



1.1 性能特点

该系列齿轮箱采用了全新设计，其特点在于：

- 1) 减少零部件品种而增加了齿轮箱的规格；
- 2) 传动功率增大，运转可靠性提高；
- 3) 电机与齿轮箱采用法兰联结，更利于小空间安装。

1.2 使用场所条件

- 1) 适合环境温度-10℃至+40℃条件下运行，海拔高度不超过1000米；
- 2) 输入转速不大于1800rpm，齿轮最大圆周速度不超过22m/s；
- 3) 可用于正反转。

1.1 Performance and features






This series of gearboxes adopts a new design, which is characterized by:

- 1) Reduce the variety of parts and increase the specification of gearbox;
- 2) With the increase of transmission power, the operation reliability is improved;
- 3) The motor and gearbox are connected by flange, which is more convenient for small space installation.






1.2 Using location conditions

- 1) Suitable for the operation sites in the ambient temperatures from -10℃ to 40℃, and altitudes up to 1000m above the sea level;
- 2) The input rotational speed should not exceed 1,800 r/m, the circumferential speed of the gear should not exceed 22m/s;
- 3) Suitable for normal-reverse rotation.

1.3 一般说明

- 1) 样本中的附图只属范例，并不具有约束力，公司保留变更尺寸的权利；
- 2) 所注重量仅为平均值，并不具有约束力；
- 3) 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购置方加置保护；
- 4) 齿轮箱在供货时已处于准运行状态，运行前需加注润滑油；
- 5) 本样本中所示注油量只作为参考值，实际注油量应以油标上的标记为准；
- 6) 润滑油的粘度应符合齿轮箱铭牌上的数据；
- 7) 齿轮箱在供货时已配置了径向油封，如需要其他类型的轴封敬请垂询；
- 8) 旋转方向是指面向输出轴时输出轴的旋转方向；
- 9) 在尺寸图上所使用的符号说明如下：
 -  = 油尺
 -  = 油镜
 -  = 通气孔
 -  = 放油孔
 -  = 加油孔
- 10) 地脚螺栓的最低强度等级为8.8级。

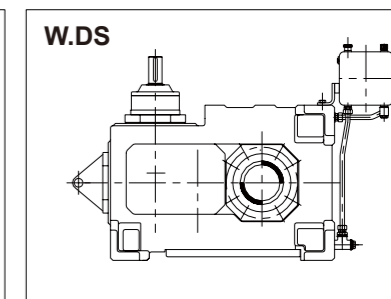
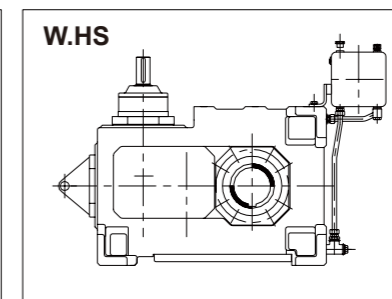
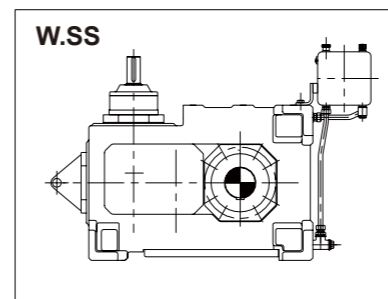
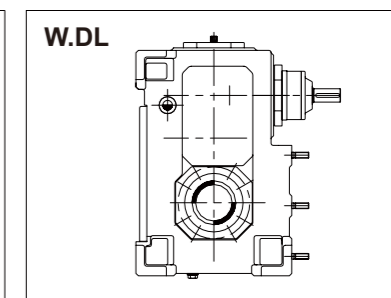
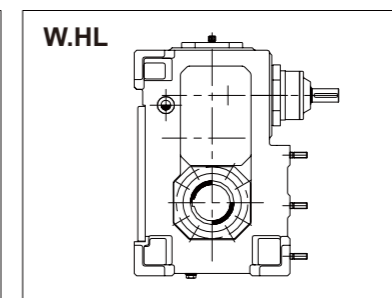
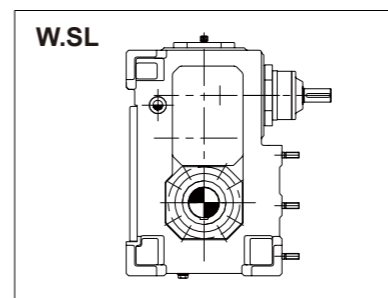
1.3 General information

- 1) Illustrations are examples only and are not strictly binding, Dimensions are subject to change ;
- 2) The weights are mean values and not strictly binding ;
- 3) To prevent accidents , all rotating parts should be guarded according to local and national safety regulations ;
- 4) The gear units are delivered ready for operation but without oil filling ;
- 5) Oil quantities given are guide values only , The exact quantity of oil depends on the marks on the oil dipstick or oil sight glass ;
- 6) The oil viscosity has to correspond to the data given on the name plate ;
- 7) The gear units are supplied with radial shaft seals Other sealing variants on request ;
- 8) Directions of rotation referring to output shaft ;
- 9) Explanation of symbols used in the dimensioned drawings :
 -  = Oil dipstick
 -  = Oil sight glass
 -  = Breather
 -  = Oil drain
 -  = Oil filler
- 10) Foundation bolts of min. property class 8.8

2.1 基本类型概述

直交轴齿轮箱

类型 W3.. , W4.. , 3或4级传动
类型 W3.. : 规格 3...12
类型 W4.. : 规格 5...12
整体式箱体

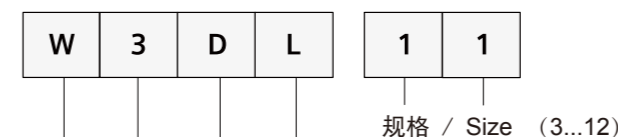


Summary of Basic Types

Bevel-helical gear units

Types W3.. , W4.. , 3- or 4-stage
Type W3.. : Sizes 3...12
Type W4.. : Sizes 5...12
Solid housing

2.2 型号标记 / Designation of Types



安装方式 / Mounting

L = 输入轴和输出轴水平安装 / Input and output shaft horizontal
S = 输入轴立式安装，输出轴水平安装 / Input shaft vertical , Output shaft horizontal

输出轴形式

S = 实心轴 / Solid shaft
H = 空心轴 / Hollow shaft
D = 带锁紧盘的空心轴 / Hollow shaft for shrink disk

传动级数 / No. of stages
3或 / or 4

类型 / Type

W = 直交轴齿轮箱，输入轴与输出轴夹角为90°
Bevel-helical gear units , Input shaft offset at 90°
整体式箱体 / Solid housing

额定功率
类型 W3.., V3..
规格 3 ... 12

Nominal Power Ratings
Types W3.., V3..
Sizes 3 ... 12

额定功率 / Nominal power ratings																				
		类型 / Type W3..										类型 / Type V3..								
i _N	n ₁ min ⁻¹	n ₂	齿轮箱规格 / Gear unit sizes																	
			3	4	5	6	7	8	9	10	11	12	4	5	6	7	8	9	10	11
额定功率 P _N (kW) / Nominal power ratings P _N in kW																				
12.5	1500	120	-	69	118	-	214	-	352	-	635	-	-	-	-	-	-	-	-	-
	1000	80	-	46	82	-	142	-	235	-	423	-	-	-	-	-	-	-	-	-
	750	60	-	35	64	-	107	-	176	-	317	-	-	-	-	-	-	-	-	-
14	1500	107	-	67	110	-	204	-	331	-	594	-	-	-	-	-	-	-	-	-
	1000	71	-	45	73	-	135	-	219	-	394	-	-	-	-	-	-	-	-	-
	750	54	-	34	55	-	103	-	167	-	300	-	-	-	-	-	-	-	-	-
16	1500	94	-	61	100	118	188	212	305	551	610	-	-	-	-	-	-	-	-	-
	1000	63	-	41	67	79	126	142	205	350	409	-	-	-	-	-	-	-	-	-
	750	47	-	31	50	59	94	106	153	175	276	305	-	-	-	-	-	-	-	-
18	1500	83	-	56	92	110	172	201	282	326	504	565	-	-	-	-	-	-	-	-
	1000	56	-	38	62	74	116	135	191	220	340	381	-	-	-	-	-	-	-	-
	750	42	-	28	47	55	87	102	143	165	255	286	-	-	-	-	-	-	-	-
20	1500	75	28	52	86	104	161	188	267	309	471	534	49	80	-	150	-	243	-	440
	1000	50	19	35	58	69	107	125	178	206	314	356	32	53	-	100	-	162	-	293
	750	38	14	26	44	53	82	95	135	156	239	271	25	41	-	76	-	123	-	223
22.4	1500	67	25	46	77	97	144	174	239	288	421	505	45	74	-	139	-	228	-	407
	1000	45	17	31	52	65	97	117	160	193	283	339	30	50	-	93	-	153	-	273
	750	33	12	23	38	48	71	86	117	142	207	249	22	37	-	68	-	112	-	200
25	1500	60	23	41	69	91	129	160	214	270	377	471	40	67	83	124	150	204	247	364
	1000	40	15	28	46	61	86	107	142	180	251	314	27	44	55	83	100	136	165	243
	750	30	11	21	35	46	64	80	107	135	188	236	20	33	41	62	75	102	123	182
28	1500	54	20	37	62	82	116	144	192	243	339	424	37	62	78	116	140	192	232	339
	1000	36	14	25	41	55	77	96	128	162	226	283	25	41	52	77	93	128	155	226
	750	27	10.2	19	31	41	58	72	96	122	170	212	19	31	39	58	70	96	116	170
31.5	1500	48	18	33	55	73	103	128	171	216	302	377	33	55	69	103	125	171	206	302
	1000	32	12.1	22	37	49	69	85	114	144	201	251	22	37	46	69	83	114	137	201
	750	24	9.0	17	28	36	52	64	85	108	151	188	17	28	35	52	62	85	103	151
35.5	1500	42	15.8	29	48	64	90	112	150	189	264	330	29	48	64	90	112	150	189	264
	1000	28	11	19	32	43	60	75	100	126	176	220	19	32	43	60	75	100	126	176
	750	21	7.9	15	24	32	45	56	75	95	132	165	15	24	32	45	56	75	95	132
40	1500	38	14	26	44	58	82	101	135	171	239	298	26	44	58	82	101	135	171	239
	1000	25	9	17	29	38	54	67	89	113	157	196	17	29	38	54	67	89	113	157
	750	18.8	7.1	13	22	29	40	50	67	85	118	148	13	22	29	40	50	67	85	118
45	1500	33	12	23	38	50	71	88	117	149	207	259	23	38	50	71	88	117	149	207
	1000	22	8.3	15	25	33	47	59	78	99	138	173	15	25	33	47	59	78	99	138
	750	16.7	6.3	12	19	25	36	45	59	75	105	131	12	19	25	36	45	59	75	105
50	1500	30	11	21	35	46	64	80	107	135	188	236	21	35	46	64	80	107	135	188
	1000	20	8	14	23	30	43	53	71	90	126	157	14	23	30	43	53	71	90	126
	750	15	6	10.4	17	23	32	40	53	68	94	118	10.4	17	23	32	40	53	68	94
56	1500	27	10.2	19	31	41	58	72	96	122	170	212	19	31	41	58	72	96	122	170
	1000	17.9	6.7	12	21	27	38	48	64	81	112	141	12	21	27	38	48	64	81	112
	750	13.4	5.1	9.3	15	20	29	36	48	60	84	105	9.3	15	20	29	36	48	60	84
63	1500	24	9	17	28	36	50	64	85	108	151	188	17	28	36	50	64	85	108	151
	1000	15.9	6	11	18	24	33	42	57	72	100	125	11	18	24	33	42	57	72	100
	750	11.9	4.5	8.2	14	18	25	32	42	54	75	93	8.2	14	18	25	32	42	54	75
71	1500	21	7.9	14.5	24	32	44	56	75	95	132	165	14.5	24	32	44	56	75	95	132
	1000	14.1	5.3	9.7	16	21	30	38	50	63	89	111	9.7	16	21	30	38	50	63	89
	750	10.6	4	7.3	12	16	22	28	38	48	67	83	7.3	12	16	22	28	38	48	67
80	1500	18.8	-	-	-	28	-	50	-	85	-	148	-	-	28	-	50	-	85	-
	1000	12.5	-	-	-	18	-	33	-	56	-	98	-	-	18	-	33	-	56	-
	750	9.4	-	-	-	14	-	25	-	42	-	74	-	-	14	-	25	-	42	-
90	1500	16.7	-	-	-	24	-	44	-	75	-	131	-	-	24	-	44	-	75	-
	1000	11.1	-	-	-	16	-	29	-	50	-	87	-	-	16	-	29	-	50	-
	750	8.3	-	-	-	12	-	22	-	37	-	65	-	-	12	-	22	-	37	-

额定功率
类型 W4..
规格 5 ... 12

Nominal Power Ratings
Type W4..
Sizes 5 ... 12

额定功率 / Nominal power ratings											
		类型 / Type W4..									
i _N	n ₁ min ⁻¹	n ₂	齿轮箱规格 / Gear unit sizes								
			5	6	7	8	9	10	11	12	
额定功率 P _N (kW) / Nominal power ratings P _N in kW											
80	1500	18.8	22	-	40	-	67	-	118	-	-
	1000	12.5	14	-	27	-	45	-	79	-	-
	750	9.4	11	-	20	-	33	-	59	-	-
90	1500	16.7	19	-	36	-	59	-	105	-	-
	1000	11.1	13	-	24	-	40	-	70	-	-
	750	8.3	9.6	-	18	-	30	-	52	-	-
100	1500	15	17.3	23	32	40	53	68	94	118	-
	1000	10	12	15	21	27	36	45	63	79	-
	750	7.5	8.6	11.4	16	20	27	34	47	59	-
112	1500	13.4	15	20	29	36	48	60	84	105	-
	1000	8.9	10.3	13.5	19	24	32	40	56	70	-
	750	6.7	7.7	10	14	18	24	30	42	53	-
125	1500	12	14	18	26	32	43	54	75	94	-
	1000	8	9.2	12	17	21	28	36	50	63	-
	750	6	6.9	9.1	13	16	21	27	38	47	-
140	1500	10.7	12	16.2	23	29	38	48	67	84	-
	1000	7.1	8.2	11	15	19	25	32	45	56	-
	750	5.4	6.2	8.2	12	14.4	19	24	34	42	-
160	1500	9.4	11	14.3	20	25	33	42	59	74	-
	1000	6.3	7.3	9.6	14	17	22	28	40	49	-
	750	4.7	5.4	7.1	10	13	17	21	30	37	-
180	1500	8.3	9.6	13	18	22	30	37	52	65	-
	1000	5.6	6.5	8.5	12	15	20	25	35	44	-
	750	4.2	4.8	6.4	9.0	11.2	15	19	26	33	-
200	1500	7.5	8.6	11.4	16	20	27	34	47	59	-
	1000	5	5.8	7.6	11	13.4	18	23	31	39	-
	750	3.8	4.4	5.8	8.2	10	14	17	24	30	-
224	1500	6.7	7.7	10	14.4	18	24	30	42	53	-
	1000	4.5	5.2	6.8	9.7	12	16	20	28	35	-
	750	3.3	3.8	5.0	7.1	9	12	15	21	26	-
250	1500	6	6.9	9.1	13	16	21	27	38	47	-
	1000	4	4.6	6.1	8.6	11	14	18	25	31	-
	750	3	3.5	4.6	6.4	8.0	11	14	19	24	-
280	1500	5.4	6.2	8.2	12	14.4	19	24	34	42	-
	1000	3.6	4.1	5.5	7.7	9.6	13	16	23	28	-
	750	2.7	3.1	4.1	5.8	7.2	10	12	17	21	-
315	1500	4.8	5.5	7.3	10.3	13	17	22	30	38	-
	1000	3.2	3.7	4.9	6.9	8.5					

额定输出扭矩
类型 W3.., V3.., W4..
规格 3 ... 12

Nominal Output Torques
Types W3.., V3.., W4..
Sizes 3 ... 12

类型 / Types W3.., W4..

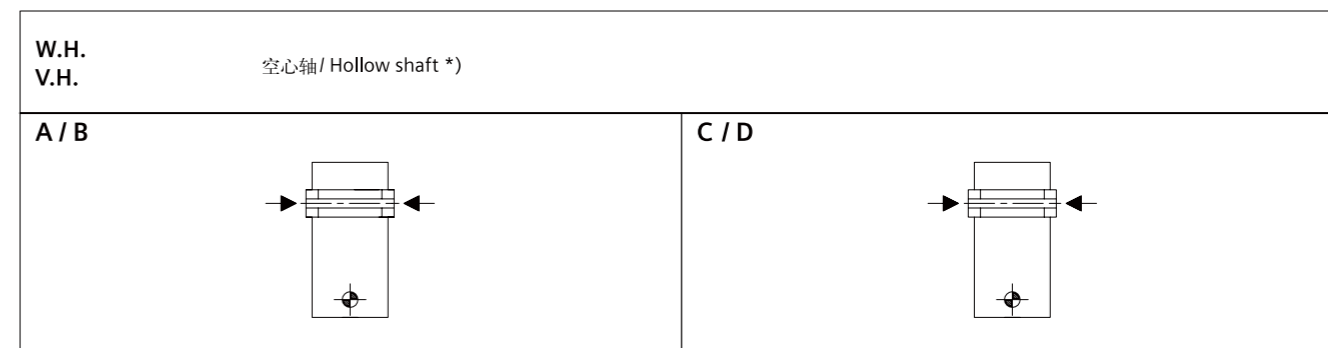
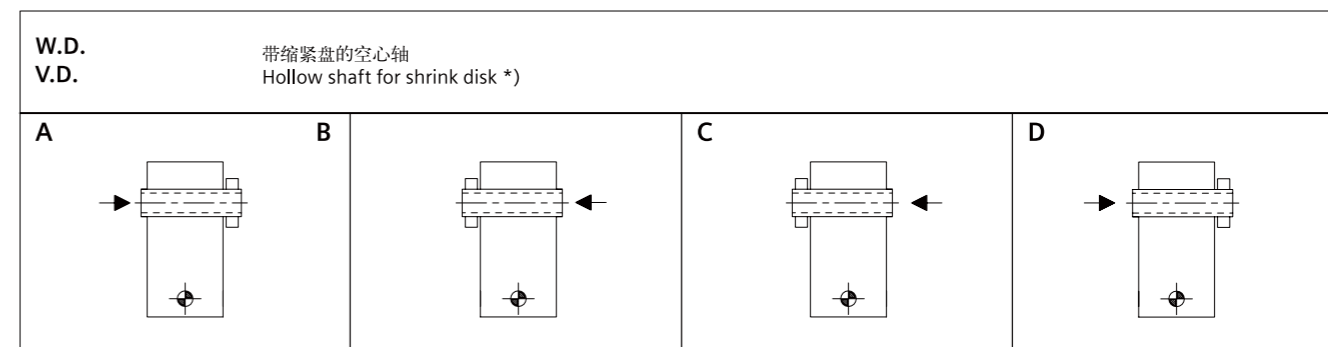
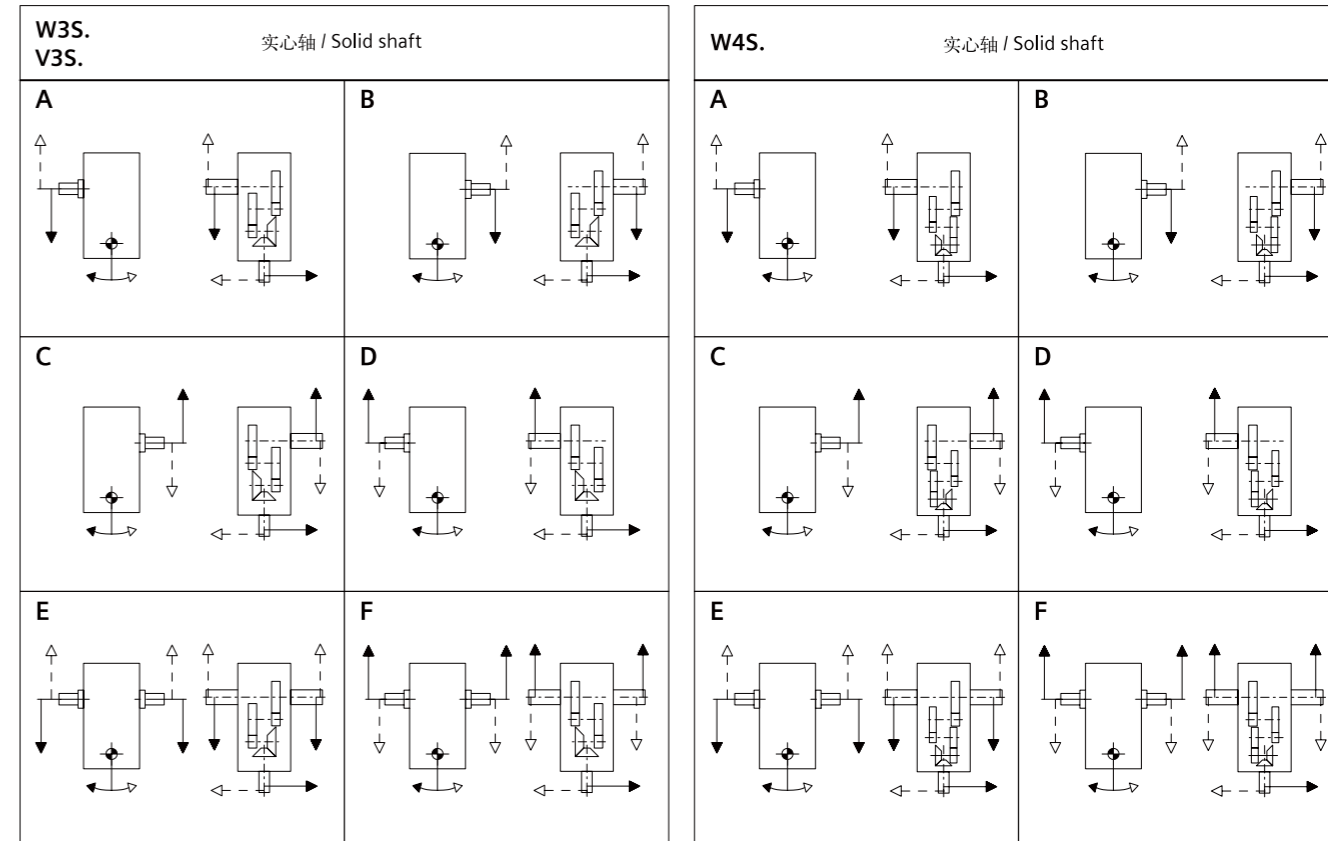
传动比 i_N , 额定输出扭矩 T_{2N} / Transmission ratios i_N , nominal output torques T_{2N}										
i_N	齿轮箱规格 / Gear unit sizes									
	3	4	5	6	7	8	9	10	11	12
额定输出扭矩 T_{2N} (kNm) / Nominal output torques T_{2N} in kNm										
12.5	-	5.5	9.4	-	17	-	28	-	50.5	-
14	-	6	9.8	-	18.2	-	29.5	-	53	-
16	-	6.2	10.2	12	19.1	21.5	31	35.6	56	62
18	-	6.4	10.6	12.6	19.8	23.1	32.5	37.5	58	65
20	3.6	6.6	11	13.2	20.5	23.9	34	39.3	60	68
22.4	3.6	6.6	11	13.8	20.5	24.8	34	41	60	72
25	3.6	6.6	11	14.5	20.5	25.5	34	43	60	75
28	3.6	6.6	11	14.5	20.5	25.5	34	43	60	75
31.5	3.6	6.6	11	14.5	20.5	25.5	34	43	60	75
35.5	3.6	6.6	11	14.5	20.5	25.5	34	43	60	75
40	3.6	6.6	11	14.5	20.5	25.5	34	43	60	75
45	3.6	6.6	11	14.5	20.5	25.5	34	43	60	75
50	3.6	6.6	11	14.5	20.5	25.5	34	43	60	75
56	3.6	6.6	11	14.5	20.5	25.5	34	43	60	75
63	3.6	6.6	11	14.5	20	25.5	34	43	60	75
71	3.6	6.6	11	14.5	20	25.5	34	43	60	75
80	-	-	11	14	20.5	25.2	34	43	60	75
90	-	-	11	14	20.5	25.2	34	43	60	75
100	-	-	11	14.5	20.5	25.5	34	43	60	75
112	-	-	11	14.5	20.5	25.5	34	43	60	75
125	-	-	11	14.5	20.5	25.5	34	43	60	75
140	-	-	11	14.5	20.5	25.5	34	43	60	75
160	-	-	11	14.5	20.5	25.5	34	43	60	75
180	-	-	11	14.5	20.5	25.5	34	43	60	75
200	-	-	11	14.5	20.5	25.5	34	43	60	75
224	-	-	11	14.5	20.5	25.5	34	43	60	75
250	-	-	11	14.5	20.5	25.5	34	43	60	75
280	-	-	11	14.5	20.5	25.5	34	43	60	75
315	-	-	11	14.5	20.5	25.5	34	43	60	75
355	-	-	-	14.5	-	25.5	-	43	-	75
400	-	-	-	14.5	-	25.5	-	43	-	75

类型 / Types V3..

传动比 i_N , 额定输出扭矩 T_{2N} / Transmission ratios i_N , nominal output torques T_{2N}										
i_N	齿轮箱规格 / Gear unit sizes									
	3	4	5	6	7	8	9	10	11	12
额定输出扭矩 T_{2N} (kNm) / Nominal output torques T_{2N} in kNm										
20	-	6.2	10.2	-	19.1	-	31	-	56	-
22.4	-	6.4	10.6	-	19.8	-	32.5	-	58	-
25	-	6.4	10.6	13.2	19.8	23.9	32.5	39.3	58	68
28	-	6.6	11	13.8	20.5	24.8	34	41	60	72
31.5	-	6.6	11	13.8	20.5	24.8	34	41	60	72
35.5	-	6.6	11	14.5	20.5	25.5	34	43	60	75
40	-	6.6	11	14.5	20.5	25.5	34	43	60	75
45	-	6.6	11	14.5	20.5	25.5	34	43	60	75
50	-	6.6	11	14.5	20.5	25.5	34	43	60	75
56	-	6.6	11	14.5	20.5	25.5	34	43	60	75
63	-	6.6	11	14.5	20	25.5	34	43	60	75
71	-	6.6	11	14.5	20	25.5	34	43	60	75
80	-	-	-	14	-	25.2	-	43	-	75
90	-	-	-	14	-	25.2	-	43	-	75

布置形式
类型 W3.., V3.., W4..
规格 3 ... 12

Design
Types W3.., V3.., W4..
Sizes 3 ... 12

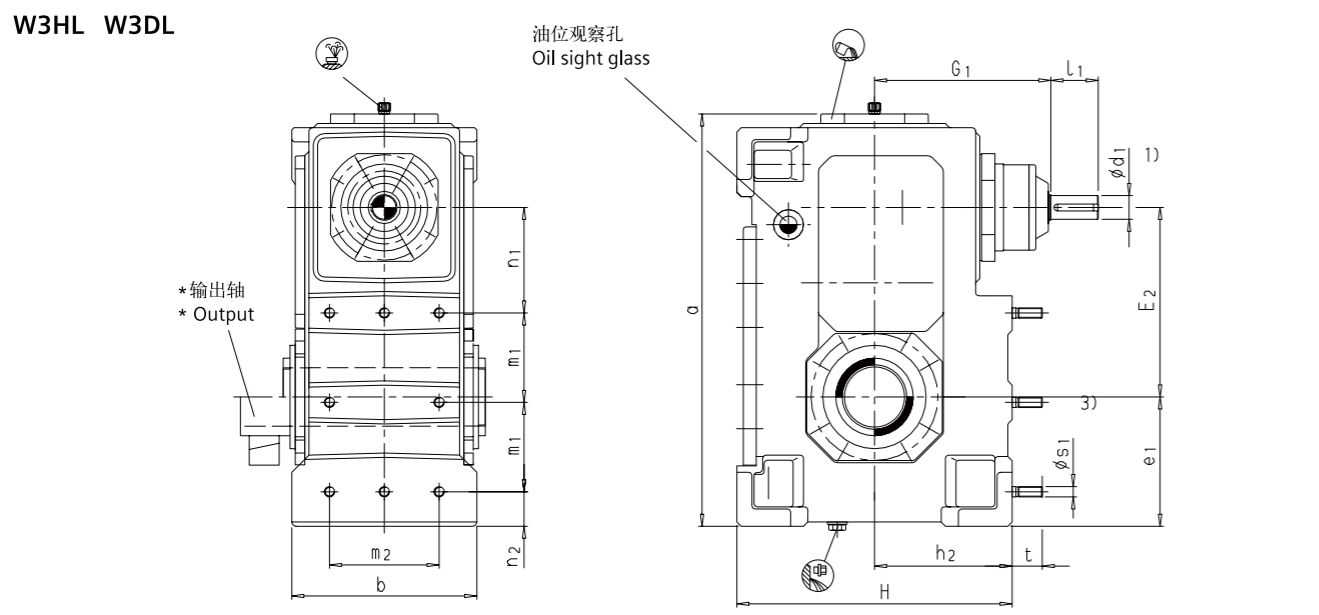


注 *) 箭头表示工作机驱动轴的插入方向。

*) The arrow indicates the direction of insertion of the driven machine shaft.

三级传动, 水平安装
类型 W3..
规格 3 ... 12

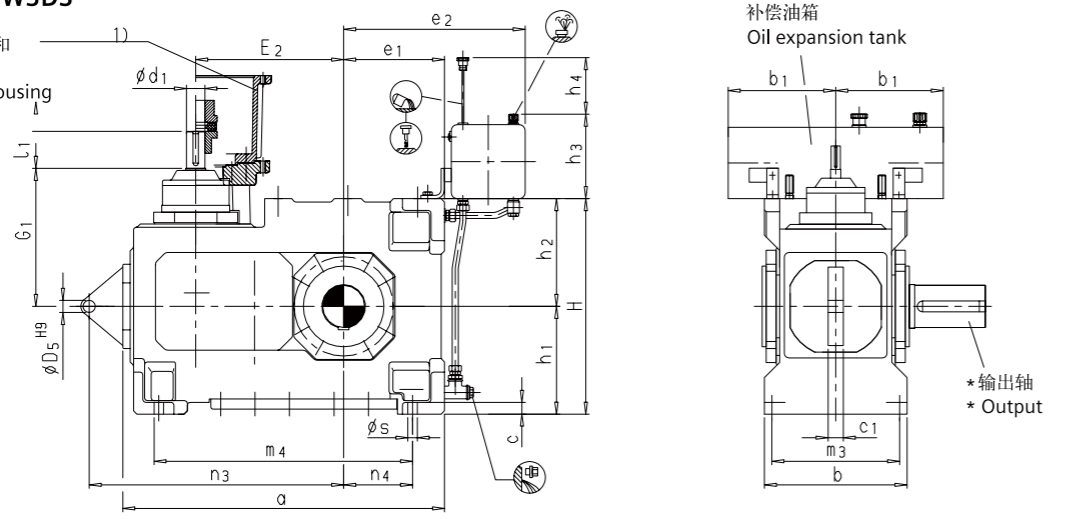
Three Stage, Horizontal
Type W3..
Sizes 3 ... 12



W3SS W3HS W3DS

带电机联接法兰盘和 BIPEX 联轴器 BWN
With motor bell housing and BIPEX coupling BWN

补偿油箱
Oil expansion tank



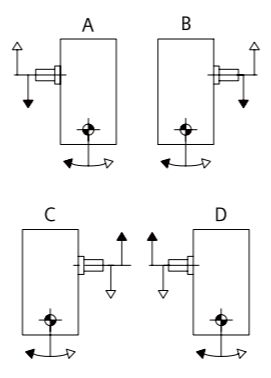
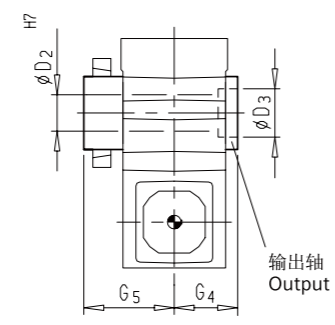
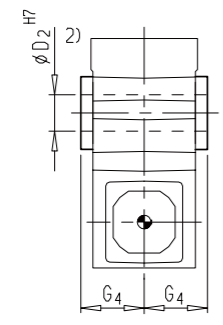
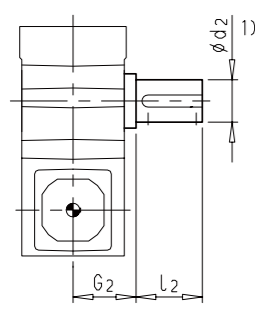
• 输出轴 / Output

布置形式 / Design

W3SS
实心轴 / Solid shaft

W3HL, W3HS
空心轴 / Hollow shaft

W3DL, W3DS
带缩紧盘的空心轴
Hollow shaft for shrink disk



1) $k_6 \leq \phi 25$ $\phi 28 \geq m_6 \leq \phi 100$ $n_6 > \phi 100$
平键按照 DIN 6885/1 B 型, 中心孔见第 25 页 / For parallel key DIN 6885/1 form B and for centre hole, see page 25
2) 平键槽按照 DIN 6885/1 / Keyway DIN 6885/1
3) 固定电机支架双头螺栓不在供货范围之内。如果需要请另行订购。 / Studs are not supplied by us. Please order separately, if required.

三级传动, 水平安装
类型 W3..
规格 3 ... 12

Three Stage, Horizontal
Type W3..
Sizes 3 ... 12

规格 Size	尺寸(mm) / Dimensions in mm										
	输入轴 / Input										
	$i_N = 12.5 - 45$		$i_N = 16 - 56$		$i_N = 20 - 45$		$i_N = 50 - 71$		$i_N = 63 - 90$		G_1
$d_1^{1)}$	l_1	$d_1^{1)}$	l_1	$d_1^{1)}$	l_1	$d_1^{1)}$	l_1	$d_1^{1)}$	l_1		
3					28	55	20	50			210
4	30	70					25	60			270
5	35	80					28	60			305
6			35	80					28	60	305
7	45	100					35	80			360
8			45	100					35	80	360
9	55	110					40	100			410
10			55	110					40	100	410
11	70	135					50	110			490
12			70	135					50	110	490

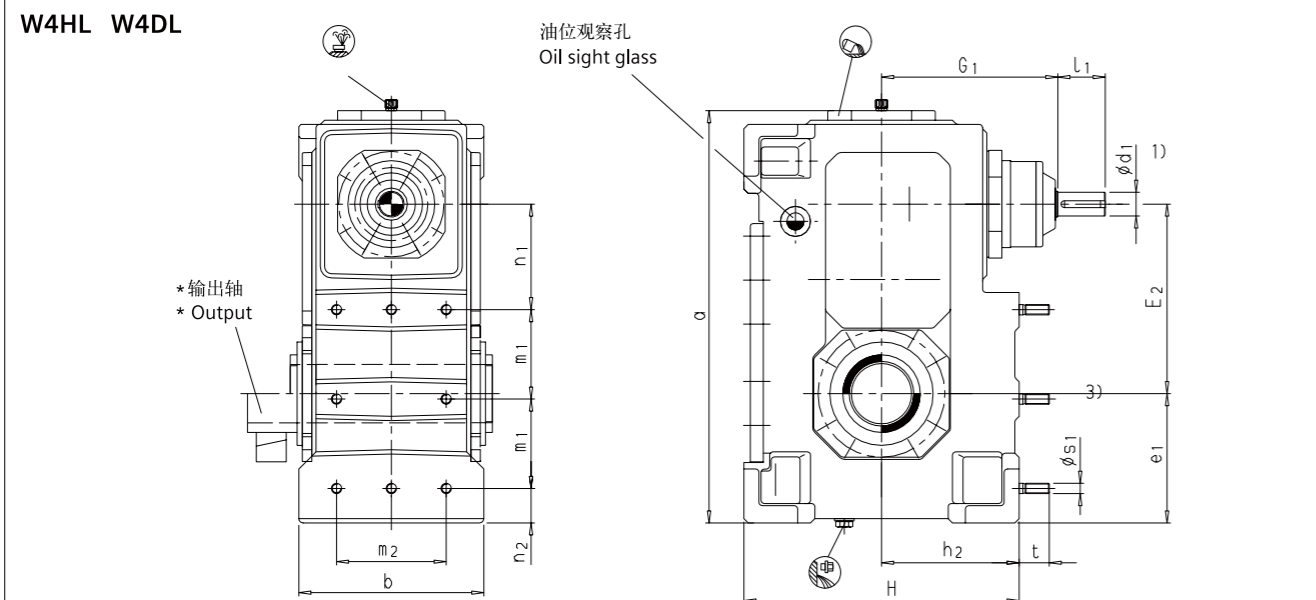
规格 Size	尺寸(mm) / Dimensions in mm												
	齿轮箱 / Gear units												
	a	b	b_1	c	c_1	D_5	e_1	e_2	E_2	h_1	h_2	h_3	h_4
3	528	190	150	35	$24 + 1$	18	190	320	220	175	165	165	180
4	593	265	150	28	$30 + 1$	24	190	320	262.5	200	200	165	180
5	678	305	240	28	$30 + 1$	24	205	385	307	230	230	205	240
6	758	305	240	28	$30 + 1$	24	250	425	342	230	230	205	240
7	827	360	240	35	$36 + 1$	28	250	425	375.3	280	280	205	250
8	932	360	240	35	$36 + 1$	28	310	485	420.3	280	280	205	250
9	967	430	330	40	$45 + 1.5$	36	300	560	440	320	320	275	330
10	1067	430	330	40	$45 + 1.5$	36	350	610	490	320	320	275	330
11	1153	500	330	50	$54 + 1.5$	40	345	595	532.1	380	380	275	340
12	1308	500	330	50	$54 + 1.5$	40	430	680	602.1	380	380	275	340

规格 Size	尺寸(mm) / Dimensions in mm											
	齿轮箱 / Gear units											
	H	m_1	m_2	m_3	m_4	n_1	n_2	n_3	n_4	s	$s_1^{3)}$	t
3	340	120	150	160	365	130	40	400	140	15	M 12	35
4	400	145	168	230	462	147.5	15	483	132	19	M 16	45
5	460	162.5	198	270	525	167	20	553	140	19	M 16	45
6	460	202.5	198	270	605	167	20	615	185	19	M 16	45
7	560	200	235	320	647.5	200.3	25	670	172.5	24	M 20	55
8	560	252.5	235	320	752.5	200.3	25	715	232.5	24	M 20	55
9	640	235	285	380	755	245	25	780	205	28	M 24	70
10	640	285	285	380	855	245	25	830	255	28	M 24	70
11	760	277.5	340	440	897.5	282.1	40	930	227.5	35	M 30	90
12	760	355	340	440	1052.5	282.1	40	1000	312.5	35	M 30	90

规格 Size	尺寸(mm) / Dimensions in mm									润滑油 / Oil		重量 Weight (kg)
	输出轴 / Output									W3.L (l)	W3.S (l)	
	W3SS			W3HL, W3HS		W3DL, W3DS						
$d_2^{1)}$	G_2	l_2	$D_2^{2)}$	G_4	D_2	D_3	G_4	G_5				
3	65	125	140	65	125	70	70	125	180	10	14	130
4	80	140	170	80	140	85	85	140	205	16	25	210
5	100	165	210	95	165	100	100	165	240	25	32	325
6	110	165	210	105	165	110	110	165	240	28	35	380
7	120	195	210	115	195	120	120	195	280	45	52	550
8	130	195	250	125	195	130	130	195	285	50	67	635
9	140	235	250	135	235	140	145	235	330	70	100	890
10	160	235	300	150	235	150	155	235	350	75	110	1020
11	170	270	300	165	270	165	170	270	400	120	160	1455
12	180	270	300	180	270	180	185	270	405	135	180	1730

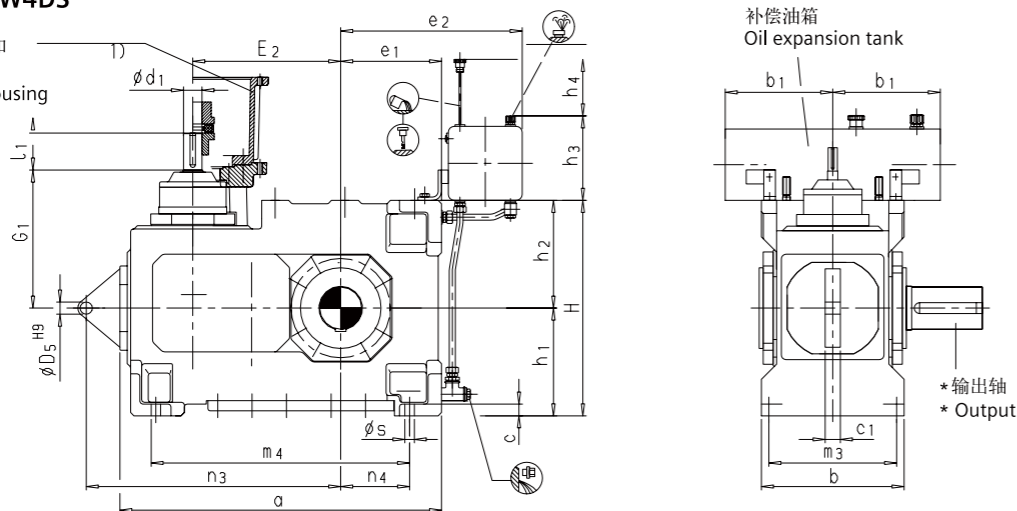
四级传动, 水平安装
类型 W4..
规格 5 ... 12

Four Stage, Horizontal
Type W4..
Sizes 5 ... 12



W4SS W4HS W4DS

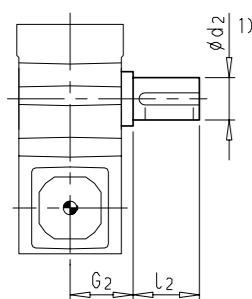
带电机联接法兰盘和 BIPEX 联轴器 BWN
With motor bell housing and BIPEX coupling BWN



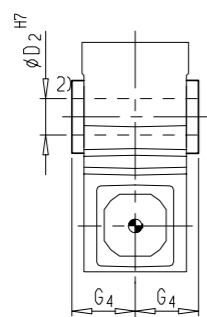
• 输出轴 / Output

布置形式 / Design

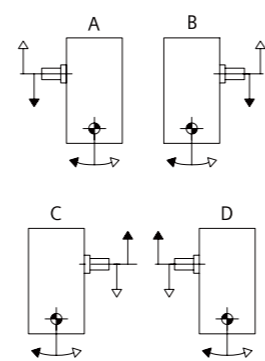
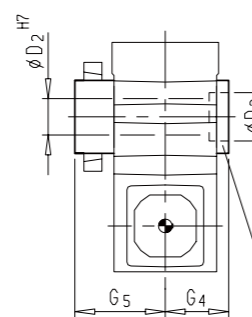
W4SS
实心轴 / Solid shaft



W4HL, W4HS
空心轴 / Hollow shaft



W4DL, W4DS
带缩紧盘的空心输出轴
Hollow shaft for shrink disk



1) $k_6 \leq \varphi 25$ $\varphi 28 \geq m_6 \leq \varphi 100$ $n_6 > \varphi 100$
平键按照 DIN 6885/1 B 型, 中心孔见第 25 页 / For parallel key DIN 6885/1 form B and for centre hole, see page 25
2) 平键槽按照 DIN 6885/1 / Keyway DIN 6885/1
3) 固定电机支架双头螺栓不在供货范围之内。如果需要请另行订购。 / Studs are not supplied by us. Please order separately, if required.

四级传动, 水平安装
类型 W4..
规格 5 ... 12

Four Stage, Horizontal
Type W4..
Sizes 5 ... 12

规格 Size	尺寸 (mm) / Dimensions in mm								G ₁
	输入轴 / Input								
	i _N = 80 - 180		i _N = 100 - 224		i _N = 200 - 315		i _N = 250 - 400		
	d ₁ ¹⁾	l ₁	d ₁ ¹⁾	l ₁	d ₁ ¹⁾	l ₁	d ₁ ¹⁾	l ₁	
5	28	55			20	50			295
6			28	55			20	50	295
7	30	70			25	60			335
8			30	70			25	60	335
9	35	80			28	60			375
10			35	80			28	60	375
11	请垂询 / On request								
12	请垂询 / On request								

规格 Size	尺寸 (mm) / Dimensions in mm												
	齿轮箱 / Gear units												
	a	b	b ₁	c	c ₁	D ₅	e ₁	e ₂	E ₂	h ₁	h ₂	h ₃	h ₄
5	678	305	240	28	30 + 1	24	205	385	335	230	230	205	240
6	758	305	240	28	30 + 1	24	250	425	370	230	230	205	240
7	827	360	240	35	36 + 1	28	250	425	399.75	280	280	205	250
8	932	360	240	35	36 + 1	28	310	485	444.75	280	280	205	250
9	967	430	330	40	45 + 1.5	36	300	560	470	320	320	275	330
10	1067	430	330	40	45 + 1.5	36	350	610	520	320	320	275	330
11	请垂询 / On request												
12	请垂询 / On request												

规格 Size	尺寸 (mm) / Dimensions in mm											
	齿轮箱 / Gear units											
	H	m ₁	m ₂	m ₃	m ₄	n ₁	n ₂	n ₃	n ₄	s	s ₁ ³⁾	t
5	460	162.5	198	270	525	195	20	553	140	19	M 16	45
6	460	202.5	198	270	605	195	20	615	185	19	M 16	45
7	560	200	235	320	647.5	224.75	25	670	172.5	24	M 20	55
8	560	252.5	235	320	752.5	224.75	25	715	232.5	24	M 20	55
9	640	235	285	380	755	275	25	780	205	28	M 24	70
10	640	285	285	380	855	275	25	830	255	28	M 24	70
11	请垂询 / On request											
12	请垂询 / On request											

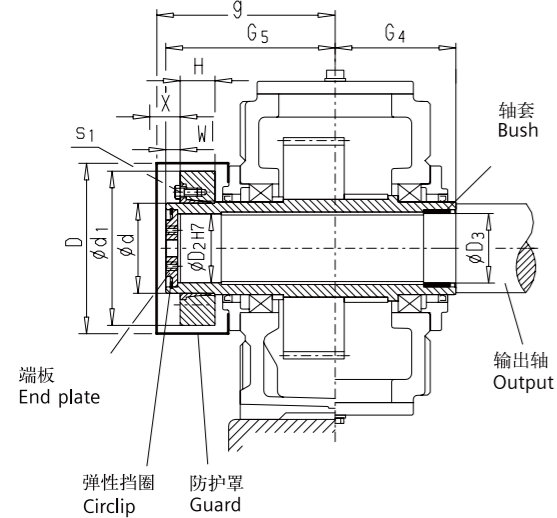
规格 Size	尺寸 (mm) / Dimensions in mm									润滑油 / Oil		重量 Weight (kg)
	输出轴 / Output									W4.L (l)	W4.S (l)	
	W4SS	W4HL, W4HS		W4DL, W4DS								
	d ₂ ¹⁾	G ₂	l ₂	D ₂ ²⁾	G ₄	D ₂	D ₃	G ₄	G ₅			
5	100	165	210	95	165	100	100	165	240	25	32	335
6	110	165	210	105	165	110	110	165	240	28	35	385
7	120	195	210	115	195	120	120	195	280	45	52	555
8	130	195	250	125	195	130	130	195	285	50	67	655
9	140	235	250	135	235	140	145	235	330	70	100	940
10	160	235	300	150	235	150	155	235	350	75	110	1100
11	请垂询 / On request											
12	请垂询 / On request											

带缩紧盘的空心轴

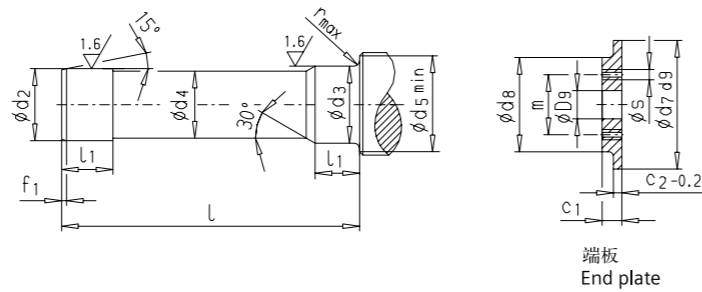
类型 W3.., V3.., W4..
规格 3 ... 12

Hollow Shafts for Shrink Disks
Types W3.., V3.., W4..
Sizes 3 ... 12

X = 要求预留的力矩扳手空间
X = Space required for torque wrench



用于缩紧盘联接的工作机驱动轴，
工作机驱动轴表面不得沾有机油或润滑脂。
Driven machine shaft for shrink disk connection. Driven machine shaft must be free of oil or grease.



类型 / Types W3D., V3D., W4D.																													
齿轮箱规格 Gear unit size	工作机驱动轴 ²⁾ Driven machine shaft											轴端挡板 End plate				弹性挡圈 Circlip ring 数量 Qty.	DIN 472	空心轴 Hollow shaft				缩紧盘 Shrink disk ¹⁾				螺钉 Screw s ₁	护罩 Guard D g		
	d ₂	d ₃	d ₄	d ₅	f ₁	l	l ₁	r	c ₁	c ₂	d ₇	d ₈	D ₉	m	s			D ₂	D ₃	G ₄	G ₅	Type	d	d ₁	H		W	D	g
	mm																	mm				mm					mm		
3	70 g6	70 h6	69.5	80	4	286	38	2	17	7	75	55	22	40	M 8	2	75 x 2.5	70	70	125	180	90-32	90	155	38	20	M 10	205	195
4	85 g6	85 h6	84.5	95	4	326	48	2	17	7	90	70	22	50	M 8	2	90 x 3	85	85	140	205	110-32	110	185	49	20	M 14	235	220
5	100 g6	100 h6	99.5	114	5	383	53	2	20	8	105	80	26	55	M 10	2	105 x 4	100	100	165	240	125-32	125	215	53	20	M 12	275	255
6	110 g6	110 h6	109.5	124	5	383	58	3	20	8	115	85	26	60	M 10	2	115 x 4	110	110	165	240	140-32	140	230	58	20	M 14	285	255
7	120 g6	120 h6	119.5	134	5	453	68	3	20	8	125	90	26	65	M 12	2	125 x 4	120	120	195	280	155-32	155	263	62	23	M 14	330	295
8	130 g6	130 h6	129.5	145	6	458	73	3	20	8	135	100	26	70	M 12	2	135 x 4	130	130	195	285	165-32	165	290	68	23	M 16	340	300
9	140 g6	145 m6	139.5	160	6	539	82	4	23	10	150	110	33	80	M 12	2	150 x 4	140	145	235	330	175-32	175	300	68	28	M 16	360	345
10	150 g6	155 m6	149.5	170	6	559	92	4	23	10	160	120	33	90	M 12	2	160 x 4	150	155	235	350	200-32	200	340	85	28	M 16	395	365
11	165 f6	170 m6	164.5	185	7	644	112	4	23	10	175	130	33	90	M 12	2	175 x 4	165	170	270	400	220-32	220	370	103	30	M 20	435	420
12	180 f6	185 m6	179.5	200	7	649	122	4	23	10	190	140	33	100	M 16	2	190 x 4	180	185	270	405	240-32	240	405	107	30	M 20	450	420

1) 缩紧盘不在供货范围之内。

如果需要请另行订货。
2) 工作机驱动材质: C60N 或强度更高的钢。

缩紧盘布置在工作机侧。请垂询

工作机驱动轴尺寸请垂询。

1) Shrink disk does not belong to our scope of supply. Please order separately, if required.

2) Material of driven machine shaft: C60N or higher strength.

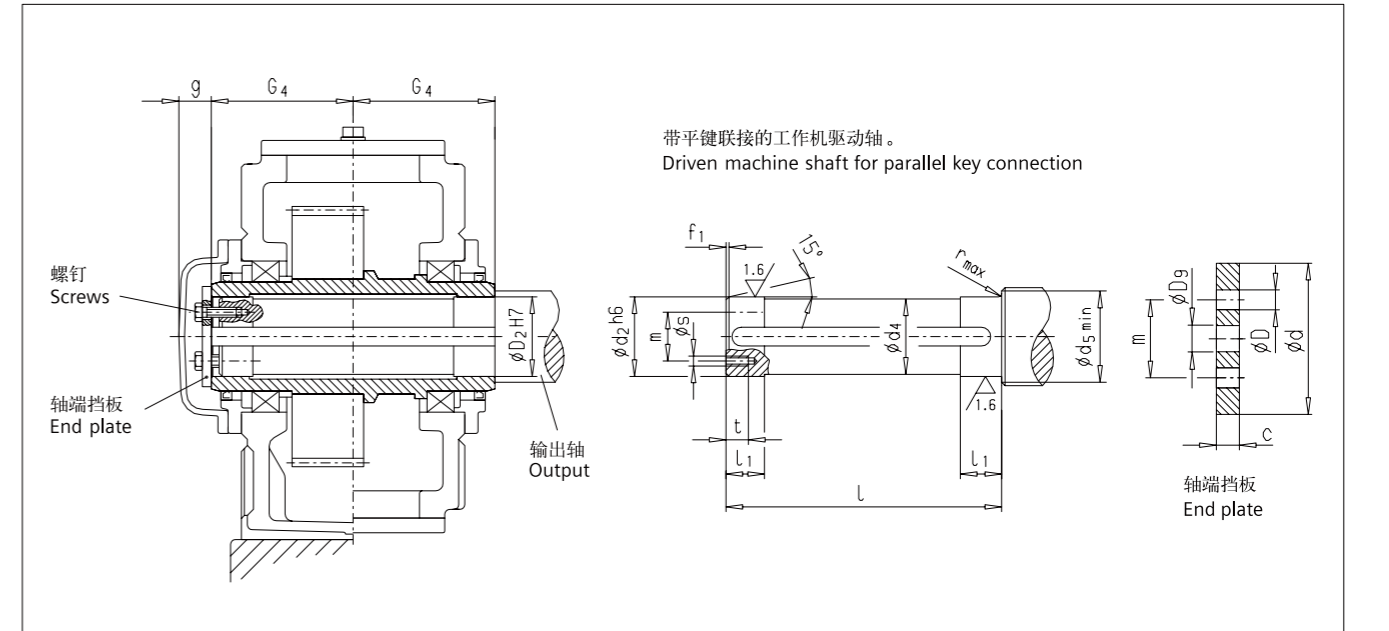
Shrink disk on machine side on request.

Dimensions of machine shaft on request.

带平键联接的空心轴

类型 W3.., V3.., W4..
规格 3 ... 12

Hollow Shafts for Parallel Key Connections
Types W3.., V3.., W4..
Sizes 3 ... 12



带平键联接的工作机驱动轴。
Driven machine shaft for parallel key connection

类型 / Types W3H., V3H., W4H.																						
齿轮箱规格 Gear unit size	工作机驱动轴 ¹⁾ Driven machine shaft											轴端挡板 End plate				螺钉 Screw		空心轴 Hollow shaft				
	d ₂	d ₄	d ₅	f ₁	l	l ₁	r	s	t	c	D	D ₉	d	m	规格 Size	数量 Qty.	D ₂	G ₄	g			
	mm															mm		mm				
3	65	64.5	73	4	248	30	1.2	M 10	18	8	11	22	78	45	M 10 x 25	2	65	125	35			
4	80	79.5	88	4	278	35	1.2	M 10	18	10	11	22	100	60	M 10 x 25	2	80	140	35			
5	95	94.5	105	5	328	40	1.6	M 10	18	10	11	26	120	70	M 10 x 25	2	95	165	40			
6	105	104.5	116	5	328	45	1.6	M 10	18	10	11	26	120	70	M 10 x 25	2	105	165	40			
7	115	114.5	126	5	388	50	1.6	M 12	20	12	13.5	26	140	80	M 12 x 30	2	115	195	40			
8	125	124.5	136	6	388	55	2.5	M 12	20	12	13.5	26	150	85	M 12 x 30	2	125	195	40			
9	135	134.5	147	6	467	60	2.5	M 12	20	12	13.5	33	160	90	M 12 x 30	2	135	235	45			
10	150	149.5	162	6	467	65	2.5	M 12	20	12	13.5	33	185	110	M 12 x 30	2	150	235	45			
11	165	164.5	177	7	537	70	2.5	M 16	28	15	17.5	33	195	120	M 16 x 40	2	165	270	45			
12	180	179.5	192	7	537	75	2.5	M 16	28	15	17.5	33	220	130	M 16 x 40	2	180	270	45			

1) 工作机驱动材质: C60N 或强度更高的钢。

平键不在供货范围之内。

如果需要请另行订货。

1) Material of driven machine shaft: C60N or higher strength.

Parallel key does not belong to our scope of supply.

Please order separately, if required.

实际传动比
类型 W3.., V3.., W4..
规格 3 ... 12

Actual Ratios
Types W3.., V3.., W4..
Sizes 3 ... 12

规格 / Types W3.., W4..

实际传动比 i / Actual ratios i										
i _N	齿轮箱规格 / Gear unit sizes									
	3	4	5	6	7	8	9	10	11	12
实际传动比 i / Actual ratios i										
12.5	-	12.034	12.703	-	12.433	-	12.554	-	12.334	-
14	-	13.484	13.964	-	13.515	-	14.137	-	13.821	-
16	-	15.601	15.835	15.826	16.275	15.773	15.952	15.693	15.522	15.888
18	-	17.482	17.407	17.307	17.692	17.041	17.963	17.724	17.393	17.572
20	19.336	19.614	19.645	19.729	19.948	20.648	20.259	19.940	19.744	19.995
22.4	21.609	21.919	21.954	21.575	22.146	22.308	22.208	22.520	21.643	22.114
25	25.021	25.380	25.421	24.349	25.446	25.152	25.843	25.400	25.185	25.103
28	27.442	27.836	27.881	27.211	28.125	27.923	28.563	27.842	27.836	27.517
31.5	29.769	30.196	30.245	31.508	30.509	32.084	30.985	32.400	31.975	32.021
35.5	34.279	34.771	34.827	34.557	35.131	35.461	35.679	35.811	34.771	35.392
40	38.928	39.487	39.551	37.486	39.896	38.468	40.902	38.846	39.861	40.654
45	42.467	43.077	43.146	43.166	43.523	44.296	44.202	44.732	43.077	44.209
50	48.365	49.060	49.139	49.021	49.568	50.304	50.341	51.280	49.060	50.681
56	54.371	55.152	55.240	53.477	55.723	54.877	56.592	55.417	55.152	54.769
63	59.947	60.808	60.906	60.904	61.438	62.499	62.396	63.114	60.808	62.376
71	68.312	69.293	69.404	68.467	70.011	70.259	71.102	70.951	69.293	70.121
80	-	-	77.598	75.489	79.267	77.465	79.497	78.228	80.949	77.313
90	-	-	86.720	86.022	88.585	88.274	88.842	89.143	89.869	88.101
100	-	-	100.413	96.178	102.572	99.945	102.869	99.667	103.259	102.921
112	-	-	110.130	107.484	112.498	111.694	112.824	111.384	114.129	114.262
125	-	-	119.466	124.455	122.035	129.330	122.389	128.971	123.804	131.287
140	-	-	137.567	136.499	140.525	141.846	140.933	141.452	142.562	145.106
160	-	-	156.225	148.071	159.585	153.871	160.047	153.443	161.897	157.408
180	-	-	170.427	170.506	174.092	177.184	174.597	176.692	176.615	181.258
200	-	-	194.098	193.631	198.272	201.215	198.847	200.656	201.145	205.841
224	-	-	218.199	211.234	222.891	219.508	223.537	218.898	226.121	224.554
250	-	-	240.578	240.572	245.752	249.995	246.464	249.300	249.313	255.742
280	-	-	274.147	270.443	280.042	281.036	280.855	280.256	284.101	287.497
315	-	-	302.121	298.181	308.618	309.861	309.513	309.000	313.091	316.984
355	-	-	-	339.788	-	353.097	-	352.116	-	361.214
400	-	-	-	374.460	-	389.127	-	388.046	-	398.073

转动惯量
类型 W3.., V3.., W4..
规格 3 ... 12

Mass Moments of Inertia J₁
Types W3.., V3.., W4..
Sizes 3 ... 12

相对于齿轮箱输出轴 d₂转动惯量 J₂(kgm²)按下式计算

$$J_2 = i_N^2 \times J_1$$

J₁ (kgm²)是相对于齿轮箱输入轴 d₁ 的转动惯量

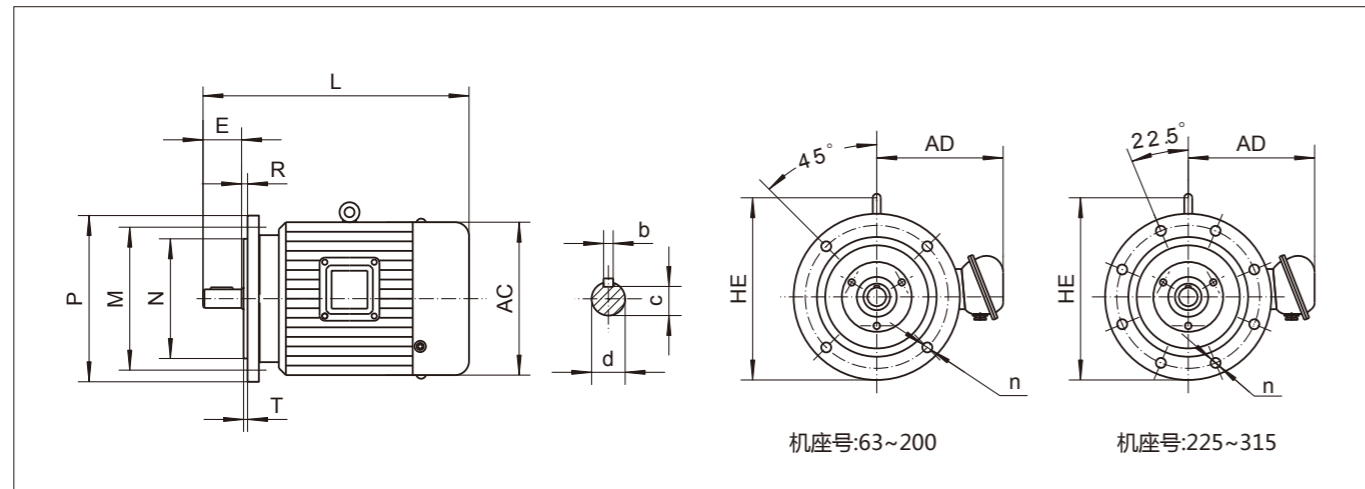
The mass moment of inertia J₂ in kgm² refers to the output shaft d₂ of a gear unit and is calculated with the following formula: J₂ = i_N² × J₁.
The mass moment of inertia J₁ in kgm² refers to the input shaft d₁ of a gear unit.

相对于轴 d ₁ 的转动惯量 J ₁ (kgm ²) / Mass moments of inertia J ₁ in kgm ² referring to shaft d ₁										
i _N	齿轮箱规格 / Gear unit size									
	3	4	5	6	7	8	9	10	11	12
12.5	-	0.0073	0.0159	-	0.0445	-	0.0995	-	0.2740	-
14	-	0.0071	0.0156	-	0.0436	-	0.0967	-	0.2671	-
16	-	0.0060	0.0136	0.0174	0.0368	0.0487	0.0842	0.1084	0.2344	0.3029
18	-	0.0059	0.0133	0.0168	0.0363	0.0474	0.0825	0.1040	0.2300	0.2925
20	0.0023	0.0055	0.0124	0.0145	0.0339	0.0393	0.0770	0.0897	0.2146	0.2527
22.4	0.0021	0.0047	0.0105	0.0141	0.0282	0.0385	0.0657	0.0870	0.1822	0.2461
25	0.0017	0.0039	0.0083	0.0130	0.0243	0.0356	0.0534	0.0805	0.1462	0.2270
28	0.0015	0.0036	0.0077	0.0111	0.0209	0.0296	0.0452	0.0687	0.1286	0.1926
31.5	0.0013	0.0029	0.0062	0.0087	0.0162	0.0253	0.0348	0.0555	0.0936	0.1539
35.5	0.0011	0.0024	0.0055	0.0080	0.0137	0.0218	0.0315	0.0470	0.0837	0.1349
40	0.00089	0.0019	0.0041	0.0065	0.0110	0.0169	0.0265	0.0363	0.0720	0.0983
45	0.00083	0.0018	0.0039	0.0057	0.0098	0.0142	0.0227	0.0326	0.0623	0.0877
50	0.00057	0.0013	0.0030	0.0043	0.0081	0.0114	0.0178	0.0274	0.0469	0.0751
56	0.00046	0.0011	0.0025	0.0040	0.0068	0.0102	0.0146	0.0235	0.0384	0.0649
63	0.00042	0.00087	0.0021	0.0031	0.0059	0.0084	0.0124	0.0184	0.0326	0.0489
71	0.00033	0.00067	0.0016	0.0026	0.0047	0.0070	0.0100	0.0150	0.0262	0.0400
80	-	-	0.0024	0.0021	0.0057	0.0061	0.0129	0.0128	0.0350	0.0339
90	-	-	0.0021	0.0016	0.0049	0.0048	0.0110	0.0102	0.0291	0.0272
100	-	-	0.0018	0.0024	0.0040	0.0058	0.0086	0.0131	0.0250	0.0358
112	-	-	0.0016	0.0022	0.0037	0.0049	0.0079	0.0111	0.0215	0.0297
125	-	-	0.0013	0.0018	0.0030	0.0040	0.0064	0.0087	0.0167	0.254
140	-	-	0.0011	0.0016	0.0025	0.0038	0.0057	0.0081	0.0141	0.0219
160	-	-	0.00091	0.0013	0.0020	0.0031	0.0043	0.0065	0.0113	0.0170
180	-	-	0.00085	0.0011	0.0018	0.0025	0.0040	0.0058	0.0101	0.0143
200	-	-	0.00058	0.00092	0.0013	0.0020	0.0031	0.0043	0.0083	0.0114
224	-	-	0.00047	0.00086	0.0011	0.0018	0.0025	0.0041	0.0070	0.0102
250	-	-	0.00043	0.00059	0.00089	0.0014	0.0021	0.0031	0.0060	0.0084
280	-	-	0.00033	0.00047	0.00069	0.0011	0.0016	0.0026	0.0048	0.0071
315	-	-	0.00028	0.00043	0.00058	0.00091	0.0014	0.0021	0.0040	0.0061
355	-	-	-	0.00034	-	0.00069	-	0.0016	-	0.0048
400	-	-	-	0.00028	-	0.00059	-	0.0014	-	0.0041

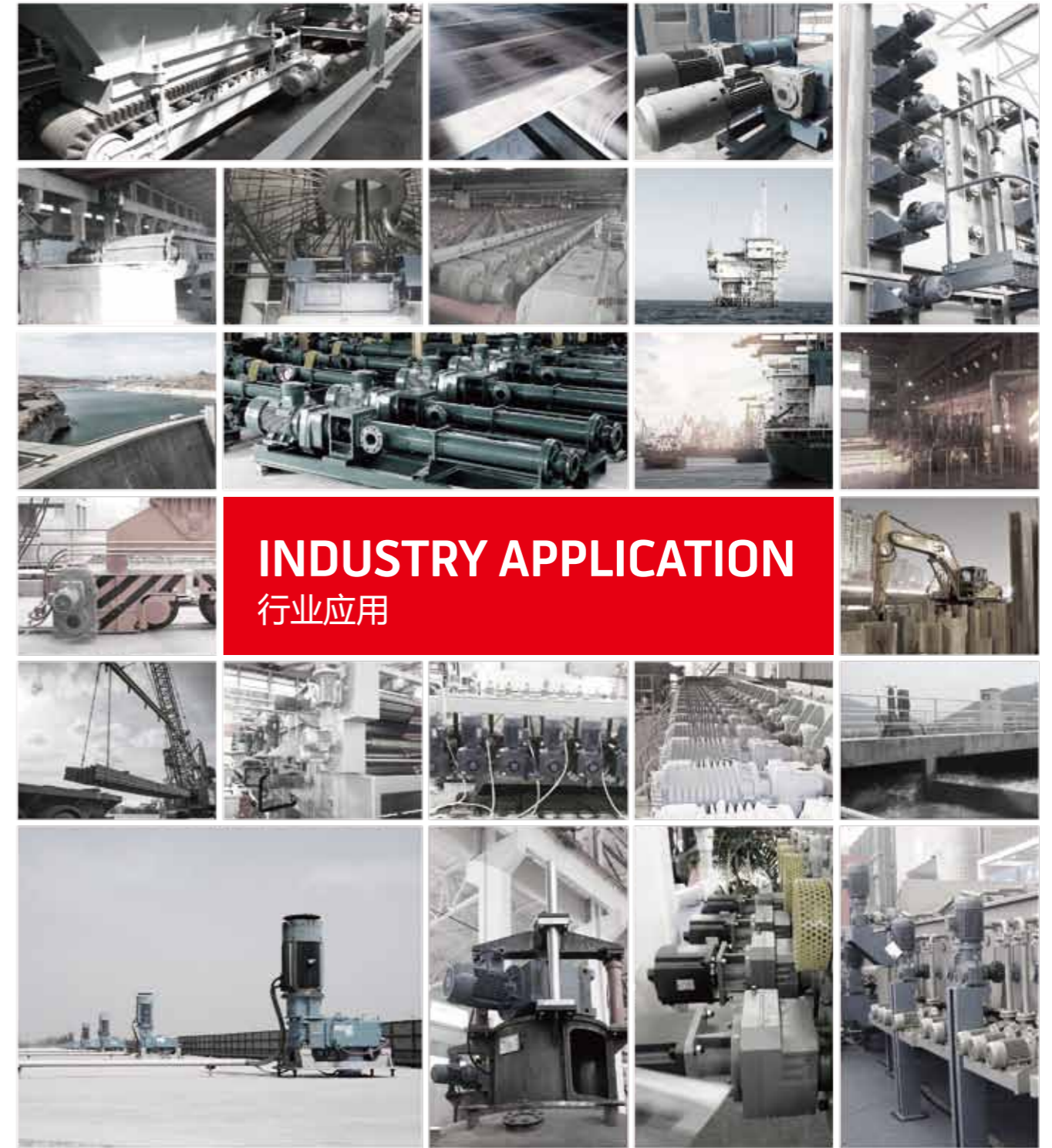


Y系列三相异步电动机外形及安装尺寸

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	n	T	d		E		b		c		AC	AD	L	HE	功率 power kw	重量 weight kg	转动惯量 Mass moments of inertia kgm ²	
							2P	4P 6P 8P	2P	4P 6P 8P	2P	4P 6P 8P	2P	4P 6P 8P								
63	115	95j6	140	0	4xΦ10	3	11j6		23		4		8.5		130	70	230	130	0.18	7.7	0.00048	
71	130	110j6	160	0	4xΦ10	3.5	14j6		30		5		11		145	80	255	145	0.25	11	0.00053	
80	165	130j6	200	0	4xΦ12	3.5	19j6		40		6		15.5		175	145	295	185	0.55	16	0.00145	
																			0.75	17	0.00174	
90S	165	130j6	200	0	4xΦ12	3.5	24j6		50		8		20		195	155	320	195	1.1	21	0.00254	
90L	165	130j6	200	0	4xΦ12	3.5	24j6		50		8		20		195	155	345	195	1.5	25	0.00317	
100L	215	180j6	250	0	4xΦ15	4	28j6		60		8		24		215	180	385	245	2.2	32	0.00679	
																			3	36	0.00862	
112M	215	180j6	250	0	4xΦ15	4	28j6		60		8		24		240	190	400	265	4	45	0.01306	
132S	265	230j6	300	0	4xΦ15	4	38j6		80		10		33		275	210	470	315	5.5	60	0.02673	
132M	265	230j6	300	0	4xΦ15	4	38j6		80		10		33		275	210	510	315	7.5	73	0.03432	
160M	300	250j6	350	0	4xΦ19	5	42k6		110		12		37		330	255	615	385	11	116	0.06543	
160L	300	250j6	350	0	4xΦ19	5	42k6		110		12		37		330	255	670	430	15	137	0.09349	
180M	300	250j6	350	0	4xΦ19	5	48k6		110		14		42.5		380	280	700	430	18.5	170	0.16049	
180L	300	250j6	350	0	4xΦ19	5	48k6		110		14		42.5		380	280	740	430	22	186	0.18246	
200L	350	300j6	400	0	4xΦ19	5	55m6		110		16		49		420	305	770	480	30	254	0.2819	
225S	400	350j6	450	0	8xΦ19	5	-	60m6	-	140	-	18	-	53	470	335	-	815	535	37	308	0.37
225M	400	350j6	450	0	8xΦ19	5	55m6	60m6	110	140	18	18	49	53	470	335	820	845	535	45	335	0.42
250M★	500	450j6	550	0	8xΦ19	5	60m6	65m6	140	140	18	18	53	58	510	370	910	595	55	450	0.78	
280S★	500	450j6	550	0	8xΦ19	5	65m6	75m6	140	140	18	20	58	67.5	580	410	985	650	75	534	1.10	
280M★	500	450j6	550	0	8xΦ19	5	65m6	75m6	140	140	18	20	58	67.5	580	410	1035	650	90	592	1.35	
315S★	600	550j6	660	0	8xΦ24	6	65m6	80m6	140	170	18	22	58	71	645	530	1160	1270	845	110	930	2.8596
315M★	600	550j6	660	0	8xΦ24	6	65m6	80m6	140	170	18	22	58	71	645	530	1190	1300	845	132	1030	3.1848
315L★	600	550j6	660	0	8xΦ24	6	65m6	80m6	140	170	18	22	58	71	645	530	1190	1300	845	160	1050	3.6765



INDUSTRY APPLICATION
行业应用

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!

