ₂ , A ₃ , A ₄		B ₁ , B ₂		D ₁ , D ₂				
4	45	100	80	32	80	60	170	190	8.3-18	195	225	190	30	205	158	138	
5 + 6	50	100	80	38	80	60	195	215	8.3-18	225	260	175	55	230	179	150	
7 + 8	60	135	105	50	110	80	210	240	8.3-18	8-20	272	305	210	70	255	210	200
9 + 10	75	140	110	60	140	150	240	270	8.3-18	8-20	312	355	240	100	285	245	200
11 + 12	90	165	130	70	140	105	275	310	8.3-18	8-22.4	372	420	285	135	325	285	210

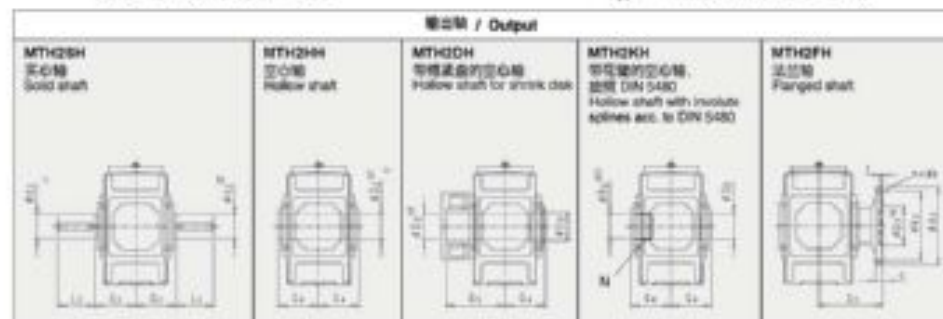
规格 Size	齿轮箱 / Gear units									
	b	c	e ₁	D ₂	g	h ₁	h ₂	h ₃	h ₄	h
4	215	28	30 ± 1	24	77.5	200	180	105	150	19
5 + 6	255	28	30 ± 1	24	97.5	230	220	106	180	19
7 + 8	300	35	36 ± 1	28	114	280	260	129	215	24
9 + 10	370	40	45 ± 1.5	36	145	320	320	145	245	28
11 + 12	430	50	54 ± 1.5	40	161	380	370	166	300	35

规格 Size	齿轮箱 / Gear units						带油器 油杯 O ₂
	a	E	f ₂	H	m ₁	m ₂	
4	365	275	110	415	355	85	345
5	440	315	150	482	430	100	425
6	520	355	190	572	545	130	500
7	605	430	190	682	650	190	645
8	705	450	205	802	635	155	785
9	825	500	215	952	730	205	935
10	955	545	250	1122	775	180	1110
11	1105	615	250	1322	830	265	1290



齿轮箱 两阶段/卧式安装
类型 MTH2.H / 规格 4-12

Gear Units Two Stage / Horizontal
Type MTH2.H / Sizes 4-12



规格 Size	MTH2SH		MTH2HH		MTH2DH		MTH2KH				MTH2FH									
	d ₁	l ₁	D ₂	G ₂	D ₂	G ₂	D ₂	G ₂	D ₂	G ₂	N/DIN 5480	C ₂	D ₂	G ₂	h x s	t	G ₂			
4	80	170	140	80	140	85	85	140	205	-	-	-	-	-	-	-	-	-		
5	100	210	165	95	165	100	100	165	240	N 95 x 3 x 30 x 30 x 9H	88	105	165	25	308	150	260	16 x 22	18	255
6	110	210	165	105	165	110	110	165	240	N 95 x 3 x 30 x 30 x 9H	88	110	165	25	329	160	280	18 x 22	18	285
7	120	210	195	115	195	120	120	195	280	N 120 x 3 x 30 x 30 x 9H	114	120	195	30	379	180	320	16 x 25	18	300
8	130	250	195	125	195	130	130	195	280	N 120 x 3 x 30 x 30 x 9H	114	130	195	30	390	180	340	18 x 26	18	300
9	140	250	235	135	235	140	140	235	300	N 140 x 3 x 30 x 45 x 9H	134	145	235	38	430	200	380	20 x 26	12	350
10	160	300	235	150	235	150	155	235	360	N 140 x 3 x 30 x 45 x 9H	134	155	235	38	479	240	420	22 x 28	12	390
11	170	300	270	165	270	165	170	270	400	N 170 x 5 x 30 x 32 x 9H	160	170	270	42	519	260	450	18 x 33	12	400
12	180	300	270	180	270	180	185	270	405	N 170 x 5 x 30 x 32 x 9H	160	185	270	42	548	280	480	22 x 33	12	400

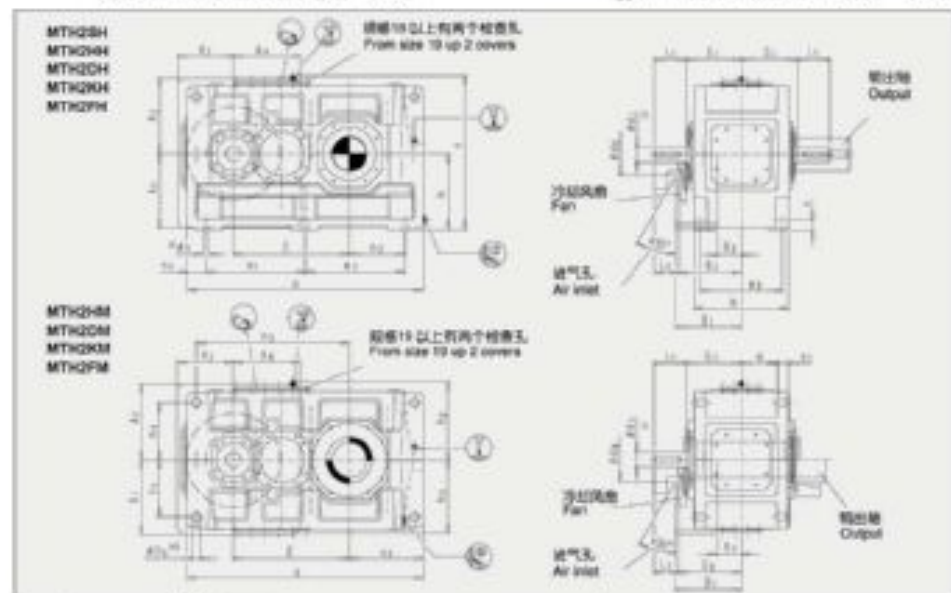
规格 Size	密封油量 / Oil quantity		重量 / Weight		冷却盘管 / Cooling coil			
	轴封 Shaft seal	迷宫式密封 Labyrinth seal	MTH2SH MTH2HH MTH2DH	MTH2KH MTH2FH	冷却盘管尺寸 G1/2"	冷却盘管用于淡水、海水和腐蚀性水	冷却盘管用于淡水、海水和腐蚀性水	冷却盘管用于淡水、海水和腐蚀性水
4	10	7	190	-	10	10	10	10
5	13	11	300	330	10	10	10	10
6	16	12	355	395	10	10	10	10
7	27	21	555	555	10	10	10	10
8	30	23	590	645	10	10	10	10
9	42	33	830	915	10	10	10	10
10	45	34	950	1030	10	10	10	10
11	71	58	1335	1465	10	10	10	10
12	75	60	1615	1750	10	10	10	10

尺寸以mm为单位
1) 轴：
• k6 + h6, m6 + h6
• 键槽按 GB/T1096-1979
• 有关轴的信息 363-372 页
2) 在安装时请确保轴与壳内无异物
3) 方案：
• 法兰不能与布置形式 G、H 和 I 结合
*) 参考页
• 密封油量 389-391 页
**) 未注油!

Dimensions in mm
1) Shafts:
• k6 + h6, m6 + h6
• Keyway acc. to GB/T 1096-1979
• For details, see pages 363-372
2) Remove air guide cover before fitting the foundation bolts
3) Valiants:
• Backstop not possible with G, H and I designs
*) Approximate values
• For shaft seals, see pages 389-391
**) Without oil filling

齿轮箱 两级传动/卧式安装
Type MTH2.H, MTH2.M / 规格 13-22

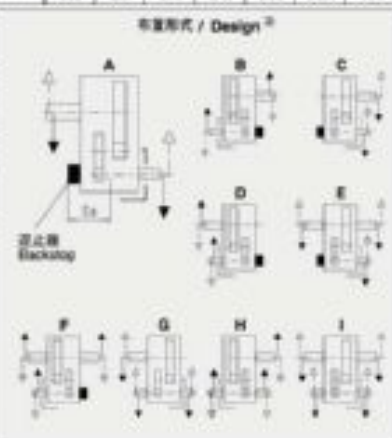
Gear Units Two Stage / Horizontal
Type MTH2.H, MTH2.M / Sizes 13-22



规格 Size	输入轴 / Input								布置形式 / Design G, H, L 仅用于 / only for L ₁₀ ²	冷却风扇 / Fan							
	L ₁₀ = 6.3 - 11.2 L ₁₀ = 7.1 - 12.5				L ₁₀ = 12.5 - 20 L ₁₀ = 14 - 22.5					A ₁	A ₂	A ₃	A ₄	B ₁	B ₂	B ₃	B ₄
13	100	205	170	85	175	135	300	369	6.3-16	430	480	330	365	285	135	250	
15	125	245	200	110	215	165	400	490	6.3-16	490	550	370	440	430	155	280	
17	150	290	240	140	260	210	480	590	6.3-16	540	600	430	505	485	140	280	
19	175	330	280	170	300	240	560	680	6.3-16	600	660	500	580	540	190	310	
21	200	370	320	200	340	280	640	780	6.3-16	680	740	580	670	640	200	310	

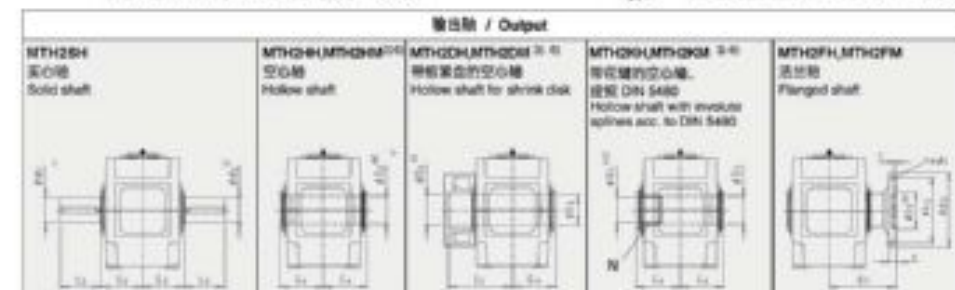
规格 Size	b	c	c ₁	D ₁	g	f ₁	f ₂	f ₃	m ₁	n ₁	n ₂	x
13 + 14	55	60	61 ± 2	48	211.5	440	450	490	475	130	340	35
15 + 16	65	70	72 ± 2	55	238	500	490	500	535	120	375	42
17 + 18	80	85	87 ± 2	65	269	550	550	560	600	135	425	42
19 + 20	95	100	102 ± 2	75	299	600	615	620	680	150	475	48
21 + 22	110	115	117 ± 2	85	330	660	680	690	750	170	520	56

规格 Size	a	h ₂	E	H	m ₂	n ₂	n ₃	n ₄	止退器 Backstop Q ₂
13	1050	405	635	900	545	545	305	835	标准尺寸 Dimensions on request
14	1130	475	705	900	545	680	375	905	
15	1190	485	760	1000	655	655	365	1005	
16	1240	530	805	1000	655	745	410	1050	
17	1340	525	860	1110	735	735	390	1145	
18	1400	585	920	1110	735	855	450	1205	
19	1510	590	985	1240	850	850	435	1345	
20	1630	650	1055	1240	850	970	495	1405	
21	1740	655	1120	1390	905	905	485	1450	
22	1850	710	1185	1390	905	1050	540	1455	



齿轮箱 两级传动/卧式安装
Type MTH2.H, MTH2.M / 规格 13-22

Gear Units Two Stage / Horizontal
Type MTH2.H, MTH2.M / Sizes 13-22



规格 Size	MTH2SH		MTH2SH/MTH2GM		MTH2GH/MTH2GM			MTH2GL/MTH2GM			MTH2FH/MTH2FM			
	D ₁	L ₁	D ₂	G ₄	D ₂	D ₃	G ₄	D ₃	G ₄	c	d ₂	D ₃	L ₁	
13	200	350	305	180	335	180	195	305	480	N 100x5x30x36x9H	180	195	335	48
14	210	350	305	210	330	210	215	330	480	N 100x5x30x36x9H	180	215	330	48
15	230	410	360	230	380	230	235	380	550	N 220x5x30x42x9H	210	235	380	55
16	240	410	360	240	380	240	245	380	550	N 220x5x30x42x9H	210	245	380	55
17	250	410	415	250	415	250	260	415	600	N 250x5x30x48x9H	240	260	415	60
18	270	470	415	270	415	280	285	415	600	N 250x5x30x48x9H	240	285	415	60
19	290	470	485	-	-	285	295	485	670	-	-	-	-	65
20	300	500	485	-	-	310	315	485	670	-	-	-	-	65
21	320	500	480	-	-	330	335	480	715	-	-	-	-	75
22	340	580	480	-	-	340	345	480	725	-	-	-	-	75

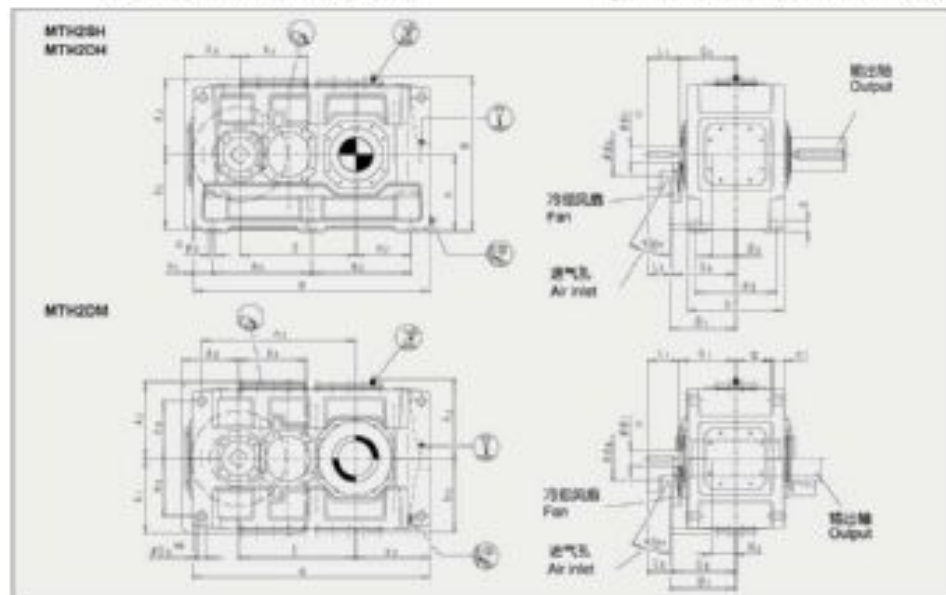
规格 Size	MTH2.H		MTH2.M		MTH2.H		MTH2.M	
	壳密封 Shell seal	迷宫式密封 Labyrinth seal	壳密封 Shell seal	迷宫式密封 Labyrinth seal	壳密封 Shell seal	迷宫式密封 Labyrinth seal	壳密封 Shell seal	迷宫式密封 Labyrinth seal
13	135	120	110	2000	1580	2160	2040	2040
14	140	130	115	2575	2430	2740	2600	2600
15	210	190	160	3430	3240	3670	3480	3480
16	215	200	165	3655	3465	3910	3720	3720
17	290	260	230	4550	4420	4950	4720	4720
18	300	270	240	5125	4870	5475	5220	5220
19	320	-	300	6900	6300	-	-	-
20	340	-	320	7500	7200	-	-	-
21	360	-	350	8900	8400	-	-	-
22	340	-	370	9800	9200	-	-	-

尺寸/mm/inch 单位
1) 轴:
• $k5 \pm 0.05$, $m6 \pm 0.05$
• 键槽按 GB/T1969-1979
• 每套轴衬位置 265-372 页
2) 在安装时请按照此页的下页安装
3) 方案:
• 轴衬不能与布置形式 G, H 和 I 兼容
• 轴衬式齿轮箱 MTH2.M 不能安装迷宫式密封
4) 规格 13 和 14: 仅用于 $L_1 = 6.3-16$
规格 17 和 19: 仅用于 $L_1 = 6.3-16$
5) 参考值
轴衬长度 340-391 页
6) 未注公差

Dimensions in mm
1) Shafts:
• $k5 \pm 0.05$, $m6 \pm 0.05$
• Keyway acc. to GB/T 1969-1979
• For details, see pages 265-372
2) Remove air guide cover before fitting the foundation bolts
3) Variants:
• Backstop not possible with G, H and I designs
• Shaft mounted gear unit (MTH2.M) not with labyrinth seal
4) Sizes 13 and 14: only $L_1 = 6.3-16$
Sizes 17 and 19: only $L_1 = 6.3-16$
5) Approximate values
For shaft seals, see pages 349-391
6) Without oil filling

齿轮箱 两轴传动 / 卧式安装 类型 MTH2.H, MTH2DM / 规格 23-26

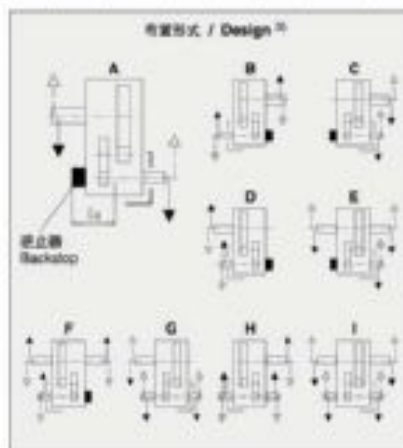
Gear Units Two Stage / Horizontal Type MTH2.H, MTH2DM / Sizes 23-26



规格 Size	输入轴 / Input				输出轴 / Output				布置形式 / Design G, H, I 仅用于 / only for I ₂ =	冷却风扇 / Fan					
	l_1	l_2	l_3	l_4	D_1	D_2	D_3	D_4		A_1	A_2	A_3	A_4	B_1	B_2
23 + 24	190	330	380	150	255	300	360	410	770	770	550	550	630	250	450
25 + 26	200	340	390	170	300	350	400	450	845	805	550	550	670	240	450

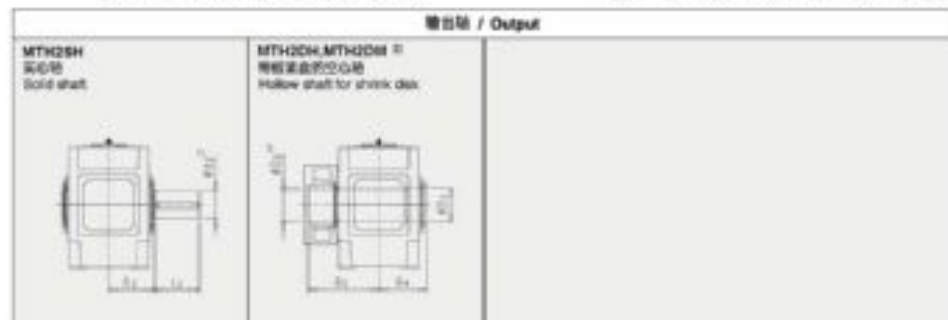
规格 Size	齿轮箱 / Gear units											
	b	c	d_1	D_2	g	r_1	r_2	r_3	r_4	r_5	s	
23 + 24	930	115	120±2	85	340	780	770	770	810	180	550	55
25 + 26	1045	130	125±2	90	400	860	860	860	910	200	550	60

规格 Size	齿轮箱 / Gear units							法兰盘 Backstop D_6
	a	d_2	E	H	r_1	r_2	r_3	
23	2380	730	1185	1550	1010	1010	550	1560
24	2510	795	1250	1550	1010	1140	415	1625
25	2580	790	1325	1720	1080	1090	490	1685
26	2780	890	1415	1720	1080	1270	490	1775



齿轮箱 两轴传动 / 卧式安装 类型 MTH2.H, MTH2DM / 规格 23-26

Gear Units Two Stage / Horizontal Type MTH2.H, MTH2DM / Sizes 23-26



规格 Size	MTH2SH			MTH2DM, MTH2DM			
	d_2	l_2	D_2	D_3	D_4	D_5	D_6
23	360	590	540	360	365	540	785
24	380	590	540	380	385	540	805
25	400	650	605	400	405	605	875
26	420	650	605	430	435	605	900

规格 Size	润滑油量 Oil quantity 目 1		重量 Weight (kg) 1		冷却水管 / Cooling coil		冷却水管 Cooling coil 目 2
	MTH2SH	MTH2DM	MTH2SH MTH2DM	MTH2DM	MTH2H	MTH2DM	
23	430	470	11800	11000	100	100	冷却水管适用于淡水、海水和海水 喷淋的水 Cooling coil suitable for fresh, sea and brackish water 冷却水管最大压力: 8 bar Cooling water quantity required max. cooling water pressure: 8 bar
24	490	500	13800	12300	100	100	
25	600	660	15500	14700	100	100	
26	640	700	17200	16200	100	100	

尺寸 / Dimensions

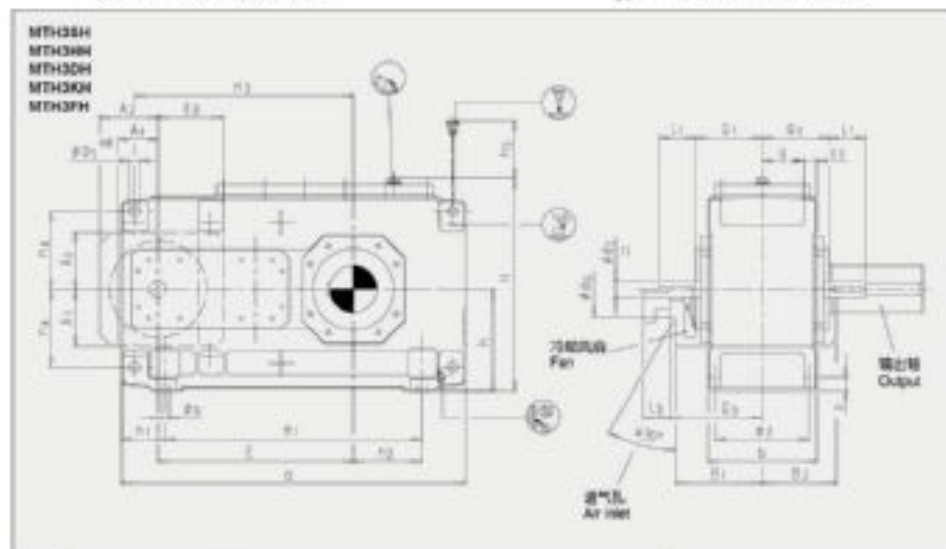
- 轴
 - 轴径 d_2 和 d_3 符合 GB/T 1800
 - 轴径公差符合 GB/T 1800-1978
 - 有关尺寸公差, 3.3-3.7 页
- 在安装时, 请按照以下方法进行
 1) 方案
 - 法兰盘不能与布置形式 G, H 和 I 配合
 - 轴套式齿轮箱 (MTH2DM) 不能配置法兰盘
- 参考值
 ** 未注公差

Dimensions in mm

- Shafts
 - 轴径 d_2 和 d_3 符合 GB/T 1800
 - 轴径公差符合 GB/T 1800-1978
 - For details, see pages 3.3-3.7
- Remove air guide cover before fitting the foundation bolts
- Variants
 - Backstop not possible with G, H and I designs
 - Shaft-mounted gear unit (MTH2.M) not with labyrinth seal
- Approximate values
 ** Without oil filling

齿轮箱 三阶段/卧式安装 类型 MTH3.H / 规格 5-12

Gear Units Three Stage / Horizontal Type MTH3.H / Sizes 5-12



规格 Size	输入轴 / Input						布置形式 / Design (G, H, I) 仅用于 / only for $h_3 =$	冷却风扇 / Fan												
	$h_3 = 25-45$ $h_3 = 31.5-55$		$h_3 = 50-63$ $h_3 = 63-80$		$h_3 = 71-90$ $h_3 = 80-112$			G_1	G_2	A_1	A_2	A_3	A_4	B_1	B_2	d_2				
5 + 6	40	75	75	30	50	58	24	40	40	190	220	25-90	31.5-112	137	130	140	140	215	175	60
7 + 8	45	80	80	35	60	68	26	50	50	185	250	25-90	31.5-112	157	150	160	160	245	205	75
9 + 10	60	125	105	45	100	88	32	60	60	230	300	25-90	31.5-112	182	190	205	205	295	240	90
11 + 12	70	125	120	50	80	88	42	70	70	255	330	25-90	31.5-112	218	220	255	255	325	280	100

规格 Size	齿轮箱 / Gear units									
	b	c	d_1	d_2	g	h_1	h_2	h_3	h_4	s
5 + 6	255	28	30 ± 1	24	97.5	230	220	106	180	92
7 + 8	300	35	36 ± 1	28	114	280	260	120	215	24
9 + 10	370	40	45 ± 1.5	30	140	320	320	145	240	28
11 + 12	430	50	54 ± 1.5	40	161	380	370	165	300	35

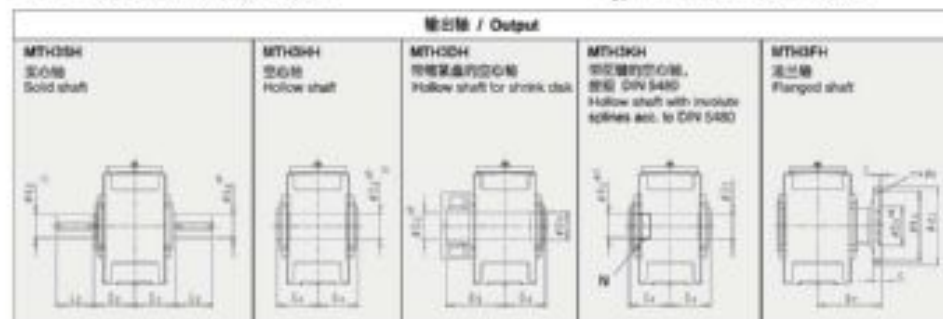
规格 Size	齿轮箱 / Gear units						防止器 Backstop h_5
	s	E	h_5	H	h_1	h_2	
5	690	405	130	482	480	100	405
6	770	440	130	482	560	145	480
7	845	495	175	572	605	130	560
8	850	540	160	582	710	190	605
9	1000	580	185	660	710	155	660
10	1100	630	185	662	810	205	710
11	1200	705	180	762	870	180	805
12	1355	775	175	790	1025	260	875

敬请垂询
和尺寸
Dimensions
on request



齿轮箱 三阶段/卧式安装 类型 MTH3.H / 规格 5-12

Gear Units Three Stage / Horizontal Type MTH3.H / Sizes 5-12



规格 Size	MTH3SH		MTH3HH		MTH3DH		MTH3KH				MTH3FH									
	d_2	l_2	D_2	G_2	D_2	G_2	G_2	G_2	G_2	G_2	c	d_2	D_2	h_2	l_2	G_2				
5	100	210	168	95	168	100	100	165	240	N 95x3x30x30x9H	89	100	165	25	300	150	260	16x22	18	255
6	110	210	168	105	165	110	110	165	240	N 95x3x30x30x9H	89	110	165	25	320	160	280	18x22	18	255
7	120	210	185	115	185	120	120	185	280	N 120x3x30x30x9H	114	120	185	30	370	180	320	16x26	18	300
8	130	250	185	125	185	130	130	185	280	N 120x3x30x30x9H	114	130	185	30	390	190	340	16x26	18	300
9	140	250	235	135	235	140	145	235	330	N 140x3x30x45x9H	134	145	235	38	430	220	380	20x26	12	350
10	160	300	235	150	235	150	155	235	350	N 140x3x30x45x9H	134	155	235	38	470	240	420	22x26	12	350
11	170	300	270	165	270	165	170	270	400	N 170x5x30x32x9H	160	170	270	42	510	260	450	18x33	12	400
12	180	300	270	180	270	180	185	270	405	N 170x5x30x32x9H	160	185	270	42	540	280	480	22x33	12	400

规格 Size	冷却液量 Oil quantity (l) ^{*)}	重量 / Weight (kg) ^{**)}		冷却水管 / Cooling coil		规格 Size				
		MTH3SH MTH3HH MTH3DH MTH3KH	MTH3FH	d_{12}	d_{14}	d_{16}	l_{12}			
5	16	320	365	冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"	冷却水管适用于淡水、海水和含有碱性的水 Cooling coil suitable for fresh, sea and brackish water	5	70	175	60	4
6	18	365	405			6	70	200	60	4
7	29	540	590	冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"	冷却水管适用于淡水、海水和含有碱性的水 Cooling coil suitable for fresh, sea and brackish water	7	80	210	85	4
8	32	625	675			8	80	270	85	4
9	48	675	960	冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"	冷却水管适用于淡水、海水和含有碱性的水 Cooling coil suitable for fresh, sea and brackish water	9	150	248	107	4
10	48	1020	1110			10	90	295	95	4
11	85	1400	1530	冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"	冷却水管适用于淡水、海水和含有碱性的水 Cooling coil suitable for fresh, sea and brackish water	11	200	275	115	8
12	90	1675	1815			12	200	360	115	8

尺寸以mm为基准

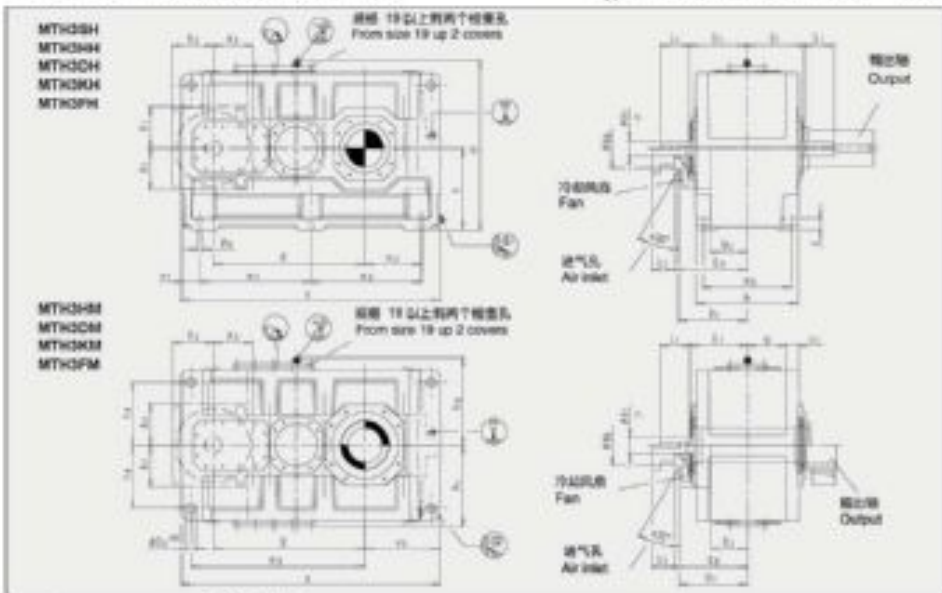
- 轴: $m_1 = 40$, $m_2 = 40$
- 键槽按照 GB/T1969-1979
- 有关规格见第 363-372 页
- 在安装时请仔细阅读以下注意事项
- 注意:
 - 防止器不能与布置形式 G、H 和 I 配合
 - *) 参考值
 - **) 未注油时

Dimensions in mm

- Shafts
- Keyway acc. to GB/T1969-1979
- For details, see pages 363-372
- Remove air guide cover before fitting the foundation bolts
- Warnings:
 - Backstop not possible with G, H and I designs
 - *) Approximate values
 - **) Without oil filling

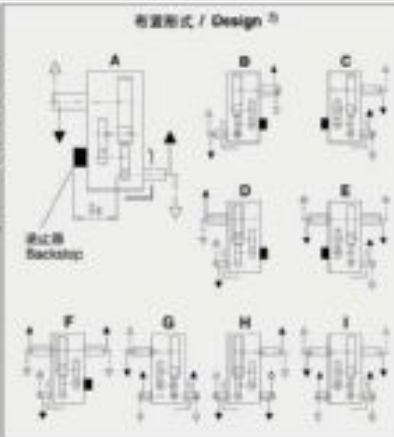
齿轮箱 三极传动/卧式安装
类型 MTH3.H, MTH3.M / 规格 13-22

Gear Units Three Stage / Horizontal
Type MTH3.H, MTH3.M / Sizes 13-22



规格 Size	输入轴 / Input									布置形式 / Design G, H, I 适用尺寸 / only for is = *	冷却风扇 / Fan								
	is = 22.4-45			is = 56-63			is = 71-90				G ₁	G ₂	A ₁	A ₂	A ₃	B ₁	B ₂	D ₃	
	d ₁	l ₁	l ₂	d ₁	l ₁	l ₂	d ₁	l ₁	l ₂										
13	80	160	130	60	135	105	50	115	80	310	365	22.4-90	225	225	212	360	195	120	
15 + 16	100	200	165	75	145	105	60	140	105	350	420	22.4-90	25-100	270	265	252	415	205	150
17 + 18	100	200	165	75	145	105	60	140	105	380	450	22.4-90	25-100	270	265	252	454	235	150
19 + 20	110	260	-	90	165	-	75	140	-	430	-	敬请咨询 / On request							
21 + 22	130	240	-	110	204	-	90	170	-	470	-	敬请咨询 / On request							

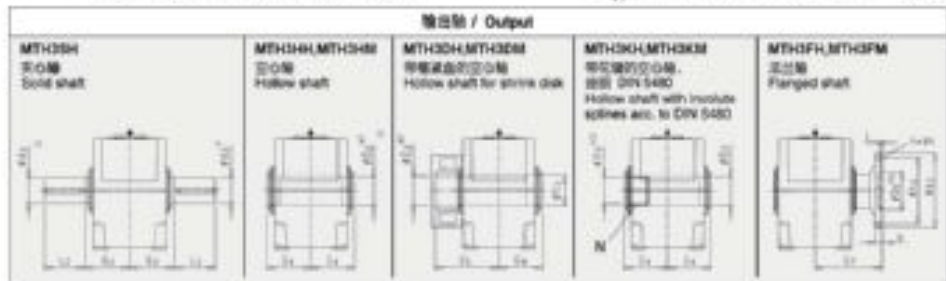
规格 Size	齿轮箱 / Gear units												背止器 Backstop B ₂
	b	c	c ₁	D ₃	g	h ₁	h ₂	m ₂	n ₁	n ₂	n ₃	a	
13 + 14	550	80	81 ± 2	48	211.5	440	450	450	475	100	340	35	
15 + 16	625	70	72 ± 2	55	238	500	490	500	525	120	375	42	
17 + 18	690	80	81 ± 2	55	259	550	555	560	600	130	425	42	
19 + 20	790	90	91 ± 2	65	289	620	615	620	690	155	475	48	
21 + 22	830	100	100 ± 2	75	310	700	695	690	725	170	520	56	



敬请咨询
相关尺寸
Dimensions
on request

齿轮箱 三极传动/卧式安装
类型 MTH3.H, MTH3.M / 规格 13-22

Gear Units Three Stage / Horizontal
Type MTH3.H, MTH3.M / Sizes 13-22



规格 Size	MTH3SH		MTH3HH, MTH3HM		MTH3DH, MTH3DM				MTH3KH, MTH3KM				MTH3FH, MTH3FM									
	d ₂	l ₂	D ₂	G ₂	D ₂	D ₂	G ₂	G ₂	N / DIN 5480	D ₂	D ₂	G ₂	e	d ₂	D ₂	l ₂	n x s	t	G ₂			
13	200	350	325	180	335	180	195	325	480	N 190x5x30x36x9H	180	195	325	48	580	310	500	30 x 33	14	480		
14	210	350	325	210	335	210	215	325	480	N 190x5x30x36x9H	180	215	325	48	620	310	540	34 x 30	14	480		
15	230	410	380	230	360	230	235	360	550	N 220x5x30x42x9H	210	235	360	55	710	360	630	28 x 30	17	550		
16	240	410	380	240	360	240	245	360	550	N 220x5x30x42x9H	210	245	360	55	740	360	660	30 x 30	17	550		
17	250	410	415	250	415	250	250	415	600	N 250x5x30x48x9H	240	250	415	60	750	410	660	24 x 30	18	600		
18	270	470	415	275	415	280	285	415	600	N 250x5x30x48x9H	240	285	415	60	800	410	710	26 x 30	18	600		
19	290	470	465	-	-	285	295	465	670	敬请咨询 On request						65	860	460	770	30 x 30	18	670
20	300	500	465	-	-	310	315	465	670	敬请咨询 On request						65	920	460	820	32 x 30	18	670
21	320	500	490	-	-	330	335	490	715	敬请咨询 On request						75	950	520	850	28 x 45	20	710
22	340	560	490	-	-	340	345	490	735	敬请咨询 On request						75	1040	520	940	28 x 45	20	710

规格 Size	重量 / Weight kg / 磅		冷却盘管 / Cooling coil		冷却盘管尺寸 / Cooling coil size						
	MTH3.H	MTH3.M	MTH3.H	MTH3.M	D ₃	F ₃	F ₁	F ₂	F ₁₁	F ₁₂	
13	160	125	2296	2155	3455	2305					
14	165	130	2025	2490	2795	2600					
15	235	190	3475	3260	3715	3500					
16	245	195	3675	3625	4130	3880					
17	305	240	4560	4250	4960	4550					
18	315	250	5030	4740	5390	5090					
19	490	390	6700	6200	敬请咨询 On request						
20	450	415	8100	7600	敬请咨询 On request						
21	470	515	9100	8500	敬请咨询 On request						
22	490	540	9800	9200	敬请咨询 On request						

尺寸以mm为单位

- 轴:
 - M5-5x50, m6 = 900
 - 键槽按照 GB/T 1096-1979
 - 有关尺寸见第 363-372 页
- 在安装时请按轴端油杯下开盖盖
- 方案:
 - 背止器不能与布置形式 G, H 和 I 设计
 - * 参考值
 - ** 无注油时

Dimensions in mm

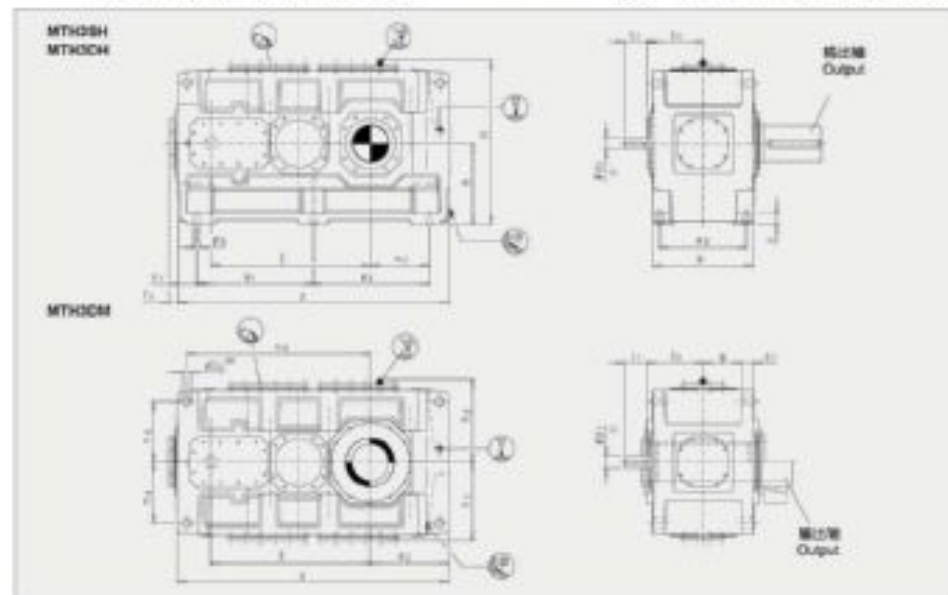
- Shafts:
 - M5-5x50, m6 = 900
 - Keyway acc. to GB/T 1096-1979
 - For details, see pages 363-372
- Remove air guide cover before fitting the foundation bolts
- Variants:
 - Backstop not possible with G, H and I designs
 - * Approximate values
 - ** Without oil filling

冷却盘管通纯净水、海水和碱性
腐蚀性水 / Cooling coil suitable
for fresh, sea and brackish water

* 所需冷却水量、冷却水压力最大: 8 巴
Cooling water quantity required, max. cooling water pressure: 8 bar

齿轮箱 Three Stage / Horizontal
Type MTH3.H, MTH3DM / 规格 23-26

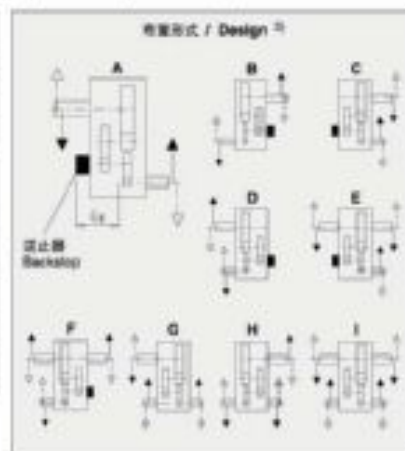
Gear Units Three Stage / Horizontal
Type MTH3.H, MTH3DM / Sizes 23-26



规格 Size	输入轴 / Input						布置形式 / Design O, H, I 仅用于 / only for $l_{a1} =$	备注 On request
	$l_{a1} = 22.4 - 45$		$l_{a1} = 50 - 63$		$l_{a1} = 71 - 90$			
	d_1	l_1	d_1	l_1	d_1	l_1	D_1	
23 + 24	130	240	110	305	90	170	510	
25 + 26	150	245	130	345	100	210	570	

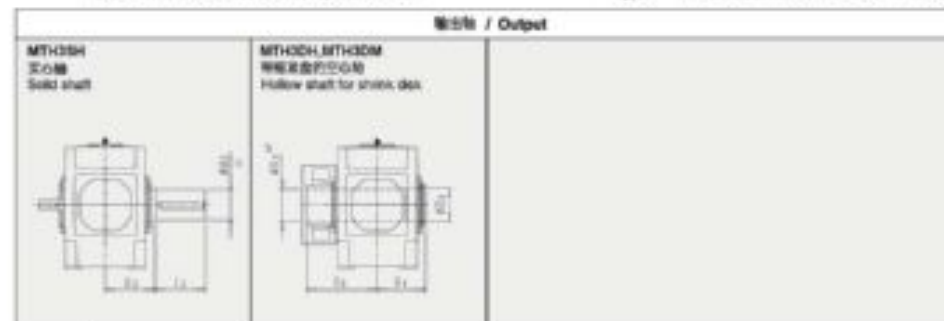
规格 Size	齿轮箱 / Gear units											
	b	c	C_1	C_2	g	h_{-1}	h_1	f_0	r_0	r_1	r_2	s
23 + 24	800	115	120 ± 2	80	342	790	770	790	810	160	180	16
25 + 26	1045	136	120 ± 2	90	400	880	860	880	910	200	260	18

规格 Size	齿轮箱 / Gear units										备注 On request
	s	r_2	E	l_1	H	r_1	r_0	r_2	r_3	r_4	
23	2520	730	1905	35	1570	1085	1085	550	1725		
24	2660	795	1570	35	1570	1085	1215	615	1790		
25	2820	790	1695	65	1720	1215	1215	590	1965		
26	3010	860	1785	65	1720	1215	1395	680	2055		



齿轮箱 Three Stage / Horizontal
Type MTH3.H, MTH3DM / 规格 23-26

Gear Units Three Stage / Horizontal
Type MTH3.H, MTH3DM / Sizes 23-26



规格 Size	MTH3.H			MTH3DM-MTH3DM			
	d_1	l_1	D_1	D_2	D_3	D_4	D_5
23	300	590	540	360	365	540	785
24	360	590	540	380	385	540	805
25	400	650	605	400	405	605	875
26	420	690	605	430	435	605	900

规格 Size	润滑油量 Oil quantity (l) 1)		重量 Weight (kg) 1)		冷却水管 / Cooling coil		冷却水量 Cooling water quantity required max. cooling water pressure: 8 bar					
	MTH3.H	MTH3DM	MTH3.H	MTH3DM	MTH3.H	MTH3DM	Q_{10}	Q_{20}	Q_{30}	Q_{40}	Q_{50}	Q_{60}
23	620	690	11500	10800								
24	690	725	13400	12900								
25	880	970	16100	15200								
26	935	1030	17800	16800								

尺寸/mm为单位
1) 轴:
• $d_1 \leq \Phi 50$, $m_6 \sim \Phi 50$
• 键槽按 GB/T1095-1978
• 有关细节见第 363-372 页
2) 方案:
• 该装置不能与布置形式 G, H 和 I 配合
*) 参考图
**) 未注册

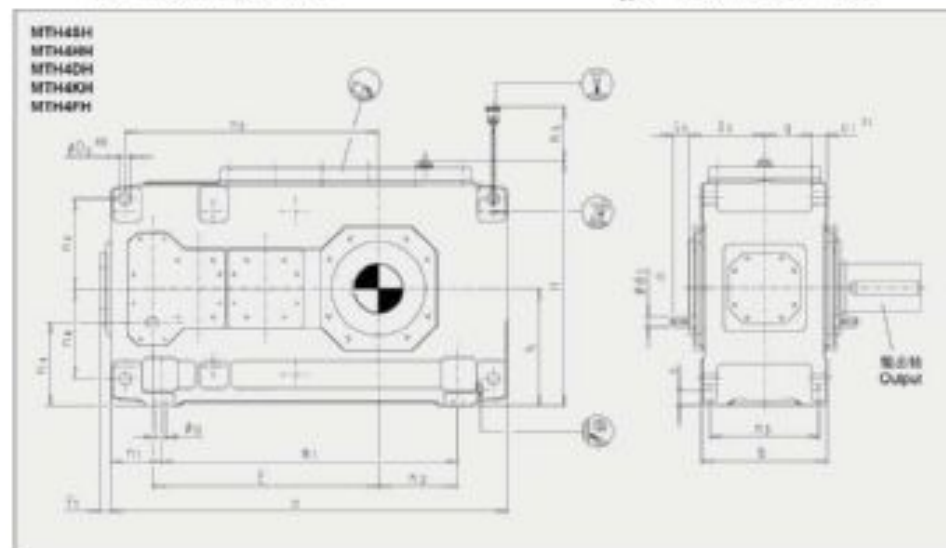
Dimensions in mm
1) Shafts:
• $d_1 \leq \Phi 50$, $m_6 \sim \Phi 50$
• Keyway acc. to GB/T 1095-1978
• For details, see pages 363-372
2) Variants:
• Backstop not possible with G, H and I designs
*) Approximate values
**) Without oil filling

齿轮箱 四极传动 / 卧式安装

类型 MTH4.H / 规格 7-12

Gear Units Four Stage / Horizontal

Type MTH4.H / Sizes 7-12

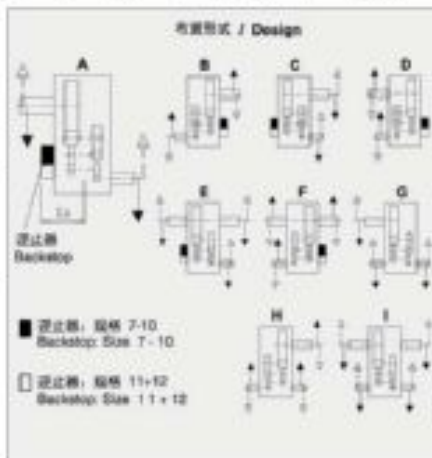


规格 Size	输入轴 / Input				G ₁	布置形式 / Design G,H,I 仅用于 / only for k ₁ **	
	k ₁ = 100 - 180 k ₁ = 125 - 224		k ₁ = 200 - 355 k ₁ = 250 - 450				
	d ₁	b ₁	d ₂	b ₂			
7 + 8	30	50	24	40	180	100 - 224	125 - 280
9 + 10	35	60	28	50	215	100 - 250	125 - 315
11 + 12	45	100	32	80	250	100 - 250	125 - 315

规格 Size	齿轮箱 / Gear units										
	b	c	d ₁	D ₁	Q	k ₁	k ₂	m ₁	m ₂	n ₁	n ₂
7 + 8	300	35	36 ± 1	28	114	280	200	260	120	215	24
9 + 10	375	40	45 ± 1.5	36	140	320	230	320	145	245	28
11 + 12	430	50	54 ± 1.5	40	161	380	270	370	165	300	35

规格 Size	齿轮箱 / Gear units							背盖器 Backstop G ₂
	a	E	f ₁	f ₂	H	m ₁	m ₂	f ₃
7	845	495	37	140	572	605	130	560
8	960	540	37	140	582	710	190	605
9	1000	580	43	130	662	710	156	660
10	1100	630	43	130	662	810	205	710
11	1200	705	47	165	762	870	180	805
12	1355	775	47	185	790	1025	265	875

相关尺寸
Dimensions
on request



背盖器, 规格 7-10
Backstop Size 7 - 10

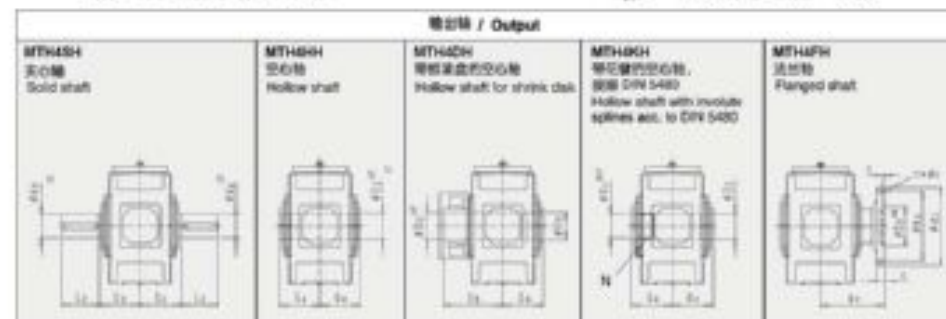
背盖器, 规格 11-12
Backstop Size 11 + 12

齿轮箱 四极传动 / 卧式安装

类型 MTH4.H / 规格 7-12

Gear Units Four Stage / Horizontal

Type MTH4.H / Sizes 7-12



规格 Size	MTH4SH	MTH4HH	MTH4DH	MTH4KH				MTH4FH												
	d ₁	b ₁	D ₁	G ₁	D ₂	D ₃	G ₂	N / DIN 5480	C ₂	D ₄	G ₄	r	d ₅	D ₅	b ₅	n x s	l	G ₅		
7	120	210	195	115	195	120	120	185	280	N 120x3x30x36x9H	114	129	195	30	379	180	320	16x26	19	300
8	130	250	195	125	195	130	130	185	285	N 120x3x30x36x9H	114	136	195	30	390	190	340	16x26	19	300
9	140	290	235	135	235	140	145	235	300	N 140x3x30x45x9H	134	145	235	38	430	220	380	20x26	12	350
10	160	300	235	150	235	150	155	235	350	N 140x3x30x45x9H	134	155	235	38	472	240	420	22x26	12	350
11	170	300	270	165	270	165	170	270	400	N 170x5x30x32x9H	160	175	270	42	519	260	450	18x33	12	400
12	180	300	270	180	270	180	185	270	450	N 170x5x30x32x9H	160	185	270	42	540	280	480	22x33	12	400

规格 Size	润滑油量 Oil quantity (l) *	重量 Weight (kg) **	
		MTH4SH MTH4HH MTH4DH MTH4KH	MTH4FH
7	20	500	600
8	27	645	720
9	48	875	960
10	50	1010	1100
11	80	1460	1590
12	87	1725	1865

尺寸以mm为单位

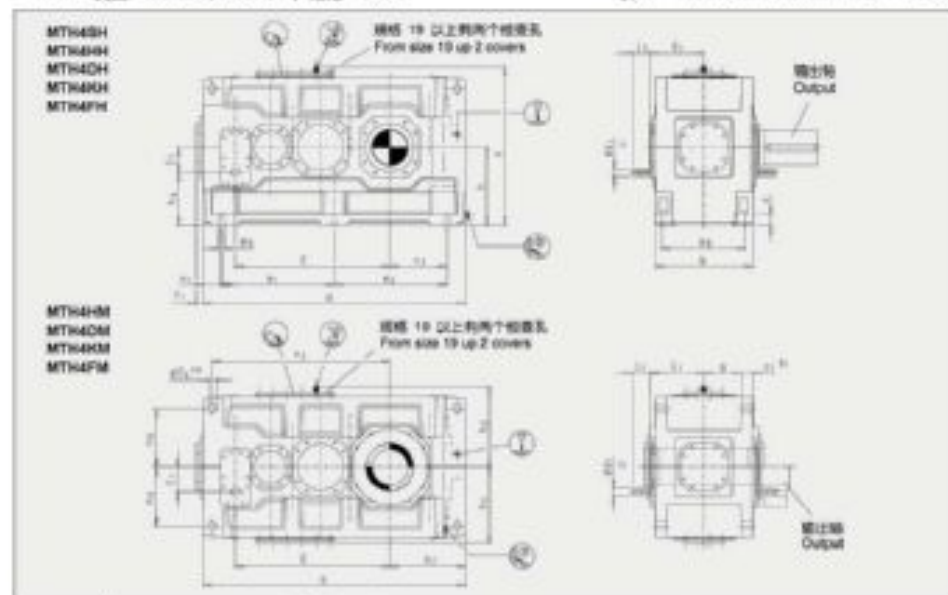
- 1) 轴:
- k5-s450, m6 = 40/0
 - 详细参照 GB/T1995-1979
 - 有关键槽见第 363-372 页
- 2) 方面:
- 背盖器不能与布置形式 G、H 和 I 设计
 - *): 参考值
 - **): 近似值

Dimensions in mm

- 1) Shafts:
- k5-s450, m6 = 40/0
 - Keyway acc. to GB/T1995-1979
 - For details, see pages 363-372
- 2) Variants:
- Backstop not possible with G, H and I design
 - *): Approximate values
 - **): Without oil filling

齿轮箱 四极传动/卧式安装
类型 MTH4.H, MTH4.M / 规格 13-22

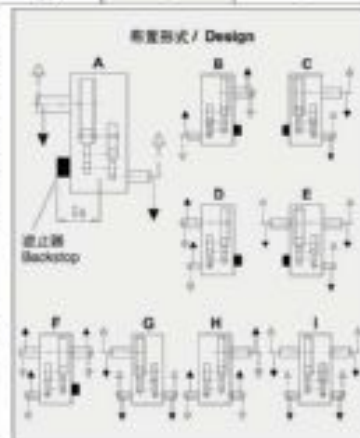
Gear Units Four Stage / Horizontal
Type MTH4.H, MTH4.M / Sizes 13-22



规格 Size	输入轴 / Input				G ₁	配置形式 / Design G.H.J 仅用于 / only for K ₁ =	
	h ₁ = 100 - 180 h ₁ = 112 - 200	h ₁ = 200 - 355 h ₁ = 224 - 430	d ₁	l ₁		100 - 290	125 - 318
13	90	100	38	80	305	100 - 290	125 - 318
15 + 16	60	135	50	110	345	100 - 290	112 - 290
17 + 18	80	105	50	80	380	-	-
19 + 20	75	105	60	105	440	-	-
21 + 22	90	165	70	140	460	-	-

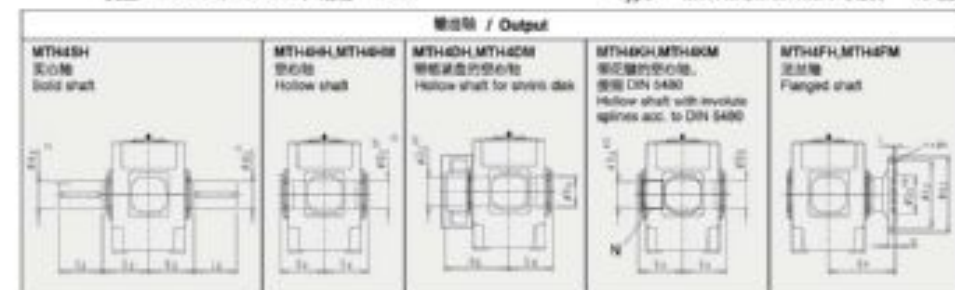
规格 Size	b	c	d ₁	D ₂	g	h ₁	h ₂	h ₃	h ₄	h ₅	h ₆	h ₇	h ₈	h ₉	h ₁₀	h ₁₁	h ₁₂	h ₁₃	h ₁₄	h ₁₅	h ₁₆	h ₁₇	h ₁₈	h ₁₉	h ₂₀	h ₂₁	h ₂₂
13 + 14	550	60	81 ± 2	48	211.5	440	450	310	460	475	100	340	35														
15 + 16	625	70	72 ± 2	55	238	500	490	340	500	520	120	375	42														
17 + 18	690	80	81 ± 2	55	259	560	555	390	560	600	135	425	42														
19 + 20	790	90	91 ± 2	65	299	620	615	435	620	680	150	475	48														
21 + 22	830	100	100 ± 2	75	310	700	695	475	690	720	170	520	56														

规格 Size	a	a ₂	E	E ₁	f ₁	H	H ₁	H ₂	H ₃	H ₄	H ₅	H ₆	H ₇	H ₈	H ₉	H ₁₀	H ₁₁	H ₁₂	H ₁₃	H ₁₄	H ₁₅	H ₁₆	H ₁₇	H ₁₈	H ₁₉	H ₂₀	H ₂₁	H ₂₂
13	1366	405	820	130	47	900	907.5	907.5	305	940																		
14	1535	475	850	130	47	900	907.5	737.5	375	1040																		
15	1680	485	987	160	56	1090	720	720	365	1135																		
16	1775	530	1033	160	56	1090	720	819	410	1180																		
17	1775	525	1035	160	53	1110	750	750	380	1175																		
18	1890	585	1095	190	53	1150	750	870	450	1235																		
19	2030	590	1190	185	53	1240	800	860	435	1365																		
20	2150	650	1250	185	53	1240	800	980	485	1425																		
21	2340	655	1367	225	62	1390	1000	1000	485	1600																		
22	2450	710	1442	225	62	1390	1000	1110	540	1655																		



齿轮箱 四极传动/卧式安装
类型 MTH4.H, MTH4.M / 规格 13-22

Gear Units Four Stage / Horizontal
Type MTH4.H, MTH4.M / Sizes 13-22



规格 Size	MTH4SH		MTH4MH		MTH4DH		MTH4DM		MTH4RH				MTH4FH		MTH4FM					
	d ₁	l ₁	G ₁	D ₂	D ₃	G ₄	G ₅	N / DIN 5480	D ₂	D ₃	G ₄	c	d ₂	D ₃	h ₂	n x s	l	G ₇		
13	200	350	335	190	335	190	195	335	480	N 190x50x30x36x9H	180	195	335	48	585	310	500	20 x 33	14	480
14	210	350	335	210	335	210	215	335	480	N 190x50x30x36x9H	180	215	335	48	620	310	540	24 x 33	14	480
15	230	410	380	230	380	235	235	380	550	N 220x50x30x42x9H	210	235	380	55	715	360	630	25 x 33	17	550
16	240	410	380	240	380	240	245	380	550	N 220x50x30x42x9H	210	245	380	55	740	360	680	30 x 33	17	550
17	250	410	415	250	415	250	250	415	600	N 250x50x30x48x9H	240	250	415	60	750	410	680	24 x 39	18	600
18	270	470	415	275	415	280	285	415	600	N 250x50x30x48x9H	240	285	415	60	800	410	710	25 x 39	18	600
19	290	470	465	-	-	285	295	465	670	-	-	-	-	85	860	460	770	30 x 39	18	670
20	300	500	465	-	-	310	315	465	670	-	-	-	-	85	900	460	830	32 x 39	18	670
21	320	500	490	-	-	330	335	490	715	-	-	-	-	75	950	520	850	28 x 45	20	710
22	340	550	490	-	-	340	345	490	725	-	-	-	-	75	1040	520	940	28 x 45	20	710

规格 Size	油液容量 Oil quantity (l) *		重量 Weight (kg) **			
	MTH4.H	MTH4.M	MTH4SH	MTH4MH	MTH4DH	MTH4FM
13	130	120	2366	2070	2550	2430
14	140	125	2730	2600	2900	2770
15	230	170	3635	3440	3875	3680
16	235	175	3965	3740	4220	3995
17	290	225	4990	4445	4980	4745
18	305	230	5185	4915	5535	5265
19	430	310	6920	6360	-	-
20	380	330	6200	7790	-	-
21	395	430	9200	8600	-	-
22	420	450	9900	9400	-	-

尺寸/Dimensions 单位
1) 值：
• h₁ ≤ 950, m₁ = 450
• 键槽按 GB/T1095-1979
• 有关零件见页 363-372 页
2) 方案：
• 后盖盖面与轴端形式 G, H 和 I 均片
*) 参考值 **) 未加油时

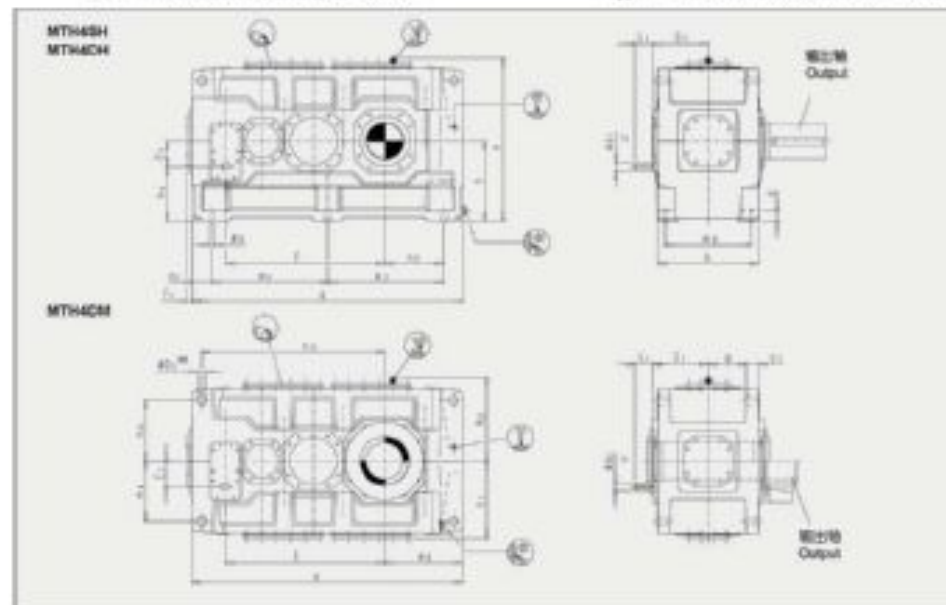
Dimensions in mm
1) Shafts:
• h₁ ≤ 950, m₁ = 450
• Keyway acc. to GB/T 1095 1979
• For details, see pages 363-372
2) Variants:
• Backstop not possible with G, H and I designs
*) Approximate values **) Without oil filling

齿轮箱 四极传动 / 卧式安装

类型 MTH4.H, MTH4DM / 规格 23-26

Gear Units Four Stage / Horizontal

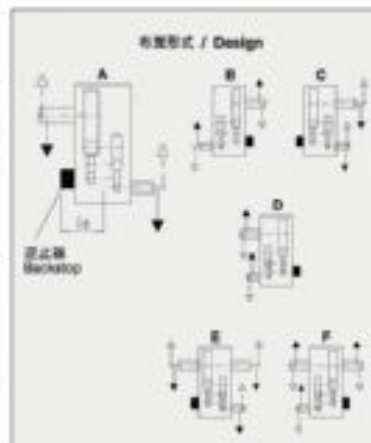
Type MTH4.H, MTH4DM / Sizes 23-26



规格 Size	输入轴 / Input				D ₁
	l ₁ = 100 - 180 l ₂ = 112 - 200		l ₁ = 200 - 305 l ₂ = 224 - 405		
	d ₁	l ₁	d ₂	l ₂	
23 + 24	90	130	70	105	505
25 + 26	100	205	85	170	585

规格 Size	齿轮箱 / Gear units												
	b	c	C ₁	D ₁	g	f ₁	f ₂	f ₃	f ₄	f ₅	f ₆	f ₇	z
23 + 24	930	115	120 ± 2	80	342	780	775	790	555	815	100	580	56
25 + 26	1045	130	120 ± 2	90	400	860	860	860	505	910	200	660	66

规格 Size	齿轮箱 / Gear units										止退器 Backstop D ₂
	a	e ₂	E	E ₁	l ₁	H	φ ₁	φ ₂	φ ₃	φ ₄	
23	2530	736	1505	225	35	1570	1085	1080	550	1725	请洽经销商 相关尺寸 Dimensions on request
24	2660	795	1570	225	35	1570	1085	1215	815	1790	
25	2830	790	1655	265	65	1700	1215	1215	580	1905	
26	3010	860	1765	265	65	1700	1215	1385	660	2055	



齿轮箱 四极传动 / 卧式安装

类型 MTH4.H, MTH4DM / 规格 23-26

Gear Units Four Stage / Horizontal

Type MTH4.H, MTH4DM / Sizes 23-26



规格 Size	MTH4.H			MTH4DM/MTH4DM			
	d ₂	l ₂	D ₂	D ₂	D ₂	D ₂	D ₂
23	360	590	540	360	365	540	785
24	380	590	540	380	385	540	805
25	400	650	605	400	405	605	875
26	420	650	605	430	435	605	900

规格 Size	润滑油量 Oil quantity (l) ¹⁾		重量 Weight (kg) ¹⁾	
	MTH4.H	MTH4DM	MTH4.H	MTH4DM
	23	520	500	11800
24	500	600	13000	12600
25	735	600	16700	15200
26	790	650	17600	16900

尺寸以mm为单位

- 1) 轴：
 • M₁ ≤ φ50, m₁ ≤ φ50
 • 键槽按GB/T1969-1970
 • 有关尺寸见第 363-372 页

*) 参考值
 **) 未注油时

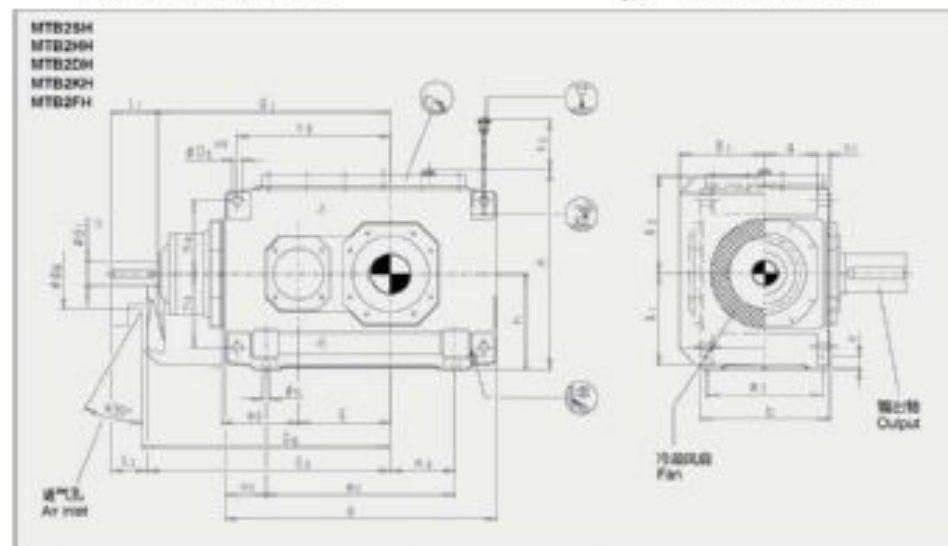
Dimensions in mm

- 1) Shafts:
 • M₁ ≤ φ50, m₁ ≤ φ50
 • Keyway acc. to GB/T1969-1970
 • For details, see pages 363-372

*) Approximate values
 **) Without oil filling

齿轮箱 两阶段/卧式安装
类型 MTB2.H / 规格 4-12

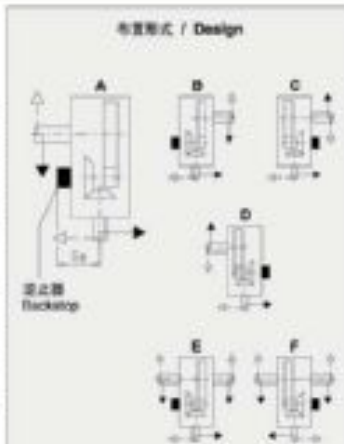
Gear Units Two Stage / Horizontal
Type MTB2.H / Sizes 4-12



规格 Size	输入轴 / Input				冷却风扇 / Fan						
	d_1	l_1	l_2	l_3	A_1	A_2	B_1	d_2			
4	45	100	80	485	485	-	-	195	200	155	150
5 + 6	55	110	90	535	565	670	600	225	235	215	190
7 + 8	70	135	105	640	670	685	715	270	285	250	210
9 + 10	80	165	130	755	790	805	840	315	325	270	195
11 + 12	90	165	130	825	860	885	1030	370	385	320	210

规格 Size	齿轮箱 / Gear units										
	d_1	b	c	G_1	D_1	D_2	G_2	G_3	G_4	G_5	
4	270	28	30 ± 1	24	165	105	200	235	105	150	19
5 + 6	320	28	30 ± 1	24	185	130	230	285	105	180	19
7 + 8	380	35	35 ± 1	28	225	154	280	340	120	215	24
9 + 10	440	40	45 ± 1.5	36	265	172	320	390	145	245	26
11 + 12	530	50	54 ± 1.5	40	325	211	380	470	165	300	35

规格 Size	齿轮箱 / Gear units									
	a	E	G_6	h_1	H	m_1	r_1	r_2	止回器 Backstop D_p	
4	305	160	495	80	415	295	85	285	-	
5	365	165	575	150	482	355	100	330	-	
6	345	220	610	150	482	435	145	365	-	
7	690	225	695	180	582	450	130	405	-	
8	795	270	730	190	582	565	190	450	-	
9	820	265	805	305	640	530	155	480	-	
10	800	315	855	215	662	630	205	530	-	
11	975	320	980	340	750	645	180	580	-	
12	1130	390	1050	350	790	800	265	650	-	



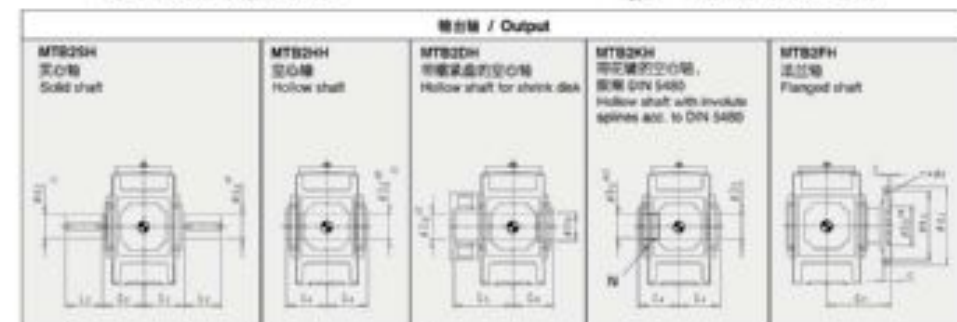
止回器不能与以下布置形式组合安装
Backstop not possible for

- MTB2SH 布置形式 / Design A, C, E + F
- MTB2DH 布置形式 / Design A + C
- MTB2FH 布置形式 / Design B + D

详细尺寸
和尺寸
Dimensions
on request

齿轮箱 两阶段/卧式安装
类型 MTB2.H / 规格 4-12

Gear Units Two Stage / Horizontal
Type MTB2.H / Sizes 4-12



规格 Size	MTB2SH	MTB2DH	MTB2DH	MTB2DH	MTB2KH				MTB2FH											
					N / DIN 5480	D_2	D_3	G_6	c	d_2	D_3	h_2	$n \times s$	t	G_7					
4	85	170	170	85	170	85	85	170	235	-	-	-	-	-	-	-				
5	100	210	200	95	200	100	100	200	275	N 95x3x30x30x9H	89	100	200	25	300	150	260	16x22	19	290
6	110	210	200	105	200	110	110	200	275	N 95x3x30x30x9H	89	110	200	25	320	160	280	16x22	19	290
7	120	210	235	115	235	120	120	235	320	N 120x3x30x30x9H	114	120	235	30	370	180	320	16x26	19	340
8	130	250	235	125	235	130	130	235	325	N 120x3x30x30x9H	114	130	235	30	390	190	340	18x26	19	340
9	140	250	270	135	270	140	145	270	365	N 140x3x30x45x9H	134	145	270	38	430	220	380	20x26	12	385
10	160	300	270	150	270	150	155	270	365	N 140x3x30x45x9H	134	155	270	38	470	240	420	22x26	12	385
11	170	300	320	165	320	165	170	320	450	N 170x5x30x32x9H	160	170	320	42	510	260	450	18x33	12	450
12	180	300	320	180	320	180	185	320	455	N 170x5x30x32x9H	160	185	320	42	540	280	480	22x33	12	450

规格 Size	润滑油量 Oil quantity (l) ¹⁾	重量 Weight (kg) ²⁾	
		MTB2SH MTB2DH MTB2KH	MTB2FH
4	10	235	-
5	15	390	430
6	19	410	455
7	31	615	670
8	34	700	760
9	48	1000	1090
10	50	1155	1250
11	80	1640	1775
12	85	1910	2060

冷却盘管 / Cooling coil

冷却盘管接口尺寸 G1/2"
Water connection for cooling coil G1/2"

冷却盘管适用于淡水、海水和含有颗粒的水
Cooling coil suitable for fresh, sea and brackish water

规格 Size	D_{12}	F_{12}	h_{12}	d
4	74	160	54	4
5	130	175	62	6
6	120	220	66	4
7	140	210	80	6
8	140	270	80	4
9	230	245	110	6
10	150	295	90	8
11	312	275	115	8
12	300	360	115	8

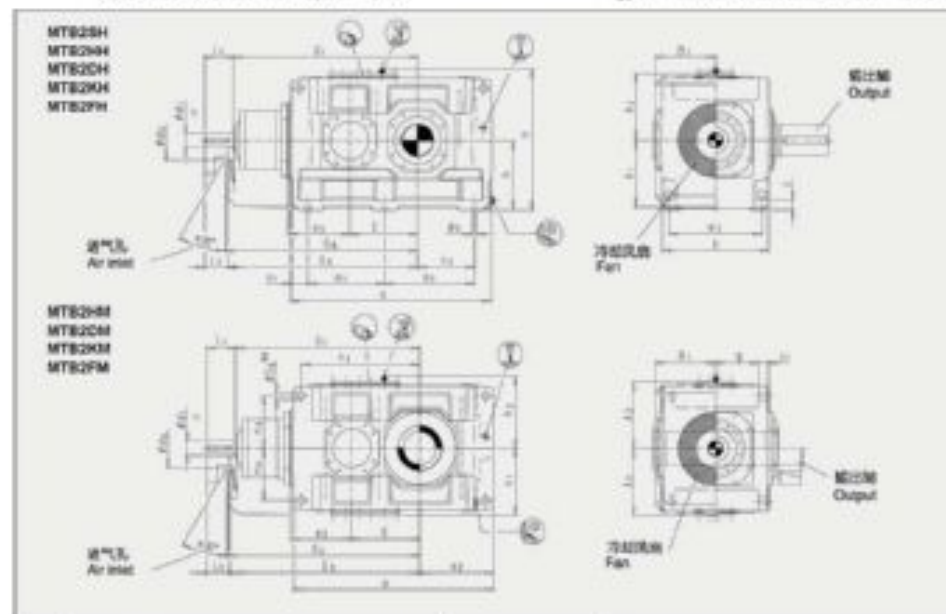
对所需冷却水量、冷却水压力最大选：8 巴
Cooling water quantity required, max. cooling water pressure: 8 bar

尺寸/mm为公制
1) 油：
• M5 = 650, m6 = 650
• 详细规格 G3/T1095-1079
• 有关尺寸请见 363-372 页
*) 参考值
**) 未注油时

Dimensions in mm
1) Shafts:
• M5 = 650, m6 = 650
• Keyway acc. to G3/T 1095-1079
• For details, see pages 363-372
*) Approximate values
**) Without oil filling

齿轮箱 两级传动/卧式安装
Type MTB2.H, MTB2.M / 规格 13-18

Gear Units Two Stage / Horizontal
Type MTB2.H, MTB2.M / Sizes 13-18



规格 Size	输入轴 / Input								冷却风扇 / Fan									
	$n_1 = 5 - 11.2$	$n_2 = 5.6 - 11.2$	$n_3 = 6.3 - 14$	$n_4 = 5.6 - 12.5$	d_1	l_1	l_2	d_2	l_3	l_4	Q_1	Q_2	Q_3	Q_4	A_1	A_2	B_1	B_2
13 + 14	110	205	185								1075	1110	1140	1160	430	450	375	245
15	130	245	200								1277	1322			480	495	435	280
16				130	245	200					1323	1368			490	495	435	280
17				150	245	200					1438	1490			540	505	505	300
18	150	245	200								1550	1600			540	555	505	300

规格 Size	齿轮箱 / Gear units												
	a	c	c_1	D_1	D_2	g	n_1	n_2	n_3	n_4	n_5	n_6	n
13 + 14	855	60	81 ± 2	48	380	264	440	450	480	580	190	340	35
15 + 16	785	70	72 ± 2	55	450	308	500	400	500	570	120	375	42
17 + 18	885	80	81 ± 2	65	530	350	550	555	560	780	135	420	48

规格 Size	齿轮箱 / Gear units										返止器 Backstop G_3
	a	n_2	E	G_0	H	n_1	n_2	n_3	n_4	n_5	
13	1130	405	370	1530	800	465	465	305	675		
14	1270	475	440	1200	900	465	605	375	745		
15	1350	485	442	1340	1000	505	505	385	805		
16	1440	530	488	1385	1000	565	645	410	850	带油密封 密封尺寸 Dimensions on request	
17	1490	525	490	1500	1110	610	610	390	895		
18	1610	585	550	1560	1110	670	730	430	955		

布置形式 / Design

返止器 Backstop

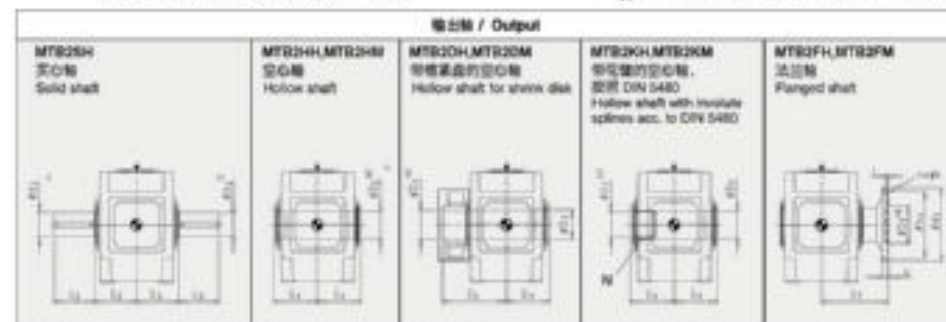
- 返止器, 规格 13-14 Backstop, Size 13-14
- 返止器, 规格 15-18 Backstop, Size 15-18

返止器不能与以下规格和布置形式组合安装
Backstop not possible for

- MTB2SH 规格 / Size 13 + 14 布置形式 / Design A, C, E + F
- MTB2SH 规格 / Size 15 + 18 布置形式 / Design B, D, E + F
- MTB2PH 规格 / Size 13 + 14 布置形式 / Design A + C
- MTB2PH 规格 / Size 15 + 18 布置形式 / Design B + D
- MTB2DH 规格 / Size 14 布置形式 / Design B + D
- MTB2DH 规格 / Size 16 + 18 布置形式 / Design A + C

齿轮箱 两级传动/卧式安装
Type MTB2.H, MTB2.M / 规格 13-18

Gear Units Two Stage / Horizontal
Type MTB2.H, MTB2.M / Sizes 13-18



规格 Size	MTB2SH		MTB2MH MTB2DM		MTB2DH, MTB2DM		MTB2KH, MTB2KM				MTB2FH, MTB2FM										
	d_2	l_2	D_2	G_2	D_2	D_3	G_2	G_3	N / DIN 5480		D_2	D_3	G_2	G_3	c	d_2	D_2	D_3	$n \times s$	l	G_7
13	200	350	300	-	-	-	-	-	-	-	-	-	-	-	48	580	310	500	30 ± 33	14	505
14	210	350	300	210	390	210	215	390	535	N 190x5x30x36x9H	180	215	390	48	620	310	540	24 ± 33	14	505	
15	230	410	460	-	-	-	-	-	-	-	-	-	-	56	710	360	630	28 ± 33	17	625	
16	240	410	460	240	450	240	245	450	620	N 200x5x30x42x9H	210	245	450	56	740	360	660	30 ± 33	17	625	
17	250	410	540	-	-	-	-	-	-	-	-	-	-	66	750	410	660	24 ± 30	18	695	
18	270	470	540	275	510	280	285	510	700	N 250x5x30x48x9H	240	285	510	60	800	410	710	26 ± 39	18	695	

规格 Size	润滑油量 Oil quantity lit		重量 Weight kg		冷却盘管 / Cooling coil		返止器 Backstop	
	MTB2.H	MTB2.M	MTB2SH MTB2MH MTB2DH MTB2KH	MTB2DM MTB2DM MTB2DM MTB2FM	MTB2FH	MTB2FM	n_{10}	n_{11}
13	140	120	2480	2350	2620	2520		
14	155	130	2825	2725	3005	2995		
15	220	180	3090	3795	4245	4050		
16	230	190	4345	4160	4615	4430		
17	320	260	5620	5320	5940	5640		
18	335	275	6190	5860	6520	6230		

冷却盘管适用于淡水、海水和稀有机溶剂水
Cooling coil suitable for fresh, sea and brackish water

冷却盘管接口尺寸 G1/2"
Water connection for cooling coil G1/2"

冷却盘管冷却水量
冷却水压力最大值为 2 bar
Cooling water quantity required, max. cooling water pressure: 2 bar

尺寸以mm为单位
Dimensions in mm

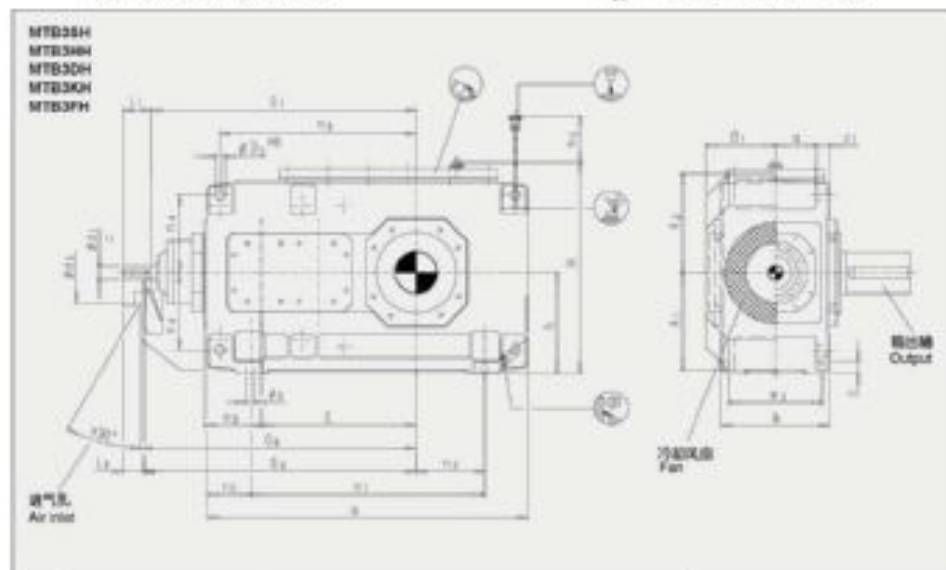
1) 轴
 • $k5 \leq \phi 50$, $m5 = \phi 16$
 • 键槽按照 GB/T1096-1979
 • 每米取重量 303-372 克

*) 参考值
 **) 未注油时

*) Approximate values
 **) Without oil filling

齿轮箱 三轴传动 / 卧式安装
类型 MTB3.H / 规格 4-12

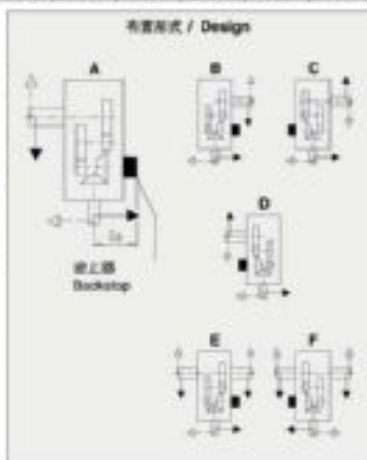
Gear Units Three Stage / Horizontal
Type MTB3.H / Sizes 4-12



规格 Size	输入轴 / Input						冷却风扇 / Fan							
	l ₀ = 12.5-45 l ₀ = 16-56			l ₀ = 50-71 l ₀ = 63-90			D ₁	D ₂	D ₃	D ₄	A ₁	A ₂	B ₁	B ₂
4	30	70	50	25	40	40	500	520	-	-	186	200	143	110
5 + 6	35	80	60	38	40	40	575	595	610	630	220	235	168	130
7 + 8	45	100	80	35	40	40	690	710	735	755	275	275	193	165
9 + 10	55	110	80	40	100	70	800	830	850	880	315	325	231	175
11 + 12	70	135	105	50	110	80	960	990	1030	1060	370	385	263	190

规格 Size	b	c	d ₁	D ₂	d ₃	D	r ₁	m ₂	r ₁	r ₂	δ
4	215	28	36 ± 1	24	110	77.5	200	180	105	150	19
5 + 6	258	28	36 ± 1	24	130	87.5	230	220	105	180	19
7 + 8	300	35	36 ± 1	28	160	114	260	260	120	215	24
9 + 10	370	40	45 ± 1.5	36	185	140	320	320	145	245	28
11 + 12	430	50	54 ± 1.5	40	225	161	380	370	165	300	25

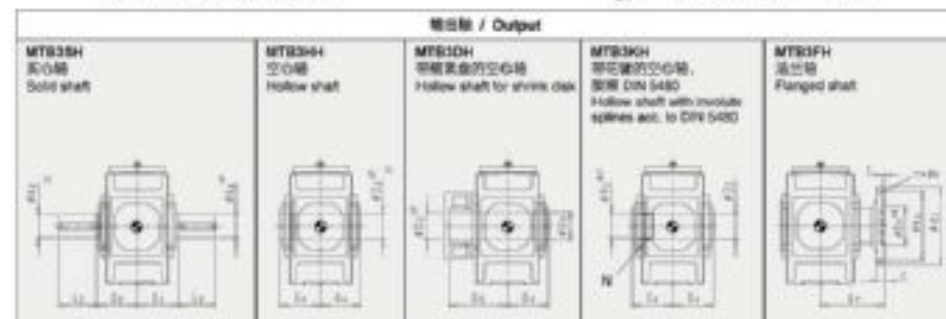
规格 Size	a	E	G ₀	r ₀	H	m ₁	r ₀	r ₀	输出轴 Backstop G ₄
4	395	270	520	190	415	365	85	345	
5	440	315	625	130	482	430	100	405	
6	720	350	640	130	482	510	145	440	
7	785	385	720	170	572	545	130	500	
8	850	430	765	180	582	650	190	545	
9	825	450	845	175	652	635	155	585	
10	1525	500	895	175	652	735	205	635	
11	1105	545	1010	220	782	775	180	710	
12	1260	615	1080	210	790	830	265	780	



详细尺寸
请见/P.T
Dimensions
on request

齿轮箱 三轴传动 / 卧式安装
类型 MTB3.H / 规格 4-12

Gear Units Three Stage / Horizontal
Type MTB3.H / Sizes 4-12



规格 Size	MTB3SH		MTB3HH		MTB3DH		MTB3KH				MTB3FH									
	d ₀	l ₀	D ₂	G ₄	D ₂	D ₃	G ₄	D ₂	D ₃	G ₄	z	d ₀	D ₂	l ₀	l ₁	G ₇				
4	80	170	140	80	140	85	85	140	265	-	-	-	-	-	-	-	-			
5	100	210	165	95	165	100	100	165	240	N 95x3x30x30x9H	89	100	165	25	300	150	260	16x22	10	255
6	110	210	165	105	165	110	110	165	240	N 95x3x30x30x9H	89	110	165	25	320	160	280	16x22	10	255
7	120	210	165	115	165	120	120	165	280	N 120x3x30x30x9H	114	120	165	30	370	180	320	16x26	10	300
8	130	250	195	125	195	130	130	195	285	N 120x3x30x30x9H	114	130	195	30	390	190	340	16x26	10	300
9	140	250	235	135	235	140	145	235	300	N 140x3x30x45x9H	134	145	235	38	430	220	380	20x26	12	350
10	160	300	235	150	235	150	155	235	350	N 140x3x30x45x9H	134	155	235	38	470	240	420	22x26	12	390
11	170	300	275	165	270	165	170	270	400	N 170x5x30x32x9H	160	170	270	42	510	260	450	16x33	12	400
12	180	300	275	180	270	180	180	270	400	N 170x5x30x32x9H	160	180	270	42	540	280	480	22x30	12	400

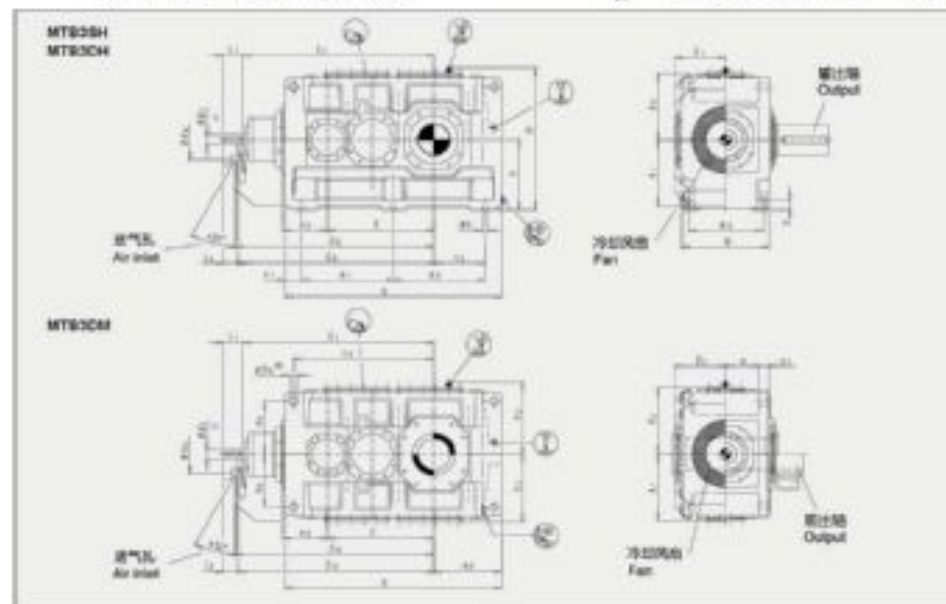
规格 Size	润滑油量 Oil quantity (l)	重量 / Weight (kg)		冷却水管 / Cooling coil	输出轴 Output	规格 Size				
		MTB3SH MTB3HH MTB3DH MTB3KH	MTB3FH			F ₁₀	F ₁₀	F ₁₀	F ₁₀	F ₁₀
4	9	210	-	<p>冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"</p> <p>冷却水管适用于淡水、海水和含有腐蚀性物质 Cooling coil suitable for fresh, sea and brackish water</p> <p>* 所需冷却水量, 冷却水压力最大: 8 bar Cooling water quantity required, max cooling water pressure: 8 bar</p>	4	34	155	60	4	
5	15	325	360		5	68	170	64	4	
6	16	380	420		6	70	220	69	4	
7	27	590	600		7	100	210	63	4	
8	30	635	690		8	140	245	110	0	
9	42	890	875		10	100	295	66	8	
10	45	1020	1110		11	110	275	66	8	
11	71	1455	1985		12	200	360	109	8	
12	70	1730	1870							

尺寸/mm为单位
1) 轴:
• 轴径: d₀, m₀ = 80
• 键槽按 GB/T1096-1979
• 有关尺寸见第 363-372 页
*) 参考值
**) 未注油

Dimensions in mm
1) Shafts
• key acc. to GB/T1096-1979
• For details, see pages 363-372
*) Approximate values
**) Without oil filling

齿轮箱 Three Stage / 卧式安装 Type MTB3.H, MTB3DM / 规格 23-26

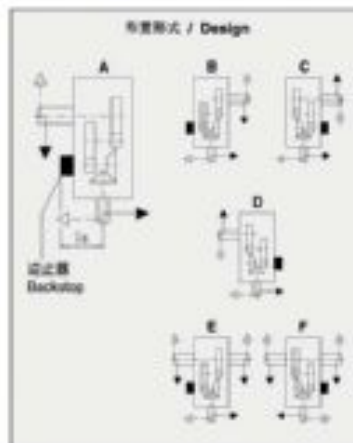
Gear Units Three Stage / Horizontal Type MTB3.H, MTB3DM / Sizes 23-26



规格 Size	输入轴 / Input						冷却风扇 / Fan							
	$l_2 = 20 - 45$			$l_2 = 50 - 71$			D_1	D_2	D_3	D_4	A_1	A_2	B_1	B_2
	d_1	l_1	l_2	d_5	l_1	l_2								
23 + 24	150	245	200	110	210	165	2130	2175	2195	2240	770	770	528	350
25 + 26	150	245	200	110	210	165	2270	2315	2360	2405	845	865	585	380

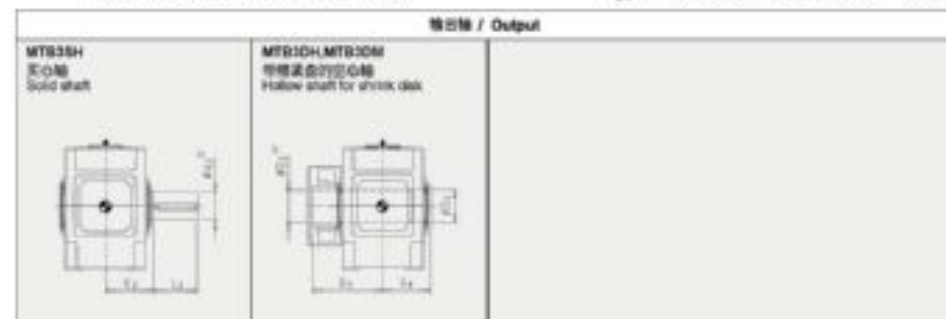
规格 Size	齿轮箱 / Gear units												
	b	c	d_1	D_2	d_5	g	$h_{1.2}$	h_1	h_2	m_1	n_1	n_2	α
23 + 24	800	115	120±2	80	490	342	780	770	700	810	180	580	56
25 + 26	1045	130	120±2	90	490	400	880	850	860	910	200	660	66

规格 Size	齿轮箱 / Gear units										减速机 Backstop D_5	
	a	e_2	E	G_2	H	m_1	m_2	m_3	n_1	n_2		
23	2300	730	1180	2200	1570	5010	1010	550	1580			
24	2510	795	1250	2285	1570	5010	1140	615	1625			
25	2580	790	1325	2315	1720	5090	1090	590	1685			
26	2780	880	1415	2430	1720	5090	1270	680	1775			



齿轮箱 Three Stage / 卧式安装 Type MTB3.H, MTB3DM / 规格 23-26

Gear Units Three Stage / Horizontal Type MTB3.H, MTB3DM / Sizes 23-26



规格 Size	MTB3SH			MTB3DM, MTB3DM			
	d_2	l_2	G_2	D_2	D_3	D_4	G_4
23	360	590	540	360	365	540	785
24	380	600	540	380	385	540	805
25	400	650	605	400	405	605	875
26	420	650	605	430	435	605	900

规格 Size	润滑油量 Oil quantity (l)		重量 Weight (kg)		冷却水管 / Cooling coil		冷却水管接口尺寸 Cooling coil connection					
	MTB3SH	MTB3DM	MTB3SH MTB3DM	MTB3DM	D_{10}	F_{10}	F_{11}	F_{12}	F_{13}	F_{14}	F_{15}	
23	520	560	11500	10800								
24	600	650	13400	12900								
25	720	790	16000	15100								
26	840	920	17500	16400								

尺寸公差标准
f) 轴：
• $\phi 6 - \phi 50$, $es = -0.009$
• 按标准 GB/T1805-1978
• 其它尺寸按图 363-372 页
*) 参考值
**) 未注公差

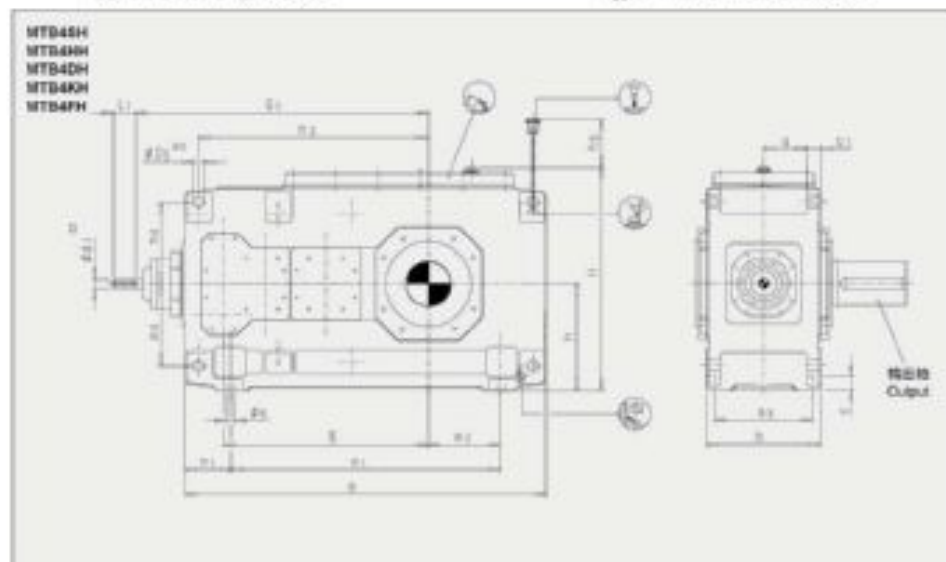
Dimensions in mm
f) Shafts:
• $\phi 6 - \phi 50$, $es = -0.009$
• Keyway acc. to GB/T 1805-1978
• For details, see pages 363-372
*) Approximate values
**) Without oil filling

齿轮箱 四极传动 / 卧式安装

类型 MTB4.H / 规格 5-12

Gear Units Four Stage / Horizontal

Type MTB4.H / Sizes 5-12



规格 Size	输入轴 / Input					
	$I_1 = 80 - 180$ $I_2 = 190 - 224$		$I_1 = 200 - 315$ $I_2 = 250 - 400$		G_2	G_1
	d_1	l_1	d_2	l_2		
5 + 6	28	55	20	50	615	650
7 + 8	36	70	25	60	725	770
9 + 10	36	80	28	60	840	890
11 + 12	45	100	35	80	1010	1080

规格 Size	b	c	C_2	D_2	g	h_{11}	m_2	n_1	n_2	a
5 + 6	255	28	30 ± 1	24	97.5	230	220	105	180	19
7 + 8	300	35	36 ± 1	28	114	280	260	120	215	24
9 + 10	370	40	45 ± 1.5	36	140	320	320	145	245	26
11 + 12	430	50	54 ± 1.5	40	161	380	370	165	300	36

规格 Size	a	E	h_2	H	m_1	h_3	r_3	返止器 Backstop G_2
5	690	405	100	482	480	100	455	返止器 规格尺寸 Dimensions on request
6	770	440	100	482	380	145	490	
7	845	495	140	572	600	130	560	
8	950	540	130	582	710	190	605	
9	1000	580	135	662	710	155	660	
10	1100	630	135	662	810	205	710	
11	1300	705	170	782	870	180	805	
12	1355	775	160	790	1025	265	875	

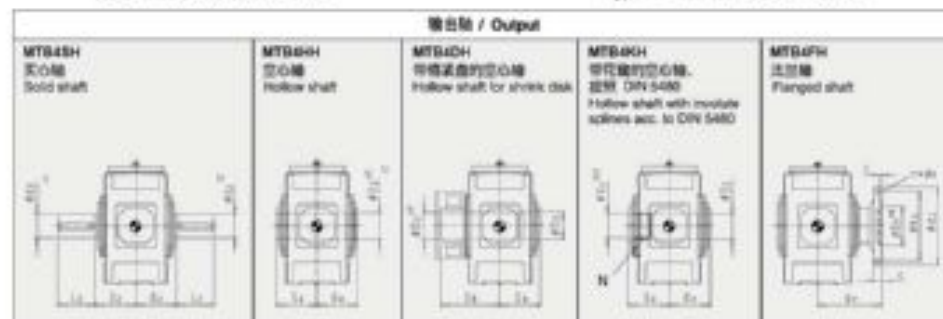


齿轮箱 四极传动 / 卧式安装

类型 MTD4.H / 规格 5-12

Gear Units Four Stage / Horizontal

Type MTD4.H / Sizes 5-12



规格 Size	MTD45H	MTD46H	MTD4DH	MTD4KH				MTD4FH												
	d_p	l_2	C_2	D_2	G_2	D_2	G_2	G_2	N / DIN 5480	C_2	D_2	G_2	c	d_p	D_2	h_2	n x s	t	G_2	
5	190	210	165	95	165	100	100	165	240	N 95x3x30x30x9H	88	109	165	25	308	150	200	10 x 22	18	225
6	110	210	165	105	165	110	110	165	240	N 95x3x30x30x9H	88	110	165	25	325	160	280	15 x 22	18	255
7	120	210	186	115	195	120	120	195	280	N 120x3x30x36x9H	114	125	195	30	375	180	320	16 x 26	18	300
8	130	290	198	125	195	130	130	195	285	N 120x3x30x36x9H	114	125	195	30	390	190	340	16 x 26	19	320
9	140	290	238	135	235	140	145	235	300	N 140x3x30x45x9H	134	145	235	38	430	220	380	20 x 26	12	350
10	160	300	238	150	235	150	155	235	380	N 140x3x30x45x9H	134	155	235	38	470	240	420	20 x 26	12	380
11	170	300	270	165	270	165	170	270	400	N 170x5x30x32x9H	160	170	270	42	510	260	450	18 x 33	12	400
12	180	300	270	180	270	180	185	270	405	N 170x5x30x32x9H	160	185	270	42	540	280	480	22 x 33	12	400

规格 Size	润滑油量 Oil quantity (g) *	重量 Weight Pkg **	
		MTD45H MTD46H MTD4DH MTD4KH	MTD4FH
5	18	335	370
6	18	365	425
7	30	555	625
8	30	655	710
9	48	690	875
10	50	1025	1115
11	80	1465	1635
12	80	1750	1890

尺寸以mm为单位

f) 轴:

• $k_5 \leq \phi 60$, $m_5 > \phi 60$

• 遵循标准 GB/T 1095-1979

• 在美国标准遵循 365-372 页

*) 参考值

**) 未注油时

Dimensions in mm

f) Shafts:

• $k_5 \leq \phi 60$, $m_5 > \phi 60$

• Keyway acc. to GB/T 1095-1979

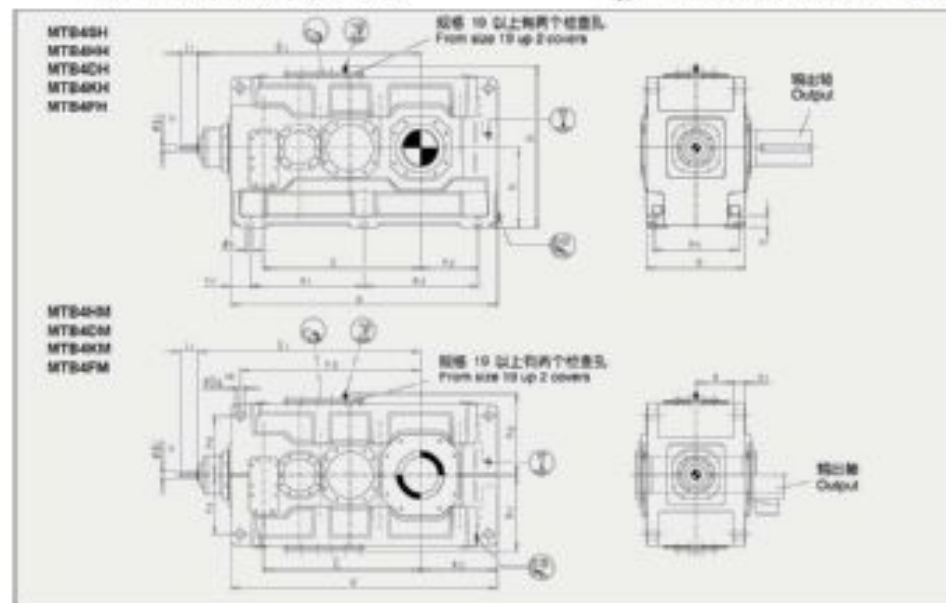
• For details, see pages 365-372

*) Approximate values

**) Without oil filling

齿轮箱 四极传动 / 卧式安装
 类型 MTB4.H, MTB4.M / 规格 13-22

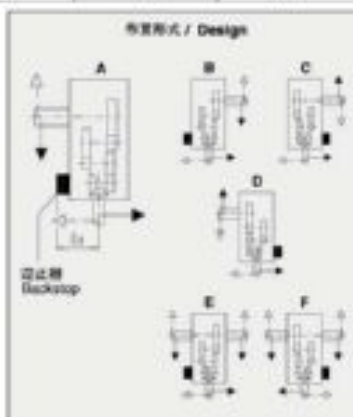
Gear Units Four Stage / Horizontal
 Type MTB4.H, MTB4.M / Sizes 13-22



规格 Size	输入轴 / Input						G ₁	G ₂
	n ₁ = 80 - 180 D ₁ = 80 - 200			n ₁ = 200 - 315 D ₁ = 224 - 355				
	d ₁	b	h	d ₁	h ₁	h ₂		
13 + 14	55	130	40	100	1170	1260		
15 + 16	70	135	50	110	1422	1448		
17 + 18	70	135	60	110	1450	1510		
19 + 20	80	165	80	140	1680	1740		
21 + 22	90	165	70	140	1992	2047		

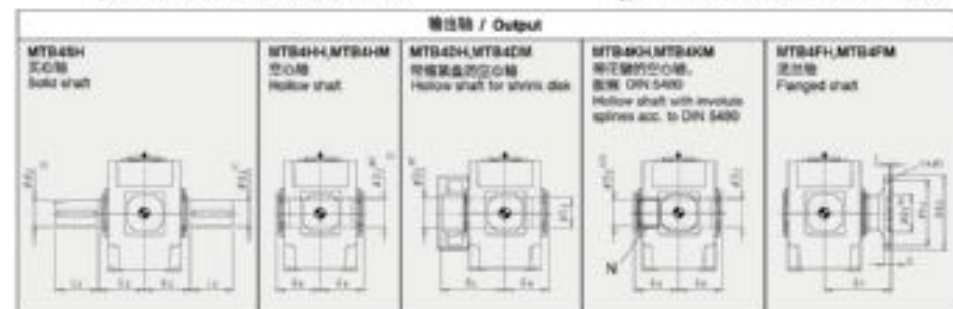
规格 Size	b	c	c ₁	D ₂	g	h ₁	h ₂	m ₂	r ₂	r ₃	s	
13 + 14	59	65	81 ± 2	48	211.5	440	450	460	475	100	340	35
15 + 16	62	78	72 ± 2	55	238	500	490	500	535	120	375	42
17 + 18	69	65	81 ± 2	55	254	550	555	560	600	135	425	42
19 + 20	79	90	91 ± 2	65	298	620	615	620	690	155	475	48
21 + 22	83	105	106 ± 2	75	315	700	695	690	720	170	520	56

规格 Size	a	h ₂	E	M	m ₁	m ₂	r ₂	输出轴 Backstop R ₂
13	1385	405	830	800	587.5	587.5	305	940
14	1535	475	890	800	587.5	737.5	375	1030
15	1680	485	957	1000	720	720	365	1135
16	1770	530	1033	1000	720	810	415	1180
17	1770	525	1035	1110	750	750	390	1175
18	1890	585	1095	1110	750	870	455	1235
19	2030	590	1190	1240	860	860	435	1385
20	2150	650	1250	1240	860	960	495	1425
21	2340	655	1367	1350	1000	1000	465	1600
22	2450	710	1442	1380	1000	1130	540	1695



齿轮箱 四极传动 / 卧式安装
 类型 MTB4.H, MTB4.M / 规格 13-22

Gear Units Four Stage / Horizontal
 Type MTB4.H, MTB4.M / Sizes 13-22



规格 Size	MTB4SH		MTB4H, MTB4M		MTB4CH, MTB4CM				MTB4KH, MTB4KM				MTB4FH, MTB4FM							
	d ₂	b	D ₂	G ₂	D ₂	D ₃	G ₃	G ₄	N / DIN 5480	D ₂	D ₃	G ₄	z	d ₂	D ₂	h ₂	n x s	l	D ₂	
13	200	350	335	190	335	190	195	335	480	N 190x5x30x36x9H	180	195	335	48	580	310	500	20 x 33	14	480
14	210	360	335	210	335	210	215	335	480	N 190x5x30x36x9H	180	215	335	48	620	310	540	24 x 33	14	480
15	230	410	380	230	380	230	235	380	500	N 220x5x30x42x9H	210	235	380	55	710	360	630	26 x 33	17	550
16	240	410	380	240	380	240	245	380	500	N 220x5x30x42x9H	210	245	380	55	740	360	660	30 x 33	17	550
17	250	410	415	250	415	250	260	415	600	N 250x5x30x48x9H	240	265	415	60	750	410	680	24 x 39	18	600
18	270	470	415	275	415	280	285	415	600	N 250x5x30x48x9H	240	285	415	60	800	410	710	26 x 39	18	600
19	290	470	465	-	-	285	295	465	670					65	860	460	770	30 x 39	18	670
20	300	500	465	-	-	310	315	465	670					65	930	460	830	32 x 39	18	670
21	320	500	490	-	-	330	335	490	715					75	960	520	850	26 x 45	20	710
22	340	530	490	-	-	340	345	490	725					75	1040	520	940	28 x 45	20	710

规格 Size	润滑油量 Oil quantity l ^{*)}		重量 Weight kg ^{*)}			
	MTB4H	MTB4M	MTB4SH MTB4H MTB4CH MTB4KH	MTB4M MTB4M MTB4CM MTB4M	MTB4FH MTB4FM	MTB4FM
	13	145	120	2365	2280	2555
14	150	125	2735	2605	2905	2775
15	200	170	3630	3435	3670	3675
16	225	175	3985	3765	4240	4020
17	295	230	4885	4480	4995	4780
18	305	235	5200	4930	5550	5290
19	480	440	6830	6300		
20	650	610	8200	7700		
21	540	590	9200	8600		
22	620	680	9900	9400		

尺寸 Unit: mm
 1) 油:
 • M1 = 90, m6 = 950
 • 依据标准 GB/T 1095-1978
 • 有关细节见第 363-372 页
 *) 参考值
 **) 未注油时

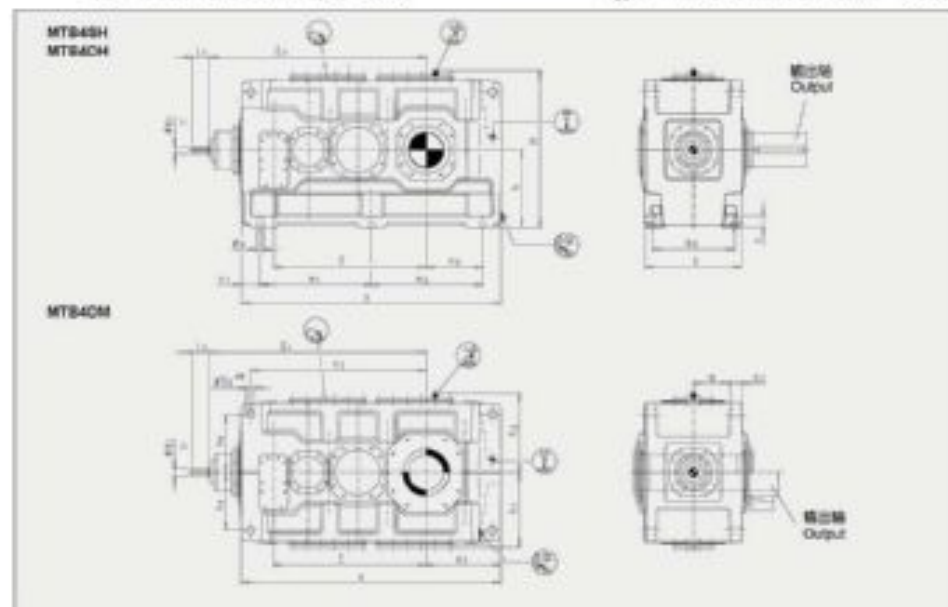
Dimensions in mm
 1) Shafts:
 • M1 = 950, m6 = 950
 • Keyway acc. to GB/T 1095-1978
 • For details, see pages 363-372
 *) Approximate values
 **) Without oil filling

齿轮箱 四极传动 / 卧式安装

类型 MTB4.H,MTB4DM / 规格 23-26

Gear Units Four Stage / Horizontal

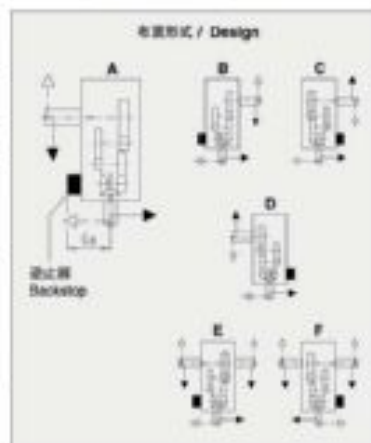
Type MTB4.H,MTB4DM / Sizes 23-26



规格 Size	输入轴 / Input					
	$l_1 = 90 - 180$		$l_1 = 200 - 315$		G_1	G_2
	d_1	l_1	d_1	l_1		
23 + 24	90	185	70	140	2110	2175
25 + 26	110	205	90	170	2395	2465

规格 Size	齿轮箱 / Gear units											
	b	c	D_1	D_2	g	h_1	h_2	h_3	h_4	h_5	s	
23 + 24	930	115	120±2	80	340	780	730	390	810	180	680	58
25 + 26	1045	130	120±2	90	400	860	860	860	910	200	660	60

规格 Size	齿轮箱 / Gear units								背盖 Backstop G_3
	a	e_2	E	H	m_1	m_2	r_2	r_3	
23	2530	730	1605	1670	1085	1085	930	1725	背盖背盖 相关尺寸 Dimensions on request
24	2690	795	1570	1570	1085	1215	815	1790	
25	2830	790	1695	1720	1215	1215	890	1965	
26	3010	880	1795	1720	1215	1395	880	2055	



齿轮箱 四极传动 / 卧式安装

类型 MTB4.H,MTB4DM / 规格 23-26

Gear Units Four Stage / Horizontal

Type MTB4.H,MTB4DM / Sizes 23-26



规格 Size	MTB4SH		MTB4DM/MTB4DM				
	d_2	l_2	D_2	D_3	D_4	G_3	
23	360	590	540	360	365	540	785
24	380	600	540	380	385	540	805
25	400	650	605	400	405	605	875
26	420	650	605	430	435	605	900

规格 Size	润滑油量 Oil quantity (kg †)		重量 Weight (kg † †)	
	MTB4SH	MTB4DM	MTB4SH MTB4DM	MTB4DM
	23	710	790	11800
24	810	810	13000	12600
25	1000	1110	16100	15200
26	1100	1290	17800	16900

尺寸以mm为单位

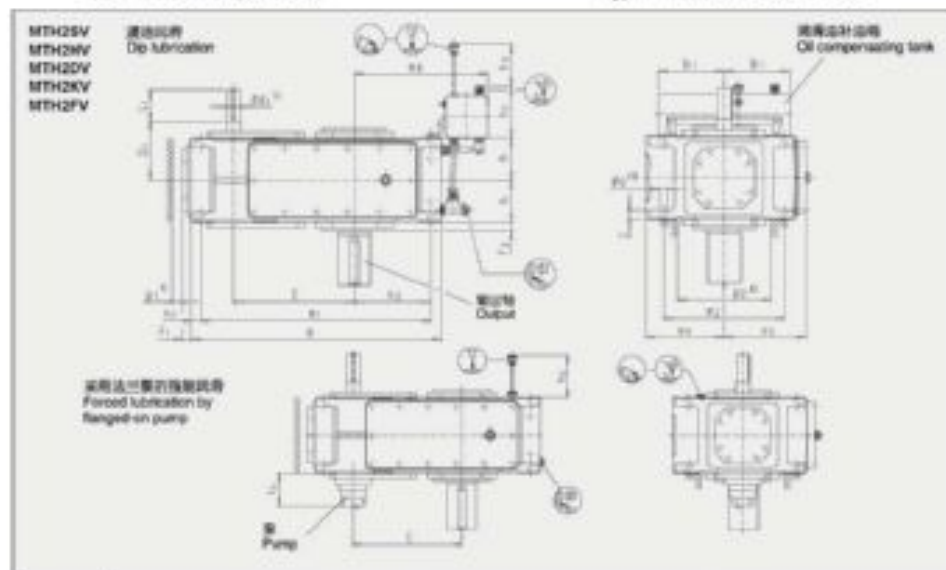
- †) 油:
 • 45-1450, m6 - 400
 • 背盖按照 GB/T1995-1979
 • 背盖按照 GB 363-372 只
 ††) 参考值
 †††) 未注油时

Dimensions in mm

- †) Shafts
 • 45 - 450, m6 - 400
 • Keyway acc. to GB/T1995-1979
 • For details, see pages 363-372
 ††) Approximate values
 †††) Without oil filling

齿轮箱 两轴传动 / 立式安装
类型 MTH2.V / 规格 4-12

Gear Units Two Stage / Vertical
Type MTH2.V / Sizes 4-12



规格 Size	输入轴 / Input						G ₁	布置形式 / Design G, H, I 仅用于 / only for G ₁ =
	G ₁ = 6.3 - 11.2			G ₁ = 12.5 - 22.4				
	d ₁	l ₁	l ₂	d ₂	l ₁	l ₂		
4	45	100	80	30	80	80	170	
5 + 6	50	100	80	38	80	80	105	
7 + 8	60	135	105	50	110	80	210	
9 + 10	75	140	110	60	140	110	240	
11 + 12	90	165	130	70	140	105	275	

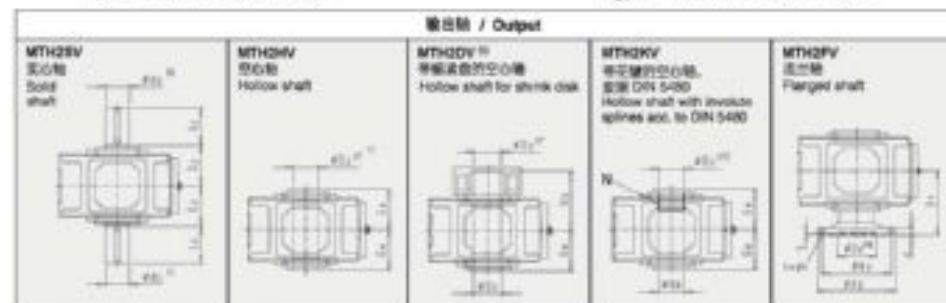
规格 Size	d ₁	d	d ₂	l ₁	l ₂	l ₃	l ₄	l ₅	l ₆	l ₇	l ₈	l ₉	l ₁₀
4	150	30 ± 1	200	28	107.5	165	-	180	300	30	24		
5 + 6	240	30 ± 1	230	35	127.5	205	190	240	360	30	24		
7 + 8	240	36 ± 1	280	42	150	205	155	250	430	35	28		
9 + 10	330	45 ± 1.5	330	40	185	275	205	330	490	40	36		
11 + 12	330	54 ± 1.5	380	48	215	275	240	340	600	50	40		

规格 Size	a	a ₀	a ₁	z	z ₁	z ₂	z ₃	z ₄	z ₅	z ₆	z ₇	z ₈	z ₉	z ₁₀
4	565	215	320	270	22	505	160	35	220					
5	640	282	385	315	25	580	175	35	270					
6	720	252	425	350	25	660	220	35	270					
7	785	292	425	385	30	715	215	35	330					
8	890	360	465	430	32	820	275	35	330					
9	925	342	560	490	32	845	260	40	370					
10	1025	342	610	500	32	945	310	40	370					
11	1105	492	595	545	35	1005	395	50	440					
12	1260	410	680	615	35	1160	380	50	440					



齿轮箱 两轴传动 / 立式安装
类型 MTH2.V / 规格 4-12

Gear Units Two Stage / Vertical
Type MTH2.V / Sizes 4-12



规格 Size	MTH2SV	MTH2HV	MTH2DV	MTH2KV				MTH2FV													
	d ₂	l ₂	G ₂	D ₂	G ₄	D ₂	D ₃	G ₄	G ₅	N / DIN 5480	C ₂	D ₂	G ₄	c	d ₂	D ₂	l ₂	n x s	l	G ₇	
4	80	170	140	80	140	85	85	140	205	-	-	-	-	-	-	-	-	-	-	-	-
5	100	210	185	90	165	100	100	165	240	N 90x3x30x30x9H	80	100	165	25	300	150	280	16x22	10	255	
6	110	210	185	100	165	110	110	165	240	N 90x3x30x30x9H	89	110	165	25	320	160	280	16x22	10	285	
7	120	210	185	115	195	120	120	195	280	N 120x3x30x38x9H	114	120	195	30	370	180	320	16x26	10	300	
8	130	250	195	125	195	130	130	195	285	N 120x3x30x38x9H	114	130	195	30	390	190	340	16x26	10	300	
9	140	250	235	135	235	140	145	235	330	N 140x3x30x45x9H	134	145	235	35	430	220	380	20x25	12	350	
10	160	300	235	150	235	150	155	235	350	N 140x3x30x45x9H	134	155	235	35	470	240	420	22x25	12	350	
11	170	300	270	165	270	165	170	270	400	N 170x5x30x32x9H	160	170	270	42	510	260	450	16x33	12	490	
12	180	300	270	180	270	180	185	270	405	N 170x5x30x32x9H	160	185	270	42	540	280	480	22x33	12	490	

规格 Size	润滑油量 / Oil quantity 升 / l		重量 / Weight kg		冷却水管 / Cooling coil 冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"	规格 Size				
	滴油润滑 Dip lubrication	强制润滑 Forced lubrication	MTH2SV MTH2HV MTH2DV	MTH2KV MTH2FV		Φ ₁₆	Φ ₁₈	Φ ₂₂	Φ ₂₅	
4	23	-	190	-	<p>冷却水管适用于淡水、海水和循环冷却水 Cooling coil suitable for fresh, sea and brackish water</p> <p>x) 所需冷却水量、冷却水压力最大值为 8 巴 Cooling water quantity required; max. cooling water pressure: 8 bar</p>	4	34	140	155	4
5	35	17.5	300	305		5	55	166	170	4
6	37	18.5	355	395		6	75	162	215	4
7	67	31	525	555		7	100	197	210	4
8	69	35	590	645		8	106	197	270	4
9	95	49	830	915		9	140	210	245	8
10	115	55	960	1050		10	106	225	295	8
11	160	80	1335	1465		11	130	265	275	8
12	180	90	1615	1755		12	206	271	360	8

尺寸/Dimensions in mm

1) 轴：
 • d₂ ≤ 90, m6 = g50
 • 键槽按 GB/T 10245-1979
 • 有关尺寸见第 363-372 页

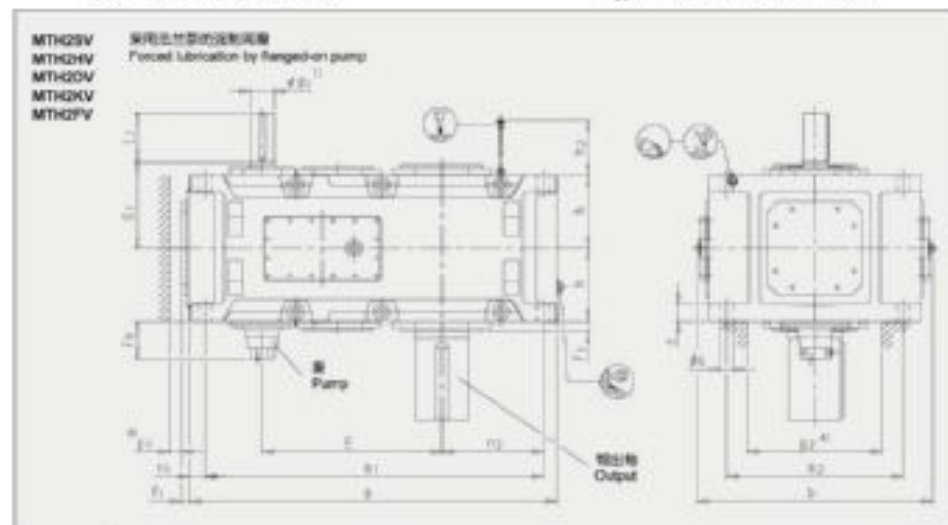
2) 法兰：
 • 布置形式 G、H 和 I 不能采用法兰强制润滑
 • 采用冷却管时：
 • 布置形式 A、C 和 E 不能采用法兰强制润滑
 • 法兰、键槽和轴所需的空间尺寸，请见详细尺寸，请与我们联系

3) 对空心轴减速机有布置形式 A、D 和 G 请参见
 1) 参考图
 2) 近似值
 3) 未注油封

Dimensions in mm
 1) Shafts:
 • d₂ ≤ 90, m6 = g50
 • Keyway acc. to GB/T 10245-1979
 • For details, see pages 363-372
 2) Flanges:
 • Flanged on pump not possible with G, H, and I designs
 3) Cooling coil
 • For A, C and E designs, forced lubrication by flanged-on pump not possible
 4) Space for pump, pipes and cover, for exact dimensions, please refer to us
 5) A, D and G designs for gear units with hollow shaft on request
 6) Reference
 7) Approximate values
 8) Without oil filling

齿轮箱 两阶段传动 / 立式安装
类型 MTH2.V / 规格 13-22

Gear Units Two Stage / Vertical
Type MTH2.V / Sizes 13-22



规格 Size	输入轴 / Input				G ₁	布置形式 / Design G, H, I 适用于 / only for L ₁ **	
	L ₁ = 6.3 - 11.2 L ₁ = 7.1 - 12.5		L ₁ = 12.5 - 20 L ₁ = 14 - 22.4			L ₁ = 6.3 - 14	L ₁ = 14 - 22.4
	d ₁	l ₁	d ₂	l ₂			
13 + 14	100	205	85	170	330	6.3 - 16	6 - 20
15 + 16	130	210	100	210	365	6.3 - 16	7.1 - 18
17 + 18	125	245	110	210	420	6.3 - 16	7.1 - 18
19 + 20	敬请咨询 / On request						

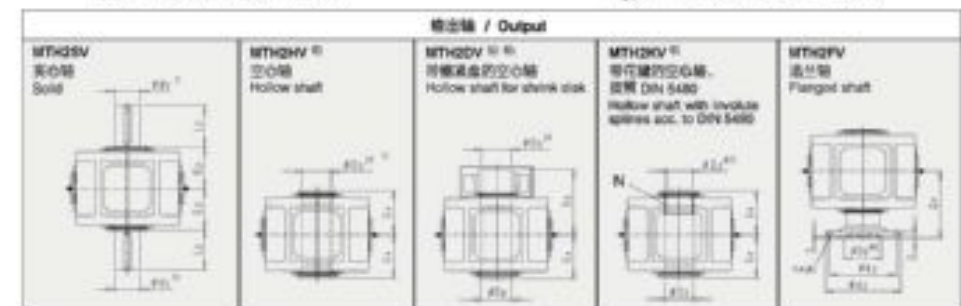
规格 Size	b	c	f ₁	h	h ₂	m ₂	r ₂	s
13 + 14	900	61±0.2	53	272.5	305	690	50	45
15 + 16	980	72±0.2	63	310	340	750	60	55
17 + 18	1110	81±0.2	60	340	374	850	70	55
19 + 20	敬请咨询 / On request							
21 + 22	敬请咨询 / On request							

规格 Size	a	E	f ₂	m ₁	r ₁	Z ₁	Z ₂	泵 / Pump L ₂ 21
13	1290	635	35	1195	360	50	500	敬请咨询 相关尺寸 Dimensions on request
14	1430	700	30	1330	430	50	500	
15	1550	780	42	1430	430	50	570	
16	1640	808	42	1525	475	50	570	
17	1740	860	42	1610	465	70	630	
18	1860	920	42	1720	525	70	630	
19	敬请咨询 / On request							
20	敬请咨询 / On request							
21	敬请咨询 / On request							
22	敬请咨询 / On request							



齿轮箱 两阶段传动 / 立式安装
类型 MTH2.V / 规格 13-22

Gear Units Two Stage / Vertical
Type MTH2.V / Sizes 13-22



规格 Size	MTH2SV	MTH2HV	MTH2DV	MTH2KV				MTH2V											
	d ₂	l ₂	G ₂	D ₂	G ₂	D ₂	G ₂	N / DIN 5480	D ₂	D ₂	G ₂	c	d ₂	D ₂	l ₂	n x s	t	G ₂	
13	200	350	335	190	335	190	335	480	N 190x5x30x35x9H	180	195	335	48	580	310	500	20 x 33	14	480
14	210	350	335	210	335	210	335	480	N 190x5x30x35x9H	180	215	335	48	620	310	540	24 x 33	14	480
15	230	410	380	230	380	230	380	550	N 220x5x30x42x9H	210	235	380	55	710	350	630	26 x 33	17	550
16	240	410	380	240	380	240	380	550	N 220x5x30x42x9H	210	245	380	55	740	360	660	30 x 33	17	550
17	250	410	415	250	415	250	415	600	N 250x5x30x48x9H	240	260	415	60	750	410	660	24 x 39	18	600
18	270	470	415	275	415	285	415	600	N 250x5x30x48x9H	240	285	415	60	800	410	710	26 x 39	18	600
19 - 22	敬请咨询 / On request																		

规格 Size	冷却水量 Cool quantity (l/h)	重量 / Weight (kg)	冷却水管 / Cooling coil				
			MTH2SV	MTH2HV	MTH2DV	MTH2KV	
13	120	1690	2540	冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"			
14	135	2430	2600	冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"			
15	185	3240	3480	冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"			
16	200	3485	3700	冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"			
17	265	4420	4720	冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"			
18	285	4870	5220	冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"			
19 - 22	敬请咨询 / On request			冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"			

尺寸以mm为单位
Dimensions in mm

1) 轴:
• M5 x Ø50, m6 - Ø50
• 键槽按 DIN 1095-1079
• 轴尖倒角按 363-372 页

2) 变型:
• 布置形式 G, H 和 I 不能采用法兰泵润滑
• 采用冷却水管时:
• 布置形式 A, C 和 E 不能采用法兰泵润滑
• 油封、油室和油室所需的空间尺寸, 请参照图例

3) 对空心轴减速机布置形式 A, D 和 G 请参照图例

4) 规格 13 和 15: 仅有 L₁ = 6.3 - 18
规格 17 和 19: 仅有 L₁ = 6.3 - 18

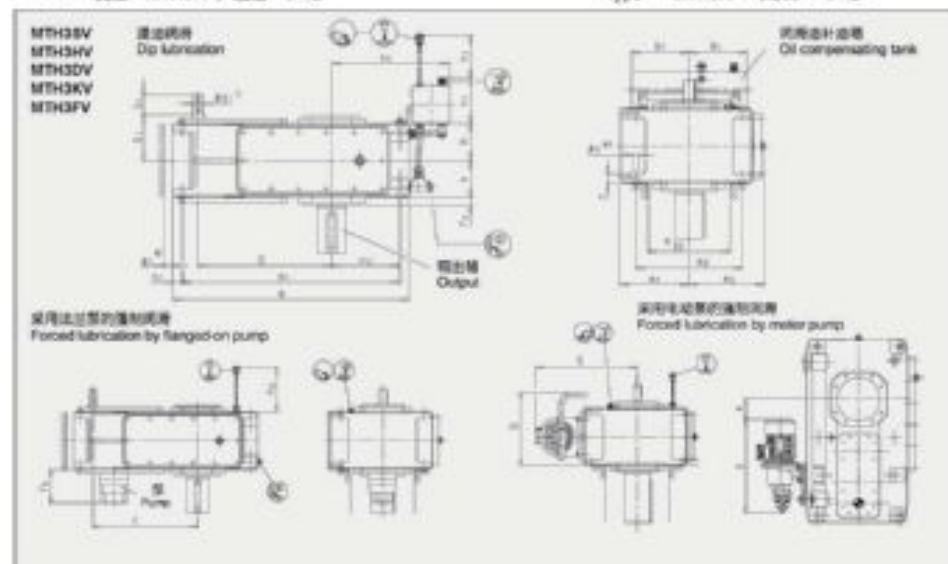
*) 参考值
**) 未注油时

Dimensions in mm:
• M5 x Ø50, m6 - Ø50
• Keyway acc. to DIN 1095-1079
• For details, see pages 363-372

2) Variants:
• Flanged-on pump not possible with G, H, and I designs
• Cooling coil
• For A, C and E designs, forced lubrication by flanged-on pump not possible
• Space for pump, pipes and cover, for exact dimensions, please refer to us
3) A, D and G designs for gear units with hollow shaft on request
4) Size 13 and 15: only L₁ = 6.3 - 18
Size 17 and 19: only L₁ = 6.3 - 18
*) Approximate values
**) Without oil filling

齿轮箱 Three Stage / Vertical
类型 MTH3.V / 规格 5-12

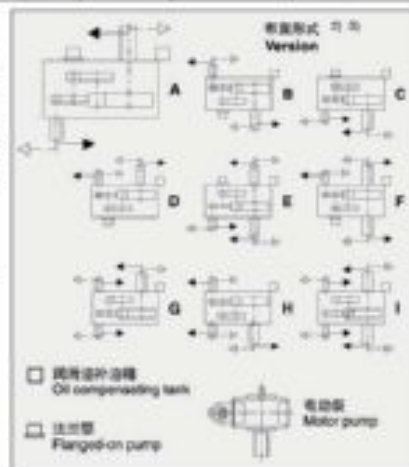
Gear Units Three Stage / Vertical
Type MTH3.V / Sizes 5-12



规格 Size	输入轴 / Input						G ₂	设计形式 / Design G, H, I 适用于 / only for G ₂ *	
	l ₂ = 25-45 d ₂ = 31.5-56		l ₂ = 50-63 d ₂ = 63-90		l ₂ = 71-90 d ₂ = 90-112			G	H
5 + 6	40	70	30	50	24	40	185	25-90	31.5-112
7 + 8	45	80	35	60	28	50	185	25-90	31.5-112
9 + 10	60	125	45	100	32	60	230	25-90	31.5-112
11 + 12	70	120	50	80	42	70	255	25-90	31.5-112

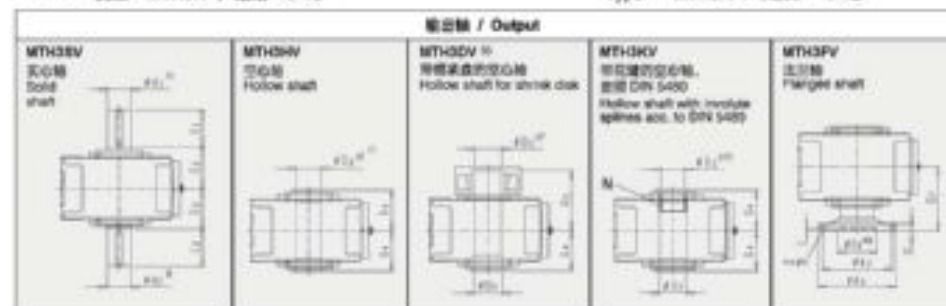
规格 Size	a ₁	a	a ₂	h	f ₁	f ₂	f ₃	f ₄	f ₅	f ₆	f
5 + 6	240	30 ± 1	230	127.5	205	190	240	360	30	25	270
7 + 8	240	36 ± 1	280	150	205	185	250	430	35	35	330
9 + 10	330	45 ± 1.5	320	185	275	205	330	480	40	40	370
11 + 12	330	54 ± 1.5	380	215	275	240	340	600	50	50	440

规格 Size	齿轮箱 / Gear units							电机泵 / Motor pump A B C D
	A	B	C	E	f ₂	f ₃	f ₄	
5	690	252	385	405	28	630	175	电机泵有 相关尺寸 Dimensions on request
6	770	252	425	440	28	710	220	
7	845	292	425	495	30	775	215	
8	950	320	485	540	32	880	275	
9	1060	342	560	580	32	920	280	
10	1100	342	610	630	32	1020	310	
11	1280	432	595	705	35	1190	295	
12	1365	410	680	775	35	1295	380	



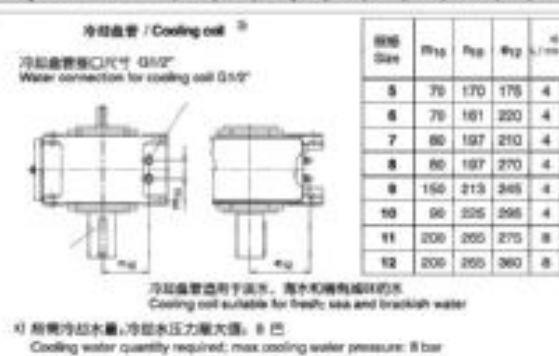
齿轮箱 Three Stage / Vertical
类型 MTH3.V / 规格 5-12

Gear Units Three Stage / Vertical
Type MTH3.V / Sizes 5-12



规格 Size	MTH3BV		MTH3HV		MTH3DV		MTH3KV				MTH3FV									
	d ₂	l ₂	G ₂	D ₂	G ₂	D ₂	D ₂	G ₂	G ₂	N / DIN 5400	C ₂	D ₂	G ₂	c	d ₂	D ₂	h ₂	n x a	t	G ₂
5	100	210	165	85	165	100	100	165	240	N 95x3x30x30x9H	89	100	165	25	300	150	280	16x22	10	255
6	110	210	165	105	165	110	110	165	240	N 95x3x30x30x9H	89	110	165	25	320	160	280	16x22	10	255
7	120	210	195	115	195	120	120	195	280	N 120x3x30x30x9H	154	120	195	30	370	180	320	16x26	10	300
8	130	250	195	125	195	130	130	195	285	N 120x3x30x30x9H	154	130	195	30	390	190	340	18x28	10	300
9	140	250	235	135	235	140	145	235	330	N 140x3x20x45x9H	134	145	235	38	430	220	380	20x28	12	360
10	160	300	235	150	235	150	155	235	360	N 140x3x30x45x9H	154	155	235	38	470	240	420	22x28	12	360
11	170	300	270	165	270	165	170	270	400	N 170x5x30x32x9H	160	170	270	42	510	260	450	18x33	12	400
12	180	300	270	180	270	180	185	270	400	N 170x5x30x32x9H	160	185	270	42	540	280	480	22x33	12	400

规格 Size	润滑油量 / Oil quantity (l)		重量 / Weight (kg)	
	油浴润滑 Dip lubrication	强制润滑 Forced lubrication	MTH3BV MTH3HV MTH3DV	MTH3KV MTH3FV
5	36	24	320	355
6	40	27	365	405
7	64	42	540	590
8	70	47	625	680
9	116	73	875	960
10	120	80	1020	1110
11	180	110	1400	1530
12	205	120	1675	1815



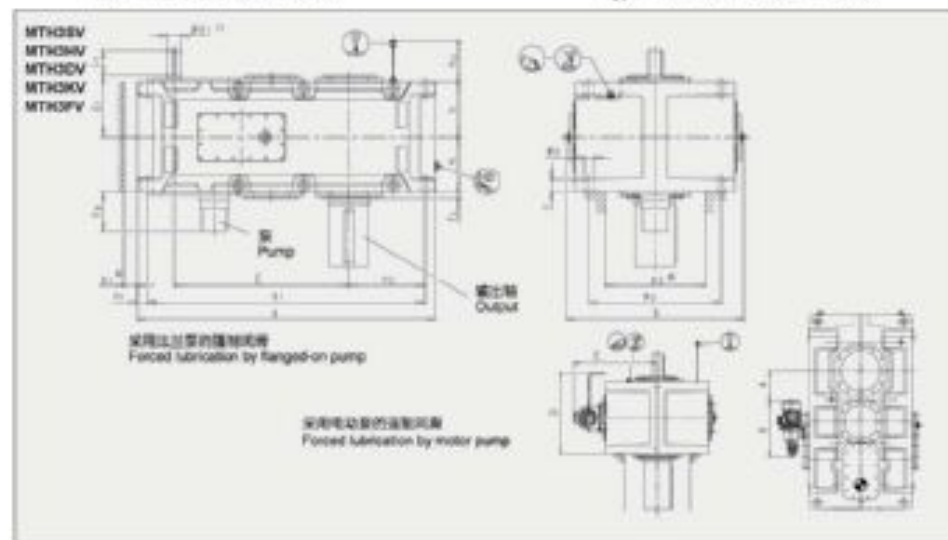
尺寸/Dimensions单位

- 轴:
 - d₂ ≤ 90, a₂ ≤ 90
 - 键槽按 GB/T 1095-1979
 - 有关零件见第 363-372 页
- 方案:
 - 方案形式 G, H 和 I 不能采用法兰泵强制润滑
- 采用半轴设计时:
 - 方案形式 A, C 和 E 不能采用法兰泵强制润滑
- 注意: 轴套和轴套所需的空间尺寸, 请与我们联系
- 对空心轴减速机在方案形式 A, D 和 G 请留意

Dimensions in mm

- Shafts:
 - d₂ ≤ 90, a₂ ≤ 90
 - Keyway acc. to GB/T 1095-1979
 - For details, see pages 363-372
- Variants:
 - Flanged-on pump not possible with G, H, and I designs
- Cooling oil:
 - For A, C and E designs, forced lubrication by flanged-on pump not possible
- Space for pump, pipes and cover, for exact dimensions, please refer to us
- A, D and G designs for gear units with hollow shaft on request
- *) Approximate values
- **) Without oil filling

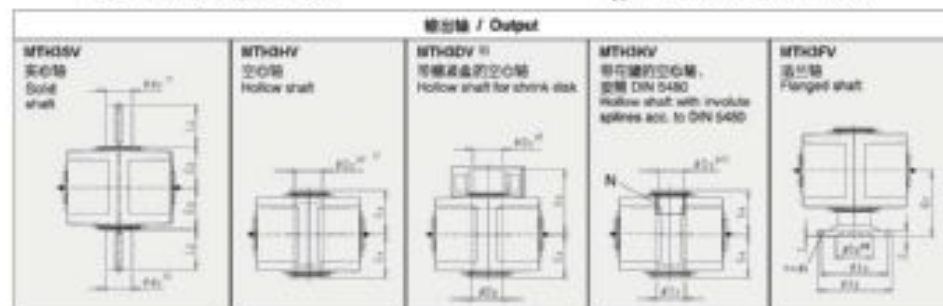
齿轮箱 Three Stage / Vertical
Type MTH3.V / Sizes 13-22



Gear Units Three Stage / Vertical
Type MTH3.V / Sizes 13-22

齿轮箱 Three Stage / Vertical
Type MTH3.V / Sizes 13-22

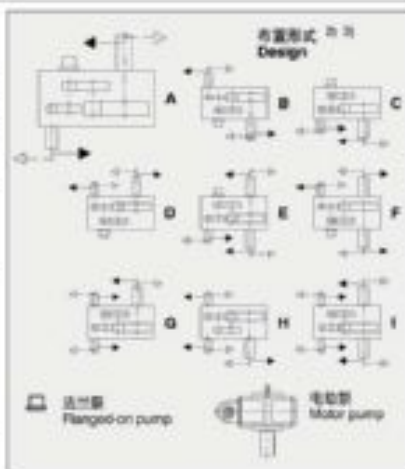
Gear Units Three Stage / Vertical
Type MTH3.V / Sizes 13-22



规格 Size	MTH3SV					MTH3HV					MTH3DV					MTH3KV					MTH3FV				
	d ₂	l ₂	G ₂	D ₂	G ₂	D ₂	G ₂	D ₂	G ₂	N / DIN 5480	D ₂	G ₂	c	d ₂	D ₂	G ₂	c	d ₂	D ₂	G ₂	n x s	t	G ₂		
13	200	350	325	190	335	190	195	335	480	N 190x5x30x30x9H	190	195	335	48	580	310	500	20 x 30	14	480					
14	210	350	325	210	335	210	215	335	480	N 190x5x30x30x9H	190	215	335	48	620	310	540	24 x 30	14	480					
15	230	410	380	230	380	230	235	380	500	N 220x5x30x42x9H	210	235	380	55	710	360	630	28 x 33	17	550					
16	240	410	380	240	380	240	245	380	500	N 220x5x30x42x9H	210	245	380	55	740	360	660	30 x 33	17	550					
17	250	410	415	250	415	250	260	415	600	N 250x5x30x48x9H	240	260	415	60	750	410	660	24 x 30	18	600					
18	270	470	415	270	415	280	285	415	600	N 250x5x30x48x9H	240	285	415	60	800	410	710	26 x 30	18	600					

规格 Size	输入轴 / Input								形式 / Design G, H, I 仅用于 / only for l ₂ =	
	l ₂ = 22.4 - 45		l ₂ = 50 - 63		l ₂ = 71 - 90		l ₂ = 80 - 100			
	d ₂	l ₂	d ₂	l ₂	d ₂	l ₂	d ₂	l ₂		
13	85	180	80	135	50	110	310	22.4 - 90	25 - 100	
15	100	200	75	140	60	140	360	22.4 - 90	25 - 100	
17	100	200	75	140	60	140	360	22.4 - 90	25 - 100	
19 + 20	敬请垂询 / On request									
21 + 22	敬请垂询 / On request									

规格 Size	b	c	h	h ₂	h ₃	r ₁	r ₂	r ₃	a
13 + 14	900	61 ± 2	272.5	300	680	50	50	900	48
15 + 16	950	72 ± 2	310	340	750	50	50	570	55
17 + 18	1110	81 ± 2	340	374	850	70	70	630	55
19 + 20	敬请垂询 / On request								
21 + 22	敬请垂询 / On request								



规格 Size	齿轮箱 / Gear units					电动机 / Motor pump			
	a	E	h ₂	h ₃	h ₄	A	B	C	D
13	1395	620	35	1300	380				
14	1535	690	35	1440	430				
15	1680	967	42	1565	430				
16	1770	1035	42	1655	475				
17	1770	1035	42	1640	465				
18	1880	1095	42	1700	525				
19 + 20	敬请垂询 / On request								
21 + 22	敬请垂询 / On request								

规格 Size	润滑油量 Oil quantity (升) †	重量 / Weight (kg) ‡		冷却水管 / Cooling coil 冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"	规格 Size				
		MTH3SV MTH3HV MTH3DV MTH3KV	MTH3FV		h ₂	h ₃	h ₄	a	
13	180	2155	2315		13	250	300	305	8
14	180	2490	2560		14	260	300	405	8
15	255	3280	3500		15	290	340	385	8
16	280	3025	3680		16	290	340	440	8
17	325	4250	4550		17	300	380	425	8
18	335	4740	5090		18	300	380	485	8
19 - 22	敬请垂询 / On request								

尺寸/mm为毫米
Dimensions in mm

1) 轴 / Shafts
 • A5 ≤ φ50, n5 = φ50
 • 键槽按照 GB/T1095-1979
 • 键槽深度按照 303-372 页

2) 变型 / Variants
 • 布置形式 G, H 和 I 不能采用法兰强制润滑
 • 采用中空轴变型
 • 布置形式 A, C 和 E 不能采用法兰强制润滑
 • 键槽深度按照 303-372 页

3) 冷却管 / Cooling coil
 • 对于 A, C 和 E 设计, 法兰强制润滑由法兰泵提供
 • 对于 A, D 和 G 设计, 法兰强制润滑由法兰泵提供

4) 空间 / Space for pump, pipes and cover, for exact dimensions, please refer to us

5) 对于 A, D 和 G 设计, 对于变型 A, C 和 E 设计, 请参考 303-372 页

†) 参考值
 ‡) 未注油时

冷却水管适用于淡水、海水和精制的海水
 Cooling coil suitable for fresh, sea and brackish water

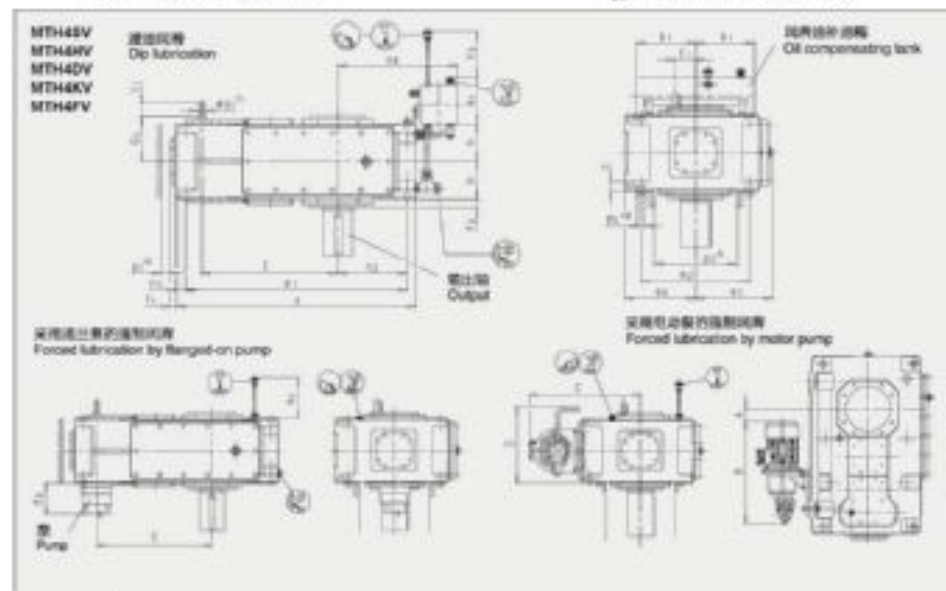
*) 所需冷却水量 (冷却水最大压力: 8 bar)
 Cooling water quantity required, max cooling water pressure: 8 bar

齿轮箱 四极传动 / 立式安装

类型 MTH4.V / 规格 7-12

Gear Units Four Stage / Vertical

Type MTH4.V / Sizes 7-12



规格 Size	输入轴 / Input					G ₁	配置形式 / Design G,H,I 仅用于 / only for k ₁ =		
	k ₁ = 100 - 180		k ₁ = 200 - 390				G ₁	100 - 224	125 - 280
	d ₁	h ₁	d ₁	h ₁	h ₁				
7 + 8	30	50	24	40	180	100 - 224	125 - 280		
9 + 10	35	60	28	50	215	100 - 250	125 - 315		
11 + 12	45	100	32	80	250	100 - 250	125 - 315		

规格 Size	齿轮箱 / Gear units													
	b ₁	c	d ₂	E ₁	f ₁	h	h ₁	h ₂	h ₃	h ₄	h ₅	h ₆		
7 + 8	240	35 ± 1	280	80	37	150	205	185	250	430	35	35	330	28
9 + 10	330	45 ± 1.5	320	90	43	180	275	205	330	490	40	40	370	36
11 + 12	330	54 ± 1.5	380	110	47	215	275	240	340	600	50	50	440	40

规格 Size	齿轮箱 / Gear units											电动机 / Motor pump			
	a	d ₁	d ₂	E	f ₁	h ₁	h ₂	h ₃	h ₄	h ₅	h ₆	A	B	C	D
7	845	202	425	495	30	775	215	敬请垂询 相关尺寸 Dimensions on request							
8	950	302	485	540	32	880	275								
9	1008	342	580	580	32	920	280								
10	1100	342	610	630	32	1020	310								
11	1200	402	595	705	35	1100	295								
12	1350	410	680	775	35	1255	380								



齿轮箱 四极传动 / 立式安装

类型 MTH4.V / 规格 7-12

Gear Units Four Stage / Vertical

Type MTH4.V / Sizes 7-12

规格 Size	MTH4SV		MTH4HV		MTH4DV				MTH4KV				MTH4FV							
	d ₂	h ₂	d ₂	h ₂	d ₂	d ₂	G ₄	G ₅	N / DIN 5480	d ₂	d ₂	G ₄	c	d ₂	d ₂	h ₂	n x s	t	G ₇	
7	120	210	185	115	195	120	120	195	200	N 120x3x30x35xH	114	120	195	30	375	180	320	16 x 20	10	300
8	130	250	195	125	195	130	130	195	205	N 120x3x30x35xH	114	130	195	30	390	190	340	16 x 20	10	300
9	140	290	230	135	230	140	145	235	330	N 140x3x30x45xH	134	145	235	38	430	220	380	20 x 20	12	360
10	160	300	230	190	230	160	160	235	350	N 140x3x30x45xH	134	155	235	38	475	240	420	22 x 20	12	360
11	170	300	270	165	270	165	170	270	400	N 170x5x30x32xH	160	170	270	42	515	260	450	18 x 33	12	400
12	180	300	270	180	270	180	185	270	405	N 170x5x30x32xH	160	185	270	42	540	280	480	22 x 33	12	400

规格 Size	润滑油量 Oil quantity G ₇		重量 / weight (kg) / (lb)	
	浸油润滑 Dip lubrication	强制润滑 Forced lubrication	MTH4SV MTH4HV MTH4DV MTH4KV	MTH4FV
7	80	44	550	600
8	85	48	645	700
9	105	78	975	960
10	110	81	1010	1100
11	175	113	1480	1550
12	200	129	1725	1800

尺寸 / Dimension

- 轴 / Shafts:
 - k₁ ≤ φ50, n₁ ≤ φ50
 - 符合标准 GB/T1095-1979
 - 符合标准 GB 303-3/2 度
- 变型 / Variants:
 - 配置形式 G、H 和 I 不能采用法兰式油桶
 - 法兰式油桶: 如图中所示所有尺寸, 除了轴径尺寸, 请与我们的联系
 - 空心轴减速机内部形式 A 和 B 不适用
- 电动机 / Motor pump:
 - 参考图
 - ** 未注尺寸

Dimensions in mm

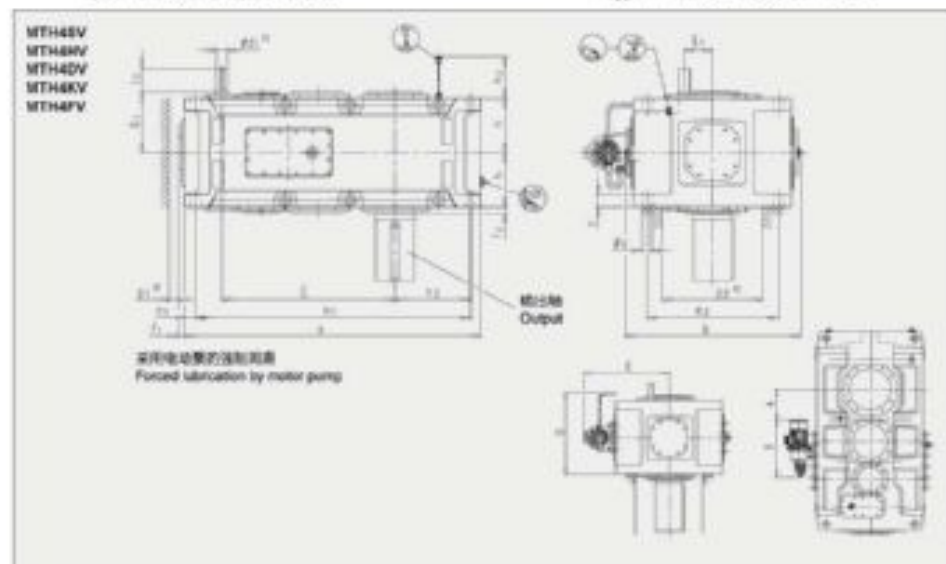
- 轴 / Shafts:
 - k₁ ≤ φ50, n₁ ≤ φ50
 - Keyway acc. to GB/T 1095-1979
 - For details, see pages 303-372
- Variants:
 - Flanged-on pump not possible with G, H, and I designs
 - Space for pump, pipes and cover, for exact dimensions, please refer to us
 - A and D designs for gear units with hollow shaft on request
- 电动机 / Motor pump:
 - 参考图
 - ** Without oil filling

齿轮箱 四极传动 / 立式安装

类型 MTH4.V / 规格 13-22

Gear Units Four Stage / Vertical

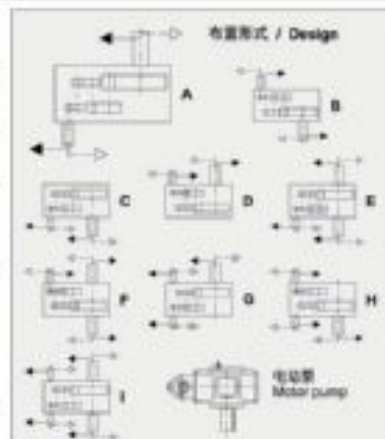
Type MTH4.V / Sizes 13-22



规格 Size	输入轴 / Input				布置形式 / Design G,H) 仅用于 / only for	G ₁
	I ₁ = 90 - 180		I ₁ = 200 - 355			
	I ₁ = 112 - 200		I ₁ = 224 - 400			
	d ₁	l ₁	d ₂	l ₂		
13	50	100	38	80	305	100 - 250
15 + 16	60	135	50	110	345	100 - 250
17 + 18	80	105	50	80	380	-
19 + 20	敬请垂询 / On request					
21 + 22	敬请垂询 / On request					

规格 Size	齿轮箱 / Gear units								
	b	c	E ₁	h	h ₂	m ₂	r ₁	p ₁	D ₂
13 + 14	800	81 ± 2	130	272.5	300	980	50	50	500
15 + 16	950	72 ± 2	160	310	340	750	60	60	570
17 + 18	1110	81 ± 2	180	340	374	850	70	70	630
19 + 20	敬请垂询 / On request								
21 + 22	敬请垂询 / On request								

规格 Size	齿轮箱 / Gear units				电动机 / Motor pump					
	a	E	f ₁	f ₂	m ₁	m ₂	A	B	C	D
13	1395	620	47	35	1300	360				
14	1535	690	47	35	1440	430				
15	1680	967	56	42	1565	430				
16	1770	1033	56	42	1605	475				
17	1770	1035	53	42	1640	465				
18	1890	1095	53	42	1760	525				
19 + 20	敬请垂询 / On request									
21 + 22	敬请垂询 / On request									

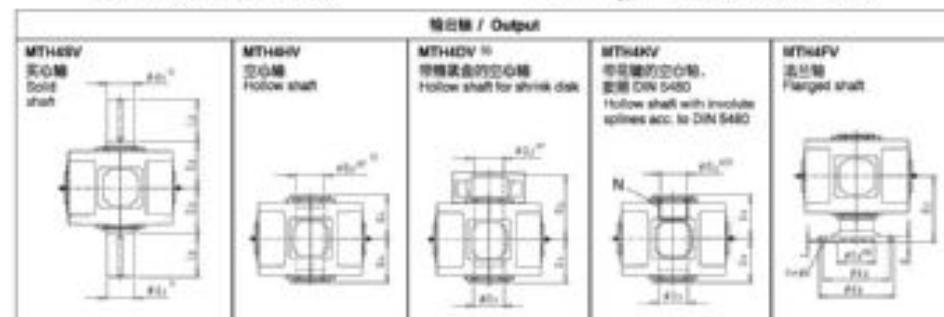


齿轮箱 四极传动 / 立式安装

类型 MTH4.V / 规格 13-22

Gear Units Four Stage / Vertical

Type MTH4.V / Sizes 13-22



规格 Size	MTH4SV	MTH4MV	MTH4DV	MTH4KV				MTH4FV		
	d ₂	l ₂	G ₂	D ₂	G ₂	D ₂	D ₂	G ₂	G ₂	
13	200	350	335	190	335	190	195	335	480	
14	210	350	335	210	335	210	215	335	480	
15	230	410	380	230	380	230	235	380	550	
16	240	410	380	240	380	240	245	380	550	
17	250	410	415	250	415	250	260	415	600	
18	270	470	415	275	415	280	285	415	600	
19 - 22	敬请垂询 / On request									

规格 Size	润滑油量 Oil quantity 升 / l	重量 / Weight kg / 磅		
		MTH4SV MTH4MV MTH4DV MTH4KV	MTH4FV	
13	140	2270	2430	
14	160	2600	2770	
15	220	3440	3680	
16	230	3740	3995	
17	280	4445	4745	
18	300	4915	5265	
19 - 22	敬请垂询 / On request			

尺寸/Dimension单位

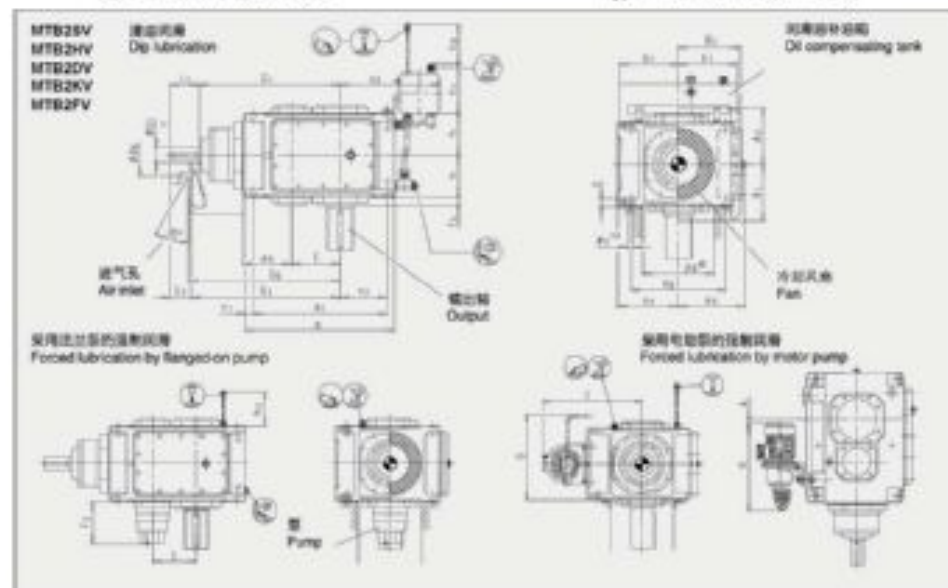
- 轴:
 - 轴径 $\phi 50$, $m6 \rightarrow \phi 50$
 - 键槽按 GB/T1095-1070
 - 有关尺寸见第 363-372 页
- 油腔、油室和油室盖的空间尺寸, 请参照相应尺寸, 请与本公司联系。
- 对空心轴减速机布置形式 A 和 D 请垂询。
- 参考图
- 备注: 1) 未注公差

Dimensions in mm

- Shafts:
 - shaft $\phi 50$, $m6 \rightarrow \phi 50$
 - Keyway acc. to GB/T 1095-1070
 - For details, see pages 363-372
- Space for pump, pipes and cover, for exact dimensions, please refer to us
- A and D designs for gear units with hollow shaft on request
- Approximate values
- Without oil filling

齿轮箱 蜗轮蜗杆 / 立式安装
类型 MTB2.V / 规格 4-12

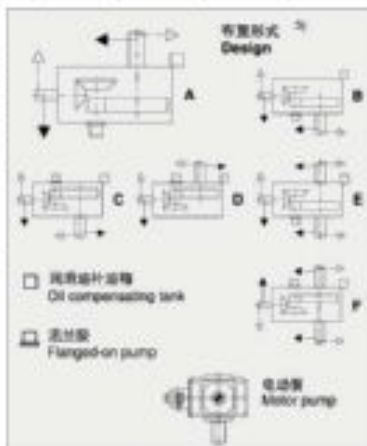
Gear Units Two Stage / Vertical
Type MTB2.V / Sizes 4-12



规格 Size	输入轴 / Input $n_1 = 5-11.2$ $n_2 = 6.3-14$				冷却风扇 / Fan					
	d_1	l_1	l_2	G_1	G_2	G_3	G_4	A_1	B_1	G_5
4	45	120	80	465	465	-	-	188	200	150
5 + 6	55	110	80	535	565	870	600	215	235	160
7 + 8	70	135	105	640	670	885	715	250	285	210
9 + 10	80	165	130	755	790	905	840	270	325	195
11 + 12	90	185	130	925	960	995	1030	325	385	210

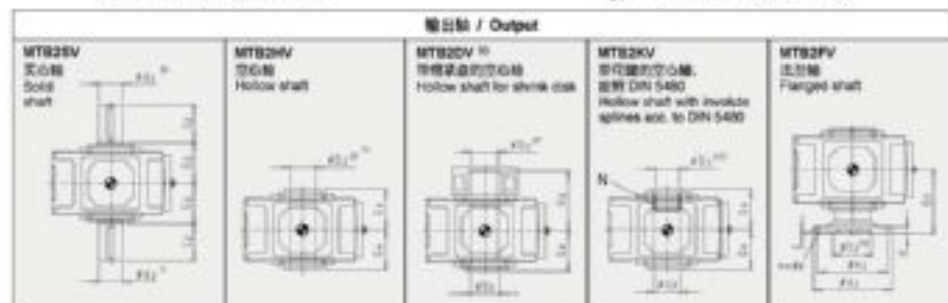
规格 Size	齿轮箱 / Gear units														
	b_1	c	d_2	d_3	d_4	l_3	l_4	l_5	l_6	l_7	l_8	l_9	l_{10}	l_{11}	l_{12}
4	150	30 ± 1	190	200	215	20	135	165	-	180	300	30	24		
5 + 6	240	30 ± 1	185	230	250	30	160	205	245	240	360	30	24		
7 + 8	240	36 ± 1	225	260	300	32	190	205	230	250	430	35	26		
9 + 10	330	45 ± 1.5	265	320	340	45	220	275	250	330	490	40	26		
11 + 12	330	54 ± 1.5	320	380	410	47	265	275	300	340	600	50	40		

规格 Size	齿轮箱 / Gear units										电动机 / Motor pump			
	a	b_0	E	G_0	m_1	m_2	P_1	P_2	l_0	l_1	A	B	C	D
4	505	320	160	495	445	160	225	-	-	-	-	-	-	-
5	565	385	185	575	535	175	275	-	-	-	-	-	-	-
6	645	425	220	610	585	220	275	-	-	-	-	-	-	-
7	690	425	225	685	630	215	330	-	-	-	-	-	-	-
8	795	485	270	730	725	275	330	-	-	-	-	-	-	-
9	820	560	265	805	740	260	375	-	-	-	-	-	-	-
10	920	610	315	855	840	310	375	-	-	-	-	-	-	-
11	975	595	320	960	875	295	440	-	-	-	-	-	-	-
12	1130	660	380	1030	1030	380	440	-	-	-	-	-	-	-



齿轮箱 蜗轮蜗杆 / 立式安装
类型 MTB2.V / 规格 4-12

Gear Units Two Stage / Vertical
Type MTB2.V / Sizes 4-12



规格 Size	MTB2SV		MTB2HV		MTB2DV		MTB2KV				MTB2FV									
	d_2	l_2	D_2	G_2	D_2	G_2	N/DIN 5480		C_2	D_3	G_3	c	d_5	D_5	l_5	$n \times s$	l	G_7		
4	80	170	170	80	170	85	85	170	235	-	-	-	-	-	-	-	-	-	-	
5	100	210	200	95	200	100	100	200	275	N 95x3x30x30x9H	80	100	200	25	300	150	280	16x22	19	290
6	110	210	200	95	200	110	110	200	275	N 95x3x30x30x9H	89	110	200	25	300	160	280	16x22	19	290
7	120	210	235	115	235	120	120	235	325	N 120x3x30x30x9H	114	120	235	30	370	180	320	16x26	19	340
8	130	250	235	125	235	130	130	235	325	N 120x3x30x30x9H	114	130	235	30	390	190	340	16x26	19	340
9	140	250	270	135	270	140	145	270	365	N 140x3x30x45x9H	134	145	270	36	430	220	380	20x26	12	385
10	160	300	270	150	270	150	155	270	365	N 140x3x30x45x9H	134	155	270	36	470	240	420	22x26	12	385
11	170	300	320	165	320	165	170	320	455	N 170x5x30x32x9H	160	170	320	42	510	260	480	16x33	12	450
12	180	300	320	180	320	180	185	320	455	N 170x5x30x32x9H	160	185	320	42	540	280	480	22x33	12	450

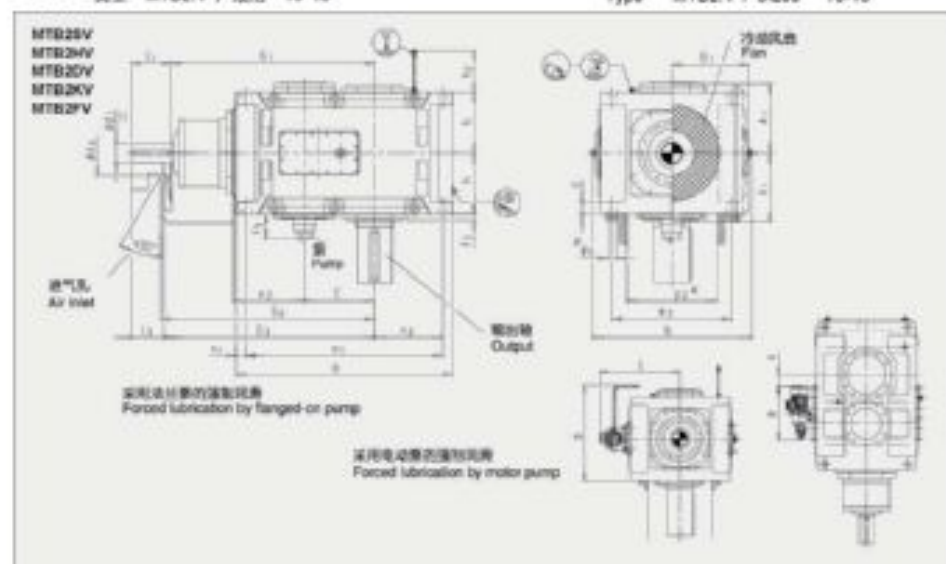
规格 Size	润滑油量 / Oil quantity 升 / L		重量 / Weight kg / 磅		冷却水管 / Cooling coil					
	浸油润滑 Dip lubrication	强制润滑 Forced lubrication	MTB2HV MTB2DV MTB2FV	MTB2SV	冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"		规格 Size			
4	23.5	-	235	-	4		$\Phi 74$	146	160	4
5	38	19	360	400	5		$\Phi 130$	168	175	8
6	40	23	410	455	6		$\Phi 120$	160	220	4
7	74	27	615	670	7		$\Phi 140$	200	210	8
8	81	40	730	780	8		$\Phi 140$	200	270	4
9	115	57	1000	1090	9		$\Phi 230$	210	245	8
10	120	60	1155	1250	10		$\Phi 150$	230	265	8
11	180	95	1640	1775	11		$\Phi 312$	365	375	8
12	220	114	1910	2060	12		$\Phi 300$	260	360	8

尺寸以毫米为单位
 1) 轴
 2) $\Phi 5-1050$, $m6-\Phi 50$
 3) 键槽按 GB/T1095-1979
 4) 有关零件按图 363-372 页
 5) 采用强制润滑时:
 a) 布置形式 C、D 和 F 不能采用法兰联轴器
 b) 油室、油室护罩和油杯的轴向尺寸, 按了详细尺寸图, 请与我们联系
 6) 对空心轴或轴内布置形式 A 和 D 要留意
 7) 参考图
 8) 未注圆角

Dimensions in mm
 1) Shafts
 2) $\Phi 5-1050$, $m6-\Phi 50$
 3) Keyway acc. to GB/T1095-1979
 4) For details, see pages 363-372
 5) Cooling coil
 a) For C, D and F designs, forced lubrication by flanged-on pump not possible
 b) Space for pump, pipes and cover, for exact dimensions, please refer to us
 6) Axial D designs for gear units with hollow shaft on request
 7) Approximate values
 8) Without oil filling

齿轮箱 两级传动 / 立式安装 类型 MTB2.V / 规格 13-18

Gear Units Two Stage / Vertical Type MTB2.V / Sizes 13-18

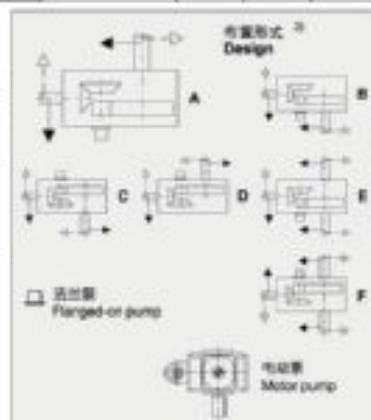


规格 Size	输入轴 / Input							冷却风扇 / Fan						
	$l_2 = 5 - 11.2$ $l_3 = 6.3 - 14$			$l_2 = 5.8 - 11.2$ $l_3 = 5.8 - 12.5$				G_1	G_2	G_3	G_4	A_1	B_1	d_2
	d_1	l_1	l_2	d_1	l_1	l_2								
13 + 14	110	205	185				1070	1110	1140	1180	375	450	245	
15	130	245	200				1277	1320			435	495	280	
16				130	245	200			1323	1368	435	495	280	
17				150	245	200	1430	1480			500	560	380	
18	150	245	200				1430	1540			500	560	380	

规格 Size	b	c	h_2	h	h_2	h_3	h_4	D_1	s
13 + 14	900	81 ± 2	380	325	350	680	50	500	48
15 + 16	980	72 ± 2	450	380	430	750	60	570	55
17 + 18	1110	81 ± 2	510	437.5	480	840	70	630	65

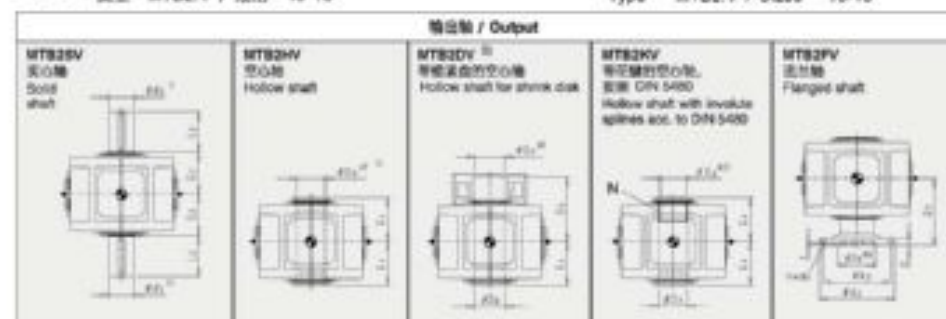
规格 Size	齿轮箱 / Gear units				电动机 / Motor pump		
	a	E	l_2	G_4	m_1	h_2	l_2
13	1130	370	36	1130	1025	360	
14	1270	440	45	1200	1175	430	
15	1350	442	75	1340	1220	430	
16	1440	488	75	1385	1325	475	
17	1490	490	98	1500	1360	465	
18	1610	550	98	1560	1480	525	

请提供
相关尺寸
Dimensions
as request



齿轮箱 两级传动 / 立式安装 类型 MTB2.V / 规格 13-18

Gear Units Two Stage / Vertical Type MTB2.V / Sizes 13-18



规格 Size	MTB23V	MTB23HV	MTB23DV	MTB23KV				MTB23FV												
	d_2	l_2	G_2	D_2	G_4	D_2	D_3	G_4	G_5	N / DIN 5480	D_2	D_3	G_4	α	d_2	D_3	l_2	n x s	t	G_7
13	200	350	300	-	-	-	-	-	-	-	-	-	-	48	580	310	500	20 x 33	14	525
14	210	350	300	210	390	210	215	390	525	N 190x5x30x36x9H	160	215	390	48	620	310	540	24 x 33	14	525
15	230	410	460	-	-	-	-	-	-	-	-	-	-	55	710	360	630	26 x 33	17	625
16	240	410	460	240	450	240	245	450	620	N 200x5x30x42x9H	210	245	450	55	740	360	680	30 x 33	17	625
17	250	410	540	-	-	-	-	-	-	-	-	-	-	60	750	410	680	24 x 39	18	685
18	270	470	540	275	510	280	285	510	700	N 250x5x30x48x9H	240	285	510	60	800	410	710	26 x 39	18	685

规格 Size	冷却水量 CI quantity (l/min) (gpm)	重量 / Weight D_{50}^{**} / mm		冷却水管 Cooling coil ^① 冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"				规格 Size				
		MTB23V MTB23HV MTB23DV MTB23KV	MTB23FV	P_{10}	P_{12}	P_{14}	法兰 Flange					
13	125	2350	2520									
14	140	2725	2965									
15	190	3795	4050									
16	200	4160	4430									
17	270	5320	5640									
18	295	5800	6230									

① 冷却水管适用于淡水、海水和所有结构的水
Cooling coil suitable for fresh, sea and brackish water

② 所需冷却水量，冷却水压力最大时，8 bar
Cooling water quantity required, max. cooling water pressure: 8 bar

尺寸以mm为单位

1) 轴:

• $d_2 < \phi 50$, $m_1 = \phi 50$

• 键槽按 GB/T1565-1979

• 有关配合公差: 313-372 页

2) 冷却风扇:

• 壳架形式 C、D 和 F 不能安装此冷却风扇

• 请提供、指定和防护所需的空间尺寸，详了解规格尺寸。

请与供应商联系

3) 带空心轴减速机壳架形式 A 和 D 请参见

*) 参考图

**) 未注公差

Dimensions in mm

1) Shafts:

• $d_2 < \phi 50$, $m_1 = \phi 50$

• Keyway acc. to GB/T1565-1979

• For details, see pages 363-372

2) Cooling fan:

• For C, D and F designs, forced lubrication by flanged or pump not possible

• Space for pump, pipes and cover, for exact dimensions, please refer to us

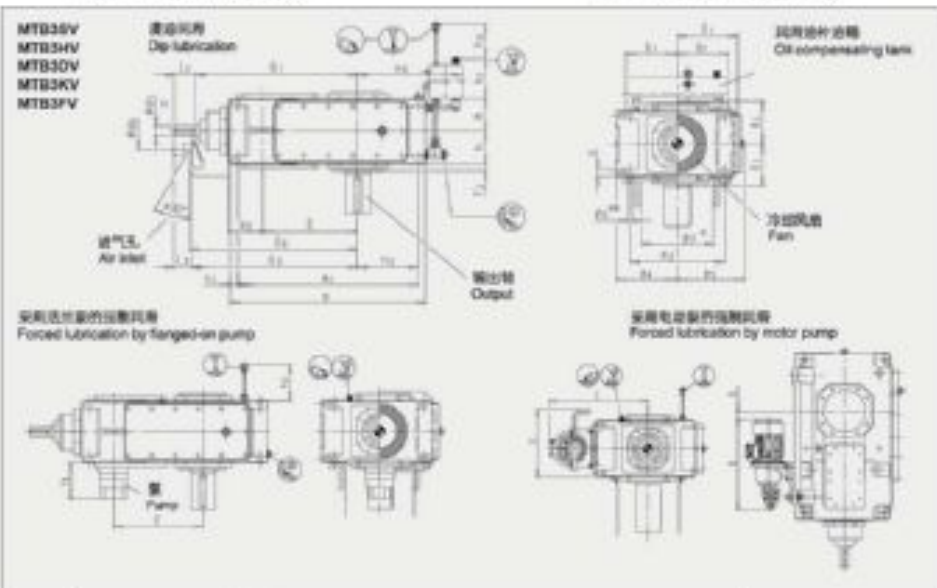
• A and D designs for gear units with hollow shaft on request

*) Approximate values

**) Without oil filling

齿轮箱 Three Stage / Vertical
类型 MTB3.V / 规格 4-12

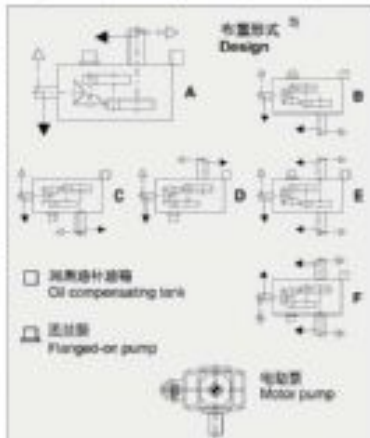
Gear Units Three Stage / Vertical
Type MTB3.V / Sizes 4-12



规格 Size	输入轴 / Input								冷却风扇 / Fan					
	$l_1 = 12.5 - 45$ $l_2 = 18 - 58$				$l_1 = 30 - 71$ $l_2 = 43 - 90$				A_1		D_1		R_1	
4	30	70	50	25	60	40	500	520	-	-	143	200	110	
5 + 6	35	80	60	28	60	40	575	595	610	630	168	235	130	
7 + 8	40	100	80	35	80	60	690	710	735	755	193	275	155	
9 + 10	55	110	80	40	100	70	800	830	850	880	231	325	175	
11 + 12	70	135	105	50	110	80	960	990	1000	1060	263	365	190	

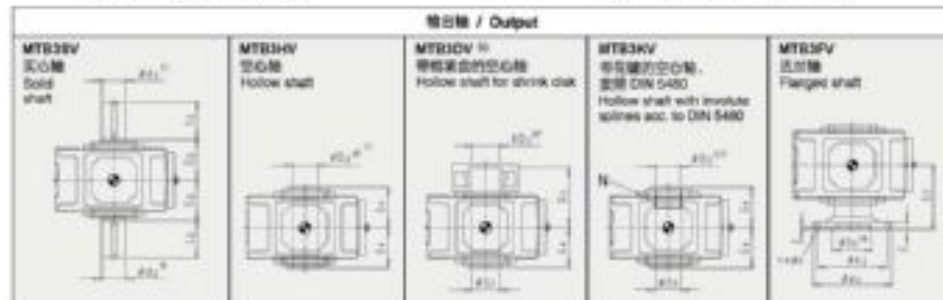
规格 Size	齿轮箱 / Gear units											
	d_1	c	d_2	d_3	h	l_1	l_2	l_3	m_1	m_2	m_3	g
4	150	30 ± 1	110	200	107.5	165	-	180	300	30	220	24
5 + 6	240	30 ± 1	130	230	127.5	205	180	240	360	30	370	24
7 + 8	240	36 ± 1	160	280	150	205	165	250	430	35	300	26
9 + 10	330	45 ± 1.5	195	320	185	275	205	330	490	40	370	26
11 + 12	330	54 ± 1.5	225	360	215	275	240	340	600	50	440	40

规格 Size	齿轮箱 / Gear units										电动机 / Motor pump			
	A	h_1	h_2	E	l_1	G_1	m_1	m_2	m_3	g	h_1	h_2	h_3	h_4
4	565	215	320	270	22	530	505	160	-	-	-	-	-	-
5	640	252	380	315	28	605	580	175	-	-	-	-	-	-
6	720	292	425	360	28	640	660	220	-	-	-	-	-	-
7	785	292	425	360	30	720	715	215	-	-	-	-	-	-
8	890	362	485	430	32	765	820	275	-	-	-	-	-	-
9	925	342	560	450	32	845	845	260	-	-	-	-	-	-
10	1025	342	610	500	32	895	945	310	-	-	-	-	-	-
11	1105	402	660	545	35	1010	1025	295	-	-	-	-	-	-
12	1260	410	680	615	35	1090	1160	360	-	-	-	-	-	-



齿轮箱 Three Stage / Vertical
类型 MTB3.V / 规格 4-12

Gear Units Three Stage / Vertical
Type MTB3.V / Sizes 4-12



规格 Size	MTB33V	MTB33HV	MTB33DV	MTB33KV				MTB33FV												
	d_1	l_1	G_1	D_1	G_1	D_1	G_1	N / DIN 5480	C_1	D_1	G_1	c	d_1	D_1	h_1	$n \times s$	l	G_1		
4	80	170	140	80	140	85	85	140	205	-	-	-	-	-	-	-	-	-	-	
5	100	210	165	95	165	100	100	165	240	N 95x3x30x30x9H	80	100	165	25	300	150	260	16x22	10	255
6	110	210	165	105	165	110	110	165	240	N 95x3x30x30x9H	89	110	165	25	320	160	280	16x22	10	255
7	120	210	165	115	165	120	120	165	280	N 120x3x30x30x9H	116	120	165	30	370	180	320	16x26	10	300
8	130	250	195	125	195	130	130	195	285	N 120x3x30x30x9H	114	130	195	30	390	190	340	16x26	10	300
9	140	250	205	135	205	140	145	205	300	N 140x3x30x45x9H	134	145	205	36	430	220	380	20x26	12	350
10	160	300	235	150	235	150	155	235	350	N 140x3x30x45x9H	134	155	235	38	470	240	420	22x26	12	350
11	170	300	270	165	270	165	170	270	400	N 170x5x30x32x9H	160	170	270	42	510	260	480	18x33	12	400
12	180	300	270	180	270	180	185	270	405	N 170x5x30x32x9H	160	185	270	42	540	280	480	22x33	12	400

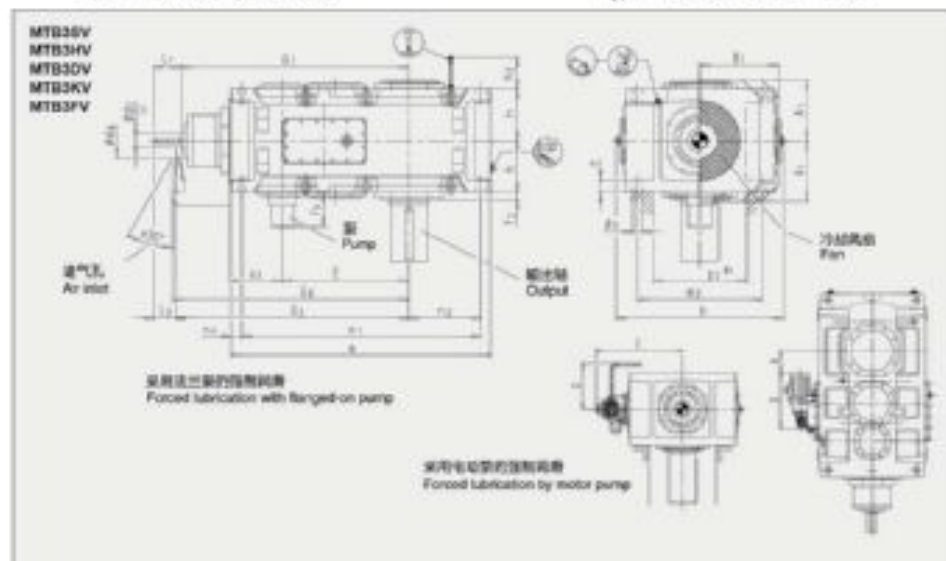
规格 Size	润滑油量 / Oil quantity 升 / L		重量 / Weight kg		冷却水管 / Cooling coil		规格 Size				
	浸油润滑 Dip lubrication	强制润滑 Forced lubrication	MTB33HV MTB33DV MTB33V	MTB33FV	冷却水管接口尺寸 G1/2" Water connection for cooling coil G1/2"		R_{h1}	R_{h2}	R_{h3}	R_{h4}	l_{h1}
4	20	-	210	-	冷却水管适用于淡水、海水和含有颗粒的水 Cooling coil suitable for fresh, sea and brackish water		4	34	140	155	4
5	34	17	325	360	冷却水管适用于淡水、海水和含有颗粒的水 Cooling coil suitable for fresh, sea and brackish water		5	66	168	170	4
6	36	18	360	420	冷却水管适用于淡水、海水和含有颗粒的水 Cooling coil suitable for fresh, sea and brackish water		6	75	162	215	4
7	60	30	550	600	冷却水管适用于淡水、海水和含有颗粒的水 Cooling coil suitable for fresh, sea and brackish water		7	100	197	210	4
8	68	34	635	690	冷却水管适用于淡水、海水和含有颗粒的水 Cooling coil suitable for fresh, sea and brackish water		8	100	197	270	4
9	96	48	890	975	冷却水管适用于淡水、海水和含有颗粒的水 Cooling coil suitable for fresh, sea and brackish water		9	140	210	245	8
10	105	52	1020	1110	冷却水管适用于淡水、海水和含有颗粒的水 Cooling coil suitable for fresh, sea and brackish water		10	100	225	295	8
11	155	77	1455	1585	冷却水管适用于淡水、海水和含有颗粒的水 Cooling coil suitable for fresh, sea and brackish water		11	110	285	275	8
12	175	87	1730	1870	冷却水管适用于淡水、海水和含有颗粒的水 Cooling coil suitable for fresh, sea and brackish water		12	200	271	360	8

尺寸/mm为毫米
Dimensions in mm

- 轴:
 - MT 5-950, mt 6-950
 - 键槽按 GB/T 1095-1979
 - 有关键槽位置 363-372 页
- 冷却水管:
 - 采用 G1/2 英寸管
 - 布置形式 A、B 和 C 不能采用法兰泵强制润滑
- 法兰: 法兰和轴套所需的空孔尺寸, 见详细尺寸图, 请与供应商联系
- 对空心轴减速机有布置形式 A 和 D 的要求
- 参考图
- 未经过测试

齿轮箱 Three Stage / 立式安装
Type MTB3.V / 规格 13-22

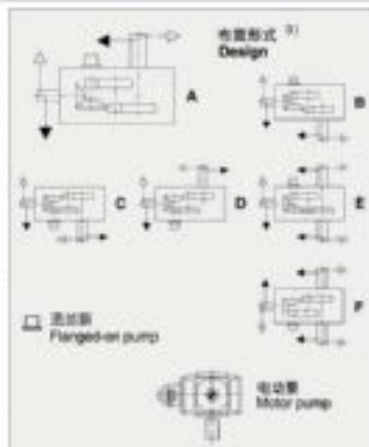
Gear Units Three Stage / Vertical
Type MTB3.V / Sizes 13-22



规格 Size	输入轴 / Input										冷却风扇 / Fan		
	$n_1 = 12.5 - 45$					$n_1 = 50 - 71$					A_1	B_1	d_1
	d_1	l_1	l_2	l_3	l_4	d_1	l_1	l_2	l_3	G_1			
13	80	165	130	80	140	125	1125	1160	1100	1100	325	475	210
15 + 16	90	165	130	70	140	135	1367	1402	1413	1448	365	520	210
17 + 18	110	205	165	80	170	130	1550	1600	1600	1660	365	570	220
19 + 20	敬请垂询 / On request												
21 + 22	敬请垂询 / On request												

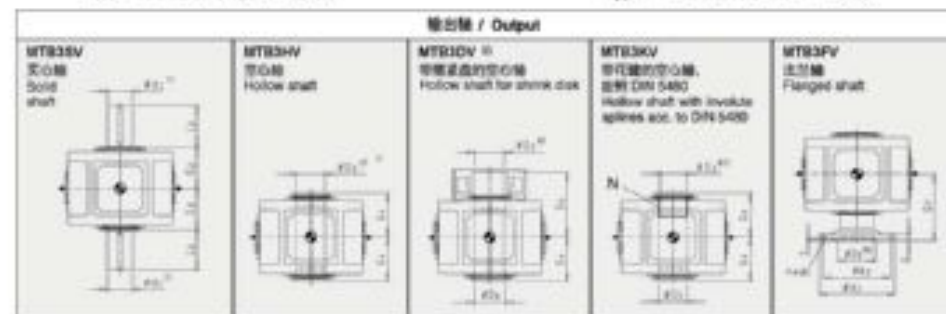
规格 Size	齿轮箱 / Gear units									
	b	c	d_1	l_1	n	n_2	n_3	n_4	n_5	θ
13 + 14	800	81 ± 2	265	35	272.5	300	680	80	500	48
15 + 16	880	72 ± 2	320	42	310	340	750	60	570	55
17 + 18	1110	81 ± 2	370	42	340	380	850	70	630	55
19 + 20	敬请垂询 / On request									
21 + 22	敬请垂询 / On request									

规格 Size	齿轮箱 / Gear units										电动机 / Motor pump					
	a	E	G_1	m_1	l_1	l_2	l_3	l_4	A	B	C	D	l_1	l_2	l_3	l_4
13	1290	635	1180	1185	360											
14	1430	795	1250	1335	430											
15	1550	762	1420	1435	430											
16	1640	808	1470	1525	475											
17	1740	860	1520	1610	465											
18	1860	820	1680	1730	525											
19 + 20	敬请垂询 / On request															
21 + 22	敬请垂询 / On request															



齿轮箱 Three Stage / 立式安装
Type MTB3.V / 规格 13-22

Gear Units Three Stage / Vertical
Type MTB3.V / Sizes 13-22



规格 Size	MTB3SV		MTB3HV		MTB3DV		MTB3KV				MTB3FV									
	d_1	l_1	D_1	G_1	D_2	D_3	G_4	G_5	N / DIN 5480	D_2	D_3	G_4	e	d_2	D_2	$n \times s$	t	G_7		
13	200	350	335	190	335	190	195	335	480	N 190x5x30x36x9H	180	195	335	48	580	310	500	25 x 33	14	480
14	210	350	335	210	335	210	215	335	480	N 190x5x30x36x9H	180	215	335	48	620	310	540	24 x 33	14	480
15	220	410	380	220	380	220	235	380	550	N 220x5x30x42x9H	210	235	380	55	710	360	630	26 x 33	17	550
16	240	410	380	240	380	240	245	380	500	N 220x5x30x42x9H	210	245	380	55	740	360	660	26 x 33	17	500
17	250	410	415	250	415	250	260	415	600	N 250x5x30x48x9H	240	260	415	60	750	410	660	24 x 30	18	600
18	270	470	415	275	415	280	285	415	600	N 250x5x30x48x9H	240	285	415	60	800	410	710	26 x 30	18	600
19 - 22	敬请垂询 / On request																			

规格 Size	冷却液量 Oil quantity (l)	重量 / Weight (kg)	冷却水管 / Cooling coil				规格 Size					
			MTB3SV	MTB3HV	MTB3DV	MTB3KV	Φ_{11}	Φ_{12}	Φ_{13}	Φ_{14}		
13	115	2280	2420	冷却水管接口尺寸 G1/2"				13	252	300	320	8
14	130	2615	2785	Water connection for cooling coil G1/2"				14	252	300	405	8
15	180	3540	3780	冷却水管适用于淡水、海水和腐蚀性液体				15	290	335	385	8
16	195	3785	4020	Cooling coil suitable for fresh, sea and brackish water				16	290	335	440	8
17	260	4780	5050	冷却水量要求, 最大冷却水压力: 8 bar				17	340	380	425	8
18	275	5240	5580	冷却水量要求, 最大冷却水压力: 8 bar				18	340	380	485	8
19 - 22	敬请垂询 / On request											

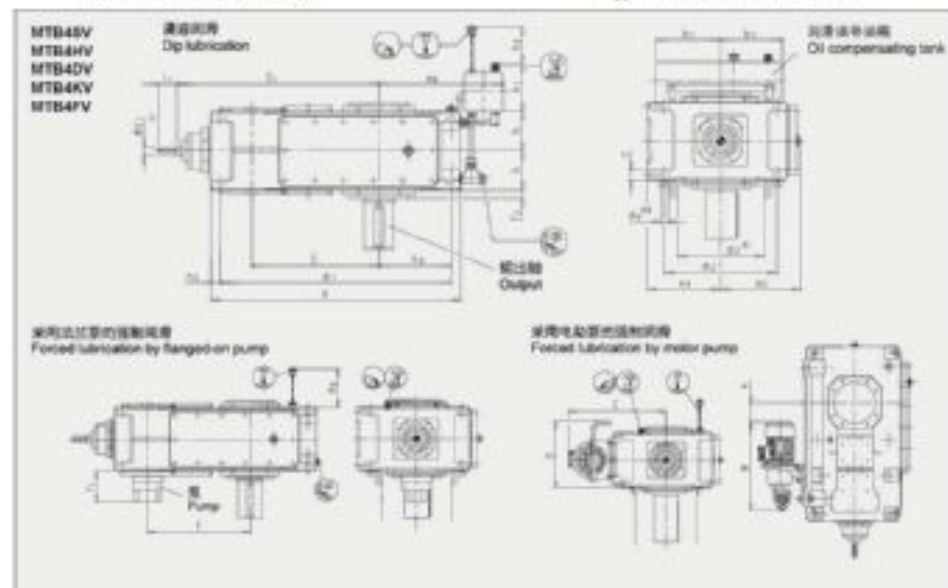
尺寸以mm为单位
Dimensions in mm

- 轴: $\Phi 5 - \Phi 50$, $m6 - \Phi 60$
- 键槽按 GB/T 1095-1979
- 有关零件见第 363-372 页
- 采用冷却水管时:
 - 布置形式 A、B 和 C 不能采用法兰泵强制润滑
 - 油腔、油封和护罩所需的空间尺寸, 见详细尺寸图。
 - 请与我们联系
- 对空心轴减速机布置形式 A 和 D 适用
- 参考图
- 未注公差

1) Shafts
2) Keyway acc. to GB/T 1095-1979
3) For details, see pages 363-372
3) Cooling coil
a) For A, B and C designs, forced lubrication by flanged-on pump not possible
b) Space for pump, pipes and cover, for exact dimensions, please refer to us
4) A and D designs for gear units with hollow shaft on request
5) Approximate values
6) Without oil filling

齿轮箱 四极传动 / 立式安装
类型 MTB4.V / 规格 5-12

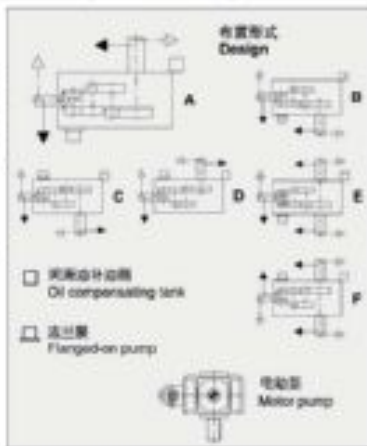
Gear Units Four Stage / Vertical
Type MTB4.V / Sizes 5-12



规格 Size	输入轴 / Input					
	$l_1 = 80 - 180$ $l_2 = 190 - 224$		$l_3 = 200 - 315$ $l_4 = 250 - 400$		D_2	G_2
5 + 6	26	35	20	50	φ15	660
7 + 8	30	70	25	60	725	770
9 + 10	30	80	25	80	840	890
11 + 12	45	100	35	80	1010	1080

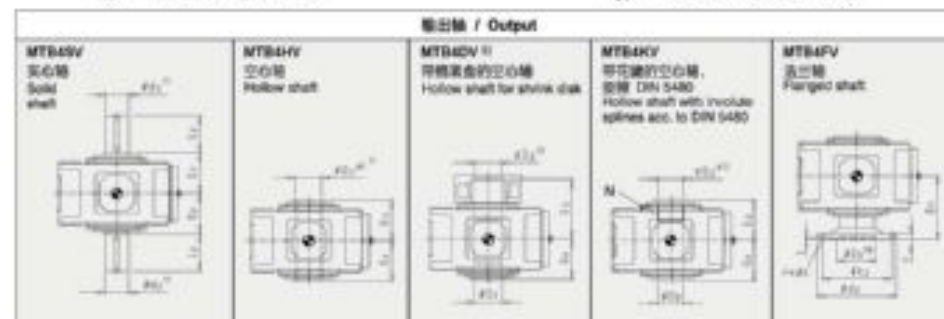
规格 Size	l_1	l_2	l_3	h	h_1	h_2	h_3	h_4	h_5	h_6	h_7
5 + 6	240	30±1	230	127.5	205	190	240	360	36	270	24
7 + 8	240	36±1	260	150	205	165	250	430	36	330	28
9 + 10	330	45±1.5	320	180	275	205	330	490	40	370	36
11 + 12	330	54±1.5	360	215	275	240	340	600	50	440	40

规格 Size	齿轮箱 / Gear units							电动机 / Motor/pump				
	h	h_1	h_2	E	l_1	l_2	l_3	l_4	A	B	C	D
5	690	252	395	495	28	630	175					
6	770	252	425	440	28	710	220					
7	845	260	425	495	30	775	210					
8	950	300	485	540	30	880	275					
9	1000	340	560	580	30	920	260					
10	1100	340	610	630	30	1020	310					
11	1200	400	695	735	35	1105	290					
12	1350	410	690	775	35	1255	360					



齿轮箱 四极传动 / 立式安装
类型 MTB4.V / 规格 5-12

Gear Units Four Stage / Vertical
Type MTB4.V / Sizes 5-12



规格 Size	MTB45V		MTB46V		MTB47V		MTB48V		MTB49V				MTB41V							
	d_1	l_1	D_1	G_1	D_2	D_3	G_2	G_3	N / DIN 5480	D_4	D_5	G_4	z	d_6	D_6	h_6	$n \times s$	t	G_7	
5	100	270	165	95	165	100	100	165	240	N 95x30x30x30x9H	69	100	165	25	300	150	250	16x22	10	255
6	110	270	165	105	165	110	110	165	240	N 95x30x30x30x9H	69	110	165	25	320	160	260	18x22	10	255
7	120	270	185	115	185	120	120	185	280	M 120x30x30x38x9H	114	120	185	30	370	180	320	18x26	10	300
8	130	280	185	125	195	130	130	195	280	M 120x30x30x38x9H	114	130	195	30	390	190	340	18x26	10	300
9	140	290	235	135	235	140	140	235	330	M 140x30x30x45x9H	134	140	235	38	430	220	380	20x26	12	350
10	160	300	235	150	235	150	150	235	350	M 140x30x30x45x9H	134	150	235	38	470	240	420	22x26	12	350
11	170	300	270	165	270	160	170	270	400	M 170x30x30x32x9H	160	170	270	42	510	300	400	18x30	12	400
12	180	300	270	180	270	180	185	270	405	M 170x30x30x32x9H	160	185	270	42	540	280	460	22x30	12	400

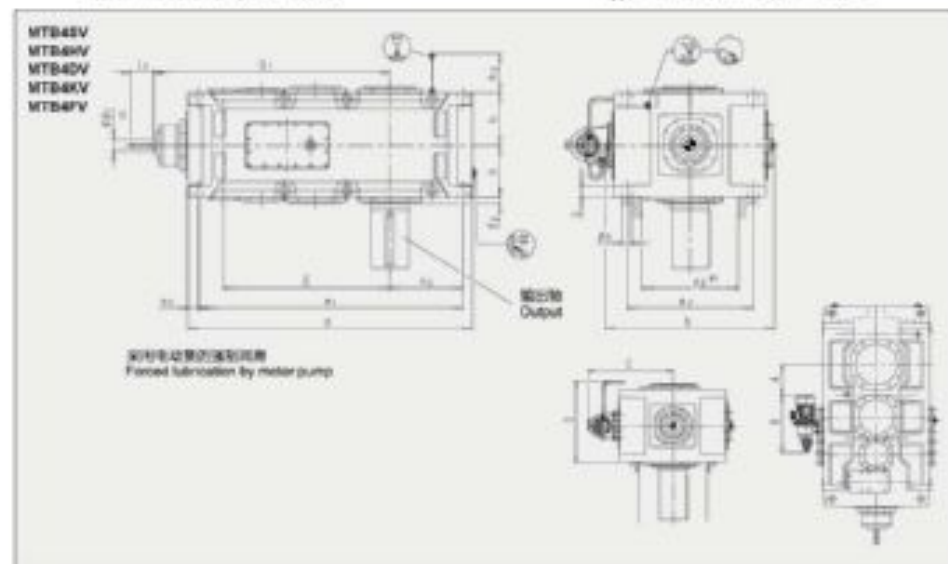
规格 Size	润滑油量 Oil quantity (l)		重量 Weight (kg)	
	浸油润滑 Dip lubrication	强制润滑 Forced lubrication	MTB46V/ MTB49V/ MTB47V/ MTB48V	MTB41V
5	26	16	336	375
6	40	20	365	425
7	65	32	555	605
8	73	36	655	710
9	105	52	890	975
10	110	55	1025	1135
11	175	87	1485	1615
12	200	100	1760	1890

尺寸以mm为单位
 1) 轴：
 • A5 ≤ φ50, n5 = φ50
 • 轴槽按 GB/T1059-1979
 • 有关键孔按 363-372 页
 4) 油池、油腔和泵所需的空间尺寸，请了解详细尺寸，请与本公司联系
 5) 对空心轴端盖的布置形式 A 和 D 请参照
 *) 参考值
 **) 不含油位

Dimensions in mm
 1) Shafts:
 • A5 ≤ φ50, n5 = φ50
 • Keyway acc. to GB/T 1059-1979
 • For details, see pages 363, 372
 4) Space for pump, pipes and cover, for exact dimensions, please refer to us
 5) A and D designs for gear units with hollow shaft on request
 *) Approximate values
 **) Without oil filling

齿轮箱 四阶段/立式安装
类型 MTB4.V / 规格 13-22

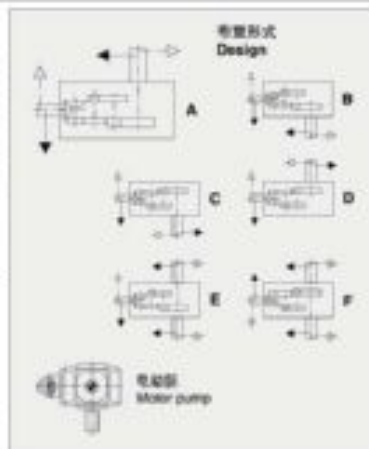
Gear Units Four Stage / Vertical
Type MTB4.V / Sizes 13-22



规格 Size	输入轴 / Input						G ₁	G ₂
	I ₁ = 80 - 180		I ₁ = 200 - 315		d ₁	l ₁		
	d ₁	l ₁	d ₂	l ₂				
13 + 14	85	110	40	90	1170	1210		
15 + 16	70	135	50	110	1402	1440		
17 + 18	70	135	50	110	1480	1510		
19 + 20	数据提供 / On request							
21 + 22	数据提供 / On request							

规格 Size	齿轮箱 / Gear units							
	b	c	h	h ₂	r ₂	r ₁	P ₂	s
13 + 14	900	81 ± 2	272.5	300	680	90	500	48
15 + 16	980	72 ± 2	310	340	750	60	570	58
17 + 18	1110	81 ± 2	340	374	850	70	630	58
19 + 20	数据提供 / On request							
21 + 22	数据提供 / On request							

规格 Size	齿轮箱 / Gear units				电动机 / Motor pump			
	s	E	h ₂	r ₂	A	B	C	D
13	1395	820	35	1300	360			
14	1530	890	35	1440	430			
15	1680	967	42	1585	430			
16	1770	1033	42	1655	475			
17	1770	1035	42	1640	480			
18	1890	1095	42	1790	525			
19 + 20	数据提供 / On request							
21 + 22	数据提供 / On request							



齿轮箱 四阶段/立式安装
类型 MTB4.V / 规格 13-22

Gear Units Four Stage / Vertical
Type MTB4.V / Sizes 13-22



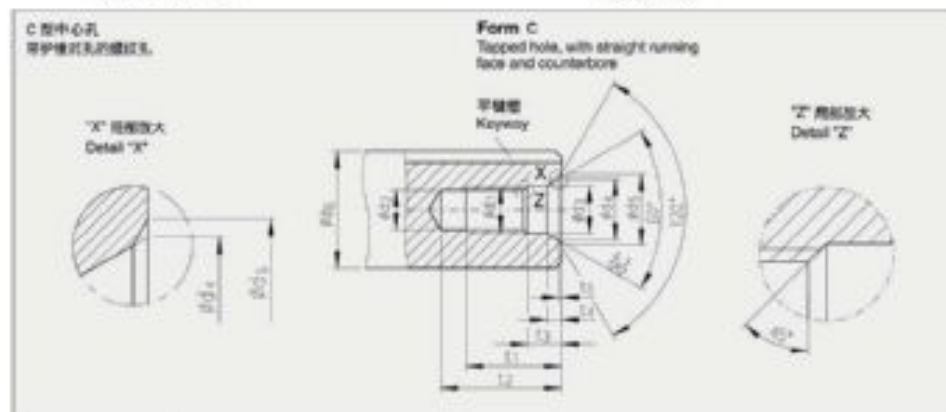
规格 Size	MTB45V	MTB46V	MTB47V	MTB48V				MTB49V		
	d ₂	l ₂	G ₂	D ₂	G ₂	D ₃	G ₃	G ₄	G ₅	
13	200	350	335	190	335	190	195	335	480	
14	210	390	335	210	335	210	215	335	480	
15	230	410	380	230	380	230	235	380	550	
16	240	410	380	240	380	240	245	380	550	
17	250	410	415	250	415	250	260	415	600	
18	270	470	415	275	415	280	285	415	600	
19 - 22	数据提供 / On request									

规格 Size	润滑油量 Oil quantity (l) ¹⁾	重量 Weight (kg) ²⁾		
		MTB45V	MTB46V	MTB49V
13	130	2280	2440	
14	150	2925	2775	
15	210	3435	3675	
16	220	3765	4020	
17	270	4480	4760	
18	285	4930	5280	
19 - 22	数据提供 / On request			

- 尺寸/Dimensions单位
- 1) 注:
 - 油 5 950, 油 6 950
 - 详细使用 G8/T1095-1079
 - 有关尺寸位置 363-372 页
 - 2) 油腔、油室和护罩所留的空间尺寸, 定了详细尺寸, 请与我们联系
 - 3) 对空心轴提供有布置形式 A 和 D 的选项
 - *) 参考图
 - **) 未注油时
- Dimensions in mm
- 1) Shafts:
 - oil 5 950, oil 6 950
 - Keyway acc. to G8/T 1095-1079
 - For details, see pages 363-372
 - 2) Space for pump, pipes and cover, for exact dimensions, please refer to us
 - 3) A and D designs for gear units with hollow shaft on request
 - *) Approximate values
 - **) Without oil filling

齿轮箱 C型轴伸中心孔 按照 GB145-1985

Gear Units Centre Holes, Form C in Shaft Ends GB145-1985



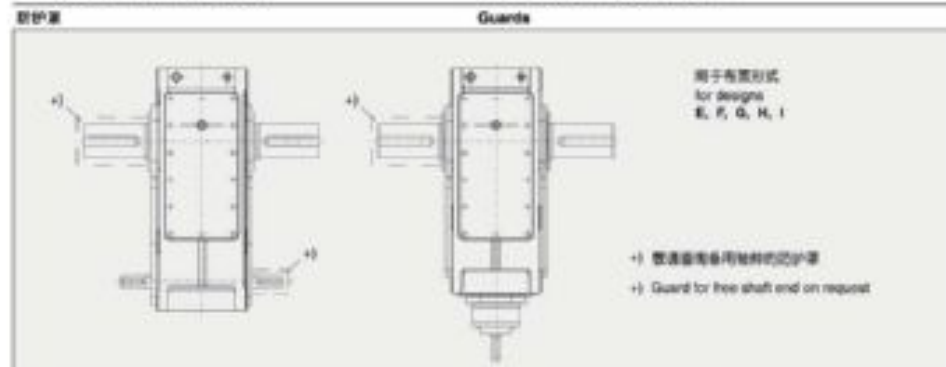
推荐直径范围 Recommended diameters d_6 1)		C型 / Form C												
大于 above mm	至 to mm	C型 中心孔 Centering	d_1	d_2	d_3	d_4	d_5	d_6	l_1 +2	l_2 min.	l_3 max.	l_4 +1	l_5 -	l_6 -
16	21	C 6	M 6	5	6.4	9.6	10.5	16	20	22	5	2.8	0.4	
21	24	C 8	M 8	6.8	8.4	12.2	13.2	19	25	28	6	3.3	0.4	
24	30	C 10	M 10	8.5	11.5	14.9	16.3	22	30	34	7.5	3.8	0.6	
30	38	C 12	M 12	10.2	13	18.1	19.8	28	37	42	9.5	4.4	0.7	
38	50	C 16	M 16	14	17	23	25.3	36	45	50	12	5.2	1.0	
50	65	C 20	M 20	17.5	21	28.4	31.3	42	53	59	15	6.4	1.3	
65	130	C 24	M 24	21	26	34.2	38	50	63	68	18	8	1.6	
130*	225*	C 30	M 30*	26.5	31	44	48	60	77	83	17	11	1.9	
225*	320*	C 36	M 36*	32	37	55	60	74	93	99	22	15	2.3	
320*	500*	C 42	M 42*	37.5	43	65	71	84	105	111	26	19	2.7	

1) 工作加工直径公差

1) Diameter of the finished work piece

*) 不是按照 GB145-1985 规定的尺寸

*) Dimensions not acc. to GB145-1985

用于布置形式
for designs
E, F, G, H, I

→ 减速器箱体用轴伸的防护罩

→ Guard for free shaft end on request

齿轮箱 ISO 配合精度的选择 平键和平键槽

Gear Units Selection of ISO Fits Parallel Keys and Keyways

ISO 配合精度的选择 Selection of ISO fits	轴 / Shaft d		轴公差 Shaft tolerance	孔公差 Bore tolerance
	大于 above mm	至 to mm		
轴公差按照公司标准 Shaft tolerance acc. to standards of our company		50	H6	H7
	50		m6	

对于重载工作条件, 如带地反回轴, 建议采用比标准值的配合, 如轴键槽宽度公差选择 ISO P9 公差等级

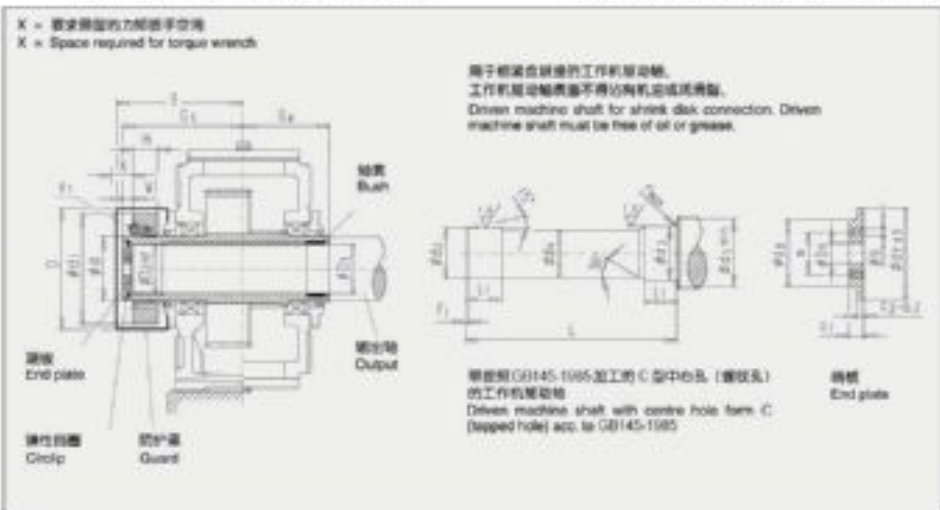
For heavy-duty operating conditions, e.g. reversing under load, it is recommended that a tighter fit and for hub keyway with the ISO P9 tolerance is selected

平键 / Parallel keys						
平键键的方式, 采用无锥度直键 Drive type featuring without taper action	直径 Diameter d		键宽 Width b	键高 Height h	键槽深度 Depth of keyway in shaft l_1	键槽键槽深度 Depth of keyway in hub $d + l_2$ GB/T1305-1970
	大于 above mm	至 to mm				
平键和平键槽按照 GB/T 1305-1970 Parallel key and keyway acc. to GB/T 1305-1970	17	22	6	6	3.5	$d + 2.8$
	22	30	8	7	4	$d + 3.3$
	30	38	10	8	5	$d + 3.3$
	38	44	12	8	5	$d + 3.3$
	44	50	14	9	5.5	$d + 3.8$
	50	58	16	10	6	$d + 4.3$
	58	65	18	11	7	$d + 4.4$
	65	75	20	12	7.5	$d + 4.9$
	75	85	22	14	9	$d + 5.4$
	85	95	25	14	9	$d + 5.4$
	95	110	28	16	10	$d + 6.4$
	110	130	32	18	11	$d + 7.4$
	130	160	36	20	12	$d + 8.4$
	160	175	40	22	13	$d + 9.4$
	170	200	45	25	15	$d + 10.4$
	200	230	50	28	17	$d + 11.4$
	230	260	56	30	20	$d + 12.4$
	260	290	63	32	20	$d + 12.4$
	290	320	70	36	22	$d + 14.4$
	320	380	80	40	25	$d + 15.4$
	380	440	90	45	28	$d + 17.4$

1) 无锥平键键宽公差 b 的公差等级按 GB/T1305 确定, 重载条件下按 ISO P9 确定。1) The tolerance zone for the hub keyway width b for parallel keys is ISO J8, or ISO P9 for heavy-duty operating conditions.

齿轮箱 带安装盘的空心轴
类型 MTH2, MTH3, MTH4, MTB3, MTB4 / 规格 4-26

Gear Units Hollow Shaft for Shrink Disks
Types MTH2, MTH3, MTH4, MTB3, MTB4 / Sizes 4-26



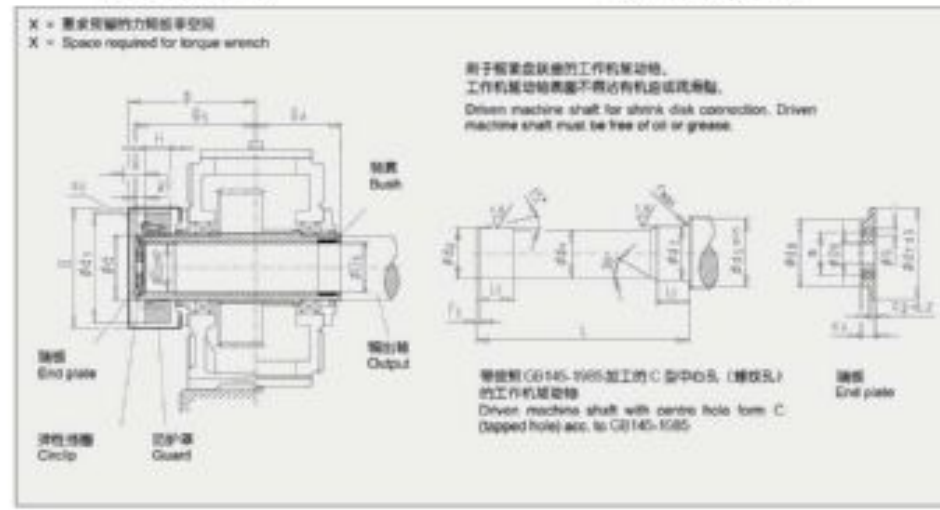
类型 / Types MTH2D, MTH3D, MTH4D, MTB3D, MTB4D

齿轮箱规格 Gear unit size	工件驱动轴 ¹⁾ Driven machine shaft							端板 End plate		弹性挡圈 Circlip	空心轴 Hollow shaft	收缩盘 Shrink disk				螺钉 Screw	防护罩 Guard											
	d ₂	d ₃	d ₄	d ₅	f ₁	f ₂	f ₃	c ₁	c ₂			d ₆	d ₇	d ₈	H			W	s ₁	D	g							
4	85 g8	95-10	94.5	95.4	325	45	2	17	7	90	70	22	30	M 8	2	80 x 3	85	80	140	205	110-32	116	185	81	20	M 12	230	229
5	100 g8	100-10	99.5	114.5	385	53	2	20	8	105	80	26	35	M 10	2	105 x 4	100	100	160	240	125-32	125	215	95	20	M 12	275	280
6	110 g8	110-10	109.5	124.5	385	58	3	20	8	115	85	26	35	M 10	2	115 x 4	110	110	160	240	140-32	140	230	81	20	M 14	285	285
7	120 g8	120-10	119.5	134.5	453	68	3	20	8	125	90	26	35	M 10	2	125 x 4	120	120	180	280	155-32	155	260	84	23	M 14	300	305
8	130 g8	130-10	129.5	149.5	458	73	3	20	8	130	100	26	70	M 12	2	130 x 4	130	130	180	280	165-32	165	290	70	23	M 16	340	340
9	140 g8	140-10	139.5	160.5	520	82	4	23	10	150	110	33	80	M 12	2	150 x 4	140	140	230	320	175-32	175	300	71	28	M 16	360	365
10	150 g8	150-10	149.5	170.5	559	92	4	23	10	160	120	33	90	M 12	2	160 x 4	150	150	230	320	200-32	200	340	87	28	M 16	380	380
11	160 g8	170-10	164.5	185.7	644	112	4	23	10	175	130	33	90	M 12	2	175 x 4	160	170	270	400	220-32	220	370	103	30	M 20	435	430
12	180 g8	180-10	179.5	200.7	649	122	4	23	10	190	140	33	100	M 16	2	190 x 4	180	180	270	420	240-32	240	400	107	30	M 20	450	430
13	190 g8	195-10	189.5	213.7	789	137	5	23	10	200	150	33	110	M 16	2	200 x 4	190	190	330	480	260-32	260	430	119	30	M 20	500	508
14	210 g8	210-10	209.5	233.6	794	147	5	28	14	220	170	33	130	M 16	2	220 x 5	210	215	330	480	280-32	280	490	130	30	M 20	525	525
15	230 g8	230-10	229.5	253.6	899	157	5	28	14	240	180	38	140	M 16	2	240 x 5	230	230	380	580	300-32	300	485	140	35	M 24	575	575
16	240 g8	240-10	239.5	263.6	899	157	5	28	14	250	190	38	150	M 20	2	250 x 5	240	245	380	580	320-32	320	520	140	35	M 24	595	575
17	250 g8	260-10	249.5	273.6	962	177	5	30	14	260	200	38	160	M 20	2	265 x 5	250	260	415	600	340-32	340	570	155	35	M 24	615	630
18	260 g8	260-10	279.5	306.9	962	177	5	30	14	280	210	38	160	M 20	2	290 x 5	260	265	415	600	360-32	360	590	162	35	M 24	630	625
19	285 g8	290-10	284.5	316.9	1100	187	5	32	15	300	220	38	170	M 24	2	300 x 5	285	290	460	670	380-32	380	640	166	40	M 27	—	—
20	310 g8	315-10	309.5	336.9	1100	187	5	32	15	320	230	38	180	M 24	2	320 x 6	310	315	460	670	390-32	390	650	166	40	M 27	—	—
21	330 g8	335-10	329.5	356.9	1180	203	6	40	20	340	240	45	190	M 24	2	340 x 6	330	338	490	710	420-32	420	670	186	45	M 27	—	—
22	340 g8	340-10	339.5	366.9	1170	215	6	40	20	360	260	45	200	M 24	2	360 x 6	340	345	490	720	440-32	440	720	194	45	M 27	—	—

1) 收缩盘不在供货范围之内, 如需单独订购, 请单独订购。
2) 工件驱动轴材料为 60 或强度更高的材料。
1) Shrink disk does not belong to our scope of supply. Please order separately, if required.
2) Material of driven machine shaft: 60 or higher strength.

齿轮箱 带安装盘的空心轴
类型 MTB2 / 规格 4-18

Gear Units Hollow Shaft for Shrink Disks
Types MTB2 / Sizes 4-18



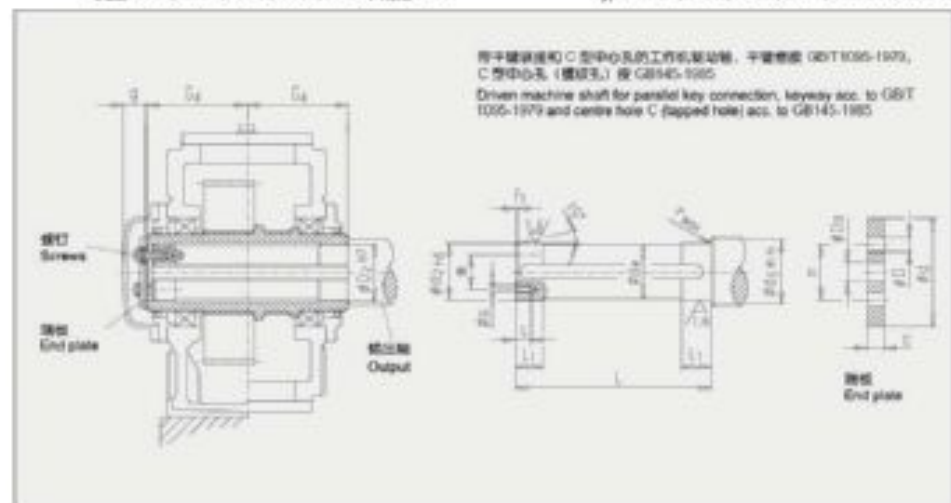
类型 / Types MTB2D

齿轮箱规格 Gear unit size	工件驱动轴 ¹⁾ Driven machine shaft							端板 End plate		弹性挡圈 Circlip	空心轴 Hollow shaft	收缩盘 Shrink disk				螺钉 Screw	防护罩 Guard											
	d ₂	d ₃	d ₄	d ₅	f ₁	f ₂	f ₃	c ₁	c ₂			d ₆	d ₇	d ₈	H			W	s ₁	D	g							
4	85 g8	95-10	94.5	95.4	356	45	2	17	7	90	70	22	30	M 8	2	80 x 3	85	85	170	235	110-32	110	185	81	20	M 12	235	235
5	100 g8	100-10	99.5	114.5	403	53	2	20	8	105	80	26	35	M 10	2	105 x 4	100	100	200	275	120-32	120	215	95	20	M 12	275	280
6	110 g8	110-10	109.5	124.5	453	58	3	20	8	115	85	26	35	M 10	2	115 x 4	110	110	200	275	140-32	140	230	81	20	M 14	285	285
7	120 g8	120-10	119.5	134.5	533	68	3	20	8	125	90	26	35	M 12	2	125 x 4	120	120	235	320	155-32	155	260	84	23	M 14	330	345
8	130 g8	130-10	129.5	149.5	536	73	3	20	8	130	100	26	70	M 12	2	135 x 4	130	130	235	325	165-32	165	290	70	23	M 16	340	345
9	140 g8	140-10	139.5	160.5	609	82	4	23	10	150	110	33	80	M 12	2	150 x 4	140	140	270	365	175-32	175	300	71	28	M 16	360	360
10	150 g8	150-10	149.5	170.5	629	92	4	23	10	160	120	33	90	M 12	2	160 x 4	150	150	270	385	200-32	200	340	87	28	M 16	385	400
11	160 g8	170-10	164.5	185.7	744	112	4	23	10	175	130	33	90	M 12	2	175 x 4	160	170	320	450	220-32	220	370	103	30	M 20	435	470
12	180 g8	180-10	179.5	200.7	748	122	4	23	10	190	140	33	100	M 16	2	190 x 4	180	180	320	490	240-32	240	400	107	30	M 20	450	470
14	210 g8	215-10	209.5	233.6	894	147	5	28	14	220	170	33	130	M 16	2	220 x 5	210	215	390	530	280-32	280	480	132	30	M 20	525	555
16	240 g8	245-10	239.5	263.6	1039	157	5	28	14	250	190	38	150	M 20	2	250 x 5	240	245	480	620	320-32	320	520	140	35	M 24	595	645
18	280 g8	285-10	279.5	306.9	1077	177	5	30	14	290	210	38	160	M 20	2	290 x 5	280	285	510	700	360-32	360	580	162	35	M 24	630	725

1) 收缩盘不在供货范围之内, 如需单独订购, 请单独订购。
2) 工件驱动轴材料为 60 或强度更高的材料。
1) Shrink disk does not belong to our scope of supply. Please order separately, if required.
2) Material of driven machine shaft: 60 or higher strength.

齿轮箱 带平键联接的空心轴

类型 MTH2, MTH3, MTH4, MTB3, MTB4 / 规格 4-18



类型 / Types MTH2H, MTH3H, MTH4H, MTB3H, MTB4H

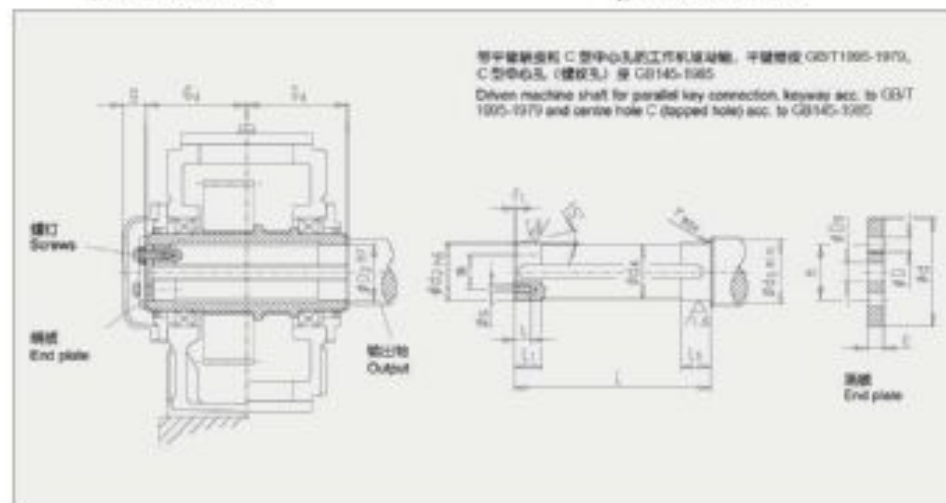
齿轮箱规格 Gear unit size	工作机轴轴径 ¹⁾ Driver machine shaft										端板 End plate				螺钉 Screw		空心轴 Hollow shaft		
	d ₂	d ₄	d ₅	f ₁	l	l ₁	f	s	i	s	D	D ₁	s	m	规格 Size	数量 Qty.	D ₂	G ₄	g
	mm																mm		
4	80	79.5	88	4	278	35	1.2	M10	18	10	11	22	100	80	M10 x 25	2	80	140	35
5	95	94.5	105	5	328	40	1.6	M10	18	10	11	20	120	70	M10 x 25	2	95	185	40
6	105	104.5	118	5	328	45	1.6	M10	18	10	11	26	120	70	M10 x 25	2	105	185	40
7	115	114.5	126	5	368	50	1.6	M12	20	12	13.5	26	140	80	M12 x 30	2	115	195	40
8	125	124.5	136	6	368	55	2.5	M12	20	12	13.5	26	150	85	M12 x 30	2	125	195	40
9	135	134.5	147	6	467	60	2.5	M12	20	12	13.5	33	160	90	M12 x 30	2	135	235	45
10	150	149.5	162	6	467	65	2.5	M12	20	12	13.5	33	165	110	M12 x 30	2	150	235	45
11	165	164.5	177	7	537	70	2.5	M16	28	15	17.5	33	195	120	M16 x 40	2	165	270	45
12	180	179.5	192	7	537	75	2.5	M16	28	15	17.5	33	220	130	M16 x 40	2	180	270	45
13	190	189.5	206	7	667	80	3	M16	28	18	17.5	33	230	140	M16 x 40	2	190	335	45
14	210	209.5	226	8	667	85	3	M16	28	18	17.5	33	250	160	M16 x 40	2	210	335	45
15	230	229.5	248	8	756	100	3	M20	38	25	22	39	270	180	M20 x 55	4	230	380	60
16	240	239.5	258	8	756	100	3	M20	38	25	22	39	280	180	M20 x 55	4	240	380	60
17	250	249.5	270	8	826	110	4	M20	38	25	22	39	300	190	M20 x 55	4	250	415	60
18	275	274.5	295	9	826	120	4	M20	38	25	22	39	330	210	M20 x 55	4	275	415	60

1) 工作机轴轴径材料为 40 或同等强度的材料。
平键不在供货范围之内, 如需请另行订购。

1) Material of driven machine shaft: 40 or higher strength.
Parallel key does not belong to our scope of supply.
Please order separately, if required.

齿轮箱 带平键联接的空心轴

类型 MTB2 / 规格 4-18



类型 / Types MTB2H

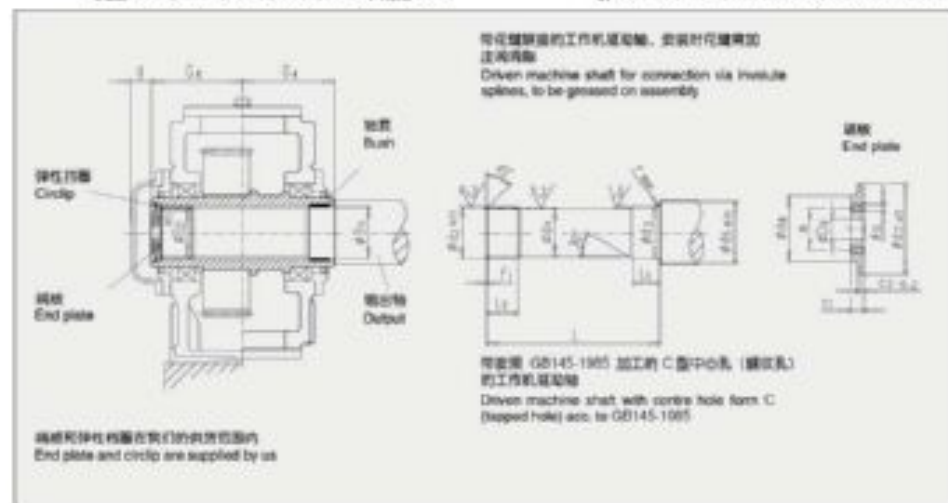
齿轮箱规格 Gear unit size	工作机轴轴径 ¹⁾ Driver machine shaft										端板 End plate				螺钉 Screw		空心轴 Hollow shaft		
	d ₂	d ₄	d ₅	f ₁	l	l ₁	f	s	i	s	D	D ₁	s	m	规格 Size	数量 Qty.	D ₂	G ₄	g
	mm																mm		
4	80	79.5	88	4	238	38	1.2	M10	18	10	11	22	100	80	M10 x 25	2	80	170	35
5	95	94.5	105	5	298	40	1.6	M10	18	10	11	20	120	70	M10 x 25	2	95	200	40
6	105	104.5	118	5	298	45	1.6	M10	18	10	11	26	120	70	M10 x 25	2	105	200	40
7	115	114.5	126	5	468	50	1.6	M12	20	12	13.5	26	140	80	M12 x 30	2	115	235	40
8	125	124.5	136	6	468	55	2.5	M12	20	12	13.5	26	150	85	M12 x 30	2	125	235	40
9	135	134.5	147	6	537	60	2.5	M12	20	12	13.5	33	160	90	M12 x 30	2	135	270	45
10	150	149.5	162	6	537	65	2.5	M12	20	12	13.5	33	165	110	M12 x 30	2	150	270	45
11	165	164.5	177	7	637	70	2.5	M16	28	15	17.5	33	195	120	M16 x 40	2	165	320	45
12	180	179.5	192	7	637	75	2.5	M16	28	15	17.5	33	220	130	M16 x 40	2	180	320	45
14	210	209.5	226	8	777	85	3	M16	28	18	17.5	33	250	160	M16 x 40	2	210	390	45
16	240	239.5	258	8	896	100	3	M20	38	25	22	39	280	180	M20 x 55	4	240	450	60
18	275	274.5	295	9	1016	120	4	M20	38	25	22	39	330	210	M20 x 55	4	275	510	60

1) 工作机轴轴径材料为 40 或同等强度的材料。
平键不在供货范围之内, 如需请另行订购。

1) Material of driven machine shaft: 40 or higher strength.
Parallel key does not belong to our scope of supply.
Please order separately, if required.

齿轮箱 带花键 (按照 DIN 5480) 的空心轴
类型 MTH2, MTH3, MTH4, MTB3, MTB4 / 规格 5-26

Gear Units Hollow Shaft with Involute Splines acc. to DIN 5480
Types MTH2, MTH3, MTH4, MTB3, MTB4 / Sizes 5-26



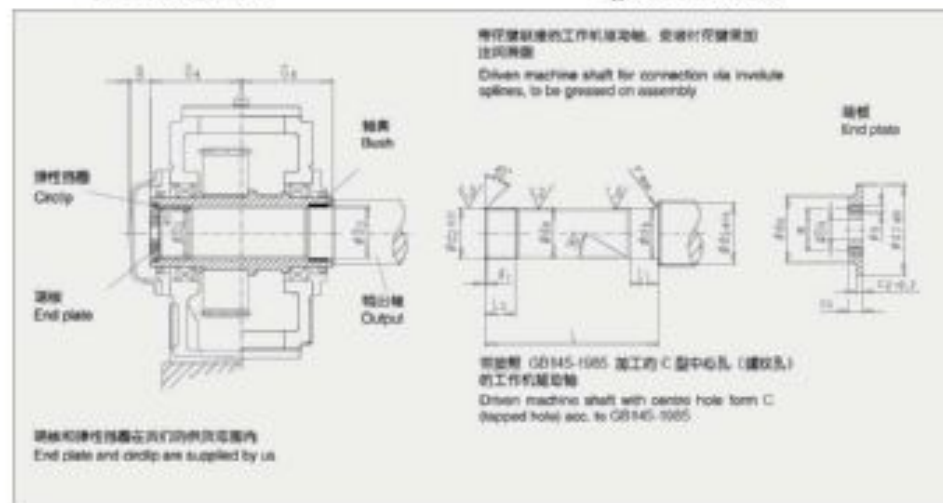
端板和弹性挡圈由我们提供
End plate and circlip are supplied by us

带花键轴的工作机驱动轴, 安装时花键轴加注润滑油
Driven machine shaft for connection via involute splines, to be greased on assembly

带花键 (GB145-1985 加工的 C 型中心孔 (键纹孔)) 的工作机驱动轴
Driven machine shaft with spline hole form C (stepped hole) acc. to GB145-1985

齿轮箱 带花键 (按照 DIN 5480) 的空心轴
类型 MTB2 / 规格 5-18

Gear Units Hollow Shaft with Involute Splines acc. to DIN 5480
Types MTB2 / Sizes 5-18



端板和弹性挡圈由我们提供
End plate and circlip are supplied by us

带花键轴的工作机驱动轴, 安装时花键轴加注润滑油
Driven machine shaft for connection via involute splines, to be greased on assembly

带花键 (GB145-1985 加工的 C 型中心孔 (键纹孔)) 的工作机驱动轴
Driven machine shaft with spline hole form C (stepped hole) acc. to GB145-1985

类型 / Types MTH2K, MTH3K, MTH4K, MTB3K, MTB4K

齿轮箱规格 Gear unit size	展开花键 Involute splines DIN 5480	工作机驱动轴 ¹⁾ Driven machine shaft										端板 End plate				弹性挡圈 Circlip DIN 472	空心轴 Hollow shaft				螺钉 Screw				
		d ₂	d ₃	d ₄	d ₅	f ₁	l ₁	l ₂	z	c ₁	c ₂	d ₆	d ₇	m	s		D ₂	D ₃	D ₄	g					
		mm										mm					mm								
5	W 90x30x30x8f	94.4	100	80	114	3	360	53	90	2	20	8	105	80	26	55	M 10	2	105x4	89	100	160	40	M 24	
6	W 95x30x30x8f	94.4	110	80	124	3	308	58	90	3	20	8	105	80	26	55	M 10	2	105x4	89	110	160	40	M 24	
7	W120x30x30x8f	119.4	120	80	118	134	3	368	68	105	3	20	8	125	90	26	65	M 12	2	125x4	114	120	185	40	M 24
8	W120x30x30x8f	119.4	130	80	118	145	3	368	73	105	3	20	8	125	90	26	65	M 12	2	125x4	114	130	185	40	M 24
9	W140x30x40x8f	130.4	145	80	138	160	3	444	82	125	4	23	10	150	110	33	80	M 12	2	150x4	134	145	235	45	M 30
10	W140x30x40x8f	130.4	155	80	138	170	3	444	92	125	4	23	10	150	110	33	80	M 12	2	150x4	134	155	235	45	M 30
11	W170x30x30x8f	160	175	80	166	185	5	514	112	150	4	23	10	175	130	33	90	M 12	2	175x4	160	175	270	45	M 30
12	W170x30x30x8f	160	185	80	166	200	5	514	122	150	4	23	10	175	130	33	90	M 12	2	175x4	160	185	270	45	M 30
13	W190x30x30x8f	180	195	80	188	215	5	644	137	180	5	23	10	200	150	33	110	M 16	2	200x4	180	195	335	45	M 30
14	W190x30x30x8f	180	215	80	188	235	5	644	147	180	5	23	10	200	150	33	110	M 16	2	200x4	180	215	335	45	M 30
15	W220x30x40x8f	210	235	80	218	250	5	728	157	200	5	28	14	240	180	38	140	M 16	2	240x5	210	235	380	60	M 36
16	W220x30x40x8f	210	245	80	218	265	5	728	167	200	5	28	14	240	180	38	140	M 16	2	240x5	210	245	380	60	M 36
17	W250x30x40x8f	240	265	80	248	270	5	790	177	210	5	30	14	265	200	38	150	M 20	2	265x5	240	265	415	60	M 36
18	W250x30x40x8f	240	285	80	248	305	5	790	187	210	5	30	14	265	200	38	150	M 20	2	265x5	240	285	415	60	M 36
19-26	数据提供 / On request																								

1) 工作机驱动轴材料为 60 或更高强度的钢材。

1) Material of driven machine shaft: 60 or higher strength.

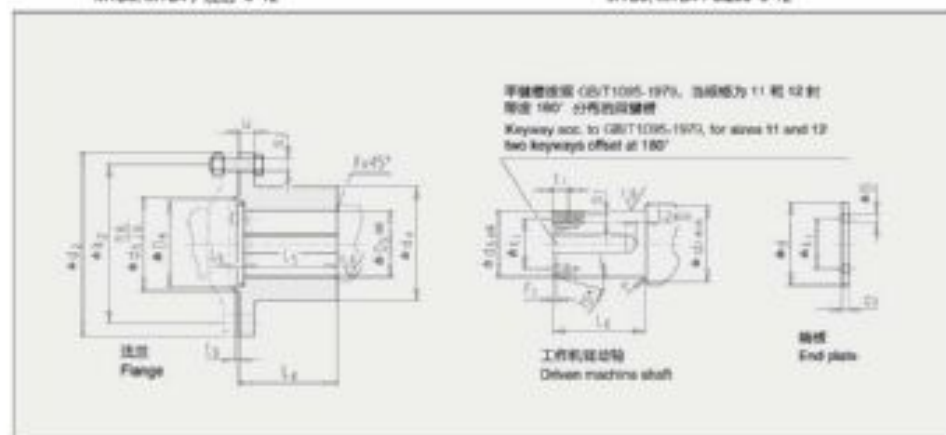
类型 / Types MTB2K

齿轮箱规格 Gear unit size	展开花键 Involute splines DIN 5480	工作机驱动轴 ¹⁾ Driven machine shaft										端板 End plate				弹性挡圈 Circlip DIN 472	空心轴 Hollow shaft				螺钉 Screw				
		d ₂	d ₃	d ₄	d ₅	f ₁	l ₁	l ₂	z	c ₁	c ₂	d ₆	d ₇	m	s		D ₂	D ₃	D ₄	g					
		mm										mm					mm								
5	W 95x30x30x8f	94.4	100	80	93	114	3	378	53	90	2	20	8	105	80	26	55	M 10	2	105x4	89	100	200	40	M 24
6	W 95x30x30x8f	94.4	110	80	93	124	3	378	58	90	3	20	8	105	80	26	55	M 10	2	105x4	89	110	200	40	M 24
7	W120x30x30x8f	119.4	120	80	118	134	3	448	68	105	3	20	8	125	90	26	65	M 12	2	125x4	114	120	235	40	M 24
8	W120x30x30x8f	119.4	130	80	118	145	3	448	73	105	3	20	8	125	90	26	65	M 12	2	125x4	114	130	235	40	M 24
9	W140x30x40x8f	130.4	145	80	138	160	3	514	82	125	4	23	10	150	110	33	80	M 12	2	150x4	134	145	270	45	M 30
10	W140x30x40x8f	130.4	155	80	138	170	3	514	92	125	4	23	10	150	110	33	80	M 12	2	150x4	134	155	270	45	M 30
11	W170x30x30x8f	160	175	80	166	185	5	614	112	150	4	23	10	175	130	33	90	M 12	2	175x4	160	175	320	45	M 30
12	W170x30x30x8f	160	185	80	166	200	5	614	122	150	4	23	10	175	130	33	90	M 12	2	175x4	160	185	320	45	M 30
14	W190x30x30x8f	180	215	80	188	235	5	754	147	180	5	23	10	200	150	33	110	M 16	2	200x4	180	215	380	45	M 30
16	W220x30x40x8f	210	245	80	218	265	5	868	167	200	5	28	14	240	180	38	140	M 16	2	240x5	210	245	450	60	M 36
18	W250x30x40x8f	240	285	80	248	305	5	998	187	210	5	30	14	265	200	38	150	M 20	2	265x5	240	285	510	60	M 36

1) 工作机驱动轴材料为 60 或更高强度的钢材。

1) Material of driven machine shaft: 60 or higher strength.

齿轮箱 与法兰轴连接的减速机

类型 MTH2, MTH3, MTH4, MTB2,
MTB3, MTB4 / 规格 5-12

类型 / Types MTH2F, MTH3F, MTH4F, MTB2F, MTB3F, MTB4F

齿轮箱 规格 Gear unit size	法兰 / Flange											螺栓 ¹⁾ Bolt			重量 Weight kg	
	d ₂	d ₃	d ₄	D ₄	D ₅	f	k ₂	l ₂	l ₃	l ₄	l ₅	u ₂	u ₃	u		规格 Size
5	300	150	190	135	115	2.5	260	16	175	167	M20	8	25	M20 x 70	16	610
6	320	160	210	145	120	2.5	280	22	185	171	M20	8	25	M20 x 70	18	610
7	320	160	230	160	135	2.5	320	21	220	207	M24	8	30	M24 x 90	16	1050
8	380	190	270	175	150	2.5	340	22	220	206	M24	8	30	M24 x 90	18	1050
9	430	220	290	195	160	4.0	380	22	250	238	M24	10	38	M24 x 100	20	1050
10	420	240	310	220	180	4.0	420	22	250	238	M24	10	38	M24 x 100	22	1050
11	510	260	340	230	200	4.0	450	22	290	278	M30	10	42	M30 x 120	18	2100
12	540	280	360	255	210	4.0	480	22	290	278	M30	10	42	M30 x 120	22	2100

齿轮箱 规格 Gear unit size	工作机轴/轴 Driven machine shaft							端板 End plate				螺栓 Bolt		重量 Weight kg		
	d ₂	d ₃	f ₁	k ₁	l ₁	r	u ₁	l ₁	l ₂	e ₁	d	D	k ₁		规格 Size	数量 Qty
5	118	122	2.5	86	165	3	M12	28	7.5	10	130	13.5	90	M12 x 35	4	35
6	130	132	2.5	86	168	2	M16	32	7.5	14	148	17.5	95	M16 x 45	4	45
7	136	147	2.5	96	206	2	M16	32	16	14	166	17.5	95	M16 x 45	4	65
8	150	162	2.5	110	204	2	M16	32	16	16	173	17.5	110	M16 x 45	4	85
9	160	176	4.0	110	235	3	M16	32	16	16	190	17.5	110	M16 x 45	4	115
10	180	196	4.0	145	235	3	M20	38	18	18	215	22	145	M20 x 55	4	130
11	200	216	4.0	140	275	3	M20	38	18	18	230	22	145	M20 x 55	4	175
12	210	230	4.0	160	275	3	M20	38	18	18	250	22	160	M20 x 55	4	200

平行键不在供货范围之内, 如需请另行订购。

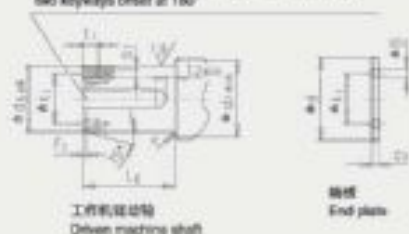
1) 螺栓按 GB5781-88, 强度等级为 10.9 级;

螺母按 GB6170, 强度等级为 10 级。

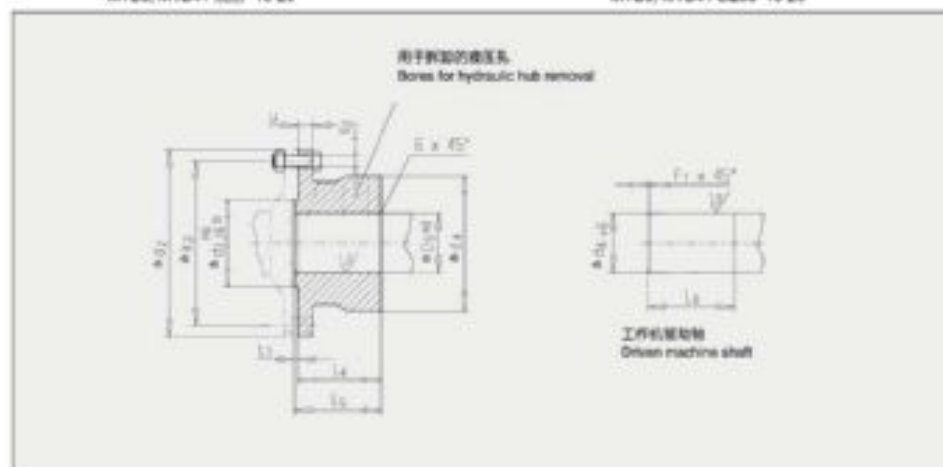
2) 法兰轴端螺栓的拧紧力矩。

法兰和工作机轴的材质为 60 或更高强度的钢材

Gear Units

Counterflanges for Flanged Shafts
Types MTH2, MTH3, MTH4, MTB2,
MTB3, MTB4 / Size 5-12平行键槽按 GB/T 1095-1979, 齿根处为 11 和 12 时
取成 180° 分布的双键槽
Keyway acc. to GB/T 1095-1979, for sizes 11 and 12
two keyways offset at 180°

齿轮箱

与法兰轴连接的减速机
类型 MTH2, MTH3, MTH4, MTB2,
MTB3, MTB4 / 规格 13-26

类型 / Types MTH2F, MTH3F, MTH4F, MTB2F, MTB3F, MTB4F

齿轮箱 规格 Gear unit size	法兰 / Flange											螺栓 ¹⁾ Bolt			工作机轴/轴 Driven machine shaft			重量 Weight kg	
	d ₂	d ₃	d ₄	D ₄	D ₅	f	k ₂	l ₂	l ₃	l ₄	l ₅	u ₂	u ₃	u	规格 Size	数量 Qty	T _k Nm		d ₂
13	580	310	390	240	500	310	323	M30	12	48	M30 x 130	20	2100	240	3	322	235		
14	620	310	420	260	540	345	357	M30	12	48	M30 x 130	24	2100	260	3	357	300		
15	710	360	460	280	630	365	380	M30	15	55	M30 x 140	28	2100	280	3	380	400		
16	740	360	480	300	660	395	410	M30	15	55	M30 x 140	30	2100	300	4	410	450		
17	750	410	520	320	660	420	435	M36	16	60	M36 x 160	24	3500	320	4	435	540		
18	800	410	530	340	710	450	465	M36	16	60	M36 x 160	26	3500	340	4	465	600		

平行键不在供货范围之内, 如需请另行订购。

1) 螺栓按 GB5781-88, 强度等级为 10.9 级;

螺母按 GB6170, 强度等级为 10 级。

2) 法兰轴端螺栓的拧紧力矩。

法兰和工作机轴的材质为 60 或更高强度的钢材

Parallel key does not belong to our scope of supply.

Please order separately, if required.

1) Bolts acc. to GB5781-88, material 10.9.

Nuts acc. to GB6170, material 10.

2) Tightening torque of flange connection bolts.

Material of flanges and driven machine shafts: 60 or higher strength.

如法兰与轴装配时加热至 190 °C,

工作机轴装配在 20 °C。

For assembly, heat counterflange to 190 °C, and

driven machine shaft to 20 °C.

齿轮箱 润滑油选择和润滑保存

齿轮箱可以加注我们认可的厂家生产的润滑油。请向生产厂家索取润滑油目录并对照产品的质量认证。在选择润滑油品种和粘度等级时请以表1中注明的最小粘度或最低工作温度。

表2给出了相应齿轮箱类型和规格的油液供应方式可选方案。最低工作粘度不得小于25 cSt。

表1 / Table 1

40°C 温度下的 ISO-VG 粘度, mm²/s (cSt) Viscosity ISO-VG at 40°C in mm²/s (cSt)	允许的最小温度界限 °C Minimum temperature limit in °C for			
	浸油润滑 Dip lubrication		强制润滑 Forced lubrication	
	矿物油 Mineral oil	合成油 Synthetic oil	矿物油 Mineral oil	合成油 Synthetic oil
VG 220	-15	-25	10	0
VG 320	-12	-25	15	5
VG 460	-9	-25	-	-

浸油润滑:
当采用浸油润滑时, 所有需要润滑的零件均浸在油池中。
所有的补偿都用于补偿油温的膨胀。
选择标准参见表 375 页。
如果油温超过了表中给出的温度值, 则必须对油液进行加热。
在采用浸油润滑时, 油温不得低于所选油的倾点。

强制润滑:
当采用强制润滑时, 所有未浸在油池中的零件均通过一个单独的油泵和管路系统或单独的注油口由单独的注油系统润滑。
选择标准参见表 375 至 376 页。
当采用强制润滑时, 在启动时的工作粘度不得超过 1800 cSt。
如果油温低于表 1 中给出的最低温度值, 则应采用强制润滑方式或必须对油液进行加热。

润滑保存:
齿轮箱的内部防腐与所使用的润滑油密切相关。
已做过防腐处理的齿轮箱可能的存储时间如下:

标准防腐	长效防腐 ¹⁾
可保存至 6 个月	可保存至 24 个月 ²⁾ 可保存至 36 个月 ³⁾

- 不适用于带有迷宫式密封或其他非接触式密封。
- 仅适用于矿物油或 PAO 基的合成油。
- 仅适用于 PG 基的合成油。

当超过上述存储期限时, 必须重新对齿轮箱进行防腐处理。

Gear Units Selection of Oil and Preservation

Gear units may be filled with oils from producers authorized by us, the oil producer or supplier being responsible for the quality of the product. For the selection of oil grade and viscosity, the limits of application given in table 1 are to be taken into consideration.

In table 2 a survey of the possible oil supply variants is given for the respective types and sizes.
A minimum operating viscosity of 25 cSt must be ensured.

Dip lubrication:
In case of dip lubrication, all parts to be lubricated are lying in the oil.
An oil compensating tank has been fitted for oil expansion.
For criteria for selection, see page 375.
If the temperatures are below the values as listed in the table, the oil must be heated.
In case of dip lubrication, the oil temperature must not drop below the gear point of the selected oil.

Forced lubrication:
In case of forced lubrication, all parts not lying in oil are splash lubricated by means of a flanged-on pump or by a separate motor pump.
For criteria for selection, see pages 375 - 379.
In case of forced lubrication, the operating viscosity 1800 cSt must not be exceeded during start-up.
If the temperatures are below the values as listed in table 1, dip lubrication has to be provided or the oil must be heated.

Preservation:
The internal preservation of gear units is dependent on the oil used.
For gear units with corrosion prevention, the following storage times are possible:

Standard preservation	Long-term preservation ¹⁾
up to 6 months	up to 24 months ²⁾ up to 36 months ³⁾

- Not for gear units with labyrinth seals or diaphragm glands.
- Only if mineral oil or synthetic oil on PAO basis is used.
- Only if synthetic oil on PG basis is used.

If the storage periods mentioned are exceeded, the anti-corrosive agent in the gear unit is to be renewed.

齿轮箱 润滑油供应方式可选方案
类型 MTH2, MTH3, MTH4, MTB2, MTB3, MTB4 / 规格 3-26

Gear Units Oil Supply Survey of Variants
Types MTH2, MTH3, MTH4, MTB2, MTB3, MTB4 / Sizes 3-26

表 2 / Table 2

类型 Type	规格 Size	浸油润滑 Dip lubrication	法兰安装强制润滑 Forced lubrication, flanged-on pump	电动机强制润滑 Forced lubrication, motor pump
MTH1SH	3 - 17	H	H	—
MTH2	4	H V	V	—
	5 - 12	H V	H V SR ^{1) 2)}	—
	13 - 18	H M	H M V SR ^{1) 2)}	—
MTH3	19 - 26	H M	V	—
	5 - 12	H V	V SR ¹⁾	V SR ¹⁾
	13 - 18	H M	V SR ¹⁾	V SR ¹⁾
MTH4	19 - 26	H M	V	—
	7 - 12	H V	V	V
MTB2	13 - 18	H M	H M V SR ²⁾	V SR ²⁾
	19 - 26	H M	V	—
	4	H V	V	—
MTB3	5 - 12	H V	V SR ²⁾	V SR ²⁾
	13 - 18	H M	V SR ²⁾	V SR ²⁾
	19 - 26	H M	V	—
MTB4	5 - 12	H V	V SR ²⁾	V SR ²⁾
	13 - 18	H M	V SR ²⁾	V SR ²⁾
	19 - 26	H M	V	—

H = 卧式安装齿轮箱
M = 箱体式水平安装的齿轮箱
V = 立式安装齿轮箱
SR = 带实心轴输出轴和开式密封的立式安装齿轮箱

- 仅适用于有型形式 B
- 仅适用于有型形式 C
- 对于规格 5 的齿轮箱仅适用于传动比 i < 10
对于规格 7 的齿轮箱仅适用于传动比 i < 10
对于规格 11 的齿轮箱仅适用于传动比 i < 10
对于规格 13 的齿轮箱仅适用于传动比 i < 10
对于规格 17 的齿轮箱仅适用于传动比 i < 10

H = Horizontal gear unit
M = Shaft-mounted horizontal gear unit
V = Vertical gear unit
SR = Vertical gear unit with solid output shaft and oil retaining tube

- Design B possible only
- Design C possible only
- For size 5 only possible up to i < 10
For size 7 only possible up to i < 10
For size 11 only possible up to i < 10
For size 13 only possible up to i < 10
For size 17 only possible up to i < 10

齿轮箱 垂直润滑 / 立式安装 类型 MTH2, MTH3, MTH4, MTB2, MTB3, MTB4 / 规格 4-12

当采用垂直润滑方式时必须满足下列要求:

- a) 最大输入转速 n_1 参见表 3
b) 允许油温参见表 1
对于 n_1 和 t_1 不符合表 3 的齿轮箱, 按照油温修正的齿面许用应力的数值可取存在偏差, 如必要, 此等齿轮箱应采用强制润滑方式, 请咨询。

Gear Units Dip lubrication / Vertical Types MTH2, MTH3, MTH4, MTB2, MTB3, MTB4 / Sizes 4-12

For the design with dip lubrication the following criteria are to be taken into account:

- a) For maximum input speed n_1 , see table 3
b) For permissible oil temperatures, see table 1
For gear units with n_1 and t_1 not listed in table 3, the parameters for the calculation of the thermal capacity can deviate from those given in this brochure. If necessary, such gear units are to be designed with forced lubrication. Please consult!

表 3 / Table 3

规格 Size	类型 / Types											
	MTH2.V		MTH3.V		MTH4.V		MTB2.V		MTB3.V		MTB4.V	
	n_1	P_{max}	n_1	P_{max}	n_1	P_{max}	n_1	P_{max}	n_1	P_{max}	n_1	P_{max}
4	6.3 - 10	1200	-	-	5 - 5.6	750	-	-	6.3 - 7.1	900	12.5 - 71	1600
	11.2 - 12.5	1500	-	-	6.3 - 7.1	900	-	-	8 - 9	1000	-	-
	14 - 22.4	1800	-	-	8 - 9	1000	-	-	10 - 11.2	1000	-	-
5	6.3 - 9	1000	25 - 90	1800	-	-	6.3 - 7.1	750	12.5 - 71	1600	80 - 315	1800
	10 - 12.5	1200	-	-	8 - 9	900	-	-	8 - 9	900	-	-
	14 - 18	1500	-	-	10 - 11.2	1000	-	-	10 - 11.2	1000	-	-
	18 - 22.4	1800	-	-			-	-			-	-
6	8 - 11.2	1000	31.5 - 112	1800	-	-	8	750	16 - 90	1800	100 - 400	1800
	12.5 - 16	1200	-	-	10 - 11.2	900	-	-	16 - 90	1800	-	-
	18 - 20	1500	-	-	12.5 - 14	1000	-	-	16 - 90	1800	-	-
	22.4 - 28	1800	-	-			-	-			-	-
7	6.3 - 7.1	750	25 - 90	1800	100 - 355	1800	9 - 10	750	12.5 - 25	1500	80 - 315	1800
	8 - 9	900	-	-	9 - 10	750	-	-	28 - 71	1600	-	-
	10 - 11.2	1000	-	-	11.2	900	-	-			-	-
	12.5 - 16	1200	-	-			-	-			-	-
8	8 - 9	750	31.5 - 112	1800	125 - 450	1800	11.2 - 12.5	750	16 - 31.5	1500	100 - 400	1800
	10 - 11.2	900	-	-	14	900	-	-	35.5 - 90	1800	-	-
	12.5 - 14	1000	-	-			-	-			-	-
	16 - 20	1200	-	-			-	-			-	-
9	6.3 - 7.1	1200	25 - 90	1800	100 - 355	1800	5 - 5.6	900	12.5 - 71	1600	80 - 315	1800
	8 - 10	1500	-	-	6.3 - 7.1	1000	-	-	8 - 10	1200	-	-
	11.2 - 22.4	1800	-	-	8 - 10	1200	-	-	11.2	1500	-	-
							-	-			-	-
10	8 - 9	1200	31.5 - 112	1800	125 - 450	1800	6.3 - 7.1	900	16 - 90	1800	100 - 400	1800
	10 - 12.5	1500	-	-	8 - 9	1000	-	-	16 - 90	1800	-	-
	14 - 28	1800	-	-	10 - 12.5	1200	-	-	35.5 - 90	1800	-	-
					14	1500	-	-			-	-
11	6.3 - 7.1	1000	25 - 90	1800	100 - 355	1800	5.6 - 6.3	750	12.5 - 22.4	1500	80 - 315	1800
	8 - 10	1200	-	-	7.1 - 8	900	-	-	25 - 71	1600	-	-
	11.2 - 12.5	1500	-	-	9 - 10	1000	-	-			-	-
	14 - 22.4	1800	-	-	11.2	1200	-	-			-	-
12	8 - 9	1000	31.5 - 112	1800	125 - 450	1800	7.1 - 8	750	16 - 28	1500	100 - 400	1800
	10 - 12.5	1200	-	-	9 - 10	900	-	-	31.5 - 90	1600	-	-
	14 - 18	1500	-	-	11.2 - 12.5	1000	-	-			-	-
	18 - 28	1800	-	-	14	1200	-	-			-	-

齿轮箱 强制润滑 / 法兰泵 / 立式安装 类型 MTH2.V, MTH3.V, MTH4.V / 规格 5-18

Gear Units Dip lubrication / Flanged-on Pump / Vertical Types MTH2.V, MTH3.V, MTH4.V / Sizes 5-18

表 4 / Table 4

立式安装平行轴齿轮箱的法兰泵配置 / Assignment of flanged-on pumps to vertical helical gear units									
类型 布置形式 Type Design	n_1 min ⁻¹	齿轮箱规格 Gear unit size		法兰泵规格 Flanged-on pump size	齿轮箱规格 Gear unit size			法兰泵规格 Flanged-on pump size	
		5, 7, 9, 11	8, 8, 10, 12		13, 15, 17	14	16, 18		
		传动比 / Ratio i_{21}			传动比 / Ratio i_{21}				
MTH2.V A, C	750 - 1800	6.3 - 22.4	8 - 28	KSW 1	6.3 - 22.4	8 - 28	7.1 - 25	KSW 2	
MTH3.V A, C	1201 - 1800	25 - 40	21.5 - 50	KSW 2	22.4 - 50	28 - 63	25 - 56	KSW 3	
		45 - 90	96 - 112	KSW 3	56 - 90	71 - 112	63 - 90	KSW 4	
								100	*
	901 - 1200	25 - 56	21.5 - 71	KSW 3	22.4 - 21.5	28 - 40	25 - 35.5	KSW 3	
		63 - 90	80 - 112	*	35.5 - 56	45 - 71	40 - 63	KSW 4	
	750 - 900					63 - 90	80 - 112	71 - 100	*
		25 - 45	21.5 - 56	KSW 3	22.4 - 25	28 - 31.5	25 - 28	KSW 3	
50 - 90		63 - 112	*	28 - 45	35.5 - 56	31.5 - 50	KSW 4		
					50 - 90	63 - 112	56 - 100	*	
MTH4.V A, C	1201 - 1800	100 - 224	125 - 286	KSW 3	100 - 355	125 - 450	112 - 400	*	
		250 - 355	315 - 450	*					
	901 - 1200	100 - 140	125 - 180	KSW 3					
		160 - 355	200 - 450	*					
	750 - 900	100 - 112	125 - 140	KSW 3					
		125 - 355	160 - 450	*					
MTH2.V B, D	750 - 1800	6.3 - 22.4	8 - 28	KSW 1	6.3 - 22.4	8 - 28	7.1 - 25	KSW 2	
MTH3.V B, D	1201 - 1800	25 - 35.5	21.5 - 45	KSW 2	22.4 - 35.5	28 - 45	25 - 40	KSW 3	
		40 - 71	50 - 90	KSW 3	40 - 71	50 - 90	45 - 60	KSW 4	
		80 - 90	100 - 112	*	80 - 90	100 - 112	90 - 100	*	
	901 - 1200	25 - 50	21.5 - 63	KSW 3	22.4 - 25	28 - 31.5	25 - 28	KSW 3	
		56 - 90	71 - 112	*	28 - 45	35.5 - 56	31.5 - 50	KSW 4	
	750 - 900					90 - 90	63 - 112	90 - 100	*
		25 - 35.5	21.5 - 45	KSW 3	22.4 - 35.5	28 - 45	25 - 40	KSW 4	
	40 - 90	60 - 112	*	45 - 90	50 - 112	45 - 100	*		
MTH4.V B, D	1201 - 1800	100 - 180	125 - 224	KSW 3	100 - 355	125 - 450	112 - 400	*	
		200 - 355	250 - 450	*					
	901 - 1200	100 - 125	125 - 160	KSW 3					
		140 - 355	180 - 450	*					
750 - 900	100 - 355	125 - 450	*						

* - 所需电机功率参见表 5 / Motor pump required, see table 5

齿轮箱 强制润滑 / 法兰泵 / 立式安装

类型 MTB2-V, MTB3-V, MTB4-V / 规格 5-18

Gear Units Dip lubrication / Flanged-on Pump / Vertical

Types MTB2-V, MTB3-V, MTB4-V / Sizes 5-18

立式安装带法兰泵齿轮箱的法兰泵配置 / Assignment of flanged-on pumps to vertical bevel-helical gear units									
类型 / 布置形式 Type Design	n ₁ rev/min	齿轮箱规格 Gear unit size		法兰泵规格 Flanged-on pump size	齿轮箱规格 Gear unit size			法兰泵规格 Flanged-on pump size	
		5, 7, 9, 11	8, 9, 10, 12		13, 15, 17	14	16, 18		
		传动比 / Ratio i ₁₂			传动比 / Ratio i ₁₂				
MTB2-V A, B	1201 - 1800	5 - 6.3	6.3 - 8	KSW 1	5 - 8	6.3 - 10	5.6 - 9	KSW 2	
		7.1 - 11.2	9 - 14	KSW 2	9 - 11.2	11.2 - 14	10 - 12.5	KSW 3	
	901 - 1200	5 - 8	6.3 - 10	KSW 2	5	6.3	5.6	KSW 2	
		9 - 11.2	11.2 - 14	KSW 3	5.6 - 11.2	7.1 - 14	6.3 - 12.5	KSW 3	
	750 - 900	5 - 6.3	6.3 - 8	KSW 2	5 - 10	6.3 - 12.5	5.6 - 11.2	KSW 3	
		7.1 - 10	9 - 12.5	KSW 3	11.2	14	12.5	*	
		11.2	14	*					
MTB2-V C, D	1201 - 1800	5 - 6.3	6.3 - 8	KSW 1	5 - 6.3	6.3 - 8	5.6 - 7.1	KSW 2	
		7.1 - 11.2	9 - 14	KSW 2	7.1 - 11.2	9 - 14	8 - 12.5	KSW 3	
	901 - 1200	5 - 8	6.3 - 10	KSW 2	5 - 10	6.3 - 12.5	5.6 - 11.2	KSW 3	
		9 - 11.2	11.2 - 14	KSW 3	11.2	14	12.5	*	
	750 - 900	5 - 6.3	6.3 - 8	KSW 2	5 - 7.1	6.3 - 9	5.6 - 8	KSW 3	
		7.1 - 10	9 - 12.5	KSW 3	8 - 11.2	10 - 14	9 - 12.5	*	
		11.2	14	*					
MTB3-V A, B	1201 - 1800	12.5 - 35.5	16 - 45	KSW 2	12.5 - 22.4	16 - 28	14 - 20	KSW 2	
		40 - 71	50 - 90	KSW 3	25 - 50	31.5 - 63	28 - 50	KSW 3	
	901 - 1200	12.5 - 25	16 - 31.5	KSW 2	12.5 - 25	16 - 31.5	14 - 20	KSW 3	
		28 - 50	35.5 - 63	KSW 3	40 - 50	50 - 71	45 - 63	KSW 4	
	750 - 900	12.5 - 35.5	16 - 45	KSW 3	12.5 - 25	16 - 31.5	14 - 28	KSW 3	
		40 - 71	50 - 90	*	28 - 40	35.5 - 50	31.5 - 45	KSW 4	
				45 - 71	50 - 90	50 - 80	*		
MTB3-V C, D	1201 - 1800	12.5 - 35.5	16 - 45	KSW 2	12.5 - 25	16 - 31.5	14 - 28	KSW 3	
		40 - 71	50 - 90	KSW 3	40 - 71	50 - 90	45 - 80	KSW 4	
	901 - 1200	12.5 - 25	16 - 31.5	KSW 2	12.5 - 25	16 - 31.5	14 - 28	KSW 3	
		28 - 50	35.5 - 63	KSW 3	28 - 50	35.5 - 63	31.5 - 50	KSW 4	
	750 - 900	12.5 - 35.5	16 - 45	KSW 3	12.5 - 25	16 - 31.5	14 - 28	KSW 3	
		40 - 71	50 - 90	*	40 - 71	50 - 90	45 - 80	*	
MTB4-V A, B	1201 - 1800	80 - 125	100 - 180	KSW 2	80 - 315	100 - 400	90 - 355	*	
		140 - 250	180 - 315	KSW 3					
	200 - 315	250 - 400	*						
	80 - 125	100 - 224	KSW 3						
	200 - 315	250 - 400	*						
	750 - 900	80 - 125	100 - 180	KSW 3					
140 - 315	180 - 400	*							
MTB4-V C, D	1201 - 1800	80 - 125	100 - 180	KSW 3	80 - 315	100 - 400	90 - 355	*	
		200 - 315	250 - 400	*					
	80 - 125	100 - 180	KSW 3						
	140 - 315	180 - 400	*						
	80 - 90	100 - 112	KSW 3						
	100 - 315	125 - 400	*						

* = 所需电动机参见表 7 / Motor pump required, see table 7

齿轮箱 强制润滑 / 电动机 / 立式安装

类型 MTH2, MTH3, MTH4, MTB2, MTB3, MTB4 / 规格 5-18

Gear Units Dip lubrication / Motor Pump / Vertical

Types MTH2, MTH3, MTH4, MTB2, MTB3, MTB4 / Sizes 5-18

立式安装带法兰泵齿轮箱的电动机配置 / Assignment of motor pumps to vertical helical gear units			
类型 / Type	规格 / Size	布置形式 / Design	泵 / Pump
MTH2-V	5 - 18	A / B / C / D	1)
MTH3-V	5 - 18	A / C	SF 2/3
	5 - 12	B / D	SF 2/3
MTH4-V	13 - 18		SF 2/3
	7 - 12	A / C	SF 2/3
	13 - 18	B / D	SF 2/3

1) 仅泵用法兰型

1) Flanged-on pump only

立式安装带法兰泵齿轮箱的电动机配置 / Assignment of motor pumps to vertical bevel-helical gear units			
类型 / Type	规格 / Size	布置形式 / Design	泵 / Pump
MTB2-V	5 - 12	A / B	SF 2/5
	13 - 18		SF 2/5
	5 - 18	C / D	SF 2/5
MTB3-V	5 - 12	A / B	SF 2/5
	13 - 18		SF 2/13
	5 - 12	C / D	SF 2/5
	13 - 18		SF 2/13
MTB4-V	5 - 12	A / B	SF 2/5
	13 - 18		SF 2/13
	5 - 12	C / D	SF 2/5
	13 - 18		SF 2/13

齿轮箱 强制润滑 / 监测元件 / 立式安装
类型 MTH2, MTH3, MTH4, MTB2, MTB3,
MTB4 / 规格 5-18

Gear Units Dip lubrication / Monitoring Instruments / Vertical
Types MTH2, MTH3, MTH4, MTB2, MTB3,
MTB4 / Sizes 5-18

法兰集成电液强制润滑系统的监测元件

**Monitoring instruments for forced
lubrication by means of flanged-on or
motor pump**

齿轮箱规格 Gear unit size 5 - 12	齿轮箱规格 Gear unit size 13 - 18
a) 过滤器 Coarse filter	a) 双切换过滤器 Double change-over filter
b) 压力监测开关 Pressure monitor	b) 压力监测开关 Pressure monitor
	c) 压力表连接头规格 G 1/2 Connection for pressure gauge G 1/2

a) 过滤器用于滤除和收集杂质颗粒以保护传动装置的安全。

双切换过滤器具有并排布置的两个滤芯，设有一个光电感应装置。

压力 $\Delta p = 2 \text{ bar}$ ，一个切换触点。

电气参数见下表：
切换电压 $< 250 \text{ V DC} + \text{AC}$
切换电流 $< 1 \text{ A}$
切换容量 $P < 30 \text{ W}$ 或 $< 60 \text{ VA}$
防护等级 IP 65

b) 当油压 $< 0.5 \text{ bar}$ 时，压力监测开关通过与所连接的报警系统可以发出光或声报警使设备停机。

技术参数：
最大切换功率
2 A/250 V, AC/250 VA (交流)
4 A/200 V, DC/20 W (直流)
防护等级 IP 65

a) Coarse filters serve to protect downstream units by catching and collecting dirt particles.

Double change-over filters with opposed cylinders have an opto-electrical contamination indicator.
Differential pressure $\Delta p = 2 \text{ bar}$; 1 change-over contact.

Electrical maximum ratings:
Switching voltage $U < 250 \text{ V DC} + \text{AC}$
Switching current $I < 1 \text{ A}$
Switching capability $P < 30 \text{ W}$ or $< 60 \text{ VA}$
Type of protection IP 65

b) When the oil pressure drops below 0.5 bar, the pressure monitor in combination with a warning system can give an optical or acoustical warning, or switch off the system.

Technical data:
Max. switching capacity
2 A/250 V, AC/250 VA (alternating current)
4 A/200 V, DC/20 W (direct current)
Type of protection IP 65

齿轮箱 强制润滑 / 卧式安装
类型 MTH15H / 规格 5-17

Gear Units Dip lubrication / Horizontal
Types MTH15H / Sizes 5-17

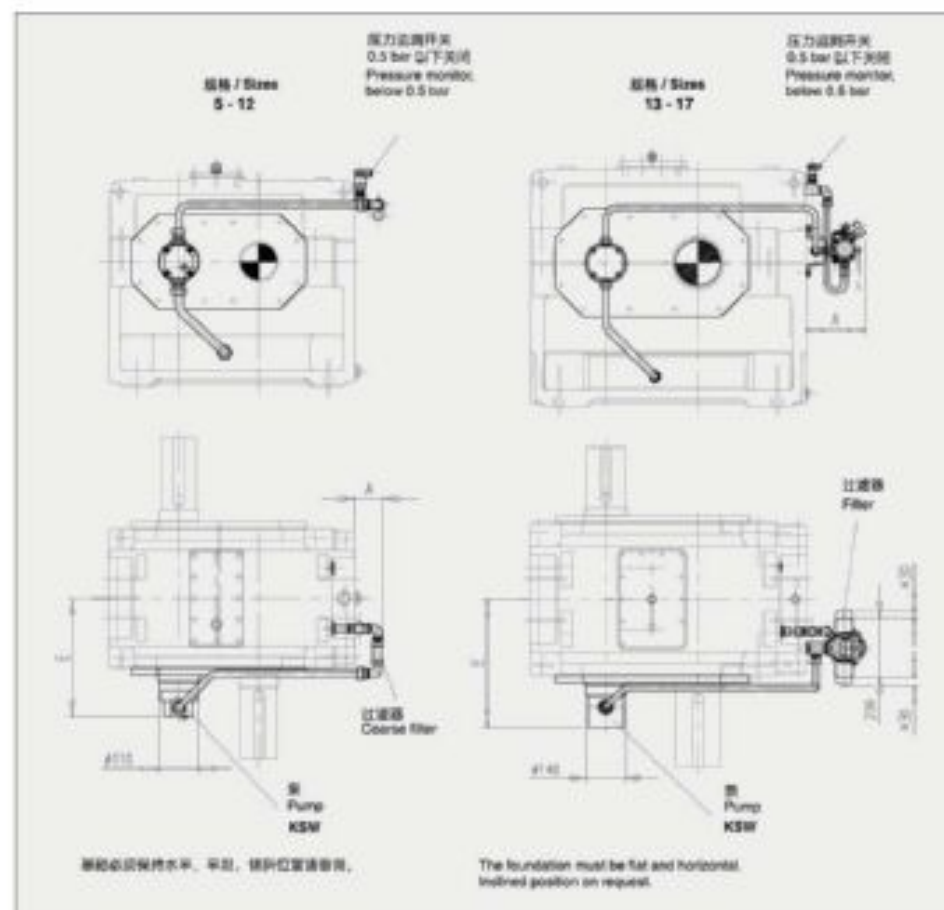


表 9 / Table 9

齿轮箱规格 Gear unit size	5	7	9	11	13	15	17		
泵 Pump KSW	1	2	2	2	3	3	3	3	3
A mm	+195	+105	+195	+125	+240	+240	+240	+240	+240
E mm	283	337	400	430	474	479	$l_1 = 3.15 \cdot 4$ 525	$l_2 = 4.5 \cdot 5.6$ 525	$l_3 = 2 \cdot 2.8$ 525

*) 列转速 $n_1 \geq 900$ 至 1800 min^{-1} 转速

*) Applies to speeds: $n_1 \geq 900$ up to 1800 min^{-1}

齿轮箱 强制润滑 / 卧式安装 类型 MTH2.H / 规格 5-18

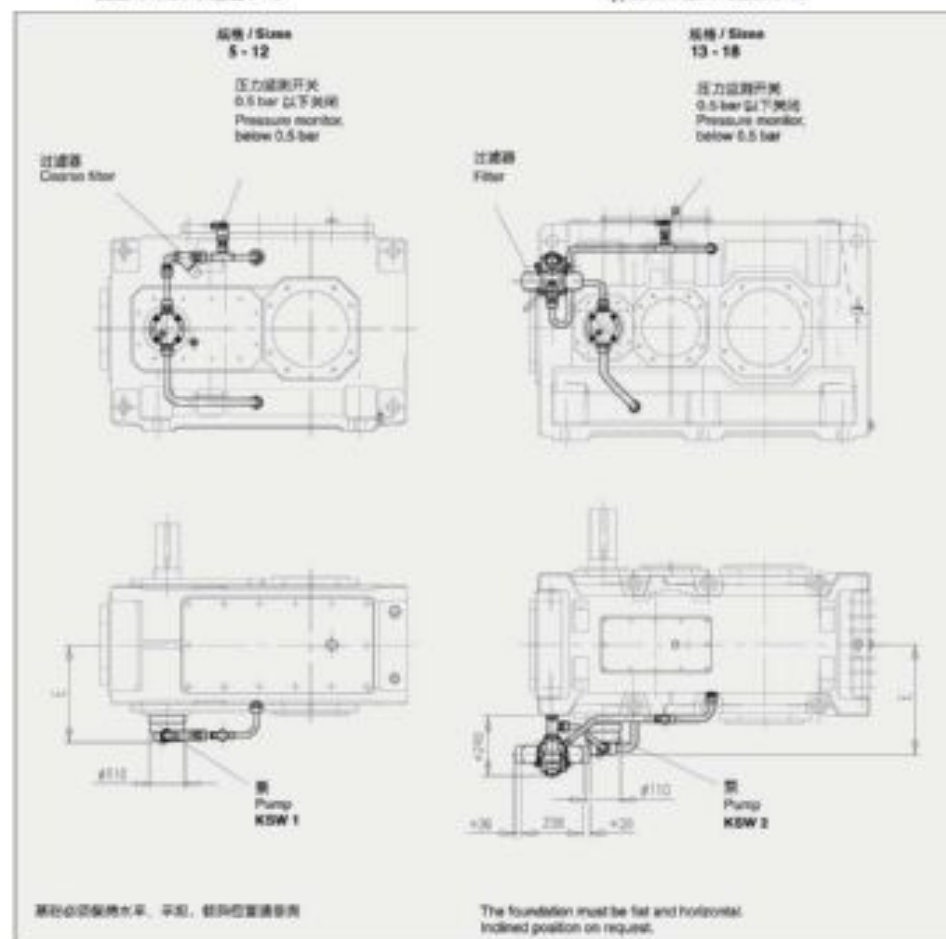


表 10 / Table 10

齿轮箱规格 Gear unit size	5	6	7	8	9	10	11	12	13	14	15	16	17	18
E mm	264	280	308	344	440	470	500							

*) 适用速 $n_1 > 1500$ 至 1800 min^{-1} 范围

*) Applies to speeds:
 $n_1 > 1500$ up to 1800 min^{-1}

齿轮箱 强制润滑 / 卧式安装 类型 MTB2SH / 规格 5-18

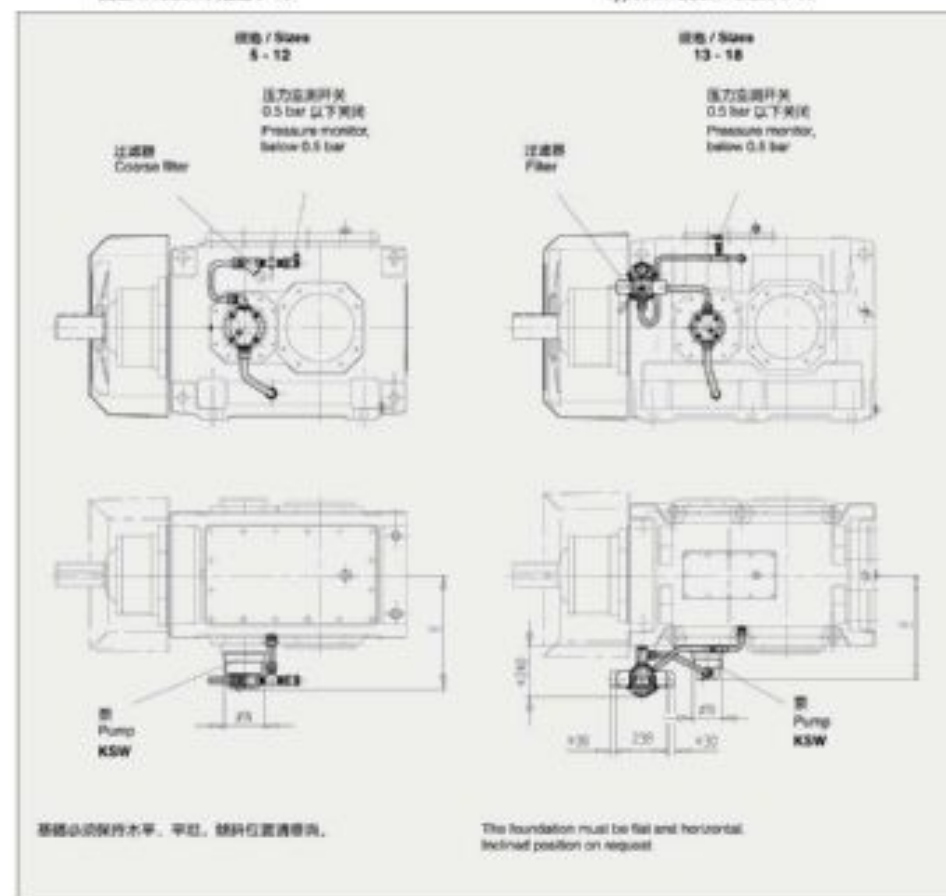


表 11 / Table 11

齿轮箱规格 Gear unit size	5/6			7/8			9/10			11/12			13/14			15/16			17/18		
泵 Pump KSW	1	2	3	1	2	3	1	2	3	1	2	3	2	3	2	3	2	3	2	3	
FN	110	110	140	110	110	140	110	110	140	110	110	140	110	140	110	140	110	140	110	140	
E	342	342	342	372	372	372	401	401	401	442	442	442	489	489	545	545	606	606	606	606	

*) 适用于转速范围:
规格 1 和 2, $n_1 > 1500$ 至 1800 min^{-1}
规格 3, $n_1 > 1200$ 至 1800 min^{-1}

*) Applies to the following speeds:
Size 1 and 2, $n_1 > 1500$ up to 1800 min^{-1}
Size 3, $n_1 > 1200$ up to 1800 min^{-1}

齿轮箱 水-油冷却器 / 卧式安装 类型 MTH12H / 规格 5-17

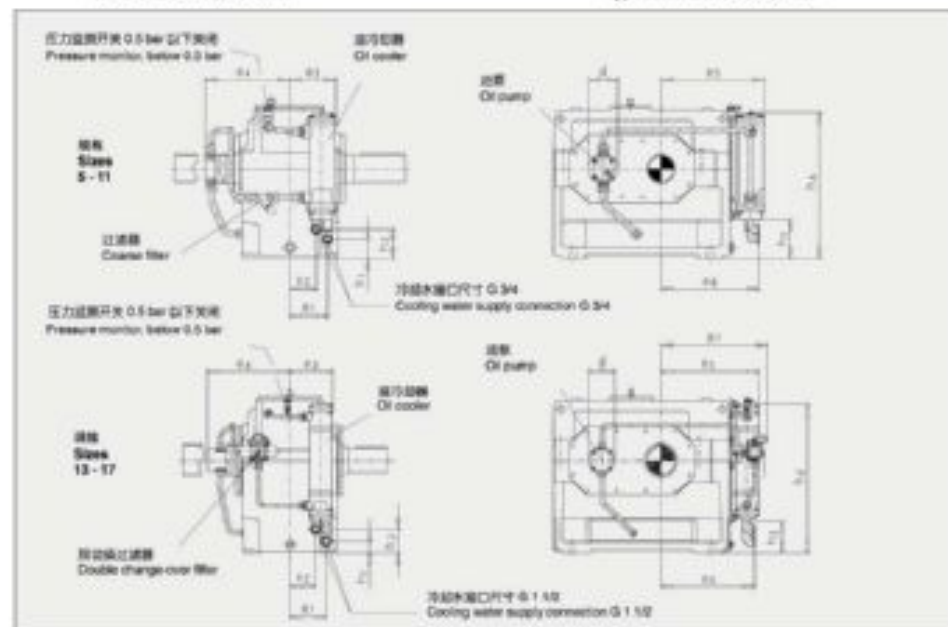


表 12 / Table 12

齿轮箱规格 Gear unit size	冷却器 / Oil cooler												油泵 / Oil pump*			
	规格 Size	r_1	r_2	r_3	r_4	r_5	r_6	r_7	r_8	r_9	r_{10}	r_{11}	r_{12}	KSW 规格 Size	d mm	传动比 Ratio i _{ge}
5	01	136	92	170	262	365	342	-	55	95	130	550	1	110	1.25 ~ 5.6	
		335	320	435	383	-	90	130	165	570	2	110	1.25 ~ 4			
7	01	148	102	180	373	435	383	-	90	130	165	570	1	110	4.5 ~ 5.0	
		358	430	426	-	140	180	215	620	2	110	1.25 ~ 2.8				
9	01	160	114	195	373	430	426	-	140	180	215	620	1	110	4.5 ~ 5.0	
		358	433	510	486	-	180	225	260	660	3	140	1.6 ~ 2.8			
11	01	180	147	225	433	433	510	486	-	180	225	260	660	3	140	3.15 ~ 4
		406	406	-	210	250	290	630	2	110	4.5 ~ 5.0					
13	03	200	160	270	459	459	510	588	570	75	150	200	938	3	140	1.6 ~ 2.8
		442	474	474	558	558	670	75	150	200	938	3	140	3.15 ~ 4		
15	03	210	140	250	474	474	558	654	745	95	170	200	958	3	140	1.6 ~ 2.8
		447	447	-	210	250	290	630	2	110	4.5 ~ 5.0					
17	03	230	165	275	491	491	558	704	780	150	230	280	1018	3	140	2 ~ 2.8
		455	455	-	230	280	340	710	3	140	3.15 ~ 4					
													2	110	4.5 ~ 5.0	

当超过热容量 P_{D0} 时, 应配置油冷却器和油泵。在可能情况下可与冷却器一起使用。

立式安装油冷却器和油泵
热容量请咨询
冷却器适用于淡水和海水

* 1) 转速 $n_1 = 900 - 1800 \text{ min}^{-1}$ 时

Gear Units Water - oil Cooler / Horizontal Types MTH12H / Sizes 5-17

If the thermal capacities P_{D0} are exceeded, oil cooler and oil pump have to be provided, possibly together with a fan.

Vertical gear units on request
Thermal capacities on request
Cooler suitable for fresh and sea water

* 1) Applies to speeds $n_1 = 900 - 1800 \text{ min}^{-1}$

齿轮箱 水-油冷却器 / 卧式安装 类型 MTH12.H / 规格 5-18

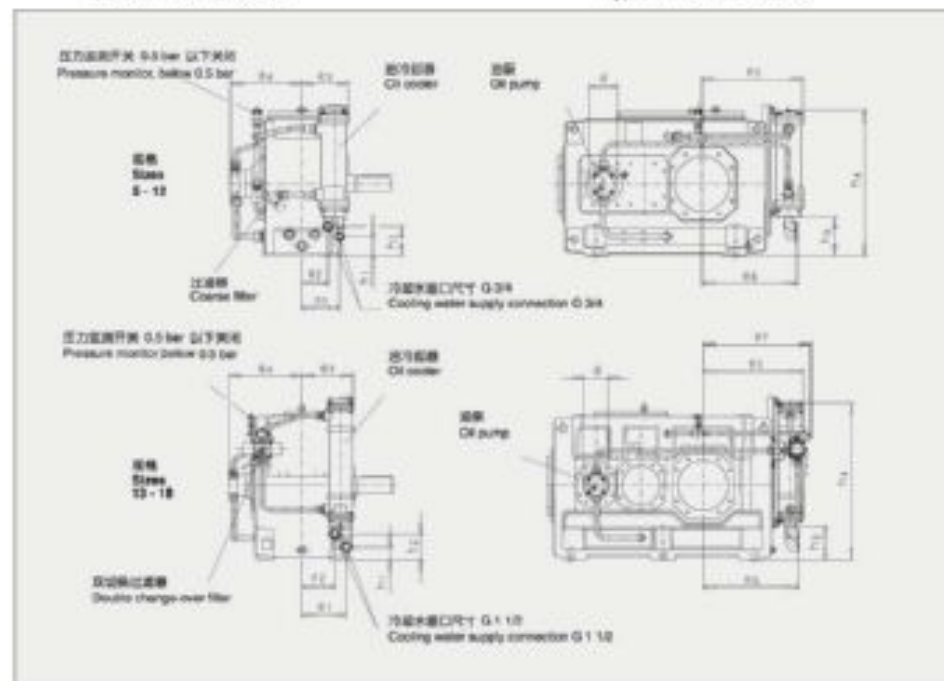


表 13 / Table 13

齿轮箱规格 Gear unit size	冷却器 / Oil cooler												油泵 / Oil pump*			
	规格 Size	r_1	r_2	r_3	r_4	r_5	r_6	r_7	r_8	r_9	r_{10}	r_{11}	r_{12}	KSW 规格 Size	d mm	
5	01	123	77	155	253	355	315	-	55	95	130	550	1	110		
		325	320	435	383	-	90	130	165	570	2	110				
7	01	148	102	180	373	435	383	-	90	130	165	570	1	110		
		358	430	426	-	140	180	215	620	2	110	1.25 ~ 2.8				
9	01	160	114	195	373	430	426	-	140	180	215	620	1	110		
		358	433	510	486	-	180	225	260	660	3	140	1.6 ~ 2.8			
11	01	180	147	225	433	433	510	486	-	180	225	260	660	3	140	3.15 ~ 4
		406	406	-	210	250	290	630	2	110	4.5 ~ 5.0					
13	03	200	160	270	459	459	510	588	570	75	150	200	938	3	140	1.6 ~ 2.8
		442	474	474	558	558	670	75	150	200	938	3	140	3.15 ~ 4		
15	03	210	140	250	474	474	558	654	745	95	170	200	958	3	140	1.6 ~ 2.8
		447	447	-	210	250	290	630	2	110	4.5 ~ 5.0					
17	03	230	165	275	491	491	558	704	780	150	230	280	1018	3	140	2 ~ 2.8
		455	455	-	230	280	340	710	3	140	3.15 ~ 4					
													2	110	4.5 ~ 5.0	

* 1) 用于所有传动比 ($n_1 = 750 - 1800 \text{ min}^{-1}$)

当超过热容量 P_{D0} 时, 应配置油冷却器和油泵。在可能情况下可与冷却器一起使用。

立式安装油冷却器和油泵
热容量请咨询
冷却器适用于淡水和海水

* 1) For all transmission ratios ($n_1 = 750 - 1800 \text{ min}^{-1}$)

If the thermal capacities P_{D0} are exceeded, oil cooler and oil pump have to be provided, possibly together with a fan.

Vertical gear units on request
Thermal capacities on request
Cooler suitable for fresh and sea water

齿轮箱 水-油冷却器 / 卧式安装
类型 MTB2.H / 规格 5-12

Gear Units Water - oil Cooler / Horizontal
Types MTB2.H / Sizes 5-12

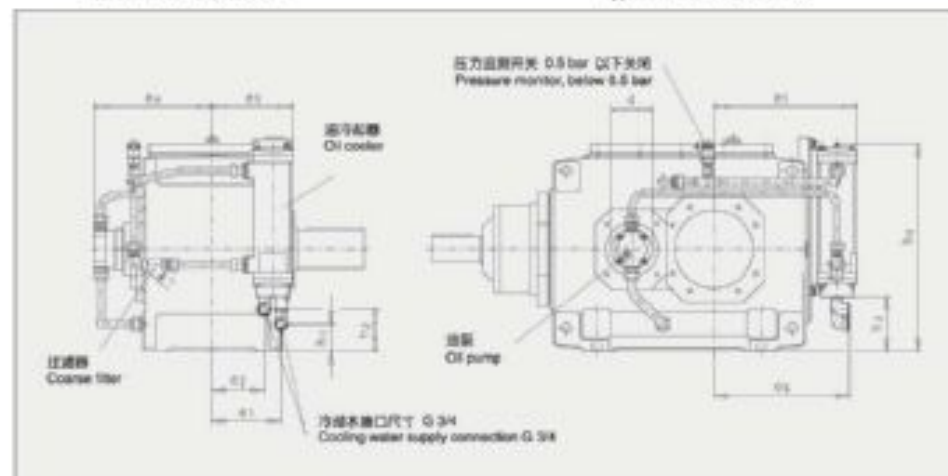


表 14 / Table 14

齿轮箱规格 Gear unit size	规格 Size	油冷器 / Oil cooler												油泵 / Oil pump*	
		r_1	r_2	r_3	r_4	r_5	r_6	r_7	r_8	r_9	r_{10}	r_{11}	r_{12}	KSW 规格 Size	d mm
5	01	138	132	100	340	355	323	55	95	130	500	3	140	2	110
		313	296									1	110		
		340	313	296	400	360	80	80	130	500	3	140	2	110	1
6	01	138	132	100	340	355	323	55	95	130	500	3	140	2	110
		313	296									1	110		
		340	313	296	400	360	80	80	130	500	3	140	2	110	1
7	01	188	142	220	370	400	368	75	115	150	570	3	140	2	110
		343	328									1	110		
		370	343	328	460	425	75	115	150	570	3	140	2	110	1
8	01	188	142	220	370	400	368	75	115	150	570	3	140	2	110
		343	328									1	110		
		370	343	328	460	425	75	115	150	570	3	140	2	110	1
9	01	218	172	250	399	460	418	150	190	225	645	3	140	2	110
		372	357									1	110		
		399	372	357	500	468	150	190	225	645	3	140	2	110	1
10	01	218	172	250	399	460	418	150	190	225	645	3	140	2	110
		372	357									1	110		
		399	372	357	500	468	150	190	225	645	3	140	2	110	1
11	01	263	217	295	440	500	463	225	265	300	720	3	140	2	110
		413	398									1	110		
		440	413	398	580	545	225	265	300	720	3	140	2	110	1
12	01	263	217	295	440	500	463	225	265	300	720	3	140	2	110
		413	398									1	110		
		440	413	398	580	545	225	265	300	720	3	140	2	110	1

当超过热容量 P_{D20} 时应配置油冷器和油泵。在可能情况下可以与冷却风扇一起使用。

立式安装的齿轮箱需要
热容量增量
冷却器适用于淡水和海水

*) 泵的性能的确定与立式安装的齿轮箱相同。即根据转速 n_1 和传动比确定泵的规格。参见第 377 页

If the thermal capacities P_{D20} are exceeded, oil cooler and oil pump have to be provided, possibly together with a fan.

Vertical gear units on request
Thermal capacities on request
Cooler suitable for fresh and sea water

*) For different pump sizes the transmission ratio assignments will apply as determined for vertical gear units and speeds n_1 , see page 377.

齿轮箱 水-油冷却器 / 卧式安装
类型 MTB2.H / 规格 13-18

Gear Units Water - oil Cooler / Horizontal
Types MTB2.H / Sizes 13-18

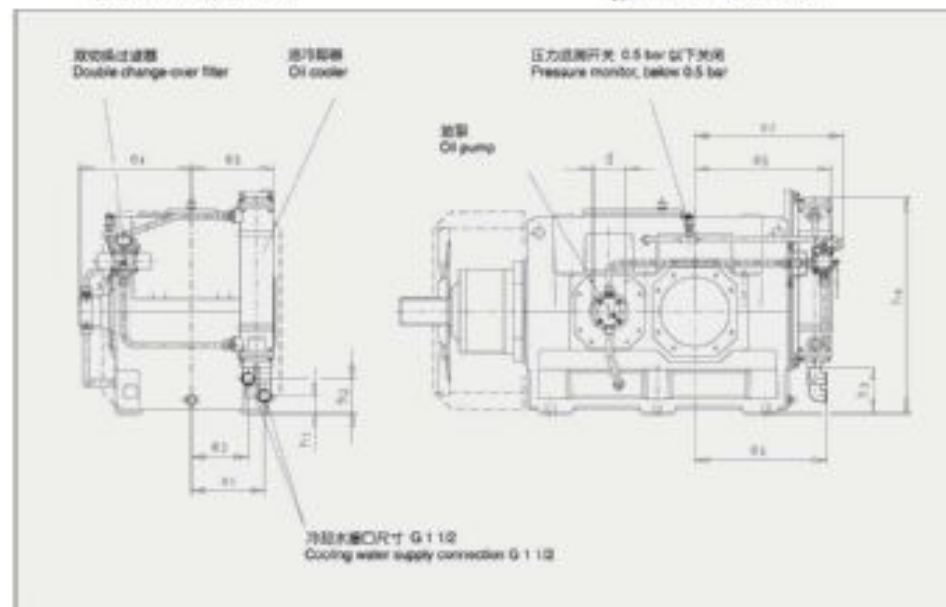


表 15 / Table 15

齿轮箱规格 Gear unit size	规格 Size	油冷器 / Oil cooler												油泵 / Oil pump*	
		r_1	r_2	r_3	r_4	r_5	r_6	r_7	r_8	r_9	r_{10}	r_{11}	r_{12}	KSW 规格 Size	d mm
13	03	320	290	365	487	460	595	573	645	75	150	200	936	3	140
		467	460											2	110
		487	460	595	643	715	75	150	200	936	3	140	2	110	
14	03	320	290	365	487	460	595	573	645	75	150	200	936	3	140
		467	460											2	110
		487	460	595	643	715	75	150	200	936	3	140	2	110	
15	03	375	305	410	543	516	675	653	725	100	180	230	968	3	140
		605	578											2	110
		605	578	675	720	698	770	100	180	230	968	3	140	2	110
16	03	375	305	410	543	516	675	653	725	100	180	230	968	3	140
		605	578											2	110
		605	578	675	720	698	770	100	180	230	968	3	140	2	110
17	03	435	365	470	605	578	720	693	770	140	220	270	1006	3	140
		805	778											2	110
		805	778	720	693	770	140	220	270	1006	3	140	2	110	
18	03	435	365	470	605	578	720	693	770	140	220	270	1006	3	140
		805	778											2	110
		805	778	720	693	770	140	220	270	1006	3	140	2	110	

当超过热容量 P_{D20} 时应配置油冷器和油泵。在可能情况下可以与冷却风扇一起使用。

立式安装的齿轮箱需要
热容量增量
冷却器适用于淡水和海水

*) 泵的性能的确定与立式安装的齿轮箱相同。即根据转速 n_1 和传动比确定泵的规格。参见第 377 页。

If the thermal capacities P_{D20} are exceeded, oil cooler and oil pump have to be provided, possibly together with a fan.

Vertical gear units on request
Thermal capacities on request
Cooler suitable for fresh and sea water

*) For different pump sizes the transmission ratio assignments will apply as determined for vertical gear units and speeds n_1 , see page 377.

齿轮箱 带加热元件

类型 MTH2, MTH3, MTH4, MTB2, MTB3, MTB4 / 规格 4-18

Gear Units With Heating Elements

Types MTH2, MTH3, MTH4, MTB2, MTB3, MTB4 / Sizes 4-18

齿轮箱规格 Gear unit size	4 - 12	13 - 18
卧式安装 Horizontal mounting position		
轴装式 Shaft-mounted design		
立式安装 Vertical mounting position		

不能采用迷宫式密封。

Labyrinth seal not possible as shaft seal

- 1) 嵌入式加热元件
技术参数和说明:
防护等级 IP 65,
230 V, 50 Hz, 功率与设计轴密封结构(油密封)
- 2) 温度监测开关 ATH-SW22
技术参数和说明:
防护等级 IP 65,
双切换触点开关(可调),
最大开关容量:
2 A / 230 V AC / 460 VA $\cos \varphi = 0.8$ (交流)
0.25 A / 230 V DC / 58 W (直流)

- 1) Screwed heating element
Technical data and notes:
type of protection IP 65,
230V, 50 Hz, power rating dependent on design. (Please refer to us)
- 2) Temperature monitor ATH-SW22
Technical data and notes:
type of protection IP 65,
2 change-over contacts (adjustable),
max. switching capacity
2 A / 230 V AC/460 VA $\cos \varphi = 0.8$
(alternating current),
0.25 A / 230 V DC/58 W (direct current)
- 3) Not applicable for sizes
4, 6, 8, 10, 12, 14, 16, 18

The use of heating elements will be necessary if the temperature limit for lubrication is undershot.

Dependent on the design, screwed heating elements and temperature monitors may be arranged mirror-inverted.
Dimensions on request.

具体尺寸请垂询



齿轮箱 带温度计

类型 MTH2, MTH3, MTH4, MTB2, MTB3, MTB4 / 规格 4-18

Gear Units With Thermometer for Oil Temperature

Types MTH2, MTH3, MTH4, MTB2, MTB3, MTB4 / Sizes 4-18

齿轮箱规格 Gear unit size	4 - 12	13 - 18
卧式安装 Horizontal mounting position		
轴装式 Shaft-mounted design		
立式安装 Vertical mounting position		



电阻式温度计 PT 100
技术参数和说明:
接头防护等级, IP 54
双芯连接
用户也可以采用三芯或四芯连接, 必须与分析仪器
匹配。

根据不同的布置形式, 可以将电阻式温度计安装在轴
对称位置上。

不能采用迷宫式密封。

具体尺寸请垂询

Resistance thermometer PT 100
Technical data and notes:
Type of protection for terminal head: IP 54,
two-wire connection.
Three- and four-wire connection at the
customer's is also possible.
Connection to an evaluation instrument is
necessary!

Dependent on the design, the resistance
thermometer may be arranged mirror-
inverted.
Labyrinth seal not possible as shaft seal.

Dimensions on request

齿轮箱 轴封

类型 MTH1 - MTH4, MTB2 - MTB4 / 规格 3 - 26

Gear Units Shaft Seals

Types MTH1 - MTH4, MTB2 - MTB4 / Sizes 3 - 26

类型 Type	规格 Size	径向轴封 Radial shaft seal		迷宫式密封 ¹⁾ Labyrinth seal		塔式密封 ²⁾ Tacotile seal	
		d_1	d_2	d_1	d_2	d_1	d_2
MTH1SH	3 - 17	H	H	H	H	H	H
MTH2	4 - 16	H / V	H / V	H	-	H / V	H / V
MTH3	5 - 16	H / V	H / V	-	-	H / V	H / V
MTH4	7 - 16	H / V	H / V	-	-	H / V	H / V
MTB2	4 - 16	H / V	H / V	-	-	H / V	H / V
MTB3	4 - 16	H / V	H / V	-	-	H / V	H / V
MTB4	5 - 16	H / V	H / V	-	-	H / V	H / V
	19 - 26	敬请咨询 / On request					

H = 卧式安装 V = 立式安装

H = Horizontal V = Vertical

1) 可能的布置形式和限制, 见下列页所述

1) For possible designs and restrictions, see the following pages.

2) 不能与冷风盘组合

2) Not in combination with a fan

3) 不能与电机安装法组合

3) Not in combination with motor ball housing

n_2	齿轮箱规格 / Gear unit sizes																									
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
	输入转速 (min ⁻¹) / Input speeds n_2 in min ⁻¹																									
1.25	x	x			x																					
1.4	x	x			x																					
1.6	740	515			425					375				305												
1.8	810	579			480					395				325												
2	860	619			490					420				350												
2.24	920	660			550					455				375												
2.5	1020	719			595					495				395												
2.8	1100	775			635					535				445												
3.15	1180	859			690					575				470												
3.55	1300	925			750					630				530												
4	1430	1025			805					720				585												
4.5	1575	1145			905					775				640												
5	1730	1265			990					850				705												
5.6	1910	1340			1095					955				770												
6.3		x	x		x					515				370												
7.1		x	810		660					575				395												
8		1020	860	x	755	x				615	x			420	370	350	325	305	285							
9		1080	920	x	790	690	x			650	x			455	395	375	350	330	305							
10		1160	1020	860	820	720	710	610	505	x				490	420	405	375	355	330							
11.2		1260	1100	920	880	790	775	660	535	520	520	520	425	445	425	390	365	340								
12.5		1435	1190	1020	950	820	800	730	600	595	595	595	495	495	460	430	400	380								
14		1560	1300	1100	1080	885	835	775	755	625	620	620	530	535	490	470	430									
16		1715	1430	1190	1200	955	1025	890	830	690	720	690	585	590	530	515	470									
18		1880	1575	1300	1320	1090	1145	935	905	755	770	690	640	580	575	515										
20			1730	1430	1450	1200	1205	1025	960	835	850	720	730	640	605	575										
22.4			1910	1575	1530	1320	1340	1145	1055	905	x	770	x	730	x	665										
25				1075	1730	885	1450	740	1205	x	990	x	890	x	x	x	x									
28				1170	1910	940	1530	810	1340	x	1095	x	x	x	x	x	x									

x = 不能采用该密封

x = Labyrinth seals are not possible

当低于最低输入转速 n_2 时, 应配置塔式密封。If the minimum input speed n_2 is undrshot, radial shaft seals are to be provided.

齿轮箱 轴封

径向轴封 / 迷宫式密封

Gear Units Shaft Seals

Radial Shaft Seals / Labyrinth Seals



径向轴封适用于低工作转速至中工作转速。

Radial shaft seals are suitable for low to average operating speeds.

其它特点:

Other features are:

- 这是一种有磨料的密封方式, 但是易于维护保养;
- 在密封唇部会形成油膜, 因此应提供足够的润滑 (冷却);
- 普通产品;
- 当用于轴密封时需要采用剖分式密封 (请咨询);
- 较低速度的布置形式请咨询。

- Wearing seal, however, easy to maintain;
- Local heat development on sealing lip; therefore, adequate lubrication (cooling) required;
- Commercial product;
- Split shaft seals are to be used in case of repair of flanged shafts (please refer to us);
- Design with low oil level on request.

径向轴封可以在各种类型和各种规格的齿轮箱中。

Radial shaft seals can be used for all types and sizes.



迷宫式密封方式特别适用于较高的工作转速。

Labyrinth seals are specially suitable for higher operating speeds.

其它优点:

Further advantages are:

- 非接触式, 从而无磨损;
- 不会产生磨料, 所以无需维护保养;
- 安装空间小;
- 若选择该密封方式, 则应注意如下要求:
- 只能在固定的传动系统中应用 (例如不能是行星机构);
- 只能采用垂直润滑 (强制润滑请咨询);
- 避免在粉尘浓度大或水雾及油点使用;
- 轴应保持水平;
- 平行轴齿轮箱的必要最低输入转速 n_2 参见表 2;
- 当以最低转速长时间运行时 (例如在造纸机械中的慢速运行), 则有必要采取特殊措施 (咨询我们)。

- Non-contacting and thus, wear-resistant;
- No local heat development and thus, maintenance-free;
- Small space required for fitting.
- For the selection of labyrinth seals the following criteria are to be considered:
- Applicable in stationary drives only (e.g. not in travelling gears);
- Only in case of dip lubrication (forced lubrication on request);
- Avoid extremely dusty environments or sites endangered by muddy water;
- Shaft levels must be horizontal;
- For min. required input speed n_2 for helical gear units, see table 2;
- In case of longer operating periods at minimum speeds (e.g. creep speed in case of paper machines) special measures (oil retaining plates) are required.

齿轮箱 轴封
组合式设计组合式密封
Tacorite seals

可安装填充油脂的迷宮式密封组合。
采用这种密封方式可以使齿轮箱在新业环境中达到极高的安全可靠性。这是的
此种密封组合能阻止进入齿轮箱的三种密封元件的组合。
Grease-filled, labyrinth seal combinations.
With this seal a high degree of operational reliability is achieved for the gear unit in dusty
environments. This seal is a combination of three sealing elements which protect the
gear unit from ingress of dust-like particles.

Gear Units Shaft Seals
Tacorite Seals

组合式密封 Tacorite Seal	轴 Shaft	说明 Note
E	输入轴 Input shaft	注意MTH3和MTH4的尺寸 Take into account dimensions for MTH3 and MTH4
F	实心轴 Solid shaft	
	加强型输出轴 d_2 Reinforced output shaft d_2	
	带齿圈带法兰轴 d_2 With flanged shaft d_2	规格 8 以上 / from size 8 on
F - F	带键槽的空心轴 Hollow shaft with keyway	两侧组合式密封 Tacorite seals on both sides
	带缩盘的空心轴 Hollow shaft for shrink disk	防护罩用作防接触保护 Guard as protection against accidental contact
	带花键的空心轴, 依据 DIN 5480 Hollow shaft with involute splines acc. to DIN 5480	
F - H	带键槽的空心轴 Hollow shaft with keyway	工作机侧组合式密封 Tacorite seal on driven machine shaft
	带花键的空心轴, 依据 DIN 5480 Hollow shaft with involute splines acc. to DIN 5480	防护罩在对面 Outproof guard on opposite side
F - K	带缩盘的空心轴 Hollow shaft for shrink disk	工作机侧组合式密封 Tacorite seal on driven machine shaft 防护罩在对面 Outproof guard on opposite side

表 3 / Table 3

采用“E”型组合式密封的 G_1 尺寸和轴尺寸
 G_1 dimension and shaft dimensions for Tacorite“E”

类型 Type	规格 Size	传动比 Ratio i	G_1	d_1 mm	l_1
MTH3	9	25 - 45	250	60 m6	105
		50 - 63		45 m6	80
		71 - 90		32 m6	60
	10	31.5 - 56	250	60 m6	105
		63 - 80		45 m6	80
		90 - 112		32 m6	60
	11	25 - 45	275	70 m6	100
		31.5 - 56		70 m6	100
	13	22.4 - 45	340	85 m6	130
		50 - 63		60 m6	105
	14	28 - 56	340	85 m6	130
		63 - 80		60 m6	105
15	22.4 - 45	380	100 m6	165	
	50 - 63		75 m6	105	
16	25 - 50	380	100 m6	165	
	56 - 71		75 m6	105	
17	22.4 - 45	415	100 m6	165	
	50 - 63		75 m6	105	
18	25 - 50	415	100 m6	165	
	56 - 71		75 m6	105	
MTH4	11	100 - 180	275	45 m6	80
		200 - 355		32 m6	60
	12	125 - 224	275	45 m6	80
		250 - 450		32 m6	60
13	100 - 180	325	50 m6	80	
	200 - 355		38 m6	60	
14	125 - 224	325	50 m6	80	
	250 - 450		38 m6	60	
15	100 - 180	375	60 m6	105	
	200 - 355		50 m6	80	
16	112 - 200	375	60 m6	105	
	224 - 400		50 m6	80	

齿轮箱 IEC - 标准电机的安装尺寸

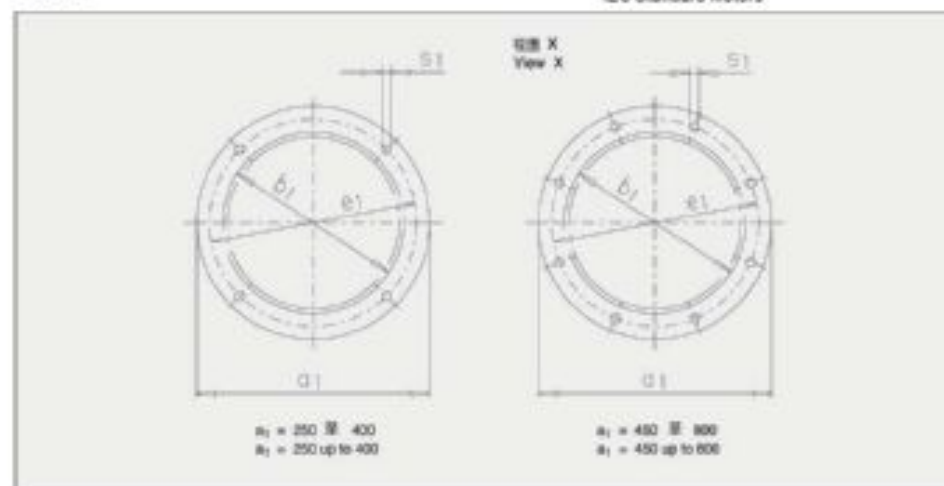
Gear Units Fitting Dimensions for
IEC Standard Motors

表 1 / Table 1

法兰尺寸 / Flange dimensions

三相鼠笼交流电机
Three-phase motors with squirrel-cage rotor

	电机规格 / Motor sizes															
	100 L	112 M	132 S	132 M	160 M	160 L	180 M	180 L	200 L	225 S	225 M	250 M	280 S	280 M	315 S	315 M
d_1 mm	250	250	300	300	350	350	350	350	400	450	450	550	550	550	660	660
D_1 mm	180	180	230	230	250	250	250	250	300	350	350	450	450	450	550	550
d_2 mm	215	215	265	265	300	300	300	300	350	400	400	500	500	500	600	600
S_1	4 x M12	4 x M12	4 x M12	4 x M12	4 x M16	4 x M16	4 x M16	4 x M16	4 x M16	6 x M16	6 x M16	6 x M16	6 x M16	6 x M16	8 x M20	8 x M20

三相鼠笼交流电机
Three-phase motors with squirrel-cage rotor

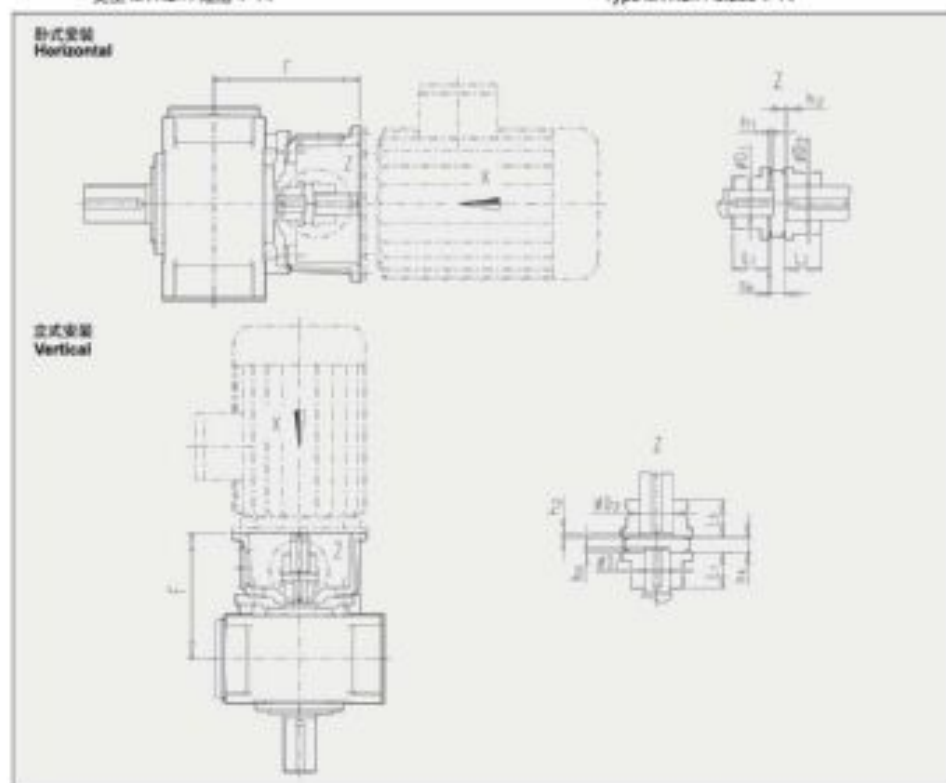
	电机规格 / Motor sizes			
	315 L1	315 L2	360 M	360 L
d_1 mm	600	600	800	800
D_1 mm	550	550	680	680
d_2 mm	600	600	740	740
S_1	8 x M20	8 x M20	8 x M20	8 x M20

齿轮箱

用于 IEC - 标准电机的电机安装法兰 / 带
BIPEX 联轴器
类型 MTH2... / 规格 4-14

Gear Units

Motor Bell Housing for IEC Standard Motors / With
BIPEX Coupling
Type MTH2... / Sizes 4-14



- 对于有特殊设计要求的设备, 例如, 高开关频率, 交替负载方向的升降梯, 行走机等, 其联轴器形式必须参阅相关的联轴器样本, 对于其它联轴器, 请咨询我公司。
- IEC - 标准电机的安装尺寸, 参见第 302 页。
- 布置形式 C, D, G, H, I 的平行轴齿轮箱必须带油。
- 输入轴不能采用轴式密封或迷宫式密封。

- For plants with special design requirements (high switching frequency, alternating direction of load: e.g. hoisting gears, travelling gears, etc.) the coupling design is to be checked in accordance with the respective valid coupling brochure. For other couplings please consult us!
- For fitting dimensions for IEC standard motors, see page 302.
- Helical gear unit in C, D, G, H, I design on request only.
- Not in connection with Taconite E or labyrinth seal on input shaft.

- 其它电机规格请咨询
- 仅适用于 315 S 和 315 M
- 仅用于立式齿轮箱的安装
- 不适用于类型 MTH2D... 布置形式 A 和 B 上安装。
- 不适用于类型 MTH2D... 规格 5, 布置形式 A 和 B 上安装。
- 不适用于类型 MTH2D... 规格 7, 布置形式 A 和 B 上安装。
- 不适用于类型 MTH2DV... 规格 9, 布置形式 A 和 B 上安装。

- Other motor sizes on request
- Size 315 S and 315 M only
- For vertical gear units only
- For type MTH2D, design A + B; fitting not possible.
- For type MTH2D, size 5 design A + B; fitting not possible.
- For type MTH2D, size 7 design A + B; fitting not possible.
- For type MTH2DV size 9 design A + B; fitting not possible.

齿轮箱

用于 IEC - 标准电机的电机安装法兰 / 带
BIPEX 联轴器
类型 MTH2... / 规格 4-14

Gear Units

Motor Bell Housing for IEC Standard Motors / With
BIPEX Coupling
Type MTH2... / Sizes 4-14

表 2 / Table 2

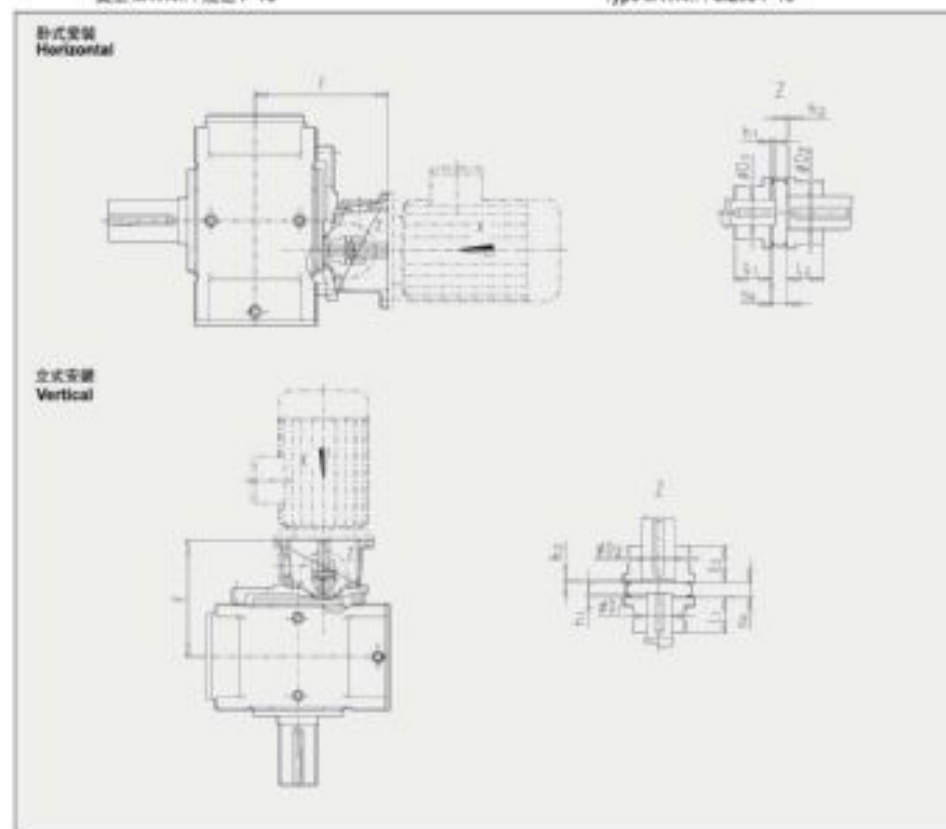
规格 Size	电机 Motor IEC 1)	传动比 i_g / Ratio i_g 6.3 - 11.2 (规格 / Sizes 4, 5, 7, 9, 11) 8 - 14 (规格 / Sizes 6, 8, 10, 12)									传动比 i_g / Ratio i_g 12.5 - 22.4 (规格 / Sizes 4, 5, 7, 9, 11) 16 - 28 (规格 / Sizes 6, 8, 10, 12)								
		BIPEX BWN	a_g mm	l_1 mm	D_1 mm	l_2 mm	D_2 mm	h_1 mm	h_2 mm	f mm	BIPEX BWN	a_g mm	l_1 mm	D_1 mm	l_2 mm	D_2 mm	h_1 mm	h_2 mm	f mm
4	160 2)										88	21	40	32	40	42	11	0	376
	180 2)										97	24	50	32	50	48	14	0	376
	200 2)										112	27	60	32	60	55	11	0	376
	225 2) 4)	127	27	65	45	65	60	30	0	417	127	27	65	32	65	60	0	0	417
5/6	200										112	27	60	38	60	55	10	0	400
	225 4)										127	27	65	38	65	65	-1	0	443
	250 2) 4)	127	27	65	50	65	65	17.5	0	444.5	127	27	65	38	65	65	0	0	444.5
7/8	225										127	27	65	50	65	60	13.5	0	473.5
	250 2)										127	27	65	50	65	65	12	0	475
	280 2)										142	31	75	50	75	75	-3	0	494
	315 2) 4)	162	36	80	60	80	80	30	0	531	162	36	80	50	80	80	-2.5	2.5	531
9/10	280										142	31	75	60	75	75	22	0	530
	315 2) 4)	162	36	80	75	80	80	20	0	566	162	36	80	60	80	80	20	0	566
11/12	315 2)										162	36	80	70	80	85	15	0	606

表 3 / Table 3

规格 Size	电机 Motor IEC 1)	传动比 i_g / Ratio i_g 12.5 - 20 (规格 / Size 13) 16 - 25 (规格 / Size 14)									
		BIPEX BWN	a_g mm	l_1 mm	D_1 mm	l_2 mm	D_2 mm	h_1 mm	h_2 mm	f mm	
13/14	355 M	4)	202	48	100	85	190	90	8	0	718
	355 L	4)	227	54	110	85	190	90	8	0	718

齿轮箱 用于 IEC - 标准电机的电机安装法兰 / 带 BIPEX 联轴器
类型 MTH4... / 规格 7-18

Gear Units Motor Bell Housing for IEC Standard Motors / With BIPEX Coupling
Type MTH4... / Sizes 7-18



对于有特殊设计要求的设备, 例如, 高开关频率, 交变负载方向的升降机, 行走机构, 其联轴器和法兰形式必须参照相关的联轴器和样本, 对于其它联轴器, 请咨询我公司。

For plants with special design requirements (high switching frequency, alternating direction of load; e.g. hoisting gears, travelling gears, etc.) the coupling design is to be checked in accordance with the respective valid coupling brochure. For other couplings, please consult us!

- IEC - 标准电机的安装尺寸, 参见第 362 页。
- 壳型形式 G, H, I 的平行轴齿轮箱请咨询。
- 输入轴不能采用组合式密封 C 或液密式密封。

- For fitting dimensions for IEC standard motors, see page 362.
- Helical gear unit in C, D, G, H, I design on request only.
- Not in connection with Tecorb E or labyrinth seal on input shaft.

1) 其它电机规格请咨询
2) 仅规格 315 S 和 315 M
3) 联轴器轮毂长度 L₁ 已经为适配法兰输入轴而缩短。

1) Other motor sizes on request.
2) Sizes 315 S and 315 M only
3) Length L₁ of coupling hub shortened for fitting onto gear unit shaft.

齿轮箱 用于 IEC - 标准电机的电机安装法兰 / 带 BIPEX 联轴器
类型 MTH4... / 规格 7-18

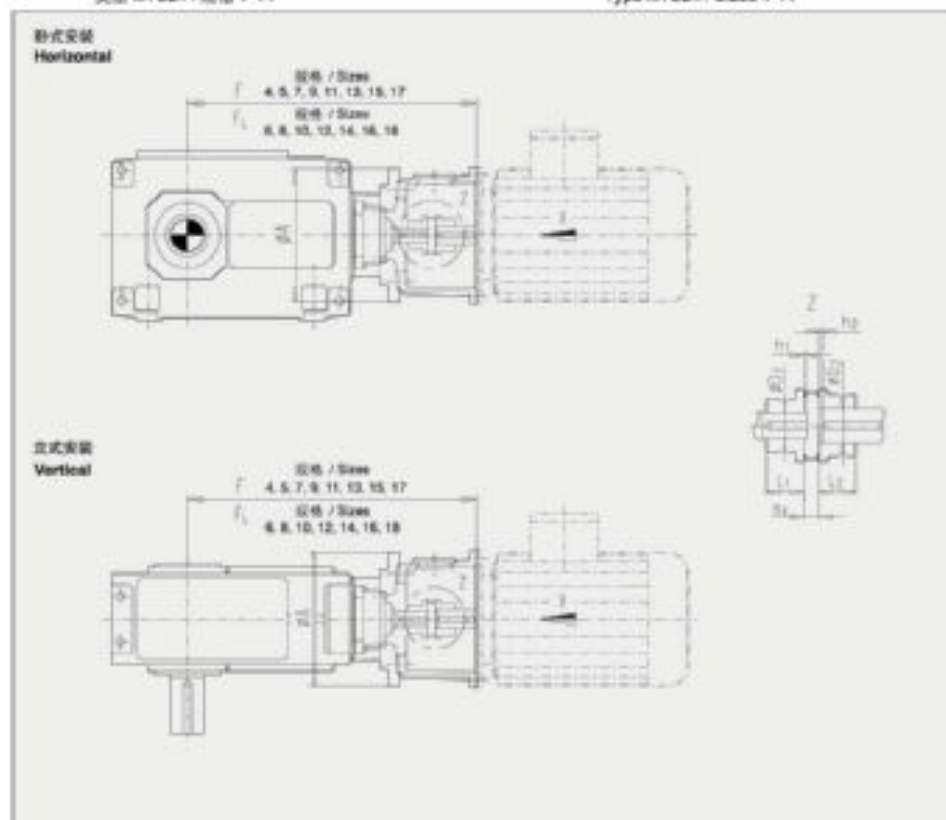
Gear Units Motor Bell Housing for IEC Standard Motors / With BIPEX Coupling
Type MTH4... / Sizes 7-18

表 5 / Table 5

规格 Size	电机 Motor IEC ¹⁾	传动比 i ₀ / Ratio i ₀									传动比 i ₀ / Ratio i ₀									
		BIPEX BDM	i ₀ mm	i ₁ mm	D ₁ mm	i ₂ mm	D ₂ mm	h ₁ mm	h ₂ mm	f mm	BIPEX BVM	i ₀ mm	i ₁ mm	D ₁ mm	i ₂ mm	D ₂ mm	h ₁ mm	h ₂ mm	f mm	
7/8	100										62	18	30	24	30	28	0	0	296	
	112										62	18	30	24	30	28	0	0	296	
	132		72	18	35	30	35	38	-0.5	0	328.5	72	18	35	24	35	38	-5.5	5	328.5
	160		84	21	40	30	40	42	-3.5	0	364.5	84	21	40	24	40	42	-6.5	7	364.5
9/10	160	3)	97	24	42	30	50	48	-0.5	0	364.5									
	132										72	18	35	28	35	38	-3.5	3	369.5	
	160		84	21	40	35	40	42	0.5	0	405.5	84	21	40	28	40	42	-4.5	5	405.5
	180	3)	97	24	47	35	50	48	3.5	0	405.5	3)	97	24	47	28	50	48	-6.5	0
11/12	200	3)	112	27	54	35	60	55	-5.5	0	417.5									
	225	3)	127	27	59	35	65	60	-10	6.5	458.5									
	180										84	21	40	32	40	42	13.5	0	447.5	
	160		97	24	50	45	50	48	10.5	0	437.5	97	24	50	32	50	48	16.5	0	447.5
13/14	200		112	27	60	45	60	55	1.5	0	488.5	112	27	60	32	60	55	7.5	0	488.5
	225		127	27	65	45	65	60	16.5	0	500.5	127	27	65	32	65	60	0	3.5	500.5
	250		127	27	65	45	65	60	16.5	0	500.5									
	160										84	21	40	36	40	42	0	1.5	517.5	
15/16	180										97	24	50	38	50	48	1.5	0	517.5	
	200		127	27	65	50	65	55	12.5	0	529.5	112	27	50	38	60	55	18.5	0	503.5
	225		127	27	65	50	65	60	-3.5	4	579.5	127	27	65	38	65	60	7.5	0	544.5
	250		127	27	65	50	65	65	-3.5	4	579.5	127	27	65	38	65	60	7.5	0	544.5
	280		142	31	75	50	75	75	11	0	565									
	315 ²⁾		162	36	75	50	80	80	9	0	602									
17/18	200										112	27	60	50	60	55	-3	3.5	598.5	
	225		127	27	65	60	65	60	-1.5	0	648.5	127	27	65	60	65	60	8.5	0	613.5
	250		127	27	65	60	65	65	-1.5	0	648.5	127	27	65	50	65	65	6.5	0	613.5
	280		142	31	75	60	75	75	17	0	634	142	31	75	50	75	75	-4	4	634
	315 ²⁾		162	36	80	60	80	80	15	0	671	162	36	80	50	80	80	-5	5	671
	315 L1		162	-2	90	60	80	80	21	0	671									
17/18	315 L2		162	-2	90	60	80	80	21	0	671									
	355 M		202	48	100	60	100	90	-5	8	713									
	225										127	27	65	50	65	60	3.5	0	623.5	
	250										127	27	65	60	65	65	3.5	0	623.5	
	280		142	31	75	60	75	75	12	0	644	142	31	75	50	75	75	-6.5	6.5	644
	315 ²⁾		162	36	80	60	80	80	10	0	681	162	36	80	50	80	80	-5	10	681
315 L1		162	-2	90	60	80	80	10	-8	681										
315 L2		162	-2	90	60	80	80	10	-8	681										

齿轮箱 用于 IEC - 标准电机的电机安装法兰 / 带
BIPEX 联轴器的
类型 MTB2... / 规格 4-14

Gear Units Motor Bell Housing for IEC Standard Motors / With
BIPEX Coupling
Type MTB2... / Sizes 4-14



• 对于有特殊设计要求的设备，例如，高开关频率、交变负载方向的升降机、行驶机等，其联轴器的形式必须参照相关的联轴器样本。对于其它联轴器，请咨询我公司。

• For plants with special design requirements (high switching frequency, alternating direction of load; e.g. hoisting gears, traveling gears, etc.) the coupling design is to be checked in accordance with the respective valid coupling brochures. For other couplings please consult us!

• IEC - 标准电机的安装尺寸，参见图 392 页。

• For fitting dimensions for IEC standard motors, see page 392.

• 输入端不能采用组合式密封 F 或迷迭式密封。

• Not in connection with Tacente E or labyrinth seal on input shaft.

1) 其它电机规格请咨询
2) 仅指规格 315 S 和 315 M

1) Other motor sizes on request
2) Size 315 S and 315 M only

齿轮箱 用于 IEC - 标准电机的电机安装法兰 / 带
BIPEX 联轴器的
类型 MTB2... / 规格 4-14

Gear Units Motor Bell Housing for IEC Standard Motors / With
BIPEX Coupling
Type MTB2... / Sizes 4-14

表 6 / Table 6

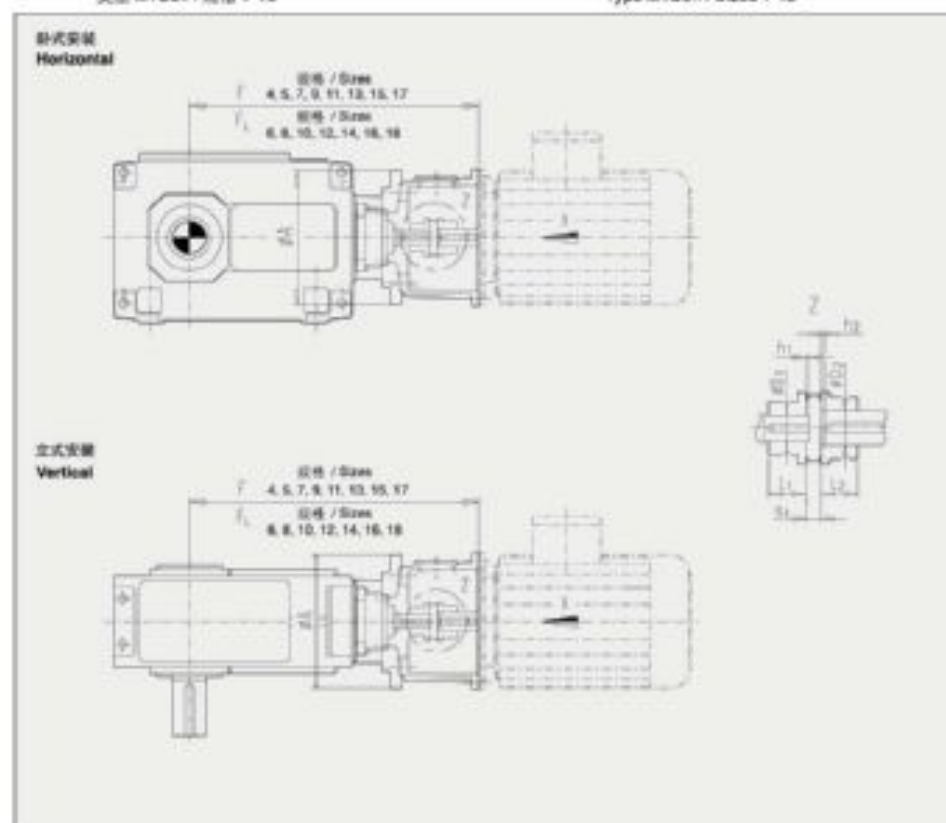
规格 Size	电机 Motor IEC 1)	传动比 i_0 / Ratio i_0											传动比 i_0 / Ratio i_0											
		3 - 11.2 (规格 / Sizes 4, 5, 7, 9, 11) 6.2 - 14 (规格 / Sizes 6, 8, 10, 12)											12.5 - 18 (规格 / Sizes 4, 5, 7, 9, 11) 16 - 22.4 (规格 / Sizes 6, 8, 10, 12)											
		BIPEX BWN	α_0 mm	l_1 mm	D_1 mm	l_2 mm	D_2 mm	h_1 mm	h_2 mm	f mm	l_3 mm	A mm	BIPEX BWN	α_0 mm	l_1 mm	D_1 mm	l_2 mm	D_2 mm	h_1 mm	h_2 mm	f mm	l_3 mm	A mm	
4	180																							
	200	112	27	66	45	60	55	17.5	0	684.5	-	350	97	24	50	35	50	48	0.5	0	678.5	-	350	
5/6	200																							
	225																							
7/8	200																							
	260	162	36	80	70	80	75	17	0	934	979	440	127	27	65	50	65	65	2	0	915	960	440	
9/10	260																							
	315 2)																							

表 7 / Table 7

规格 Size	电机 Motor IEC 1)	传动比 i_0 / Ratio i_0										
		12.5 - 18 (规格 / Size 13) 16 - 22.4 (规格 / Size 14)										
		BIPEX BWN	α_0 mm	l_1 mm	D_1 mm	l_2 mm	D_2 mm	h_1 mm	h_2 mm	f mm	l_3 mm	A mm
13 / 14	355 M	202	48	100	80	100	90	1	0	1457	1527	660
	355 L	227	54	110	80	110	90	7	0	1457	1527	660

齿轮箱 用于 IEC - 标准电机的电机安装法兰 / 带 BIPEX 联轴器
类型 MTB3... / 规格 4-18

Gear Units Motor Bell Housing for IEC Standard Motors / With BIPEX Coupling
Type MTB3... / Sizes 4-18



- 对于有特殊设计要求的设备, 例如, 高开关频率, 交叉负载方向的升降梯, 行业机等, 其联轴器布置形式必须参照相应的联轴器样本, 对于其它联轴器, 请咨询本公司。
- IEC - 标准电机的安装尺寸, 参见第 302 页。
- 输入轴不能采用锥套式密封 C 或迷宫式密封。

1) 其它电机及相应联轴器
2) 仅适用于 315 S 和 315 M
3) 联轴器长度 l_1 已为与联轴器输入轴而缩短。

1) Other motor sizes on request
2) Sizes 315 S and 315 M only
3) Length l_1 of coupling hub shortened for fitting onto gear unit shaft.

齿轮箱 用于 IEC - 标准电机的电机安装法兰 / 带 BIPEX 联轴器
类型 MTB3... / 规格 4-18

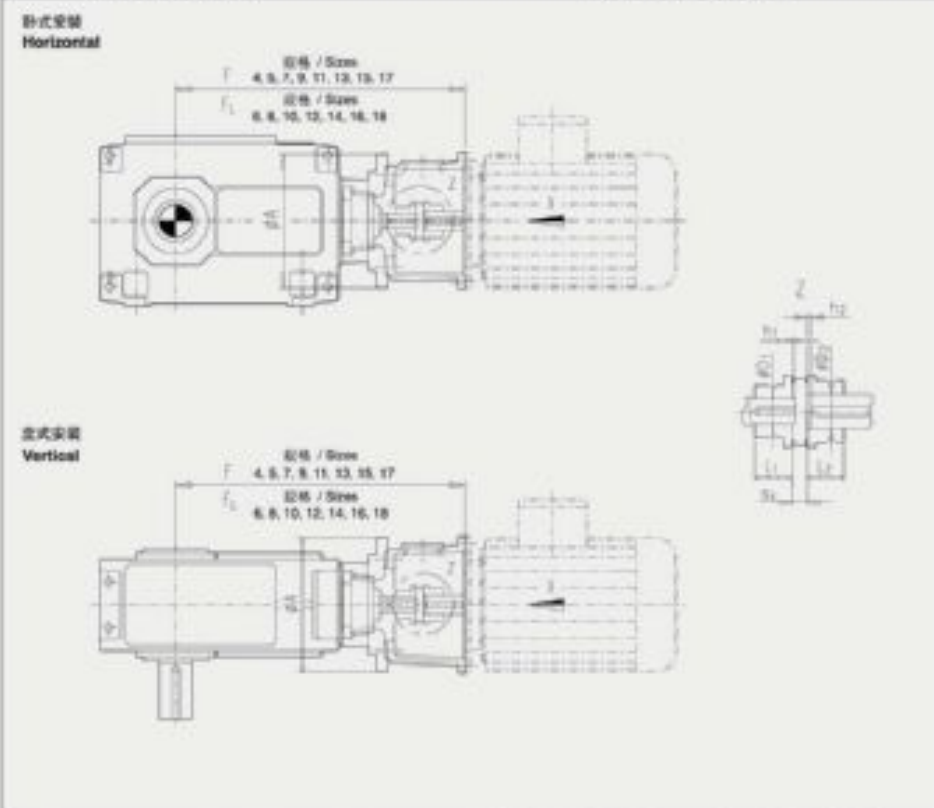
Gear Units Motor Bell Housing for IEC Standard Motors / With BIPEX Coupling
Type MTB3... / Sizes 4-18

表 8 / Table 8

规格 Size	电机 Motor IEC	传动比 i_g / Ratio i_g											传动比 i_g / Ratio i_g										
		12.5 - 45 (规格 / Sizes 4, 5, 7, 9, 11) 16 - 36 (规格 / Sizes 6, 8, 10, 12) 12.5 - 45 (规格 / Sizes 13, 15, 17) 16 - 56 (规格 / Size 14) 14 - 50 (规格 / Sizes 16, 18)											50 - 71 (规格 / Sizes 4, 5, 7, 9, 11) 63 - 90 (规格 / Sizes 6, 8, 10, 12) 50 - 71 (规格 / Sizes 13, 15, 17) 63 - 90 (规格 / Size 14) 56 - 80 (规格 / Sizes 16, 18)										
		BIPEX [DWA]	a_g mm	l_1 mm	D_1 mm	l_2 mm	D_2 mm	f_1 mm	f_2 mm	f mm	ℓ mm	A mm	BIPEX [DWA]	a_g mm	l_1 mm	D_1 mm	l_2 mm	D_2 mm	f_1 mm	f_2 mm	f mm	ℓ mm	A mm
4	132												72	18	35	25	35	35	15.5	0	640.5	-	250
	160	84	21	40	30	40	42	-3.5	4	708.5	-	290	84	21	40	25	40	42	8.5	0	682.5	-	250
	180	97	24	50	30	50	48	-2.5	2	708.5	-	250	97	24	40	25	50	48	11.5	0	682.5	-	250
	200	112	27	55	30	60	55	12.5	0	694.5	-	250											
5 / 6	160	84	21	40	35	40	42	14.5	0	771.5	806.5	350	84	21	40	28	40	42	-2.5	3	771.5	806.5	350
	180	97	24	50	35	50	48	17.5	0	771.5	806.5	350	97	24	30	28	50	48	0	2.5	771.5	806.5	350
	200	112	27	60	35	60	55	8.5	0	762.5	818.5	350	112	27	60	28	60	55	-5.5	0	762.5	818.5	350
	225	127	27	65	35	65	60	0	2.5	824.5	850.5	350											
7 / 8	160												84	21	40	35	40	42	0	2.5	900.5	948.5	440
	180												97	24	50	35	50	48	0.5	0	900.5	948.5	440
	200	112	27	60	45	60	55	17.5	0	909.5	954.5	440	112	27	60	35	60	55	0	2.5	909.5	945.5	440
	225	127	27	65	45	65	60	6.5	0	950.5	995.5	440	127	27	65	35	65	60	1.0	0	935.5	980.5	440
9 / 10	200																						
	225	127	27	65	55	65	60	1.5	0	1075.5	1125.5	440	127	27	65	40	65	60	-4	4.5	1075.5	1125.5	440
	250	127	27	65	55	65	65	0	0	1077	1127	440	127	27	65	40	65	65	-5	5	1077	1127	440
	280	142	31	75	55	75	75	-7.5	7.5	1096	1146	440	142	31	75	40	75	75	2.5	2.5	1076	1126	440
11 / 12	225												127	27	65	50	65	60	-3	3.5	1243.5	1313.5	440
	250	142	31	75	70	75	65	0	0	1280	1330	440	127	27	65	50	65	65	-3	3.5	1243.5	1313.5	440
	280	142	31	75	70	75	75	-6.5	6.5	1279	1349	440	142	31	75	50	75	75	12	0	1229	1299	440
	315	162	36	85	70	80	80	-7.5	7.5	1310	1360	440	162	36	80	50	80	80	16	0	1296	1306	440
13 / 14	280												142	31	75	60	75	75	12	0	1424	1494	650
	315	182	42	90	80	90	80	-5	4	1511	1561	445	162	36	80	60	80	16	0	1461	1531	650	
	315 L1	182	42	90	80	90	80	-5	4	1511	1561	445	182	42	90	60	90	80	16	0	1461	1531	650
	315 L2	182	42	90	80	90	80	-5	4	1511	1561	445	182	42	90	60	90	80	16	0	1461	1531	650
15 / 16	355 M	202	48	100	80	100	90	16	0	1482	1562	650	202	48	100	60	100	90	-4.5	4.5	1482	1562	650
	355 L	227	54	110	80	110	90	22	0	1482	1562	650											
	315												162	36	80	70	80	80	12	0	1730	1740	650
	315 L1												162	42	90	70	80	80	18	0	1730	1740	650
17 / 18	315 L2												162	42	90	70	90	80	18	0	1730	1740	650
	355 M	202	48	100	90	100	90	16	0	1732	1778	650	202	48	100	70	100	90	-3.5	3.5	1732	1778	650
	355 L	227	54	110	90	110	90	24	0	1732	1778	650	227	54	110	70	110	90	-1	0	1732	1778	650
	315 L1												162	42	90	80	90	80	-3	0	1945	2005	650
17 / 18	315 L2												162	42	90	80	90	80	-3	0	1945	2005	650
	355 M	227	54	110	110	110	90	-5	0	1989	2059	650	202	48	100	80	100	90	1	0	1947	2007	650
	355 L	227	54	110	110	110	90	-5	0	1989	2059	650	227	54	110	80	110	90	7	0	1947	2007	650

齿轮箱 用于 IEC - 标准电机的电机安装法兰 / 带 BIPEX 联轴节 类型 MTB4... / 规格 5-18

Gear Units Motor Bell Housing for IEC Standard Motors / With BIPEX Coupling Type MTB4... / Sizes 5-18



• 对于有特殊设计要求的设备，例如，高开关频率、交替负载方向的升降梯、行走机等，其联轴节布置形式必须参阅相关的联轴节样本，对于其它联轴节，请与我公司。

• IEC - 标准电机的安装尺寸，参见第 312 页。

• 输入轴不能采用唇齿式密封 E 或迷宫式密封。

1) 其它电机的详细请咨询

2) 仅指规格 315 S 和 315 M

3) 联轴节轴长度 l_1 已短为适配透轴密封输入轴的情况。

• For plants with special design requirements (high switching frequency, alternating direction of load; e.g. hoisting gears, travelling gears, etc.) the coupling design is to be checked in accordance with the respective valid coupling brochure. For other couplings, please consult us!

• For fitting dimensions for IEC standard motors, see page 312.

• Not in connection with Tacorite E or labyrinth seal on input shaft.

1) Other motor sizes on request

2) Sizes 315 S and 315 M only

3) Length l_1 of coupling hub shortened for fitting onto gear unit shaft.

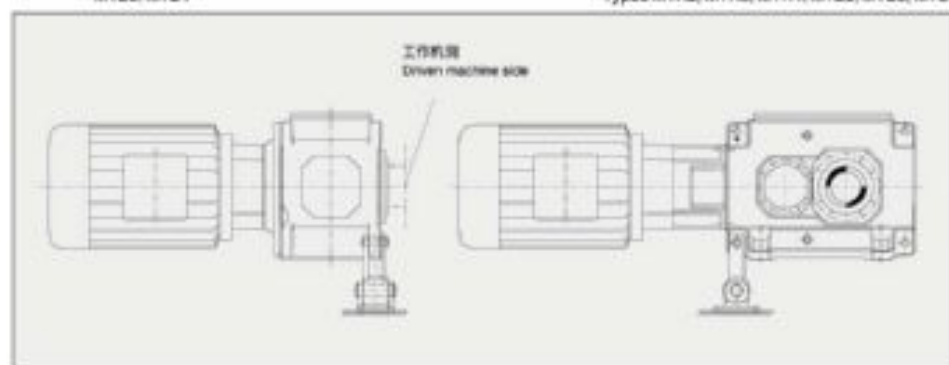
齿轮箱 用于 IEC - 标准电机的电机安装法兰 / 带 BIPEX 联轴节 类型 MTB4... / 规格 5-18

Gear Units Motor Bell Housing for IEC Standard Motors / With BIPEX Coupling Type MTB4... / Sizes 5-18

规格 Size	电机 Motor IEC 1)	传动比 i_g / Ratio i_g											传动比 i_g / Ratio i_g																
		BIPEX BWN	i_g min	i_g max	l_1 min	D_1 min	l_2 min	D_2 min	h_1 min	h_2 min	f min	f max	l_1 min	A min	BIPEX BWN	i_g min	i_g max	l_1 min	D_1 min	l_2 min	D_2 min	h_1 min	h_2 min	f min	f max	l_1 min	A min		
5 / 6	100														82	16	30	20	30	28	8	0	735	770	250				
	112	82	16	30	28	30	28	2	2	790	785	250			82	16	30	20	30	28	8	0	735	770	250				
	132	72	18	35	28	35	34	8.5	0	767.5	802.5	250			72	18	35	20	35	34	-2.5	2	767.5	802.5	250				
	160	84	21	40	28	40	42	-1.5	0	802.5	837.5	250																	
7 / 8	112														82	18	30	25	30	28	8	0	805	900	250				
	132	72	18	30	30	36	36	5.8	0	897.5	932.5	250			72	18	35	25	35	36	10.0	0	872.5	917.5	250				
	160	84	21	40	30	40	42	-3.5	4	933.5	978.5	250			84	21	40	25	40	42	8.5	0	907.5	952.5	250				
	200	112	27	55	30	60	55	12.5	0	918.5	964.5	250																	
9 / 10	132														72	18	35	28	35	38	-1.5	3	1001.5	1051.5	350				
	160	84	21	40	35	40	42	14.5	0	1036.5	1086.5	350			84	21	40	28	40	42	-2.5	3	1036.5	1086.5	350				
	180	97	24	50	30	50	48	17.5	0	1036.5	1086.5	350			97	24	50	28	50	48	0	2.5	1036.5	1086.5	350				
	225	127	27	65	35	65	60	0	2.5	1089.5	1139.5	350																	
11 / 12	160														84	21	40	35	40	42	0	2.5	1223.5	1293.5	440				
	180	97	24	50	45	50	48	-2.5	3	1249.5	1319.5	440			97	24	50	35	50	48	8.5	0	1223.5	1293.5	440				
	200	112	27	60	45	60	55	17.5	0	1229.5	1299.5	440			112	27	60	35	60	55	-2.5	0	1229.5	1299.5	440				
	225	127	27	65	45	65	60	8.8	0	1270.5	1340.5	440			127	27	65	35	65	60	-6.5	7	1270.5	1340.5	440				
	280	142	31	75	45	75	75	-5	5	1291	1361	440																	
13 / 14	180														97	24	50	40	50	48	5.5	0	1388.5	1468.5	440				
	200	112	27	60	55	60	55	12.8	0	1404.5	1474.5	440			112	27	60	40	60	55	2.5	0	1404.5	1474.5	440				
	225	127	27	65	55	65	60	1.6	0	1445.5	1515.5	440			127	27	65	50	65	60	-4	4.5	1445.5	1515.5	440				
	280	142	31	75	65	75	75	0	0	1447	1517	440			142	31	75	40	65	65	-5	3	1447	1517	440				
	315 2)	162	30	80	55	80	80	3	0	1483	1553	440																	
	315 L1	182	42	90	55	90	80	9	0	1483	1553	440																	
315 L2	182	42	90	55	90	80	9	0	1483	1553	440																		
15 / 16	200														112	27	60	50	60	58	-5	5.5	1669.5	1705.5	440				
	225	142	31	75	70	75	60	4.5	-3	1700.5	1746.5	440			127	27	65	50	65	60	-3	3.5	1669.5	1705.5	440				
	280	142	31	75	70	75	60	6	0	1702	1748	440			127	27	65	50	65	60	-3	3.5	1669.5	1705.5	440				
	315 2)	162	30	80	70	80	75	-8.5	6.5	1721	1767	440			142	31	75	50	75	75	12	0	1671	1717	440				
	315 L1	182	42	90	70	90	80	9	0	1738	1784	440			162	30	80	50	80	80	10	0	1708	1754	440				
	315 L2	182	42	90	70	90	80	11	0	1738	1784	440																	
355 M	202	48	100	70	100	90	15	0	1740	1786	650																		
17 / 18	225														127	27	65	50	65	60	-3	-3.5	1733.5	1793.5	440				
	280														127	27	65	50	65	60	-3	-3.5	1733.5	1793.5	440				
	315 2)	162	30	80	70	80	75	-8.5	6.5	1789	1829	440			142	31	75	50	75	75	12	0	1718.5	1778.5	440				
	315 L1	182	42	90	70	90	80	-4.5	4.5	1806	1866	440			162	30	80	50	80	80	10	0	1756	1816	440				
	315 L2	182	42	90	70	90	80	-4.5	4.5	1806	1866	440			162	42	90	70	90	80	16	0	1756	1816	440				
	355 M	202	48	100	70	100	90	15	0	1788	1848	650																	
355 L	227	54	110	70	110	90	21	0	1788	1848	650																		

齿轮箱 齿轮箱减振扭力臂支撑

类型 MTH2, MTH3, MTH4, MTB2, MTB3, MTB4



最大可传递转矩受扭力臂支撑的限制。

$$T_{max} = T_{gear} \times T_{arm}$$

表1 / Table 1

齿轮箱规格 Gear unit size	扭力臂支撑的峰值转矩系数 T_{gear} ¹⁾ Peak torque factor T_{gear} for torque support					
	类型 / Type					
	MTH2	MTH3	MTH4	MTB2	MTB3	MTB4
4	1.3	-	-	1.2	1.2	-
5	1.9	2.0	-	1.2	1.6	2.0
6	1.6	1.7	-	1.2	1.4	1.7
7	2.0	2.0	2.0	1.3	1.8	2.0
8	1.7	2.0	2.0	1.2	1.6	2.0
9	1.5	1.6	1.7	1.2	1.2	1.7
10	1.3	1.4	1.4	1.2	1.2	1.4
11	2.0	2.0	2.0	1.9	2.0	1.2
12	2.0	2.0	2.0	1.8	2.0	1.2
13	-	2.0	2.0	1.4	1.8	2.0
14	-	1.9	2.0	1.3	1.7	2.0
15	-	1.5	1.7	-	1.4	1.6
16	-	1.4	1.5	-	1.3	1.5
17	-	1.2	1.3	-	1.2	1.3
18	-	1.2	1.2	-	1.2	1.2
19 - 26	敬请咨询 / On request					

1) 表中给出的数值为最小值。
受转矩方向及电机类型确定后有可能允许更大的峰值转矩。

请参见

Gear Units Vibration Reducing Torque Supports for Gear Housings

Types MTH2, MTH3, MTH4, MTB2, MTB3, MTB4

The maximum transmissible torque is limited by the torque support.

$$T_{max} = T_{gear} \times T_{arm}$$

1) The values in the table are minimum values. Dependent on direction of rotation and motor type, higher peak torques may possibly be allowed. Please consult us!

齿轮箱 齿轮箱减振扭力臂支撑

类型 MTH2, MTH3, MTH4, MTB2, MTB3, MTB4



- 若工作机侧的扭力臂支撑，(布置形式 C, D, G, H, I 的平行轴齿轮减速机必须使用)
- 不带电机安装法兰的齿轮箱只能用于不受剪力的弹性联轴器。
- 与风冷型齿的扭力臂支撑必须使用。

- Torque support on driven machine side. (Helical gear unit in C, D, G, H, I design on request only)
- For gear units without motor bolt housing only couplings not transmitting shear forces are allowed.
- Torque support in combination with fan on request only.

表2 / Table 2

齿轮箱规格 Gear unit size	A	B	$\pm d_2$	F	H ₁	H ₂	n	s	r ₁	轴径范围 Shaft	重量 Weight kg
	mm										
4	160	110	19	116	200	65	120	70	15	070	6.8
5 + 6	200	160	19	170	250	90	160	120	20	085	16
7 + 8	320	200	19	195	400	140	260	130	25	770	37
9 + 10											40
11 + 12											105
13 + 14											159
15 + 16	400	300	24	320	500	175	300	240	30	805	163
17 + 18											167
19 - 26	敬请咨询 / On request										

齿轮箱 此齿轮箱底座采用 N-EUPEX 联轴器
类型 MTB3, MTB4 / 规格 4-12

Gear Units Gear Unit Swing-bases with N-EUPEX Couplings
Types MTB3, MTB4 / Sizes 4-12

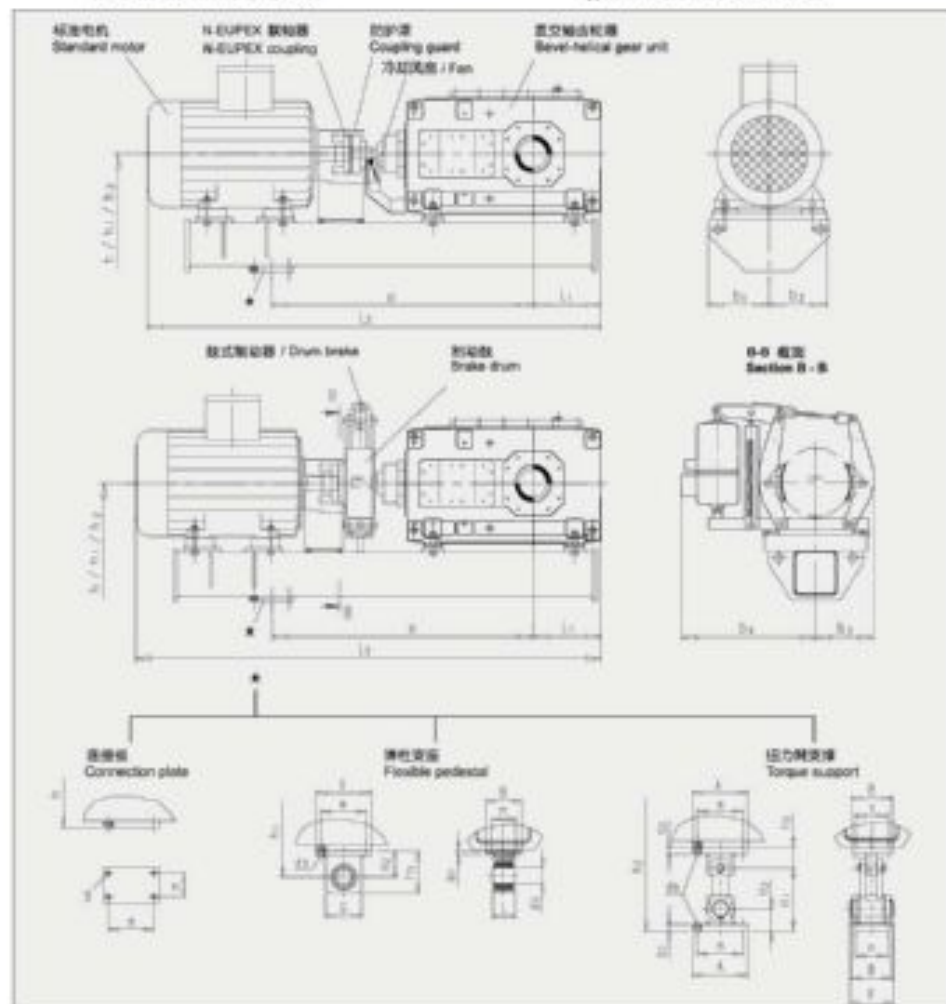


表 2 / Table 2

规格 Size	衬套 Bush	m	n	g	dg	A	B	dg	F	G	H ₁	H ₂	H ₃	I	K ₂	重量 Pedestal kg	扭力棘突块 Torque support kg
4	069	95	65	M12	15	120	90	25	96	60	180	50	80	56	12	2.1	5.8
5-8	078	120	70	M16	19	160	110	32	116	75	200	65	106	72	15	5.3	11.8
7-10	095	160	120	M16	19	200	160	50	176	110	250	90	145	110	20	16	34
11-12	172	260	130	M16	19	320	200	100	190	160	400	140	230	120	25	50	82

齿轮箱 此齿轮箱底座采用 N-EUPEX 联轴器
类型 MTB3 / 规格 4-12

Gear Units Gear Unit Swing-bases with N-EUPEX Couplings
Types MTB3 / Sizes 4-12

表 3 / Table 3

类型 规格 Type Size	EC 电机 EC motor							N-EUPEX 联轴器 N-EUPEX coupling				带鼓式制动器的 N-EUPEX 联轴器 N-EUPEX coupling with drum brake						
		a	h	h ₁	h ₂	h ₃	h ₄	l ₁ = 12.5 - 45		l ₂ = 50 - 71		h ₅	h ₆	l ₃ = 12.5 - 45		l ₄ = 50 - 71		
								l ₁ ± 2	l ₂ ± 2	l ₃ ± 2	l ₄ ± 2			l ₃ ± 2	l ₄ ± 2			
MTB3.4	130 B	950	380	430	610	190	160	145	-	-	1194	1194	-	-	1237	1237	1237	1237
	150 M						130	1363	1363	1333	1333	170	470	1276	1276	1420	1420	
	160 L						200	1409	1409	1397	1367	1469	1469	1469	1469	1500	1500	
	180 M						185	1447	1451	-	-	210	590	1500	1500	-	-	
	190 L						215	1529	1534	-	-	-	-	1585	1585	-	-	
	220 L						-	-	-	-	-	-	-	-	-	-	-	
MTB3.5	160 M	1000	450	515	715	205	185	1487	1487	1467	1477	170	470	1516	1516	1516	1516	
	180 M						185	1509	1509	1489	1489	210	590	1556	1556	1590	1590	
	190 L						215	1547	1547	1527	1542	-	-	1675	1675	-	-	
	200 L						225	1629	1629	-	-	360	665	1759	1759	-	-	
	220 S						240	1662	1662	-	-	-	-	1764	1764	-	-	
	220 M						225	1527	1527	-	-	-	-	-	-	-	-	
MTB3.6	160 M	1000	450	515	715	205	170	-	-	1503	1503	170	470	1546	1546	1546	1546	
	180 L						185	1567	1567	1547	1567	-	-	1636	1636	-	-	
	190 M						185	1589	1589	1569	1579	210	590	1676	1676	1710	1710	
	200 L						215	1628	1628	-	-	-	-	1756	1756	-	-	
	220 S						225	1762	1762	-	-	360	665	1836	1836	-	-	
	220 M						240	1797	1797	-	-	-	-	1864	1864	-	-	
MTB3.7	160 M	1150	540	630	880	250	185	-	-	1669	1669	210	590	-	-	1716	1716	
	180 L						215	1628	1628	1719	1719	-	-	1840	1840	-	-	
	200 L						240	1662	1662	1642	1642	-	-	1916	1916	-	-	
	220 M						240	1687	1687	1667	1667	260	665	1944	1944	-	-	
	250 M						260	2051	2051	-	-	-	-	2051	2051	-	-	
	280 S						300	2049	2049	-	-	310	765	2147	2147	-	-	
MTB3.8	160 M	1200	540	630	880	310	185	-	-	1774	1774	210	590	-	-	1826	1826	
	180 L						215	1628	1628	1642	1642	-	-	1940	1940	-	-	
	200 L						215	1614	1614	1594	1594	-	-	1940	1940	-	-	
	220 S						240	1667	1667	1647	1647	260	665	2024	2024	-	-	
	220 M						240	1662	1662	1642	1642	260	665	2049	2049	-	-	
	250 M						260	2079	2079	-	-	-	-	2136	2136	-	-	
MTB3.9	160 M	1550	630	720	970	300	215	-	-	1969	1969	210	590	-	-	2000	2000	
	220 S						240	2067	2067	2047	2047	260	665	2104	2104	-	-	
	220 M						240	2067	2067	2047	2047	260	665	2104	2104	-	-	
	250 M						260	2144	2144	2124	2124	-	-	2191	2191	-	-	
	280 S						300	2218	2218	2208	2208	310	765	2207	2207	-	-	
	280 M						300	2269	2269	-	-	-	-	2269	2269	-	-	
MTB3.10	160 M	1400	630	720	970	300	215	-	-	2069	2069	210	590	-	-	2100	2100	
	220 S						240	2157	2157	2147	2147	260	665	2204	2204	-	-	
	220 M						240	2244	2244	2224	2224	-	-	2291	2291	-	-	
	250 M						260	2318	2318	2308	2308	-	-	2307	2307	-	-	
	280 M						300	2369	2369	-	-	-	-	2369	2369	-	-	
	310 S						330	2514	2514	-	-	310	765	2603	2603	-	-	
MTB3.11	160 M	1050	740	880	1280	345	215	-	-	2549	2549	260	665	-	-	2596	2596	
	220 S						240	2499	2499	2479	2479	210	765	2663	2663	-	-	
	220 M						240	2544	2544	2524	2524	-	-	2708	2708	-	-	
	250 M						260	2690	2690	2670	2670	-	-	2759	2759	-	-	
	280 M						300	2846	2846	-	-	360	840	2896	2896	-	-	
	310 L						330	2956	2956	-	-	-	-	2971	2971	-	-	
MTB3.12	160 M	1600	740	880	1280	430	215	-	-	2504	2504	260	665	-	-	2551	2551	
	220 S						240	2654	2654	2634	2634	210	765	2718	2718	-	-	
	220 M						240	2709	2709	2689	2689	-	-	2803	2803	-	-	
	250 M						260	2860	2860	2840	2840	-	-	2914	2914	-	-	
	280 M						300	3041	3041	-	-	360	840	3053	3053	-	-	
	310 L						330	3111	3111	-	-	-	-	3228	3228	-	-	

齿轮箱 齿轮箱浮动底座带 N-EUPEX 联轴器
类型 MTB4 / 规格 5-12

Gear Units Gear Unit Swing-bases with N-EUPEX Couplings
Types MTB4 / Sizes 5-12

表 4 / Table 4

类型 规格 Type Size	符合 DIN42673 标准的 EC 电机 EC motor acc. to DIN 42673	N-EUPEX 联轴器 N-EUPEX coupling						带鼓式制动器的 N-EUPEX 联轴器 N-EUPEX coupling with drum brake									
		m	n	g	d ₂	A	B	d ₂	B ₄	F	G	H ₁	H ₂	H ₃	l	e ₁	
MTB4.5	100LD	1000	450	515	715	205	185	115	—	1258	—	—	—	1309	—	—	
	112M							136	1287	1262	—	—	1315	1315			
	132S							145	1319	1314	170	470	1367	1367			
	132M							145	1357	1352	—	—	1405	1405			
	160M							179	1458	—	—	—	1508	—			
	160L							179	1502	—	—	—	1550	—			
160M	185	1524	—	—	210	590	1695	—									
MTB4.6	100LD	1050	450	515	715	250	185	115	—	1336	—	—	—	1349	—	—	
	112M							130	1347	1342	—	—	1395	1395			
	132S							145	1396	1394	170	470	1447	1447			
	132M							145	1437	1432	—	—	1485	1485			
	160M							179	1538	—	—	—	1586	—			
	160L							179	1582	—	—	—	1630	—			
160M	185	1604	—	—	210	590	1675	—									
MTB4.7	132S	1150	540	630	880	250	215	145	—	1479	—	—	—	1552	—	—	
	132M							157	1527	1517	170	470	1560	1560			
	160M							179	1628	1618	—	—	1661	1661			
	160L							179	1672	1662	—	—	1705	1705			
	180M							185	1694	—	—	—	1750	—			
	180L							185	1732	—	—	—	1798	—			
200L	215	1814	—	—	210	590	1870	—									
MTB4.8	132S	1200	540	630	880	310	215	145	—	1584	—	—	—	1627	—	—	
	132M							155	1632	1622	170	470	1685	1685			
	160M							179	1733	1723	—	—	1796	1796			
	160L							179	1777	1767	—	—	1810	1810			
	180M							185	1789	—	—	—	1855	—			
	180L							185	1837	—	—	—	1893	—			
200L	215	1919	—	—	210	590	1975	—									
MTB4.9	132M	1350	630	720	970	300	260	145	—	1682	—	—	—	1725	—	—	
	160M							179	—	1783	170	470	—	—	1820	—	—
	160L							179	1847	1827	—	—	1878	1870			
	180M							185	1865	1849	—	—	1915	1915			
	180L							185	1907	1887	210	590	1953	1953			
	200L							215	1989	—	—	—	2025	—			
225S	240	2043	—	—	—	2118	—										
225M	240	2087	—	—	260	665	2144	—									
250M	305	2154	—	—	—	—	2231	—									
MTB4.10	132M	1400	630	720	970	350	260	145	—	1782	—	—	—	1825	—	—	
	160M							179	—	1883	170	470	—	—	1928	—	—
	160L							179	1847	1827	—	—	1876	1870			
	180M							185	1860	1849	—	—	2015	2015			
	180L							185	2007	1987	210	590	2063	2063			
	200L							215	2089	—	—	—	2135	—			
225S	240	2142	—	—	—	2219	—										
225M	240	2187	—	—	260	665	2264	—									
250M	305	2254	—	—	—	—	2331	—									
MTB4.11	160L	1500	740	880	1280	340	270	179	—	2062	170	470	—	—	2090	—	
	180M							—	—	2064	—	—	—	—	2130	—	—
	180L							185	2142	2122	210	590	2173	2168			
	200L							215	2234	2204	—	—	2255	2250			
	225S							240	2277	2257	—	—	2334	2324			
	225M							240	2302	—	—	260	665	2359	—		
250M	265	2389	—	—	—	—	2448	—									
280S	305	2463	—	—	310	785	2562	—									
280M	305	2514	—	—	—	—	2613	—									
MTB4.12	160L	1600	740	880	1280	430	270	179	—	2217	170	470	—	—	2245	—	
	180M							—	—	2239	—	—	—	—	2285	—	—
	180L							185	2287	2277	210	590	2328	2323			
	200L							215	2379	2359	—	—	2410	2405			
	225S							240	2432	2412	—	—	2489	2489			
	225M							240	2457	—	—	260	665	2514	—		
250M	265	2544	—	—	—	—	2601	—									
280S	305	2618	—	—	310	785	2717	—									
280M	305	2669	—	—	—	—	2768	—									

1) 数据示例 2) l₁^a, l₂^a 用于带冷却风扇的齿轮箱

1) On request 2) l₁^a, l₂^a for gear units with fan

齿轮箱 齿轮箱浮动底座带 N-EUPEX 联轴器
类型 MTB3, MTB4 / 规格 13-18

Gear Units Gear Unit Swing-bases with N-EUPEX Couplings
Types MTB3, MTB4 / Sizes 13-18

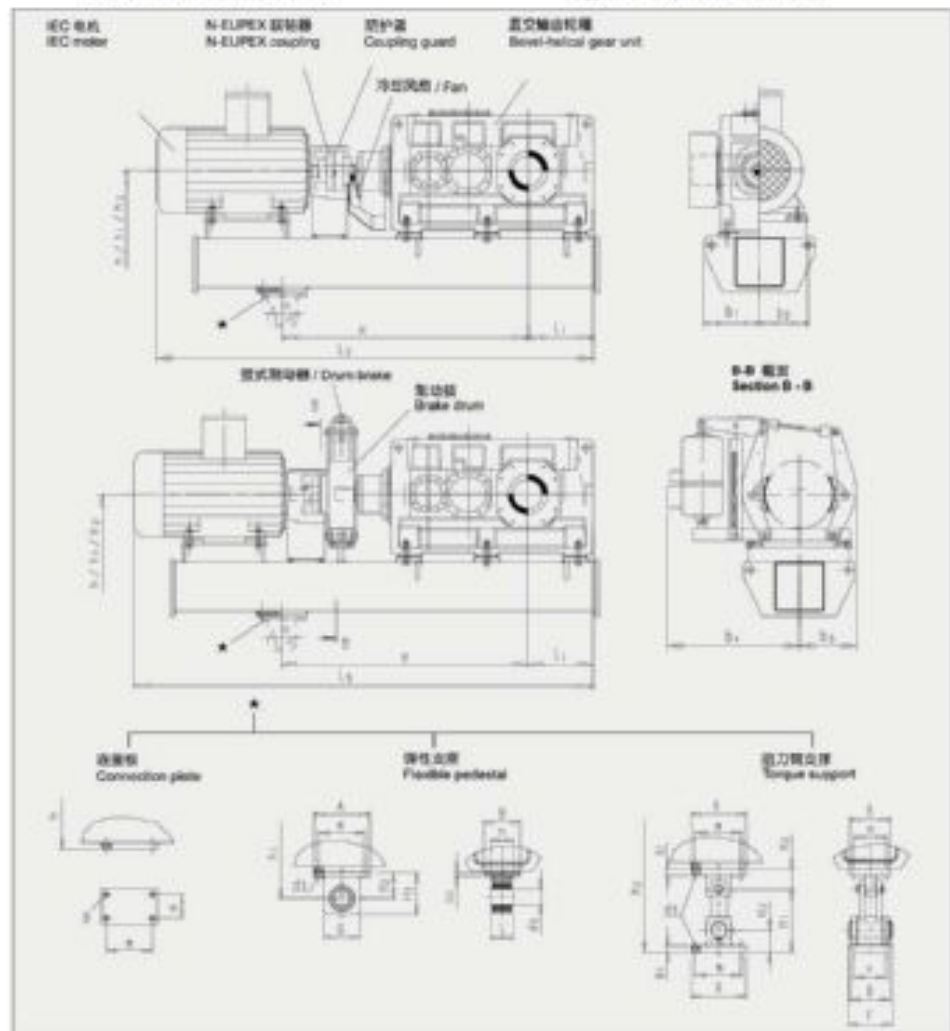


表 5 / Table 5

规格 Size	衬套 Bush	重量 / Weight															
		m	n	g	d ₂	A	B	d ₂	F	G	H ₁	H ₂	H ₃	l	e ₁	底座 Pedestal kg	扭力臂支撑 Torque support kg
13-14	772	200	130	∅19	18	320	200	100	195	180	400	140	230	120	25	50	82
15-18	805	300	240	∅24	24	400	300	124	220	240	500	175	285	230	30	95	220

齿轮箱 出轴端浮动底座带 N-EUPEX 联轴器
类型 MTB3 / 规格 13-18

Gear Units Gear Unit Swing-bases with N-EUPEX Couplings
Types MTB3 / Sizes 13-18

表 6 / Table 6

类型 规格 Type Size	IEC 电机 IEC motor	N-EUPEX 联轴器 N-EUPEX coupling						带鼓式制动器的 N-EUPEX 联轴器 N-EUPEX coupling with drum brake							
		a	h	h ₁	h ₂	l ₁	b ₁	b ₂	b ₃	b ₄	l ₂	l ₂ ²⁾	l ₃	l ₃ ²⁾	2788
MTB3-13	280 M	1750	800	940	1340	405	345	300	-	-	2729	2729	-	-	2788
	315 S							-	-	2874	2874	-	-	2933	
	315 M							2950	2950	2925	2925	310	785	2999	2994
	315 L1							2950	2950	2925	2925	-	-	2999	2984
	315 L2							3072	3072	3047	3047	-	-	3154	3154
	355 M							3141	3141	-	-	385	840	3223	-
	355 L							3211	3211	-	-	-	-	3258	-
MTB3-14	280 M	1750	800	940	1340	475	345	300	-	-	2869	2869	-	-	2928
	315 S							-	-	3014	3014	-	-	3073	
	315 M							3080	3080	3065	3065	310	785	3138	3124
	315 L1							3080	3080	3065	3065	-	-	3138	3124
	315 L2							3212	3212	3187	3187	-	-	3294	3294
	355 M							3281	3281	-	-	385	840	3263	-
	355 L							3351	3351	-	-	-	-	3436	-
MTB3-15	315 M	2000	990	1165	1665	485	345	330	-	-	3247	3247	310	785	3306
	315 L1							-	-	3247	3247	-	-	3306	
	315 L2							-	-	3369	3369	-	-	3478	
	355 M							3483	3483	3438	3438	385	840	3545	3545
	355 L							3533	3533	3508	3513	-	-	3620	3620
	315 M							-	-	3338	3338	310	785	-	3397
	315 L1							-	-	3338	3338	-	-	3397	3397
MTB3-16	315 L2	2000	990	1165	1665	530	345	330	-	-	3480	3480	-	-	3567
	355 M							3554	3554	3529	3529	385	840	3636	3636
	355 L							3624	3624	3599	3604	-	-	3711	3711
	315 L2							-	-	3632	3632	-	-	3709	3709
	355 M							-	-	3791	3791	385	840	-	3778
	355 L							3806	3806	3771	3771	-	-	3858	3853
	315 L2							-	-	3752	3752	-	-	3829	3829
MTB3-18	355 M	2200	1050	1225	1725	585	500	380	-	-	3821	3821	385	840	3899
	355 L							3928	3928	3891	3891	-	-	3988	3973

1) 普通系列
2) l₂¹⁾, l₂²⁾ 用于带冷却风扇的齿轮箱
齿轮箱浮动底座的重要参数表

1) On request
2) l₂¹⁾, l₂²⁾ for gear units with fan
Weight of gear unit swing-base on request.

齿轮箱 出轴端浮动底座带 N-EUPEX 联轴器
类型 MTB4 / 规格 13-18

Gear Units Gear Unit Swing-bases with N-EUPEX Couplings
Types MTB4 / Sizes 13-18

表 7 / Table 7

类型 规格 Type Size	IEC 电机 IEC motor acc. to DIN 42673	N-EUPEX 联轴器 N-EUPEX coupling						带鼓式制动器的 N-EUPEX 联轴器 N-EUPEX coupling with drum brake								
		a	h	h ₁	h ₂	l ₁	b ₁	b ₂	b ₃	b ₄	l ₂	l ₂ ²⁾	l ₃	l ₃ ²⁾	2355	
																l ₁ ¹⁾
MTB4-13	180 M	1750	800	940	1340	405	345	185	-	-	2324	2324	210	580	-	2385
	180 L							-	-	2362	2362	-	-	2390		
	200 L							-	-	2444	2444	-	-	2475		
	225 S							240	2507	2497	-	-	2554	2554		
	250 M							265	2532	2522	280	665	2579	2579		
	250 S							265	2619	2609	-	-	2666	2666		
	280 S							300	2693	-	-	-	2782	-		
	280 M							300	2744	-	-	310	785	2833	-	
	315 S							330	2889	-	-	-	-	2978	-	
	315 M							330	2940	-	-	-	-	3029	-	
MTB4-14	180 M	1750	800	940	1340	475	345	185	-	-	2454	2454	210	580	-	2495
	180 L							-	-	2502	2502	-	-	2532		
	200 L							-	-	2584	2584	-	-	2615		
	225 S							240	2647	2637	-	-	2694	2694		
	250 M							265	2672	2662	280	665	2719	2719		
	250 S							265	2709	2709	-	-	2806	2806		
	280 S							300	2833	-	-	-	2922	-		
	280 M							300	2894	-	-	310	785	2973	-	
	315 S							330	3029	-	-	-	-	3118	-	
	315 M							330	3080	-	-	-	-	3169	-	
MTB4-15	200 L	2000	990	1165	1665	485	345	215	-	-	2786	2786	210	580	-	2797
	225 S							-	-	2819	2819	-	-	2866		
	225 M							240	-	2844	2844	280	665	-	2891	
	250 M							265	2956	2931	-	-	2995	2979		
	280 S							300	3030	3005	-	-	3111	3094		
	280 M							300	3081	3056	-	-	3145	3145		
	315 S							330	3238	-	-	310	785	3290	-	
	315 M							330	3277	-	-	-	-	3341	-	
	315 L1							330	3277	-	-	-	-	3341	-	
	315 L2							330	3277	-	-	385	840	3571	-	
MTB4-16	200 L	2000	990	1165	1665	530	345	215	-	-	2857	2857	210	580	-	2868
	225 S							-	-	2910	2910	-	-	2957		
	225 M							240	-	2935	2935	280	665	-	2962	
	250 M							265	3047	3022	-	-	3086	3069		
	280 S							300	3121	3096	-	-	3202	3185		
	280 M							300	3172	3147	-	-	3236	3236		
	315 S							330	3317	-	-	310	785	3381	-	
	315 M							330	3368	-	-	-	-	3432	-	
	315 L1							330	3368	-	-	-	-	3432	-	
	315 L2							330	3368	-	-	385	840	3662	-	
MTB4-17	225 M	2200	1050	1225	1725	525	500	240	-	-	2932	2932	280	665	-	2979
	250 M							265	-	3010	3010	-	-	3066		
	280 S							300	3118	3093	-	-	3190	3182		
	280 M							300	3169	3144	-	-	3233	3233		
	315 S							330	3314	3289	310	785	3378	3378		
	315 M							330	3365	-	-	-	-	3429	-	
	315 L1							330	3365	-	-	-	-	3429	-	
	315 L2							330	3365	-	-	385	840	3668	-	
	355 M							380	3506	-	-	-	-	3648	-	
	355 L							380	3629	-	-	-	-	3743	-	
MTB4-18	225 M	2200	1050	1225	1725	585	500	240	-	-	3052	3052	280	665	-	3099
	250 M							265	-	3130	3130	-	-	3186		
	280 S							300	3238	3213	-	-	3318	3302		
	280 M							300	3289	3264	-	-	3353	3353		
	315 S							330	3434	3409	310	785	3498	3498		
	315 M							330	3485	-	-	-	-	3549	-	
	315 L1							330	3485	-	-	-	-	3549	-	
	315 L2							330	3485	-	-	385	840	3779	-	
	355 M							380	3676	-	-	-	-	3758	-	
	355 L							380	3748	-	-	-	-	3863	-	

1) 普通系列 2) l₂¹⁾, l₂²⁾ 用于带冷却风扇的齿轮箱
齿轮箱浮动底座的重要参数表

1) On request 2) l₂¹⁾, l₂²⁾ for gear units with fan
Weight of gear unit swing-base on request

齿轮箱 特殊安装位置
规格 4-18

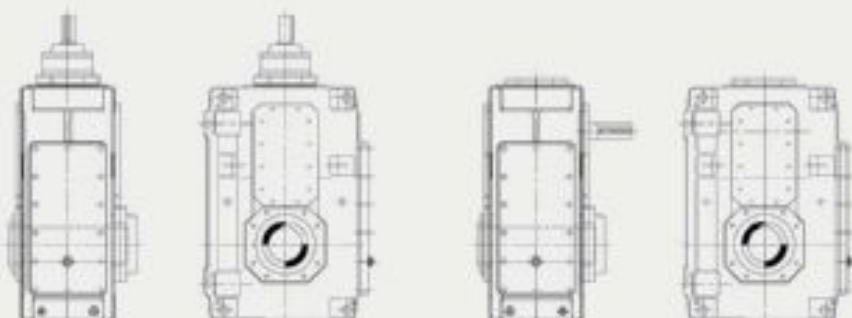
对于下列所示的特殊安装位置也可以提供MTH2、MTH3、MTH4、MTB2、MTB3、和MTB4 齿轮箱的选配。

带轴齿轮箱端盖可以用带螺栓的轴端盖或轴端盖安装。
请参照相应的方式请参考表 2。

Gear Units Special Mounting Positions
Sizes 4-18

Gear units of types MTH2, MTH3, MTH4, MTB2, MTB3, and MTB4, are also available for the special mounting positions illustrated below.
They can be installed, for example, as shaft-mounted gear unit with torque support or by means of base rails.
For oil supply, take into account table 2.

安装位置：轴入轴 d，在上部
Mounting position: Shaft d, upward



安装位置：轴入轴 d，在下部
Mounting position: Shaft d, downward

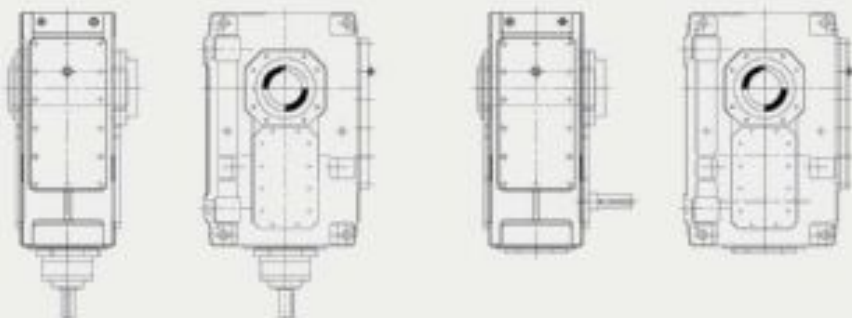
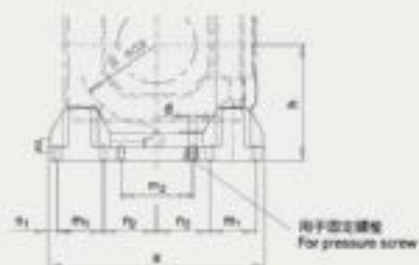
齿轮箱 特殊安装位置
轴端盖安装 / 规格 4-18Gear Units Special Mounting Positions
Housing Base Rails / Sizes 4-18

表 1 / Table 1

规格 Size	MTH2, MTH3, MTH4, MTB2, MTB3, MTB4										MTH2, MTH3, MTH4, MTB3, MTB4			MTB2	
	a	b ₁	b	4 x 4	h	m ₁	m ₂	n ₁	n ₂	8 x 4	R _{max}	b	b ₁	b	b ₁
4	450	75	28	M16	255	110	130	20	95	19	160	355	315	-	-
5	510	75	28	M16	270	110	170	20	125	19	190	395	355	480	420
6	510	75	28	M16	315	110	170	20	125	19	220	395	355	480	420
7	610	90	35	M20	325	130	200	25	150	24	230	470	420	550	500
8	610	90	35	M20	385	130	200	25	150	24	270	470	420	550	500
9	710	110	40	M24	380	160	230	30	165	28	260	580	520	650	590
10	710	110	40	M24	430	160	230	30	165	28	300	580	520	650	590
11	860	120	50	M30	430	190	270	35	205	35	340	680	590	760	690
12	860	120	50	M30	520	190	270	35	205	35	380	680	590	760	690
13	965	100	60	M30	430	280	230	37.5	185	35	300	745	685	850	770
14	965	100	60	M30	500	280	230	37.5	185	35	360	745	685	850	770
15	1060	110	70	M36	505	300	190	45	185	42	350	840	750	980	890
16	1060	110	70	M36	550	300	190	45	185	42	400	840	750	980	890
17	1210	125	80	M42	550	340	250	55	210	48	390	930	820	1135	1015
18	1210	125	80	M42	610	340	250	55	210	48	440	930	820	1135	1015

表 2 / Table 2

规格 Size	MTH2	MTH3	MTH4	MTB2	MTB3	MTB4
4-12	浸油润滑 Dip lubrication	带补偿油箱 的浸油润滑 Dip lubrication with oil compensating tank	带补偿油箱 的浸油润滑 Dip lubrication with oil compensating tank	带轴端盖 的强制润滑 Forced lubrication with fanged-on pump	带轴端盖 的强制润滑 Forced lubrication with fanged-on pump	带轴端盖 的强制润滑 Forced lubrication with fanged-on pump
13-18	带轴端盖 的强制润滑 Forced lubrication with fanged-on pump	带轴端盖 的强制润滑 Forced lubrication with fanged-on pump	带电机 的强制润滑 Forced lubrication with motor pump	带轴端盖 的强制润滑 Forced lubrication with fanged-on pump	带轴端盖 的强制润滑 Forced lubrication with fanged-on pump	带电机 的强制润滑 Forced lubrication with motor pump

通过油路供油设备（油箱、油罐等——）的安装空间

具体尺寸请咨询

Take into account space required for oil supply
elements (pump, pipes, etc.)
Dimensions on request

齿轮箱 水处理用螺旋输送机
 类型 MTB35H / 规格 4-12

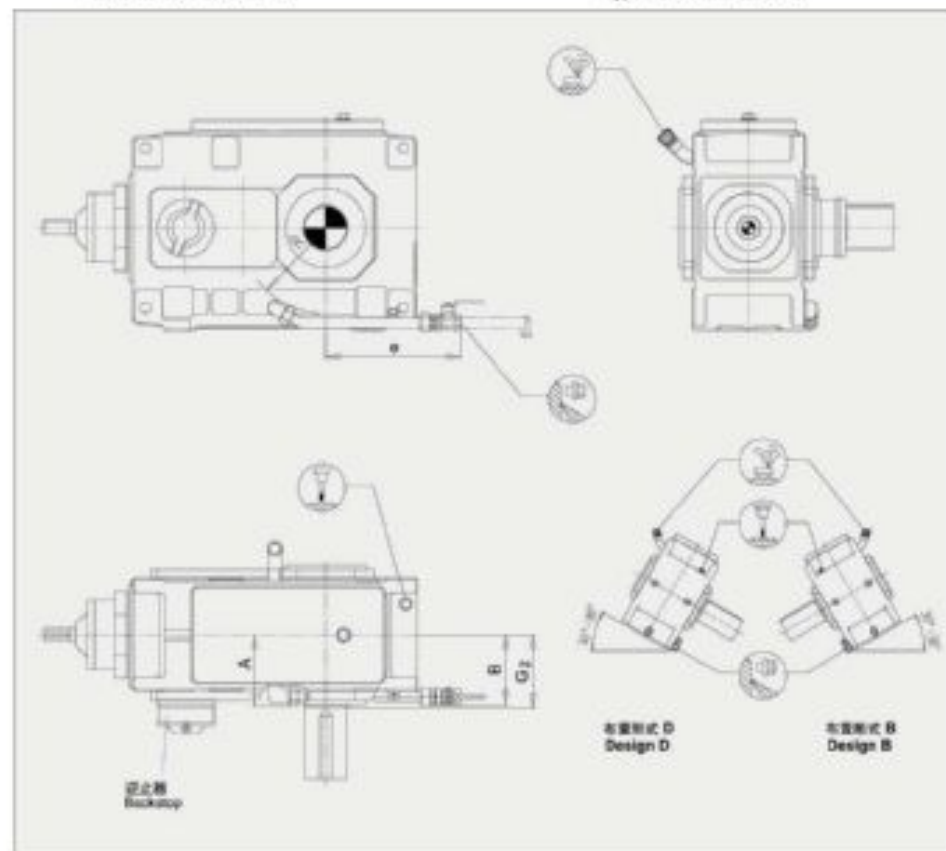
Gear Units For Water Screws
 Type MTB35H / Sizes 4-12


表 1 / Table 1

类型 Type	规格 Size	A mm	B mm	G ₂ mm	e mm	油位阀 Oil drain valve	R mm
MTB35H	4	145	135	140	205	G 3/4	125
	5	160	156.5	165	305	G 3/4	-
	6				345		-
	7	190	185	195	360	G 1	-
	8				420		-
	9				410		-
	10	220	220	235	460	G 1	-
	11	258	260	270	465	G 1 1/4	-
	12				500		-

齿轮箱 水处理用螺旋输送机
 类型 MTB35H / 规格 13-18

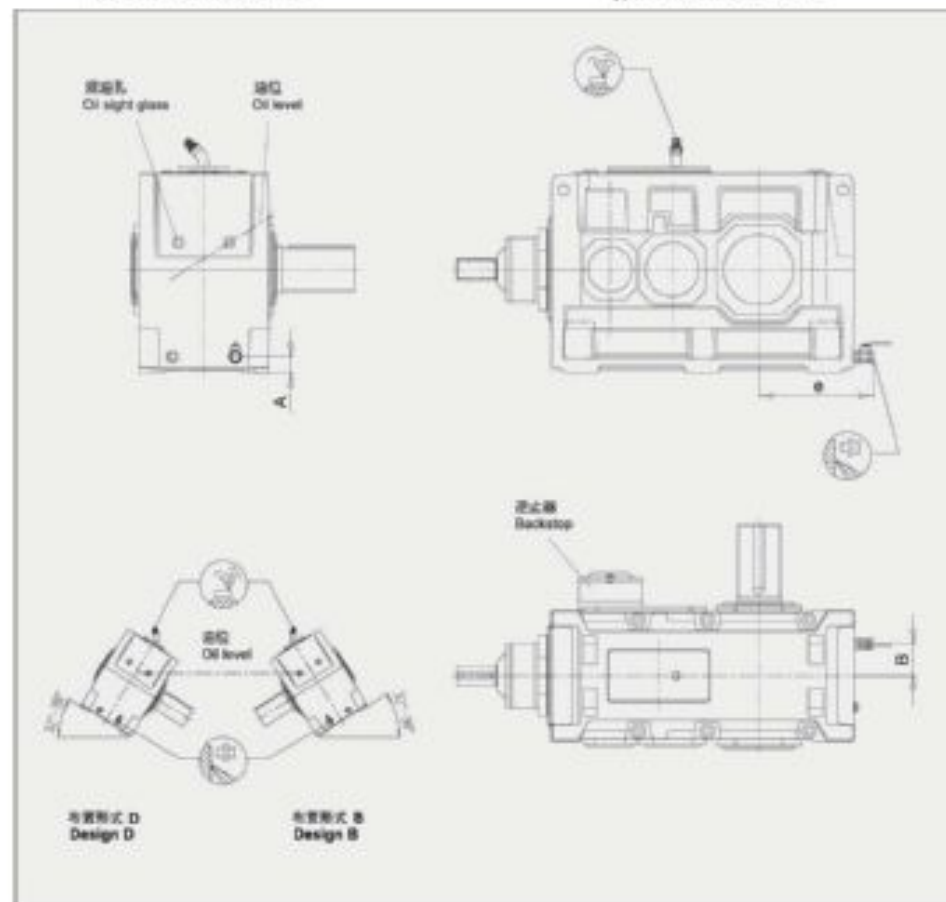
Gear Units For Water Screws
 Type MTB35H / Sizes 13-18


表 2 / Table 2

类型 Type	规格 Size	A mm	B mm	e mm	油位阀 Oil drain valve
MTB35H	13	67	135	560	G 1 1/4
	14			570	
	15	80	150	610	
	16			665	
	17			660	
	18	85	180	710	

齿轮箱 电机支架 / 卧式安装
类型 MTH3.H / 规格 5-10

Gear Units Motor Brackets / Horizontal
Type MTH3.H / Sizes 5-10

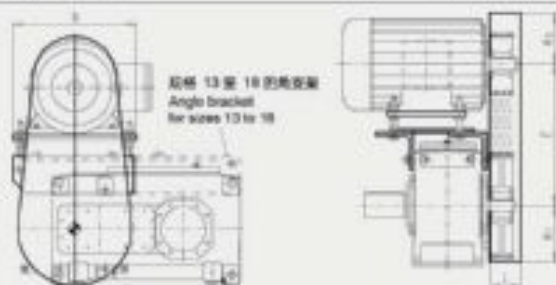


表 1 / Table 1

类型 规格 Type Size	REC 电机 REC motor	齿轮箱 Gear unit	齿数 Z Z total	电机轴皮带轮 Motor shaft pulley	皮带数量 No. of belts	b	E	R ₁	R ₂	l	
						mm	mm	mm	mm	mm	
MTH3.H 5	132 S	71 - 90	1.25	89 - 162	SPZ 140	2	390	493	180	177	120
	132 M	50 - 90	1.4	83 - 162	SPZ 140	3	390	493	180	177	120
	160 M	35.5 - 71	1.6	44 - 128	SPZ 180	3	390	530	180	140	120
	160 L	25 - 50	1.8	31 - 90	SPA 180	3	390	530	180	140	120
MTH3.H 6	132 S	90 - 112	1.25	113 - 202	SPZ 140	2	390	493	180	177	120
	132 M	63 - 112	1.4	79 - 202	SPZ 140	3	390	493	180	177	120
	160 M	45 - 90	1.6	56 - 162	SPZ 180	3	390	530	180	140	120
	160 L	35.5 - 71	1.8	39 - 128	SPA 180	3	390	530	180	140	120
MTH3.H 7	160 M	63 - 90	1.25	79 - 162	SPZ 180	3	490	596	250	224	120
	160 L	50 - 90	1.4	63 - 162	SPA 180	3	490	596	250	224	120
	180 M	40 - 71	1.6	50 - 128	SPA 250	3	490	626	250	184	120
	180 L	31.5 - 63	1.8	39 - 113	SPA 250	3	490	626	250	184	120
MTH3.H 8	200 L	25 - 45	1.8	31 - 54	SPB 280	3	570	690	200	200	150
	225 S	25 - 40	1.8	31 - 50	SPB 280	3	570	690	200	200	150
	160 M	60 - 112	1.25	100 - 202	SPZ 180	3	490	596	250	224	120
	160 L	63 - 112	1.4	79 - 202	SPA 180	3	490	596	250	224	120
MTH3.H 9	160 M	50 - 90	1.4	63 - 162	SPA 250	3	490	626	250	184	120
	180 L	40 - 80	1.6	50 - 144	SPA 250	3	490	626	250	184	120
	200 L	35.5 - 56	1.8	39 - 70	SPB 280	3	570	690	200	200	150
	225 S	35.5 - 50	1.8	39 - 63	SPB 280	3	570	690	200	200	150
MTH3.H 10	160 L	80 - 90	1.25	100 - 162	SPA 180	3	490	615	250	235	135
	180 M	71 - 90	1.4	89 - 162	SPA 250	3	490	664	250	186	135
	180 L	56 - 90	1.6	70 - 162	SPA 250	3	490	664	250	186	135
	200 L	40 - 80	1.8	60 - 144	SPB 280	3	570	747	275	203	150
MTH3.H 11	225 S	35.5 - 63	1.8	39 - 113	SPB 280	3	570	758	275	200	150
	225 M	28 - 50	1.8	35 - 90	SPB 280	4	570	758	275	200	150
	250 M	25 - 45	1.8	31 - 81	SPB 315	4	690	804	305	226	150
	160 L	100 - 112	1.25	125 - 202	SPA 180	3	490	615	250	235	135
MTH3.H 12	160 M	80 - 112	1.25	100 - 202	SPZ 180	3	490	615	250	235	135
	180 M	63 - 112	1.4	79 - 202	SPZ 180	3	490	615	250	235	135
	180 M	50 - 90	1.6	63 - 162	SPA 250	3	490	664	250	186	135
	180 L	40 - 80	1.8	50 - 144	SPA 250	3	490	664	250	186	135
MTH3.H 13	200 L	35.5 - 56	1.8	39 - 70	SPB 280	3	570	747	275	203	150
	225 S	35.5 - 63	1.8	39 - 113	SPB 280	3	570	758	275	200	150
	280 M	25 - 45	1.8	31 - 81	SPB 315	4	690	804	305	226	150
	315 S	25 - 35.5	1.8	31 - 64	SPC 355	5	810	1001	340	240	180
MTH3.H 14	200 L	90 - 112	1.25	113 - 202	SPZ 180	3	490	615	250	235	135
	225 S	71 - 112	1.4	89 - 202	SPZ 180	3	490	615	250	235	135
	225 M	63 - 112	1.6	79 - 202	SPZ 180	3	490	615	250	235	135
	250 M	50 - 90	1.8	63 - 162	SPA 250	3	490	664	250	186	135
MTH3.H 15	280 M	35.5 - 63	1.8	39 - 113	SPB 315	5	720	938	305	227	150
	280 M	31.5 - 56	1.8	39 - 101	SPB 315	6	720	938	305	227	150
	280 M	25 - 45	1.8	31 - 81	SPB 315	6	720	938	305	227	150
	315 S	25 - 35.5	1.8	31 - 64	SPC 355	5	810	1001	340	240	180
MTH3.H 16	225 M	80 - 90	1.25	100 - 162	SPZ 280	4	570	881	275	190	175
	250 M	63 - 90	1.4	79 - 162	SPZ 315	4	720	938	305	227	155
	280 S	45 - 80	1.6	56 - 144	SPB 315	5	720	938	305	227	155
	280 M	40 - 71	1.8	50 - 128	SPB 315	6	720	938	305	227	155
MTH3.H 17	315 S	31.5 - 56	1.8	39 - 101	SPC 355	5	810	1042	380	268	225
	225 M	90 - 112	1.25	113 - 202	SPZ 280	4	570	881	275	190	175
	250 M	80 - 112	1.4	100 - 202	SPZ 315	4	720	938	305	227	155
	280 S	56 - 100	1.6	79 - 162	SPZ 315	5	720	938	305	227	155
MTH3.H 18	280 M	40 - 80	1.8	50 - 128	SPB 315	6	810	1042	380	268	225
	315 M	28 - 63	1.8	35 - 113	SPC 355	6	810	1042	380	268	225
	280 S	80 - 90	1.25	100 - 162	SPZ 315	5	720	980	305	225	215
	280 M	63 - 90	1.4	79 - 162	SPZ 315	6	720	980	305	225	215
MTH3.H 19	315 S	50 - 90	1.6	63 - 162	SPC 355	5	810	1090	380	270	225
	315 M	45 - 80	1.8	56 - 144	SPC 355	6	810	1090	380	270	225
	315 L1	35.5 - 45	1.8	44 - 81	SPC 400	8	810	1090	380	270	225
	315 L2	22.4 - 45	1.8	28 - 81	SPC 400	8	810	1090	380	270	225
MTH3.H 20	280 S	90 - 100	1.25	113 - 180	SPB 315	5	720	980	305	225	215
	290 M	71 - 100	1.4	89 - 180	SPB 315	6	720	980	305	225	215
	315 S	56 - 100	1.6	70 - 180	SPC 355	5	810	1090	380	270	225
	315 L1	40 - 50	1.8	63 - 162	SPC 355	6	810	1090	380	270	225
MTH3.H 21	315 L2	25 - 50	1.8	31 - 90	SPC 400	8	810	1090	380	270	225
	280 M	80 - 90	1.25	100 - 162	SPB 315	6	720	1072	305	223	215
	315 S	71 - 90	1.4	89 - 162	SPC 355	5	810	1117	380	268	225
	315 M	63 - 90	1.6	79 - 162	SPC 355	6	810	1117	380	268	225
MTH3.H 22	315 L1	50 - 90	1.8	63 - 162	SPC 400	8	810	1117	380	268	225
	315 L2	22.4 - 45	1.8	28 - 81	SPC 400	8	810	1117	380	268	225
	280 M	100	1.25	125 - 180	SPB 315	6	720	1072	305	223	215
	315 S	90 - 100	1.4	113 - 180	SPC 355	5	810	1117	380	268	225
MTH3.H 23	315 M	71 - 100	1.6	89 - 180	SPC 355	6	810	1117	380	268	225
	315 L1	63 - 100	1.8	79 - 180	SPC 400	8	810	1117	380	268	225
	315 L2	25 - 50	1.8	31 - 90	SPC 400	8	810	1117	380	268	225

齿轮箱 电机支架 / 卧式安装
类型 MTH3.H / 规格 11-18

Gear Units Motor Brackets / Horizontal
Type MTH3.H / Sizes 11-18

类型 规格 Type Size	REC 电机 REC motor	齿轮箱 Gear unit	齿数 Z Z total	电机轴皮带轮 Motor shaft pulley	皮带数量 No. of belts	b	E	R ₁	R ₂	l	
						mm	mm	mm	mm	mm	
MTH3.H 11	220 L	71 - 90	1.25	89 - 162	SPB 280	3	570	625	275	200	150
	225 S	50 - 90	1.4	83 - 162	SPB 280	3	570	625	275	200	150
	250 M	40 - 71	1.6	63 - 128	SPB 315	4	720	697	305	268	150
	280 S	31.5 - 56	1.8	39 - 101	SPB 315	5	720	698	305	227	150
	280 M	25 - 45	1.8	31 - 81	SPB 315	6	720	698	305	227	150
	315 S	25 - 35.5	1.8	31 - 64	SPC 355	5	810	1001	340	240	180
MTH3.H 12	200 L	90 - 112	1.25	113 - 202	SPB 280	3	570	625	275	200	150
	225 S	71 - 112	1.4	89 - 202	SPB 280	3	570	625	275	200	150
	225 M	63 - 112	1.6	79 - 202	SPB 280	4	570	625	275	200	150
	250 M	50 - 90	1.8	63 - 162	SPB 315	4	720	697	305	268	150
	280 S	35.5 - 63	1.8	44 - 113	SPB 315	5	720	698	305	227	150
	280 M	31.5 - 56	1.8	39 - 101	SPB 315	6	720	698	305	227	150
MTH3.H 13	280 M	25 - 45	1.8	31 - 81	SPC 355	5	810	1001	340	240	180
	225 M	80 - 90	1.25	100 - 162	SPB 280	4	570	881	275	190	175
	250 M	63 - 90	1.4	79 - 162	SPB 315	4	720	938	305	227	155
	280 S	45 - 80	1.6	56 - 144	SPB 315	5	720	938	305	227	155
MTH3.H 14	280 M	40 - 71	1.8	50 - 128	SPB 315	6	720	938	305	227	155
	315 S	31.5 - 56	1.8	39 - 101	SPC 355	5	810	1042	380	268	225
	315 M	22.4 - 50	1.8	28 - 90	SPC 355	6	810	1042	380	268	225
	225 M										

齿轮箱 电机支架 / 卧式安装
 类型 MTH4.H / 规格 7-12

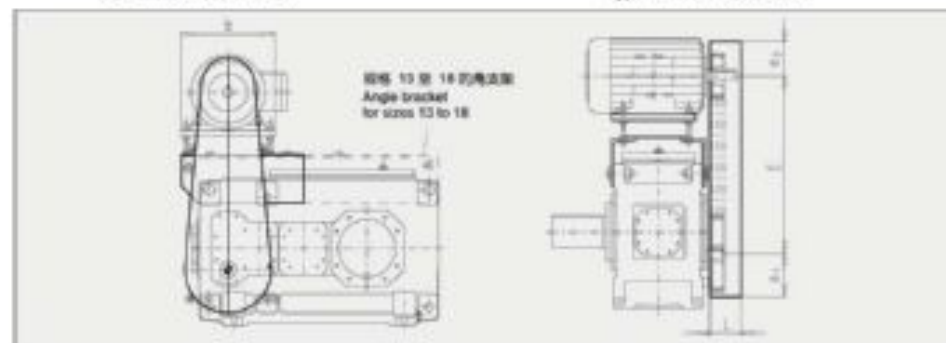
Gear Units Motor Brackets / Horizontal
 Type MTH4.H / Sizes 7-12


表 2 / Table 2

类型 规格 Type Size	IEC 电机 IEC motor	l 齿轮箱 l Gear unit	l 安装轴 l flange	l 总长 l Total	电机轴皮带轮 Motor shaft pulley	皮带数量 No. of belts	b mm	E mm	e ₁ mm	e ₂ mm	i mm
MTH4.H 7	100 LB	315-355	1.25 1.4 1.6 1.8	384-638	SPZ 180	3	310	597	125	123	70
	100 LD	280-355		313-638	SPZ 180	2	310	597	125	123	70
	112 M	180-355		225-638	SPZ 112	2	310	613	125	107	70
	132 S	140-280		175-450	SPZ 140	2	330	638	150	123	90
	132 M	180-180		125-324	SPZ 140	3	350	632	150	123	90
MTH4.H 8	100 LB	400-430	1.25 1.4 1.6 1.8	500-810	SPZ 180	2	310	597	125	123	70
	100 LD	315-430		384-810	SPZ 180	2	310	597	125	123	70
	112 M	224-450		280-810	SPZ 112	2	310	613	125	107	70
	132 S	180-355		225-638	SPZ 140	2	330	632	150	123	90
	132 M	125-250		130-450	SPZ 140	3	330	632	150	123	90
MTH4.H 9	112 M	315-355	1.25 1.4 1.6 1.8	384-638	SPZ 112	2	330	672	125	108	70
	132 S	224-355		280-638	SPZ 140	2	330	701	180	154	120
	132 M	180-315		200-567	SPZ 140	3	330	701	180	154	120
	160 M	112-224		140-403	SPZ 180	3	330	742	180	143	120
	160 L	100-180		125-288	SPA 180	3	330	742	180	143	120
MTH4.H 10	112 M	400-450	1.25 1.4 1.6 1.8	500-810	SPZ 112	2	330	672	125	108	70
	132 S	280-450		350-810	SPZ 140	2	330	701	180	154	120
	132 M	200-400		250-720	SPZ 140	3	330	701	180	154	120
	160 M	140-280		175-504	SPZ 180	3	330	742	180	143	120
	160 L	125-180		130-324	SPA 180	3	330	742	180	143	120
MTH4.H 11	132 M	280-355	1.25 1.4 1.6 1.8	350-638	SPZ 140	3	480	795	150	120	118
	160 M	200-355		250-638	SPZ 180	3	480	842	250	198	120
	160 L	140-280		175-504	SPA 180	3	480	842	250	198	120
	180 M	125-224		130-403	SPA 250	3	480	852	250	188	120
	180 L	100-180		125-324	SPA 250	3	480	852	250	188	120
MTH4.H 12	200 L	100-140	1.25 1.4 1.6 1.8	125-252	SPB 280	3	570	923	250	202	120
	132 M	355-450		444-810	SPZ 140	3	480	795	150	120	118
	160 M	250-450		310-810	SPZ 180	3	480	842	250	198	120
	160 L	180-355		225-638	SPA 180	3	480	842	250	198	120
	180 M	140-280		175-504	SPA 250	3	480	852	250	188	120

齿轮箱 电机支架 / 卧式安装
 类型 MTH4.H / 规格 13-18

Gear Units Motor Brackets / Horizontal
 Type MTH4.H / Sizes 13-18

类型 规格 Type Size	IEC 电机 IEC motor	l 齿轮箱 l Gear unit	l 安装轴 l flange	l 总长 l Total	电机轴皮带轮 Motor shaft pulley	皮带数量 No. of belts	b mm	E mm	e ₁ mm	e ₂ mm	i mm
MTH4.H 13	160 M	315-355	1.25 1.4 1.6 1.8	384-638	SPZ 180	3	480	934	250	188	125
	160 L	224-355		280-638	SPA 180	3	480	934	250	188	125
	180 M	180-355		225-638	SPA 250	3	480	934	250	188	125
	180 L	160-280		200-504	SPA 250	3	480	934	250	188	125
	200 L	112-224		140-480	SPB 280	3	570	1001	275	214	155
	225 S	100-180		125-324	SPB 280	3	570	1001	275	214	155
MTH4.H 14	225 M	100-140	1.25 1.4 1.6 1.8	125-252	SPB 280	4	570	1001	275	214	155
	160 M	400-400		530-810	SPZ 180	3	480	934	250	188	125
	160 L	280-450		350-810	SPA 180	3	480	934	250	188	125
	180 M	224-450		280-810	SPA 250	3	480	934	250	188	125
	180 L	200-355		250-638	SPA 250	3	480	934	250	188	125
	200 L	140-280		175-504	SPB 280	3	570	1001	275	214	155
MTH4.H 15	225 S	125-224	1.25 1.4 1.6 1.8	130-450	SPB 280	3	570	1001	275	214	155
	225 M	125-180		130-324	SPB 280	4	570	1001	275	214	155
	160 L	355		444-638	SPA 180	3	480	934	250	230	150
	180 M	315-355		384-638	SPA 250	3	480	964	250	198	150
	180 L	250-355		313-638	SPA 250	3	480	964	250	198	150
	200 L	180-355		225-638	SPB 280	3	570	1057	275	208	155
MTH4.H 16	225 S	160-280	1.25 1.4 1.6 1.8	200-504	SPB 280	3	570	1057	275	208	155
	225 M	125-250		130-450	SPB 280	4	570	1057	275	208	155
	250 M	100-200		130-380	SPB 315	4	660	1131	305	229	155
	180 M	280-400		380-720	SPA 250	3	480	964	250	198	150
	180 L	224-400		280-720	SPA 250	3	480	964	250	198	150
	200 L	180-355		225-638	SPB 280	3	570	1057	275	208	155
MTH4.H 17	225 S	140-280	1.25 1.4 1.6 1.8	175-504	SPB 280	3	570	1057	275	208	155
	225 M	112-224		140-480	SPB 280	4	570	1057	275	208	155
	250 M	112-224		140-480	SPB 315	4	660	1131	305	229	155
	180 L	355		444-638	SPA 250	3	570	1047	275	190	125
	200 L	250-355		313-638	SPB 280	3	570	1098	275	207	125
	225 S	200-355		250-638	SPB 280	3	660	1157	305	250	155
MTH4.H 18	225 M	180-315	1.25 1.4 1.6 1.8	225-567	SPB 280	4	660	1157	305	250	155
	250 M	140-280		175-504	SPB 315	4	660	1181	305	229	155
	280 S	100-200		125-380	SPB 315	5	720	1231	305	229	155
	280 M	100-160		125-288	SPB 315	6	720	1231	305	229	155
	200 L	315-400		384-720	SPB 280	3	570	1098	275	207	125
	225 S	250-400		313-720	SPB 280	3	660	1157	305	250	155
MTH4.H 19	225 M	224-400	1.25 1.4 1.6 1.8	280-720	SPB 280	4	660	1157	305	250	155
	250 M	180-355		225-638	SPB 315	4	660	1181	305	229	155
	280 S	125-250		130-450	SPB 315	5	720	1231	305	229	155
	280 M	112-200		140-380	SPB 315	6	720	1231	305	229	155

齿轮箱 电机支架 / 卧式安装
类型 MTB3.H / 规格 4-10

Gear Units Motor Brackets / Horizontal
Type MTB3.H / Sizes 4-10

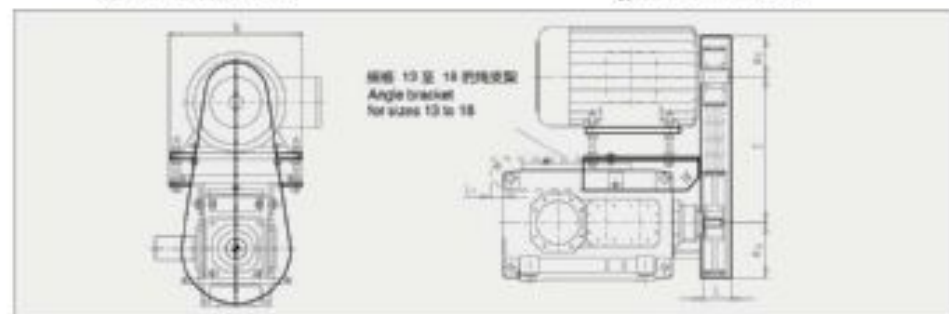


表 3 / Table 3

类型 Type 规格 Size	IEC 电机 IEC motor (1)	i 级数 i Gear unit	i 级数 i Gear	i 总 i Total	电机轴皮带轮 Motor shaft pulley	皮带数 No. of belts	b mm	E mm	φ ₁ mm	φ ₂ mm	l mm
MTB3.H 4	112 M	96 - 71	1.25	70 - 127.8	SPZ 112	2	375	421	120	194	85
	132 S	45 - 71		96.3 - 127.8	SPZ 140	2	455	434	180	182	120
	132 M	31.5 - 45		36.4 - 81	SPZ 140	3	455	434	180	182	120
	160 M	20 - 45		25 - 81	SPZ 180	3	455	470	180	140	120
	160 L	31.5 - 36.5		36.4 - 63.9	SPA 180	3	455	476	180	140	120
MTB3.H 5	132 M	45 - 71	1.25	96.3 - 127.8	SPZ 140	3	415	476	180	167	120
	160 M	36.5 - 71		44.4 - 127.8	SPZ 180	3	415	502	180	141	120
	160 L	28 - 50		35 - 90	SPA 180	3	415	502	180	141	120
	180 M	22.4 - 40		28 - 84	SPA 230	3	495	534	220	171	120
	180 L	31.5 - 36.5		36.4 - 56.8	SPA 230	3	495	534	220	171	120
MTB3.H 6	132 M	30 - 90	1.25	57.5 - 162	SPZ 140	3	415	476	180	167	120
	160 M	45 - 90		56.3 - 162	SPZ 180	3	415	502	180	141	120
	160 L	31.5 - 60		36.4 - 113.4	SPA 180	3	415	502	180	141	120
	180 M	28 - 50		35 - 90	SPA 230	3	495	534	220	171	120
	180 L	26 - 45		31.3 - 75	SPA 230	3	495	534	220	171	120
MTB3.H 7	160 M	63 - 71	1.25	76.8 - 127.8	SPZ 180	3	450	553	180	137	120
	160 L	50 - 71		62.5 - 127.8	SPA 180	3	450	553	180	137	120
	180 M	45 - 71		50 - 127.8	SPA 230	3	660	588	273	205	150
	180 L	31.5 - 60		36.4 - 113.4	SPA 230	3	660	588	273	205	150
	200 L	25 - 45		31.3 - 81	SPB 280	3	660	643	273	265	150
MTB3.H 8	225 S	20 - 40	1.8	25 - 79	SPB 280	3	660	713	273	195	150
	225 M	20 - 31.5		25 - 56.7	SPB 280	4	660	713	273	195	150
	160 M	60 - 90		50 - 162	SPZ 180	3	450	553	180	137	120
	160 L	63 - 90		76.8 - 162	SPA 180	3	450	553	180	137	120
	180 M	90 - 90		62.5 - 162	SPA 230	3	660	588	273	205	150
MTB3.H 9	160 M	63 - 71	1.25	76.8 - 127.8	SPA 230	3	550	635	270	273	150
	180 L	50 - 71		70 - 127.8	SPA 230	3	550	635	270	273	150
	200 L	40 - 71		50 - 127.8	SPB 280	3	550	713	270	195	150
	225 S	40 - 53		50 - 113.4	SPB 280	3	550	713	270	195	150
	225 M	36 - 50		35 - 90	SPB 280	4	550	713	270	195	150
MTB3.H 10	250 M	22.4 - 45	1.8	28 - 81	SPB 315	4	730	762	360	280	150
	280 S	20 - 31.5		25 - 56.7	SPB 315	5	730	803	360	228	150
	280 M	20 - 25		25 - 45	SPB 315	6	730	803	360	228	150
	180 M	60 - 90		50 - 162	SPA 230	3	550	635	270	273	150
	180 L	71 - 90		88.8 - 162	SPA 230	3	550	635	270	273	150

齿轮箱 电机支架 / 卧式安装
类型 MTB3.H / 规格 11-18

Gear Units Motor Brackets / Horizontal
Type MTB3.H / Sizes 11-18

类型 Type 规格 Size	IEC 电机 IEC motor (1)	i 级数 i Gear unit	i 级数 i Gear	i 总 i Total	电机轴皮带轮 Motor shaft pulley	皮带数 No. of belts	b mm	E mm	φ ₁ mm	φ ₂ mm	l mm
MTB3.H 11	225 S	96 - 71	1.25	70 - 127.8	SPB 280	3	630	759	273	200	150
	225 M	45 - 71		96.3 - 127.8	SPB 280	4	630	759	273	200	150
	250 M	40 - 71		50 - 127.8	SPB 315	4	790	854	305	268	150
	280 S	28 - 56		35 - 100.8	SPB 315	5	790	867	305	225	150
	280 M	22.4 - 45		28 - 81	SPB 315	6	790	867	305	225	150
	315 S	20 - 36.5		25 - 83.9	SPC 365	5	830	962	340	250	184
	315 M	20 - 31.5		25 - 56.7	SPC 365	6	830	962	340	250	184
MTB3.H 12	225 S	96 - 71	1.25	70 - 127.8	SPB 280	3	630	759	273	200	150
	225 M	45 - 71		96.3 - 127.8	SPB 280	4	630	759	273	200	150
	250 M	40 - 71		50 - 127.8	SPB 315	4	790	854	305	268	150
	280 S	28 - 56		35 - 100.8	SPB 315	5	790	867	305	225	150
	280 M	22.4 - 45		28 - 81	SPB 315	6	790	867	305	225	150
	315 S	20 - 36.5		25 - 83.9	SPC 365	5	830	962	340	250	184
	315 M	20 - 31.5		25 - 56.7	SPC 365	6	830	962	340	250	184
MTB3.H 13	250 M	63 - 71	1.25	76.8 - 127.8	SPB 315	4	745	908	320	230	183
	280 S	45 - 71		96.3 - 127.8	SPB 315	5	745	908	320	230	183
	280 M	36.5 - 71		44.4 - 127.8	SPB 315	6	745	908	320	230	183
	315 S	21.5 - 36		30.4 - 100.8	SPC 365	5	945	1017	390	283	227
	315 M	20 - 50		31.3 - 90	SPC 365	6	945	1017	390	283	227
	315 L1	25 - 40		31.3 - 72	SPC 365	6	945	1017	390	283	227
	315 L2	25 - 31.5		25 - 56.7	SPC 400	6	945	1017	390	283	227
MTB3.H 14	250 M	60 - 96	1.25	100 - 162	SPB 315	4	745	908	320	230	183
	280 S	56 - 90		70 - 162	SPB 315	5	745	908	320	230	183
	280 M	45 - 90		56.3 - 162	SPB 315	6	745	908	320	230	183
	315 S	40 - 71		50 - 127.8	SPC 365	5	945	1017	390	283	227
	315 M	31.5 - 63		30.4 - 113.4	SPC 365	6	945	1017	390	283	227
	315 L1	28 - 50		35 - 90	SPC 400	6	945	1017	390	283	227
	315 L2	25 - 40		31.3 - 72	SPC 400	6	945	1017	390	283	227
MTB3.H 15	280 M	63 - 71	1.25	76.8 - 127.8	SPB 315	6	827	1031	305	225	180
	315 S	50 - 71		62.5 - 127.8	SPC 365	5	827	1042	360	265	226
	315 M	45 - 71		56.3 - 127.8	SPC 365	6	827	1042	360	265	226
	315 L1	36.5 - 63		44.4 - 113.4	SPC 400	6	827	1042	360	265	226
	315 L2	28 - 56		35 - 100.8	SPC 400	6	827	1042	360	265	226
	355 M	22.4 - 45		28 - 81	SPC 450	6	1027	1130	425	295	336
	355 L	20 - 31.5		25 - 56.7	SPC 450	6	1027	1130	425	295	336
MTB3.H 16	280 M	71 - 96	1.25	88.8 - 162	SPB 315	6	827	1031	305	225	180
	315 S	56 - 80		70 - 144	SPC 365	5	827	1042	360	265	226
	315 M	50 - 80		62.5 - 144	SPC 365	6	827	1042	360	265	226
	315 L1	40 - 71		50 - 127.8	SPC 400	6	827	1042	360	265	226
	315 L2	31.5 - 63		30.4 - 113.4	SPC 400	6	827	1042	360	265	226
	355 M	25 - 50		31.3 - 90	SPC 450	6	1027	1130	425	295	336
	355 L	22.4 - 36.5		28 - 83.9	SPC 450	6	1027	1130	425	295	336
MTB3.H 17	315 M	63 - 71	1.25	76.8 - 127.8	SPC 365	6	906	1118	380	272	227
	315 L1	50 - 71		62.5 - 127.8	SPC 400	6	906	1118	380	272	227
	315 L2	40 - 71		44.4 - 127.8	SPC 400	6	906	1118	380	272	227
	355 M	28 - 56		35 - 100.8	SPC 450	6	906	1148	425	302	227
	355 L	25 - 45		31.3 - 81	SPC 480	6	906	1148	425	302	227
MTB3.H 18	315 M	71 - 96	1.25	88.8 - 144	SPC 365	6	906	1118	380	272	227
	315 L1	63 - 80		76.8 - 144	SPC 400	6	906	1118	380	272	227
	315 L2	45 - 80		56.3 - 144	SPC 400	6	906	1118	380	272	227
	355 M	36.5 - 71		44.4 - 127.8	SPC 450	6	906	1148	425	302	227
	355 L	31.5 - 56		30.4 - 100.8	SPC 450	6	906	1148	425	302	227

齿轮箱 电机支架 / 卧式安装
类型 MTB4-H / 规格 5-11

Gear Units Motor Brackets / Horizontal
Type MTB4-H / Sizes 5-11

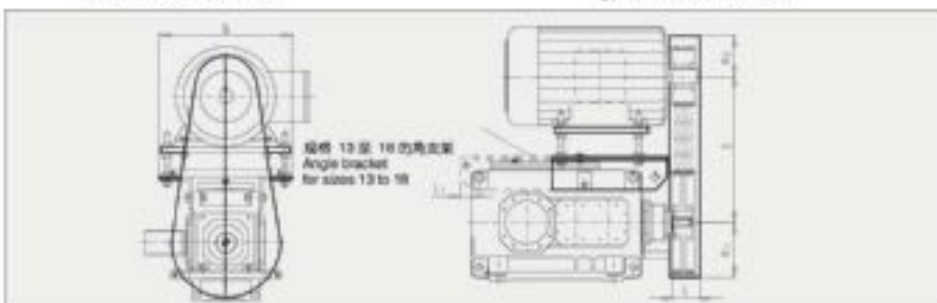


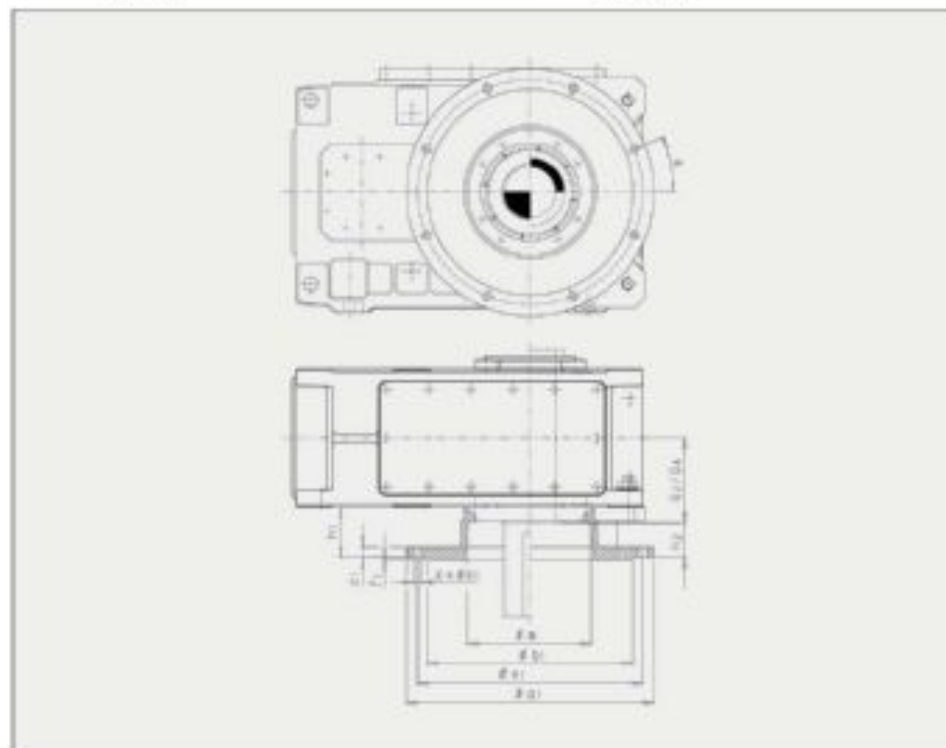
表 4 / Table 4

类型 Type 规格 Size	IEC 电机 IEC motor	i 级数 i Gear unit	i 级数 i Gear unit	i 总 i Total	电机轴皮带轮 Motor shaft pulley	皮带轮数 No. of belts	b mm	E mm	W ₁ mm	W ₂ mm	L mm
MTB4-H 5	90 L	290-315	1.25	290-367	SPZ 90	2	365	430	125	130	75
	100 LB	180-315		225-367	SPZ 100	2	365	442	125	130	75
	100 LD	125-350		155-324	SPZ 100	2	365	442	125	130	75
	112 M	100-350		125-324	SPZ 112	2	365	458	125	130	75
	132 S	80-350		105-252	SPZ 140	2	365	482	130	123	92
MTB4-H 6	90 L	290-400	1.25	444-720	SPZ 90	2	365	430	125	130	75
	100 LB	224-400		290-720	SPZ 100	2	365	442	125	130	75
	100 LD	180-315		225-367	SPZ 100	2	365	442	125	130	75
	112 M	125-350		155-450	SPZ 112	2	365	458	125	130	75
	132 S	100-350		125-324	SPZ 140	2	365	482	130	116	82
MTB4-H 7	90 L	290-400	1.25	444-720	SPZ 90	2	365	430	125	130	75
	100 LB	224-400		290-720	SPZ 100	2	365	442	125	130	75
	100 LD	180-315		225-367	SPZ 100	2	365	442	125	130	75
	112 M	125-350		155-450	SPZ 112	2	365	458	125	130	75
	132 S	100-350		125-324	SPZ 140	2	365	482	130	116	82
MTB4-H 8	90 L	290-400	1.25	444-720	SPZ 90	2	365	430	125	130	75
	100 LB	224-400		290-720	SPZ 100	2	365	442	125	130	75
	100 LD	180-315		225-367	SPZ 100	2	365	442	125	130	75
	112 M	125-350		155-450	SPZ 112	2	365	458	125	130	75
	132 S	100-350		125-324	SPZ 140	2	365	482	130	116	82
MTB4-H 9	90 L	290-400	1.25	444-720	SPZ 90	2	365	430	125	130	75
	100 LB	224-400		290-720	SPZ 100	2	365	442	125	130	75
	100 LD	180-315		225-367	SPZ 100	2	365	442	125	130	75
	112 M	125-350		155-450	SPZ 112	2	365	458	125	130	75
	132 S	100-350		125-324	SPZ 140	2	365	482	130	116	82
MTB4-H 10	90 L	290-400	1.25	444-720	SPZ 90	2	365	430	125	130	75
	100 LB	224-400		290-720	SPZ 100	2	365	442	125	130	75
	100 LD	180-315		225-367	SPZ 100	2	365	442	125	130	75
	112 M	125-350		155-450	SPZ 112	2	365	458	125	130	75
	132 S	100-350		125-324	SPZ 140	2	365	482	130	116	82
MTB4-H 11	90 L	290-400	1.25	444-720	SPZ 90	2	365	430	125	130	75
	100 LB	224-400		290-720	SPZ 100	2	365	442	125	130	75
	100 LD	180-315		225-367	SPZ 100	2	365	442	125	130	75
	112 M	125-350		155-450	SPZ 112	2	365	458	125	130	75
	132 S	100-350		125-324	SPZ 140	2	365	482	130	116	82

齿轮箱 电机支架 / 卧式安装
类型 MTB4-H / 规格 12-18

Gear Units Motor Brackets / Horizontal
Type MTB4-H / Sizes 12-18

类型 Type 规格 Size	IEC 电机 IEC motor	i 级数 i Gear unit	i 级数 i Gear unit	i 总 i Total	电机轴皮带轮 Motor shaft pulley	皮带轮数 No. of belts	b mm	E mm	W ₁ mm	W ₂ mm	L mm
MTB4-H 12	132 M	290-400	1.25	444-720	SPZ 140	3	454	644	180	186	130
	160 M	250-400		213-720	SPZ 180	3	454	668	180	142	130
	160 L	180-350		225-639	SPA 180	3	454	668	180	142	130
	180 M	140-280		175-604	SPA 250	3	630	709	275	316	150
	180 L	125-224		155-450	SPA 250	3	630	709	275	316	150
	200 L	100-160		125-286	SPB 280	3	630	750	275	275	150
	225 S	80-140		125-252	SPB 280	3	630	825	275	200	150
MTB4-H 13	160 L	224-315	1.25	280-567	SPA 180	3	575	754	250	186	125
	180 M	180-315		225-567	SPA 250	3	575	754	250	186	125
	180 L	150-290		220-504	SPA 250	3	575	754	250	186	125
	200 L	112-200		140-360	SPB 280	3	575	825	275	255	155
	225 S	80-150		113-288	SPB 280	3	751	881	275	199	155
	250 M	80-140		100-252	SPB 280	4	751	881	275	199	155
	280 S	80-112		100-252	SPB 315	4	751	928	306	272	155
MTB4-H 14	160 L	224-315	1.25	280-567	SPA 180	3	575	754	250	186	125
	180 M	180-315		225-567	SPA 250	3	575	754	250	186	125
	180 L	150-290		220-504	SPA 250	3	575	754	250	186	125
	200 L	112-200		140-360	SPB 280	3	575	825	275	255	155
	225 S	80-150		113-288	SPB 280	3	751	881	275	199	155
	250 M	100-140		125-252	SPB 315	4	751	928	306	272	155
	280 S	80-112		125-252	SPB 315	4	751	928	306	272	155
MTB4-H 15	180 L	250-315	1.25	313-567	SPA 250	3	630	737	275	283	150
	200 L	180-315		225-567	SPA 280	3	630	811	275	199	150
	225 S	140-215		175-567	SPB 280	3	630	825	306	287	155
	225 M	125-250		155-450	SPB 280	4	630	825	306	287	155
	250 M	100-200		125-360	SPB 315	4	820	928	306	272	155
	280 S	80-140		100-252	SPB 315	4	820	928	306	230	155
	280 M	80-125		100-252	SPB 315	4	820	928	306	230	155
MTB4-H 16	180 L	250-315	1.25	313-567	SPA 250	3	630	737	275	283	150
	200 L	180-315		225-567	SPA 280	3	630	811	275	199	150
	225 S	140-215		175-567	SPB 280	3	630	825	306	287	155
	225 M	125-250		155-450	SPB 280	4	630	825	306	287	155
	250 M	100-200		125-360	SPB 315	4	820	928	306	272	155
	280 S	80-140		100-252	SPB 315	4	820	928	306	230	155
	280 M	80-125		100-252	SPB 315	4	820	928	306	230	155
MTB4-H 17	180 L	250-315	1.25	313-567	SPA 250	3	630	737	275	283	150
	200 L	180-315		225-567	SPA 280	3	630	811	275	199	150
	225 S	140-215		175-567	SPB 280	3	630	825	306	287	155
	225 M	125-250		155-450	SPB 280	4	630	825	306	287	155
	250 M	100-200		125-360	SPB 315	4	820	928	306	272	155
	280 S	80-140		100-252	SPB 315	4	820	928	306	230	155
	280 M	80-125		100-252	SPB 315	4	820	928	306	230	155
MTB4-H 18	180 L	250-315	1.25	313-567	SPA 250	3	630	737	275	283	150
	200 L	180-315		225-567	SPA 280	3	630	811	275	199	150
	225 S	140-215		175-567	SPB 280	3	630	825	306	287	155
	225 M	125-250		155-450	SPB 280	4	630	825	306	287	155
	250 M	100-200		125-360	SPB 315	4	820	928	306	272	155
	280 S	80-140		100-252	SPB 315	4	820	928	306	230	155
	280 M	80-125		100-252	SPB 315	4	820	928	306	230	155

齿轮箱 安装法兰 - 大空间安装
规格 4-12Gear Units Mounting Flange - Long Spacer
Sizes 4-12

说明:

可采用的布置形式参见表 3,
否则禁止复制或仿造使用。

平行轴 (MTH型) 齿轮箱自有形式为 C 或 D, 否则由电机
安装法兰成为必须使用。

Notes:

For possible designs, see table 3.
Combination with backstop or pump on request.

Combination with motor bell housing or fan for
MTH-gear units of C and D design on request.

表 1 / Table 1

扭矩系数 f / Torque factor f										
MTH2, MTH3, MTH4, MTB3, MTB4										
系数 Factor	规格 / Size									
	4	5	6	7	8	9	10	11	12	
f	1.1	1.2	1.0	1.2	1.4	1.3	1.5	1.3	1.4	
MTB2										
系数 Factor	规格 / Size									
	4	5	6	7	8	9	10	11	12	
f	1.0	1.3	1.3	1.0	1.2	1.1	1.3	1.1	1.2	

齿轮箱 安装法兰 - 大空间安装
规格 4-12Gear Units Mounting Flange - Long Spacer
Sizes 4-12

表 2 / Table 2											MTH2, MTH3, MTH4, MTB2, MTB3, MTB4, MTB5, MTB6, MTB7, MTB8, MTB9, MTB10, MTB11, MTB12		MTH2, MTB2, MTB3	
规格 Size %	A ₁	A ₂ / A ₃	A ₄	A ₅	A ₆	A ₇	A ₈	A ₉	A ₁₀	A ₁₁ x A ₁₂	附加重量 Add. weight kg	G ₂ / G ₃ mm	G ₂ / G ₃	
	mm													
4	450	350	24.5	400	5	82.5	90	205	8 x 17.5	40	140	170		
5	500	450	25	500	5	90	92.5	245	8 x 17.5	60	165	200		
6	550	450	25	500	5	90	92.5	245	8 x 17.5	65	165	200		
7	680	550	25	600	5	135	90	290	8 x 22	90	195	235		
8	680	550	30	600	5	135	90	315	8 x 22	100	195	235		
9	680	550	29	600	6	134	94	325	12 x 22	110	235	270		
10	680	550	34	600	6	134	94	355	12 x 26	120	235	270		
11	800	680	44	740	6	184	129	420	12 x 26	210	270	320		
12	800	680	44	740	6	184	129	435	12 x 26	220	270	320		

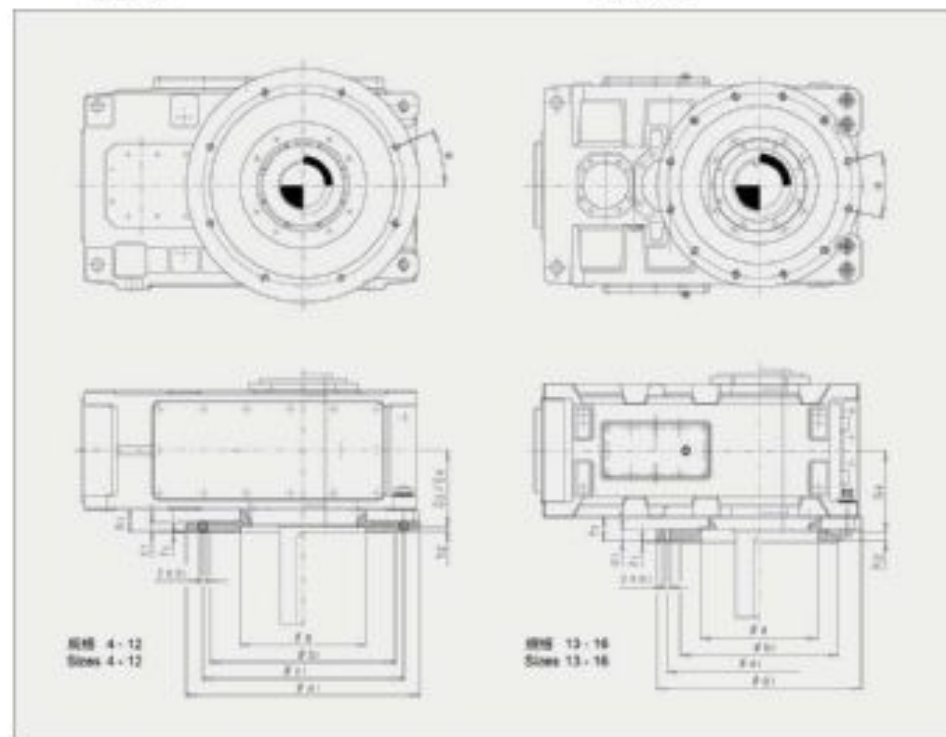
1) T_{max} ≤ T₂₀/f1) T_{max} ≤ T₂₀/f

表 3 / Table 3

可采用的类型、规格和布置形式 Possible types, sizes, designs				
规格 Size	MTH2.H	MTH2.V	MTH3.H, MTH4.H MTB2.H, MTB3.H, MTB4.H	MTH3.V, MTH4.V MTB2.V, MTB3.V, MTB4.V
4	A + B	B	A + B + C + D	B + C
5				
6				
7				
8				
9				
10				
11				
12				

齿轮箱 安装法兰 - 小空间安装
规格 4-16

Gear Units Mounting Flange - Short Spacer
Sizes 4-16



说明:
从规格 13 起只能采用安装方式 M, 即不带垫圈的箱体。
可采用的布置形式参见表 3。
若需带止回器或泵请备注。
平行轴 (MTH 型) 齿轮箱的布置形式为 C 或 D, 否则带电机
安装法兰或冷却风筒请备注。

Notes:
From size 13 up, only housings without feet, i.e. mounting position M, are used.
For possible designs, see table 3.
Combination with backstop or pump on request.
Combination with motor belt housing or fan for MTH-gear units of C and D design on request.

表 1 / Table 1

扭矩系数 f / Torque factor f

MTH2, MTH3, MTH4, MTB3, MTB4

系数 Factor	规格 / Size													
	4	5	6	7	8	9	10	11	12	13	14	15	16	
f	1.1	1.2	1.5	1.2	1.4	1.3	1.5	1.3	1.4	1.4	1.1	1.4	1.2	

MTB2

系数 Factor	规格 / Size													
	4	5	6	7	8	9	10	11	12	13	14	15	16	
f	1.0	1.0	1.2	1.0	1.2	1.1	1.3	1.1	1.2	1.2	1.0	1.2	1.0	

齿轮箱 安装法兰 - 小空间安装
规格 4-16

Gear Units Mounting Flange - Short Spacer
Sizes 4-16

表 2 / Table 2

类型 Type	规格 Size 1)	a ₁	b ₁ / T	c ₁	a ₂	f ₁	f ₂	f ₃	T _{max}	Z × f _z	附加重量 Add. weight kg	MTH2, MTH3, MTH4, MTH5, MTH6, MTH7, MTH8, MTH9, MTH10, MTH11, MTH12, MTH13, MTH14, MTH15, MTH16		MTB2, MTB3, MTB4		
												D ₂ / G ₄	D ₃ / G ₄			
													mm		mm	
S, D, H	4	445	340	25	400	5	35	22.5	205	8 × M10	35	140	170			
	5	565	430	25	515	5	60	22.5	245	8 × M10	55	165	200			
	6	565	430	25	515	5	60	22.5	245	8 × M15	55	165	200			
	7	670	530	25	620	5	60	15	295	8 × M20	80	195	235			
	8	670	530	40	620	5	80	35	300	8 × M20	110	195	235			
	9	670	530	35	620	5	80	30	320	12 × M20	105	235	270			
	10	730	560	35	680	5	80	30	355	12 × M24	125	235	270			
	11	730	560	40	680	5	80	35	400	12 × M24	145	270	320			
	12	730	560	40	680	5	90	35	420	12 × M24	155	270	320			
	S, D, H	13	840	650	50	780	5	100	37.5	450	12 × M30	245	335	390		
												240		—		
	S, D, H	14	840	650	50	780	5	100	37.5	480	12 × M30	255	335	390		
245												390				
S, D, H	15	960	750	50	880	5	100	30	520	16 × M30	315	380	480			
											305		—			
S, D, H	16	960	750	50	880	5	100	30	540	16 × M30	320	380	480			
											315		450			

1) T_{max} = T_{2n}/f

1) T_{max} = T_{2n}/f

表 3 / Table 3

可采用的类型、规格和布置形式 / Possible types, sizes, designs

规格 Size	MTH2S, MTH3S, MTH4S	MTH2 V	MTH2S, MTH3S, MTH4S, MTH5S, MTH6S, MTH7S, MTH8S, MTH9S, MTH10S, MTH11S, MTH12S, MTH13S, MTH14S, MTH15S, MTH16S	MTH2 V, MTH3 V, MTH4 V, MTH5 V, MTH6 V, MTH7 V, MTH8 V, MTH9 V, MTH10 V, MTH11 V, MTH12 V, MTH13 V, MTH14 V, MTH15 V, MTH16 V		
4	A + B	B	A + B + C + D	B + C		
5						
6						
7						
8						
9						
10					A + B + C + D	B + C
11					A + B	B
12					A + B + C + D	B + C
13	A + B	B	A + B + C + D	B + C		
14						
15 2)	A + B + C + D	B + C				
16 2)						

2) 类型 MTH2... 规格 15 + 16 不能采用布置形式 A 或 C)

2) Design A or C not possible for type MTH2... sizes 15 + 16)



7.1 Z系列减速机介绍 Z Series Reducer Introduction

1) 概述

1. Z系列弧齿锥齿轮减速机是一级弧齿锥齿轮传动，传动比有1, 1.5, 2, 2.5, 3.
2. 传动效率高，单机减速机效率高达98%.
3. 有单横轴、单纵轴、双纵轴可选。

2) 场所条件

1. 环境温度-40°C~50°C (0°C以下运行时润滑油要加热到0°C以上)。
2. 海拔不超过1000米。
3. 输入转速不大于1800rpm, 齿轮最高圆周速度不超过22m/s.
4. 可用于正反运转。
5. 无行业限制。
6. 其他条件下使用请与我公司技术部联系。

1) Summarize

1. Z series bevel helical gear reducer is the first stage gear case with transmission ratio of 1,1.5,2,2.5 and 3.
2. High transmission efficiency. A single machine can reach a transmission efficiency as much as 98%.
3. There are single transverse shaft, single longitude shaft and double longitude shafts for select.

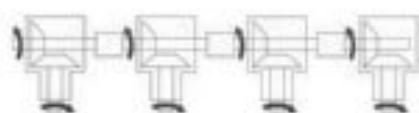
2) Working Environment

1. Working temperature: -40°C~50°C (The lubrication should be heated until above 0°C if the machine works Below 0°C.)
2. The working place should be lower than 1,000 meters above sea level.
3. The input rotational speed should not exceed 1,800rpm. The circumferential speed of the gear should not exceed 22m/s.
4. Suitable for normal-reverse rotation.
5. Without industry limitation.
6. Please consult our technical supporting department for other circumstances.

3) 应用实例

3) Application example

开卷传动 Transmission in line



立体传动 Tidalirectional carbon

给料机送料, 破碎机送料



1台减速机驱动左右轮同时转动
One reducer drive right and left wheel and rotate at the same speed

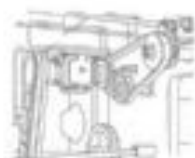
游戏机 Play machine



蜗轮输入, 2种蜗轮的运转
Vertical and horizontal input, 2 horizontal axis reverse operation



包装机 Packing machine



1台减速机驱动蜗轮, 通过蜗轮, 同时升降
One reducer output left and right after rotation, ascend and descend simultaneously

4) 选型指南

1. 选定时先根据需要的输出扭矩, 计算传递扭矩 $M_2(Nm)$, 计算输入功率 $P_1(kW)$:

$$P_1 = \frac{M_2 \times N_1}{9550 \times i \times \eta}$$

N_1 — 输入转速 (r/min)

η — 传动效率 (一般为0.98)

2. 确定合适服务系数 f_a

$$f_a = f_1 \times f_2 \times f_3$$

f_1 : 工作机最低工况使用系数 (P006页, 表1)

f_2 : 启动系数 (根据每小时启动次数参照P006页, 表2)

f_3 : 环境温度系数 (P006页, 表3)

$$P_n > f_a \times P_1$$

按实际输入功率 P_n 根据性能参数表选择合适规格

4) Instructions for Selection

1. According the required output torque, namely the torque $M_2(Nm)$, to check out the output power rating $P_1(kW)$:

$$P_1 = \frac{M_2 \times N_1}{9550 \times i \times \eta}$$

N_1 — Input speed(r/min) (r/min)

η — Transmission efficiency(0.98 as usual)

2. Determine the proper driven machine factor f_a

$$f_a = f_1 \times f_2 \times f_3$$

f_1 : minimum working condition coefficient of working machine (Table 1 on Page P006)

f_2 : starting coefficient (refer to Table 2 on Page P006 according to starting times per hour)

f_3 : Ambient temperature coefficient (Table 3 on Page P006) $P_n > f_a \times P_1$

According the actual input input power rating P_n to select the proper size from the "performance value table".

7.2 Z系列型号表示法 Model expression way of Z series

示例 1 Z9-1.5-1-UD-83

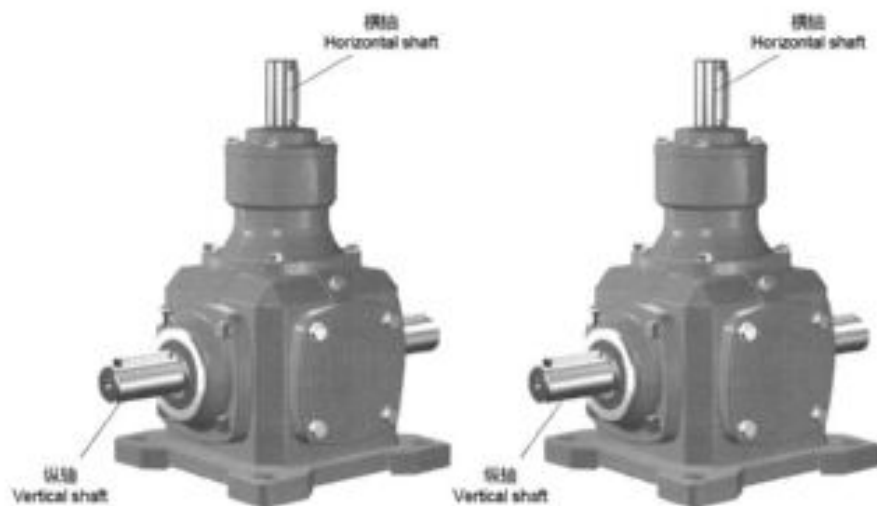
安装形式 (见P434-P435页) 注脚按B轴位
Mounting position

轴位置 (见P434-P435页) 注脚按1-LR轴位
Design of shaft

传动比 (见P436页)
Ratio

机型号 (见P436页)
Model

Z系列蜗轮蜗杆减速机
Z series helical bevel gear reductor



注: 当蜗轮输入时, Z系列蜗轮蜗杆减速机为减速。
当蜗轴输入时, Z系列蜗轮蜗杆减速机为增速。

Note: Z series bevel helical gear reductor is deceleration when inputting horizontal shaft.
Z series bevel helical gear reductor is acceleration, when inputting vertical shaft.

7.3 Z系列输入功率及许用扭矩 Input power and permissible torque of Z series

规格 Size	Z2	Z4	Z6	Z7	Z8	Z10	Z12	Z16	Z20	Z25
结构形式 Structure	S-LR(O), L-UD(O), U-LR(O), D-LR(O), 1-1-LR(O), 1-1-UD(O), U-D-LR(O)									
输入功率(kw) Input power rating	0.010	0.020	0.037	0.042	0.064	0.11	0.160	0.40	0.69	1.4
传动比 Rate	1~2	1~2	1~3	1~3	1~3	1~3	1~3	1~3	1~3	1~3
许用扭矩(N·m) Allowable Torque	11	31	94	130	199	268	607	1673	1943	3077

7.4 Z系列减速机重量表 Weight form of Z series speed reducer

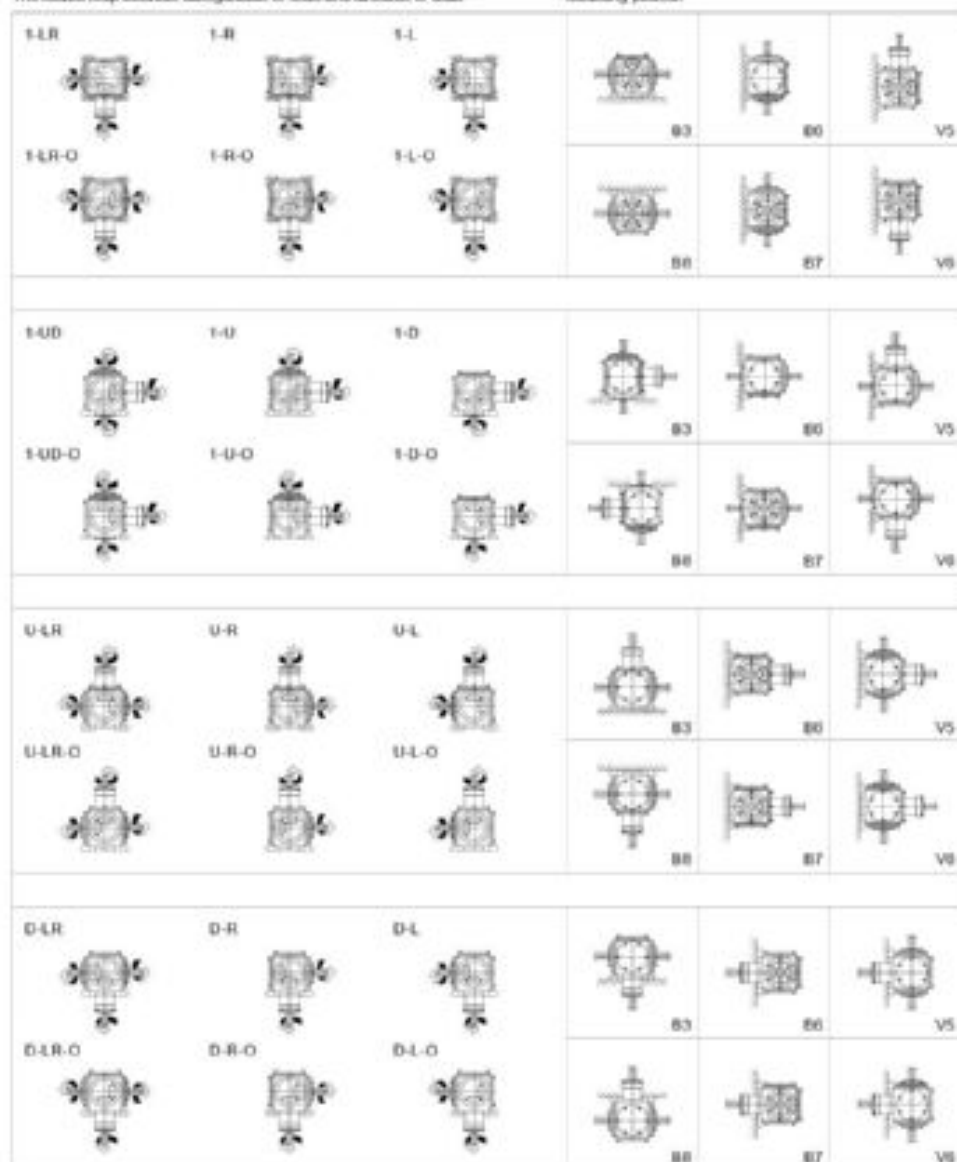
规格 Size	Z2	Z4	Z6	Z7	Z8	Z10	Z12	Z16	Z20	Z25
重量 (Kg) Weight	2	16	21	32	49	78	124	188	297	488

注:重量为平均值,仅供参考 The weights are mean values, only for reference.

7.5 Z系列轴配置及安装形式图 Shaft allocation and installation form of Z series

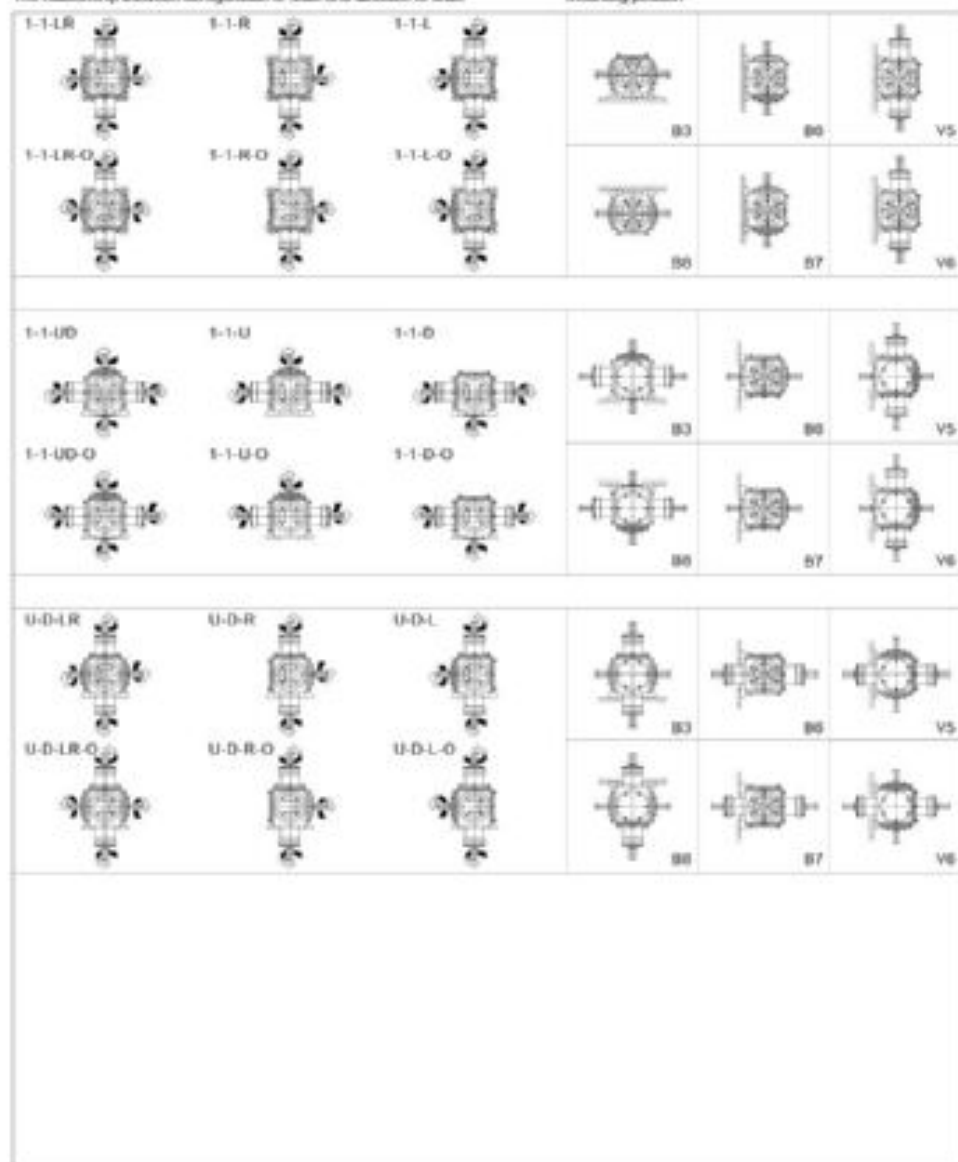
轴配置及旋转方向的关系
The relationship between configuration of shaft and direction of shaft

安装形式图
Mounting position



轴配置及旋转方向的关系
The relationship between configuration of shaft and direction of shaft

安装形式图
Mounting position



7.6 Z系列选型参数表 Model selection parameter of Z series

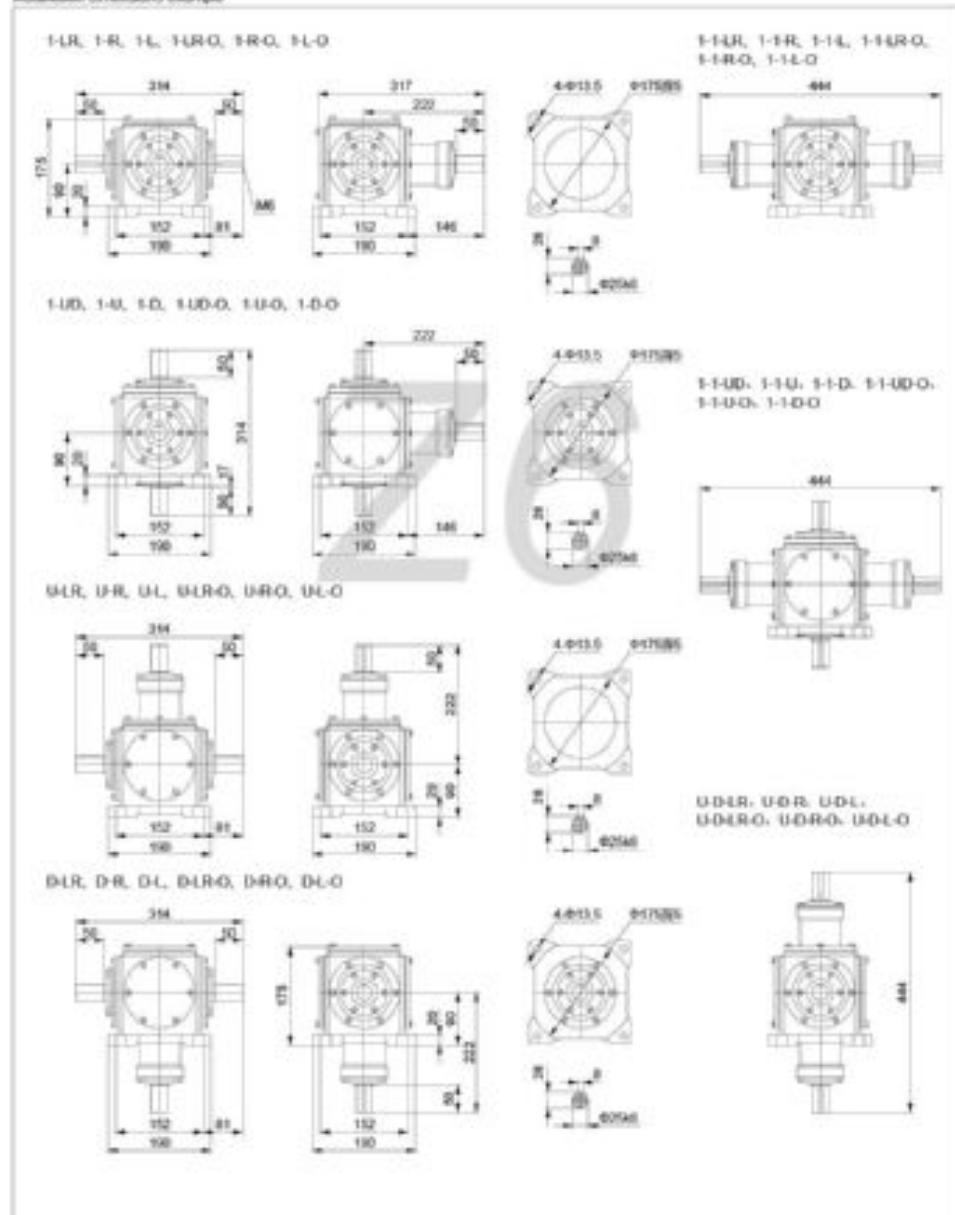
速比 Ratio	输入转速 Input speed r/min	输出转速 Output speed r/min	许用功率/Permissible power (kW)														
			Z2	Z4	Z6	Z7	Z8	Z10	Z12	Z16	Z20	Z25					
1:1	1450	1450	1.70	4.94	14.0	22	45.6	65.3	90	163							
	1150	1150	1.43	4.19	12.7	18.4	37.5	55.7	81.1	130	234						
	870	870	1.12	3.46	10.5	15.2	29	44.6	67.5	114	193	235					
	580	580	0.747	2.45	7.35	11.4	19.8	30.0	46.7	65.9	145	252					
	400	400	0.524	1.72	5.2	8.34	14	21.5	35.1	66.1	112	195					
	300	300	0.398	1.3	3.93	6.35	10.6	16.4	26.8	54.1	90.8	159					
	200	200	0.266	0.88	2.66	4.3	7.23	11.1	18.2	39.3	69	119					
	100	100	0.136	0.448	1.36	2.2	3.7	5.72	9.36	20.3	35.3	60					
	10	10	0.014	0.046	0.141	0.228	0.386	0.599	0.983	2.14	3.53	6.3					
	10	10	0.014	0.046	0.141	0.228	0.386	0.599	0.983	2.14	3.53	6.3					
1.5:1	1450	967			12.1	15	19.1	28.7	58.3								
	1150	767			9.96	12	15.4	23.2	49.2								
	870	580			7.68	9.3	11.8	24.1	40.7								
	580	387			5.23	6.32	8.14	16.4	28.9								
	400	267			3.66	4.41	5.7	11.6	20.3								
	300	200			2.77	3.35	4.34	8.78	15.5								
	200	133			1.87	2.28	2.91	5.95	10.5								
	100	87			0.957	1.16	1.49	3.04	5.37								
	10	7			0.099	0.12	0.155	0.316	0.56								
	10	7			0.099	0.12	0.155	0.316	0.56								
2:1	1450	725	0.94	3.32	7.8	10.6	14	23.6	40	73.7	126						
	1150	575	1.74	2.67	6.39	8.55	11.3	19	31.7	59.5	102	119					
	870	435	0.58	2.04	4.88	6.56	8.7	14.6	24	46	79	155					
	580	290	0.37	1.38	3.34	4.47	5.82	10	18.3	31.3	54.2	107					
	400	200	0.26	0.96	2.33	3.12	4.15	7.02	11.5	22	38	75.4					
	300	150	0.19	0.73	1.76	2.37	3.14	5.33	8.71	16.7	29	57.5					
	200	100	0.13	0.49	1.18	1.59	2.12	3.61	5.89	11.3	19.7	39.2					
	100	58	0.08	0.3	0.608	0.812	1.08	1.84	3.01	5.84	10.1	20.1					
	10	5	0.015	0.026	0.062	0.084	0.112	0.191	0.313	0.605	1.06	2.11					
	10	5	0.015	0.026	0.062	0.084	0.112	0.191	0.313	0.605	1.06	2.11					
2.5:1	1450	580			5.97	6.99	11.4	18.2	31.4								
	1150	400			4.78	5.64	9.11	14.7	25.3								
	870	348			3.66	4.3	7	11.2	19.5								
	580	232			2.49	2.92	4.78	7.69	13.3								
	400	160			1.73	2.05	3.34	5.38	9.32								
	300	120			1.32	1.55	2.53	4.06	7.08								
	200	96			0.888	1.05	1.71	2.75	4.79								
	100	48			0.448	0.528	0.867	1.4	2.43								
	10	4			0.046	0.054	0.089	0.144	0.251								
	10	4			0.046	0.054	0.089	0.144	0.251								
3:1	1450	483			4.84	5.42	8.2	14	23.6	48.2	82.3	158					
	1150	383			3.88	4.34	6.55	11.3	19	38.9	66.6	130					
	870	290			2.97	3.34	5.04	8.66	14.6	38.1	51.6	101					
	580	193			2.02	2.25	3.42	5.89	9.92	20.4	35.4	69.9					
	400	133			1.41	1.58	2.38	4.11	6.98	14.4	24.8	49.3					
	300	100			1.07	1.18	1.8	3.11	5.29	10.9	18.9	37.3					
	200	67			0.712	0.803	1.22	2.1	3.57	7.38	12.9	25.6					
	100	33			0.363	0.409	0.618	1.07	1.82	3.82	6.6	13.1					
	10	3			0.037	0.042	0.064	0.11	0.188	0.40	0.89	1.4					
	10	3			0.037	0.042	0.064	0.11	0.188	0.40	0.89	1.4					

注：1.表中允许速率为指输入速
2.输入转速超过1450r/min时，应加冷却装置
3.输入转速低于10r/min时，应使用10r/min的数值
4.本表格所有数据一律为1.0

Note: 1. Use lower if without speed.
2. Please consult us when the speed of horizontal shaft is more than 1450r/min.
3. Please refer to the parameter of 10r/min in the table when the speed of horizontal shaft is less than 10r/min.
4. All of the service factor is 1.0 in this table.

Z7安装尺寸图

Installation dimensions example

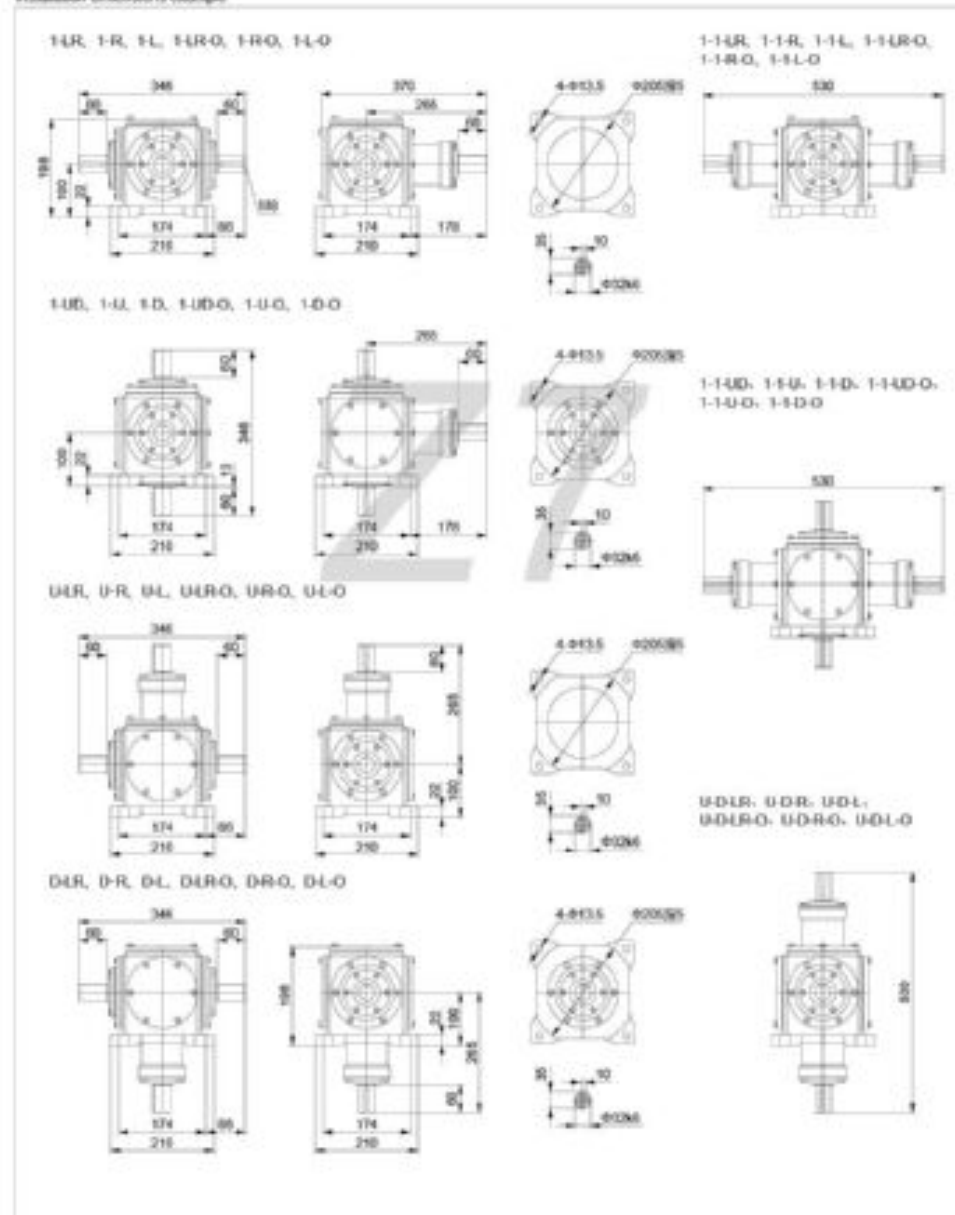


注：1-L/L系列为通用型，安装尺寸可能有所差别。

Note: 1. The above housings are common parts, the mounting dimensions may vary with each other.

Z7安装尺寸图

Installation dimensions example

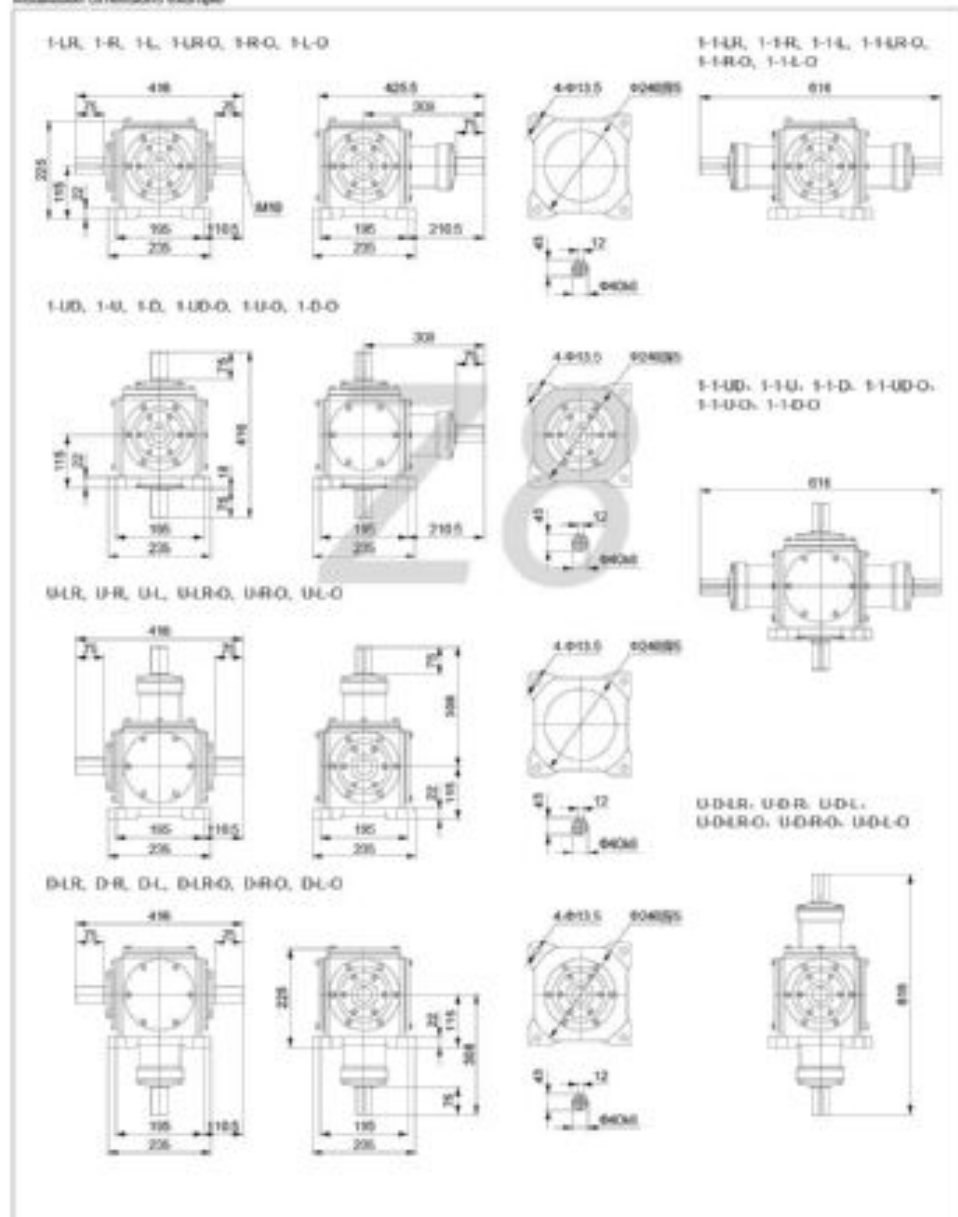


注：1-L/L系列为通用型，安装尺寸可能有所差别。

Note: 1. The above housings are common parts, the mounting dimensions may vary with each other.

Z80安装尺寸图

Installation dimensions example

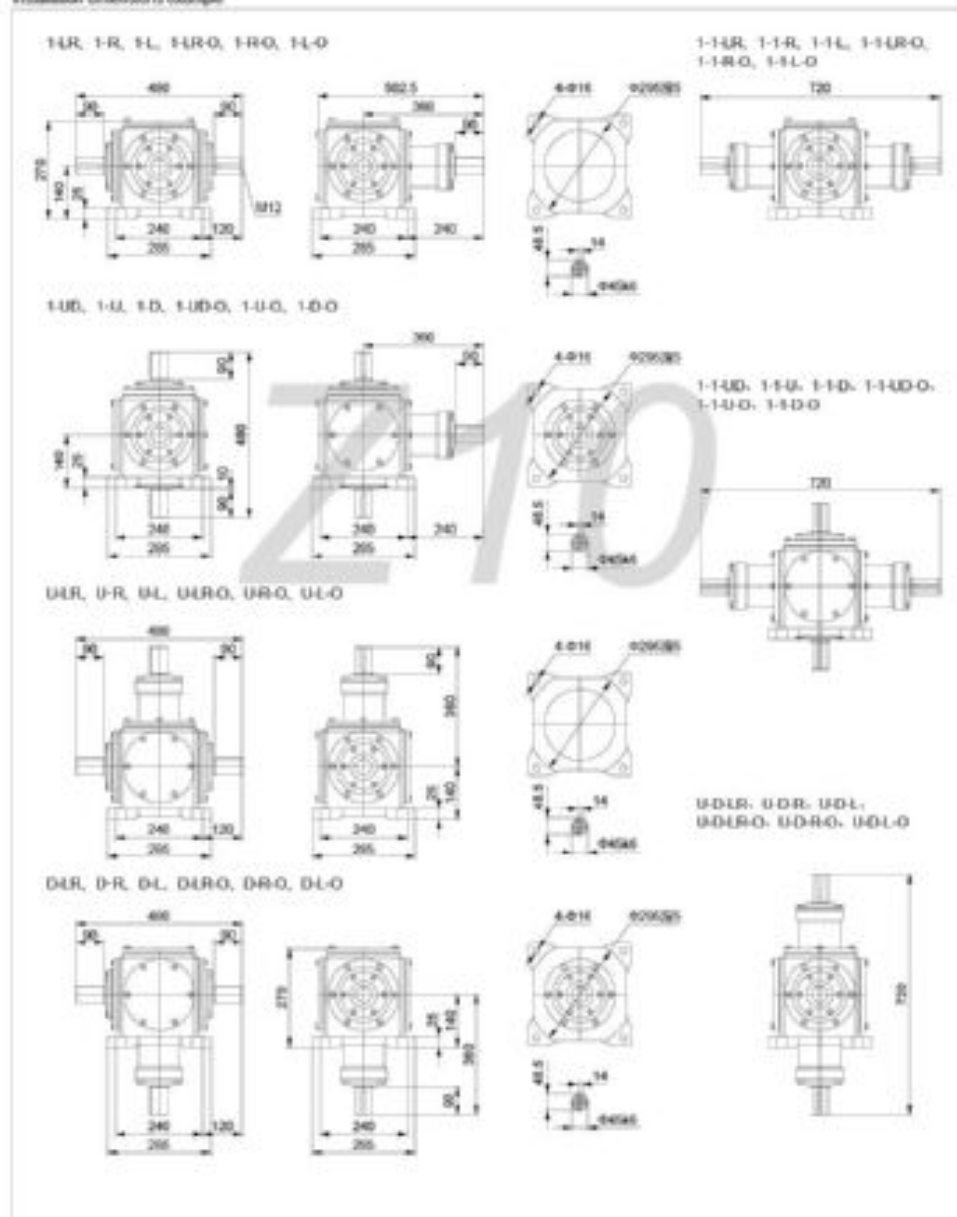


注：1-L/L系列为通用型，安装尺寸可能有所差异。

Note: 1-The above housings are common parts, the mounting dimensions may vary with each other.

Z100安装尺寸图

Installation dimensions example



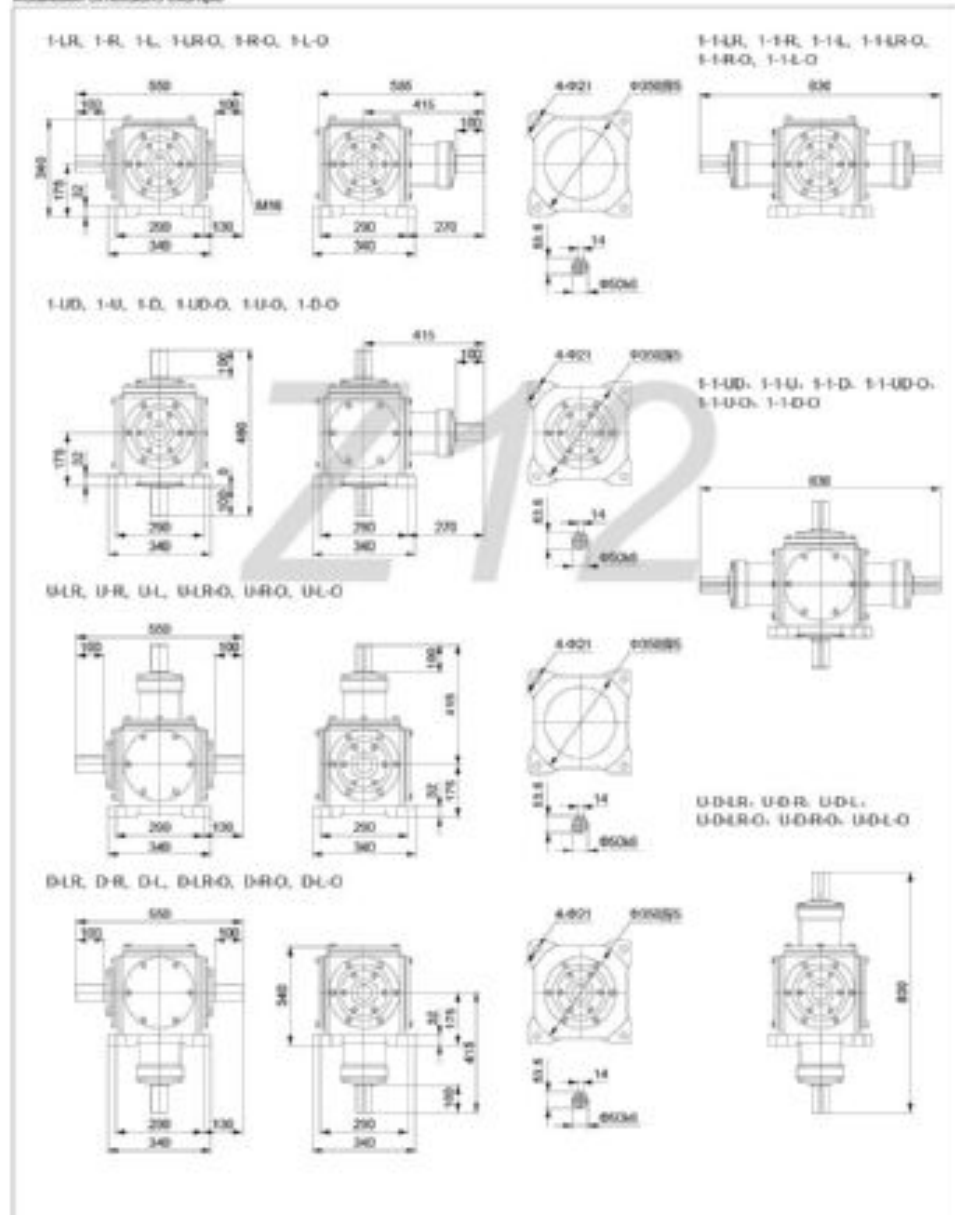
注：1-L/L系列为通用型，安装尺寸可能有所差异。

Note: 1-The above housings are common parts, the mounting dimensions may vary with each other.



Z系列尺寸图

Installation dimensions example



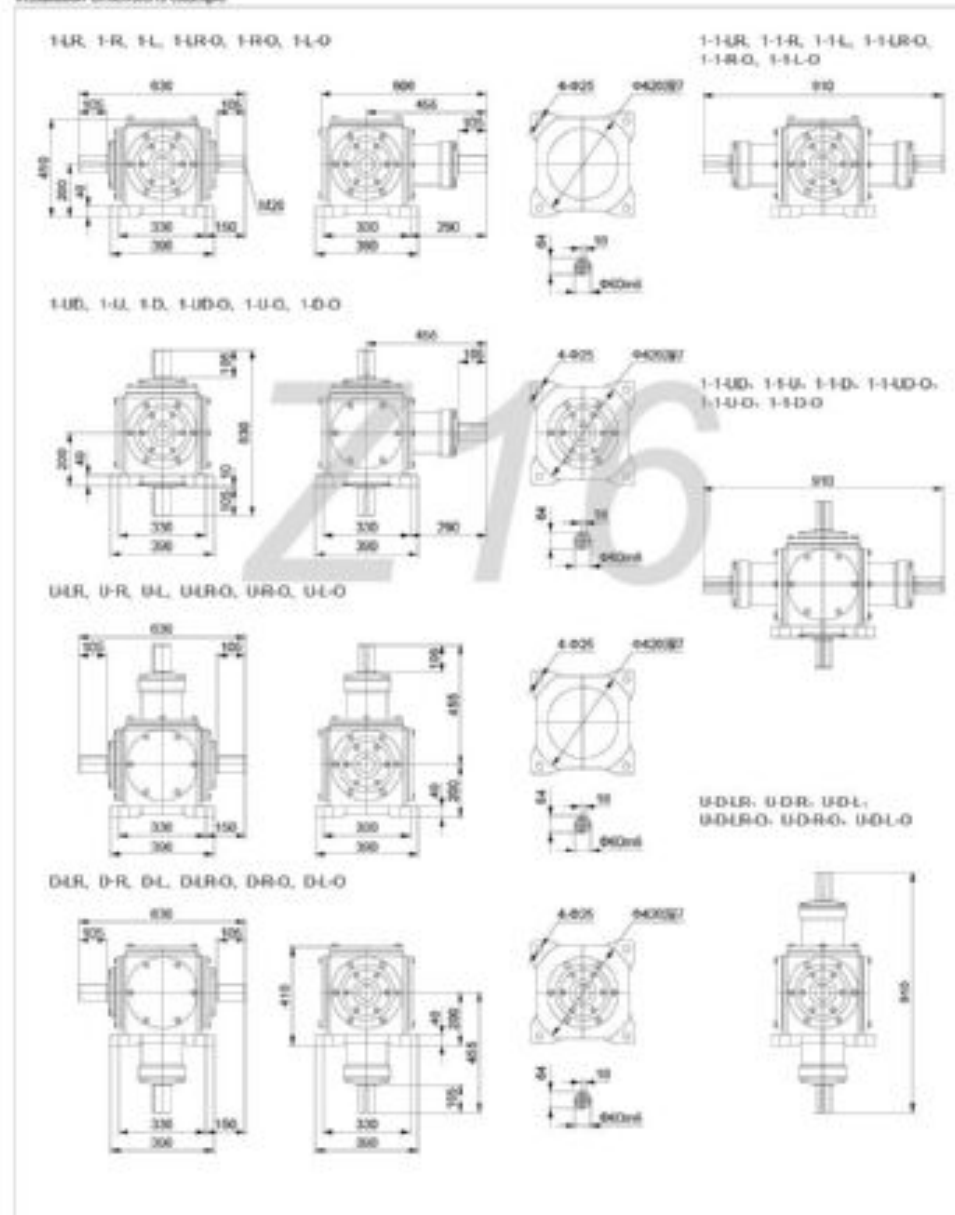
注：1-L系列为通用型，空载时尺寸仅供参考。

Note: 1. The above loadings are common parts, the mounting dimensions may vary each other.



Z系列尺寸图

Installation dimensions example

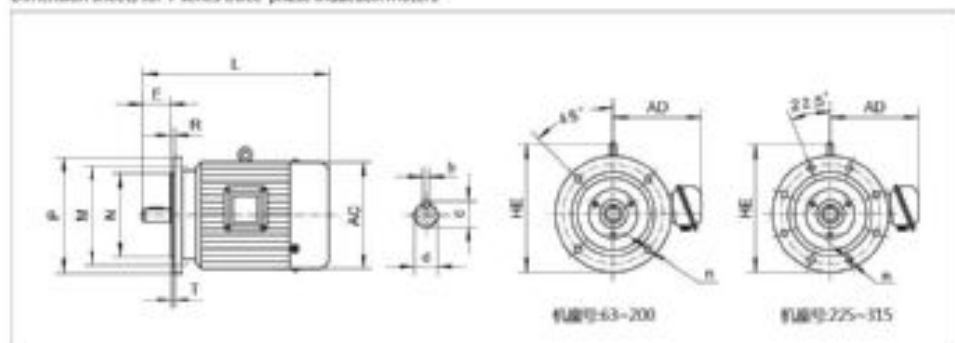


注：1-L系列为通用型，空载时尺寸仅供参考。

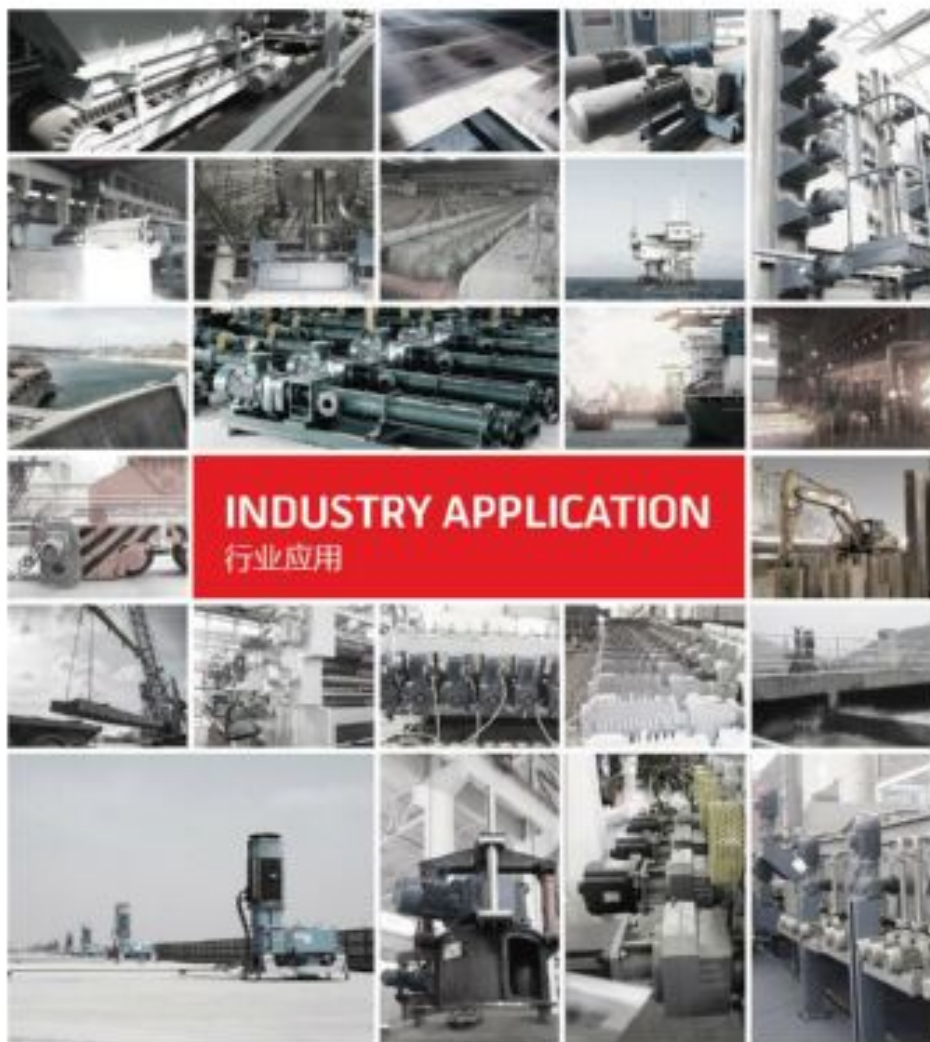
Note: 1. The above loadings are common parts, the mounting dimensions may vary each other.

Y系列三相异步电动机外形及安装尺寸

Dimension sheets for Y series three-phase induction motors



电机机座 Frame size	尺寸 dimensions (mm)											4P 电机 motors												
	M	N	P	R	s	T	尺寸				AC	AD	L	HE	功率 power kw	重量 weight kg	转动惯量 Mass moments of inertia kgm ²							
							2P	4P	2P	4P								2P	4P	2P	4P			
63	115	50	140	0	4xφ10	3	116	25	4	0.5	130	70	230	130	0.18	7.7	0.00048							
71	130	110	160	0	4xφ10	3.5	148	30	5	11	145	80	255	145	0.25	11	0.00053							
80	165	130	200	0	4xφ12	3.5	198	40	6	15.5	175	145	265	185	0.37	11	0.00086							
90S	165	130	200	0	4xφ12	3.5	246	50	8	20	195	155	320	195	0.55	30	0.00145							
90L	165	130	200	0	4xφ12	3.5	246	50	8	20	195	155	345	195	0.75	17	0.00174							
100L	215	180	250	0	4xφ15	4	266	60	8	24	215	180	365	245	2.2	32	0.00679							
112M	215	180	250	0	4xφ15	4	266	60	8	24	240	180	400	265	3	36	0.00802							
132S	265	230	300	0	4xφ15	4	306	80	10	33	275	210	470	315	5.5	60	0.02673							
132M	265	230	300	0	4xφ15	4	306	80	10	33	275	210	510	315	7.5	73	0.03432							
160M	300	250	350	0	4xφ19	5	426	110	12	37	330	255	615	385	11	116	0.06543							
160L	300	250	350	0	4xφ19	5	426	110	12	37	330	255	670	430	15	157	0.09349							
180M	300	250	350	0	4xφ19	5	486	110	14	42.5	380	280	700	430	18.5	170	0.10049							
180L	300	250	350	0	4xφ19	5	486	110	14	42.5	380	280	740	430	22	188	0.10246							
200L	350	300	400	0	4xφ19	5	556	110	16	49	420	305	770	480	30	254	0.20110							
225S	400	350	450	0	5xφ19	5	-	60	-	140	-	98	-	53	470	335	-	815	535	37	308	0.37		
225M	400	350	450	0	5xφ19	5	55	60	110	140	18	98	49	53	470	335	620	845	535	45	335	0.42		
250M★	500	450	550	0	5xφ19	5	60	65	140	140	18	98	53	58	510	370	910	585	55	450	55	450	0.78	
280S★	500	450	550	0	5xφ19	5	65	75	140	140	18	20	58	67.5	580	410	985	650	75	534	75	534	1.10	
280M★	500	450	550	0	5xφ19	5	65	75	140	140	18	20	58	67.5	580	410	1035	650	90	560	90	560	1.35	
315S★	600	550	680	0	5xφ24	6	65	80	140	170	18	22	58	71	645	530	1100	1270	845	110	630	110	630	2.050
315M★	600	550	680	0	5xφ24	6	65	80	140	170	18	22	58	71	645	530	1100	1300	845	132	1030	132	1030	3.164
315L★	600	550	680	0	5xφ24	6	65	80	140	170	18	22	58	71	645	530	1100	1300	845	160	1050	160	1050	3.6785



ABOUT VISION

公司未来

面对未来,天鸿充满信心,
饱含激情!

TANHON has confidence in future,
TANHON fills with the passion!