

# 精密行星减速机

Precision Planetary Reducer



其优势在于：此款行星减速机在技术方面为您提供创新和先进的解决方案,该产品在各个功能领域都成绩非凡。

The advantage is that this planetary reducer offers you innovative and advanced solutions in terms of technology, which has achieved outstanding results in all functional areas.

# TECHMECH DRIVES THE FUTURE

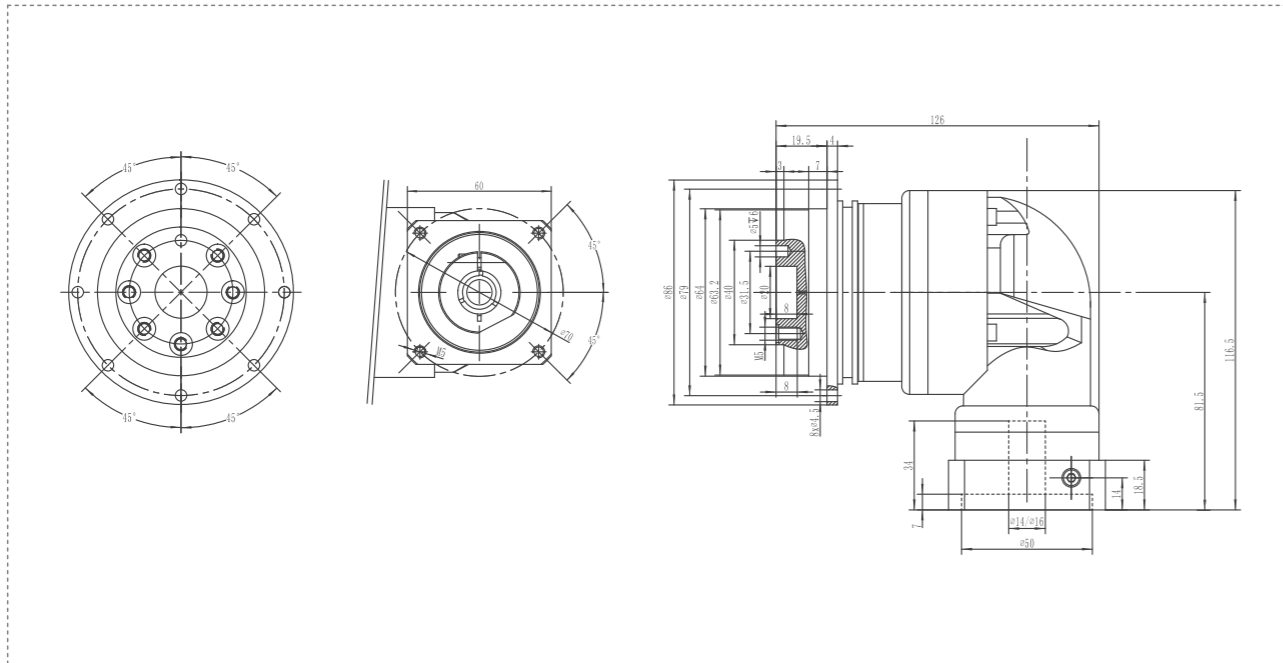
钛科玛格 传动未来



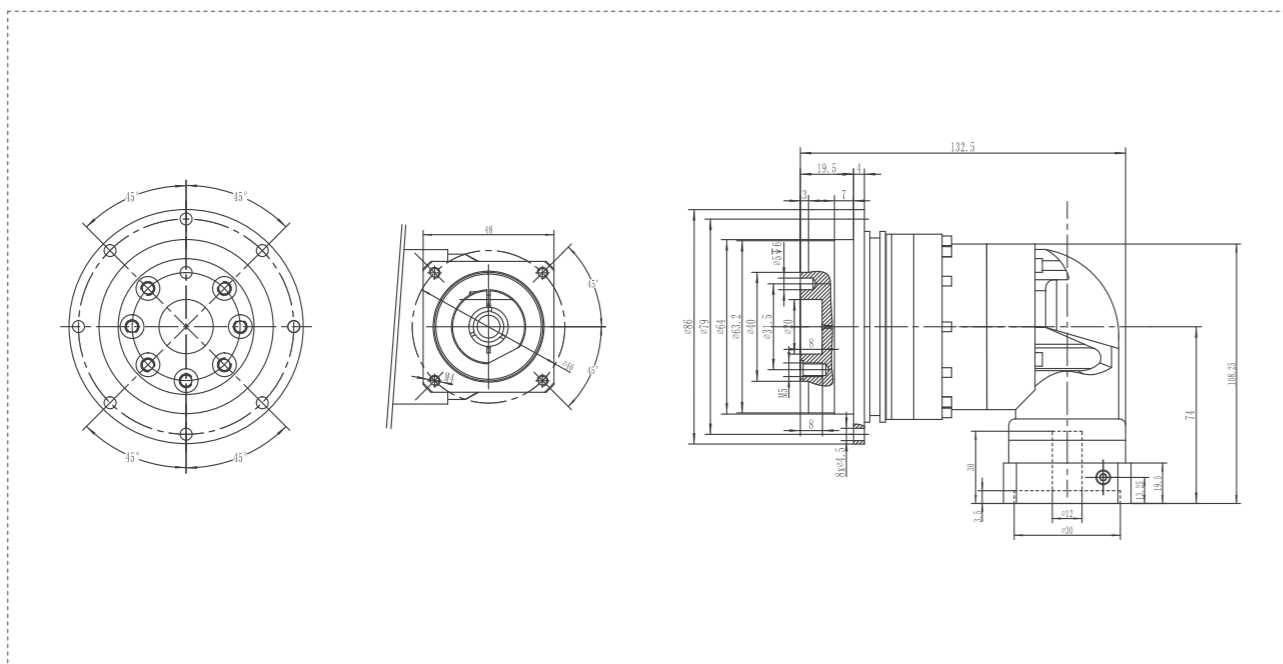
TDR064系列\* TDR064 Single stage

外形尺寸表

TDR064单节\* TDR064 One Stage



TDR064双节\* TDR064 Two Stage



性能资料 Performance data

TD系列减速机满足一些非常特殊的需求，高刚度、高性能和结构紧凑多变化性是该产品最主要的特点，可任意搭配。

TD series reducers can meet some very special needs. High rigidity, high performance and compact structure are the most important features of this product.

TDR064		单节 One Stage						双节 Two Stage						
速比 Speed Ratio	i		4	5	7	10	20	25	35	40	50	70	100	
额定输出力矩 Rated Output Torque	T <sub>1</sub>	Nm	48	60	50	60	-	60	50	48	60	50	40	
急停扭矩 Emergency Stop Torque	T <sub>2</sub>	Nm	T <sub>1</sub> ×3						T <sub>1</sub> ×3					
额定输入转速 Rated Input Speed	S <sub>1</sub>	rpm	5000						5000					
最大输入转速 Maximum Input Speed	S <sub>2</sub>	rpm	10000						10000					
最大输出力矩 Maximum Output Torque	T <sub>4</sub>	Nm	T <sub>1</sub> ×3×60%						T <sub>1</sub> ×3×60%					
最大弯曲力 Maximum Bending Force	F <sub>a</sub>	N	125						125					
最大轴向力 Maximum Axial Force	F <sub>b</sub>	N	1050						1050					
扭转刚性 Torsional Rigidity	-	Nm/arcmin	13						13					
效率 Effectiveness	β	%	≥95%						≥92%					
寿命 Life	☒	h	30000h						30000h					
反馈噪音 Feedback Noise	☒	dB	≤63dB						≤63dB					
重量 Weight	☒	Kg	2.1						1.9					
回程间隙 Return Gap	P0		☒						☒					
	P1	arcmin	≤4						≤7					
	P2		≤6						≤9					
使用温度 Operating Temperature	☒	°C	-10°C~90°C						-10°C~90°C					
润滑 Lubricating	☒		合成油脂 Synthetic Grease						合成油脂 Synthetic Grease					
防护等级 Protection Level	☒		IP65						IP65					
安装方向 Installation Direction	☒		任意方向 Any Direction						任意方向 Any Direction					
传动惯量 Transmission Inertia	J	kg·cm <sup>2</sup>	0.09						0.09					

依据说明:

- ① 变速比(i=S<sub>in</sub>/S<sub>out</sub>)
- ② 结果输出转速100rpm时，作用于输出轴中心。
- ③ 连续运转寿命10000h。
- ④ 噪音值基于输入转速3000rpm, i=10所得。

According to the instructions:

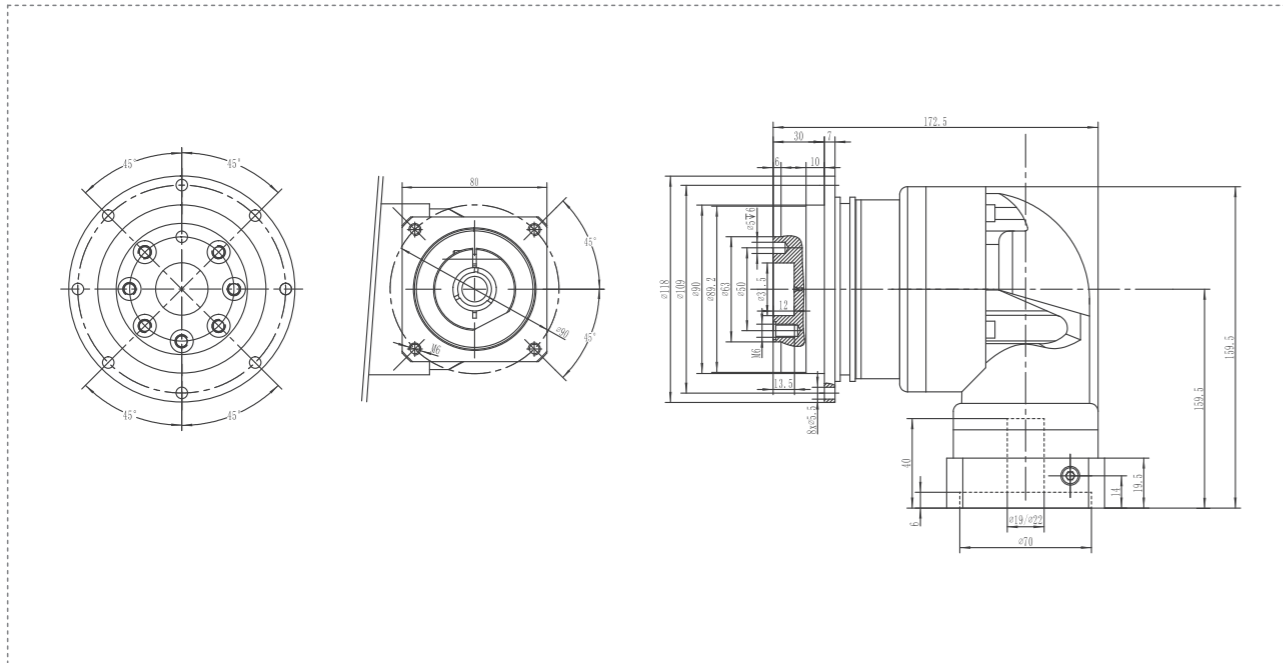
- ① Speed ratio (i=S<sub>in</sub>/S<sub>out</sub>)
- ② As a result, when the output speed is 100 rpm, it acts on the center of the output shaft.
- ③ Continuous operation life of 10000h.
- ④ The noise value was obtained based on the input rotational speed of 3000 rpm, i=10.

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All product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

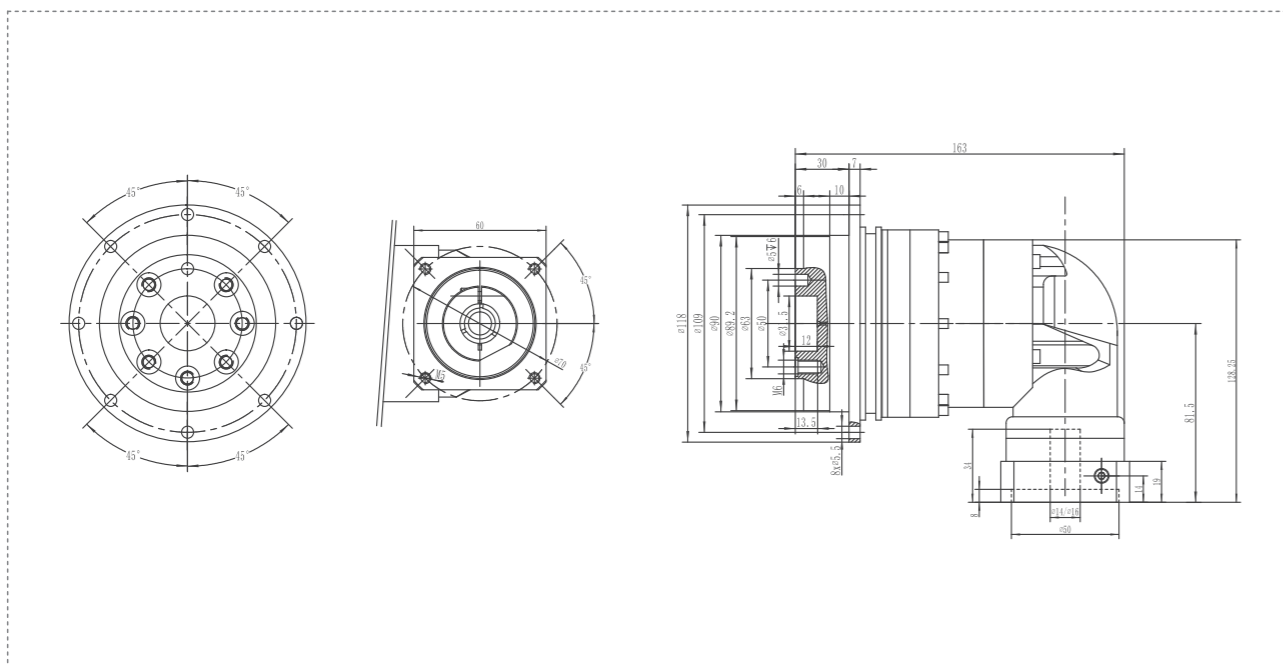
TDR090系列\* TDR090 Single stage

外形尺寸表

TDR090单节\* TDR090 One Stage



TDR090双节\* TDR090 Two Stage



性能资料 Performance data

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TDR090		单节 One Stage						双节 Two Stage						
速比 Speed Ratio	i		4	5	7	10	20	25	35	40	50	70	100	
额定输出力矩 Rated Output Torque	T <sub>1</sub>	Nm	130	160	140	100	130	160	140	130	160	140	100	
急停扭矩 Emergency Stop Torque	T <sub>2</sub>	Nm	T <sub>1</sub> ×3						T <sub>1</sub> ×3					
额定输入转速 Rated Input Speed	S <sub>1</sub>	rpm	4000						4000					
最大输入转速 Maximum Input Speed	S <sub>2</sub>	rpm	8000						8000					
最大输出力矩 Maximum Output Torque	T <sub>4</sub>	Nm	T <sub>1</sub> ×3×60%						T <sub>1</sub> ×3×60%					
最大弯曲力 Maximum Bending Force	F <sub>a</sub>	N	235						235					
最大轴向力 Maximum Axial Force	F <sub>b</sub>	N	2850						2850					
扭转刚性 Torsional Rigidity	-	Nm/arcmin	31						31					
效率 Effectiveness	β	%	≥95%						≥92%					
寿命 Life	☒	h	30000h						30000h					
反馈噪音 Feedback Noise	☒	dB	≤65dB						≤65dB					
重量 Weight	☒	Kg	5.9						4.5					
回程间隙 Return Gap	P0		≤2						≤4					
	P1	arcmin	≤4						≤7					
	P2		≤6						≤9					
使用温度 Operating Temperature	☒	°C	-10°C~90°C						-10°C~90°C					
润滑 Lubricating	☒		合成油脂 Synthetic Grease						合成油脂 Synthetic Grease					
防护等级 Protection Level	☒		IP65						IP65					
安装方向 Installation Direction	☒		任意方向 Any Direction						任意方向 Any Direction					
传动惯量 Transmission Inertia	J	kg·cm <sup>2</sup>	2.25						2.25					

依据说明:

- ① 变速比(i=S<sub>in</sub>/S<sub>out</sub>)
- ② 结果输出转速100rpm时，作用于输出轴中心。
- ③ 连续运转寿命10000h。
- ④ 噪音值基于输入转速3000rpm, i=10所得。

According to the instructions:

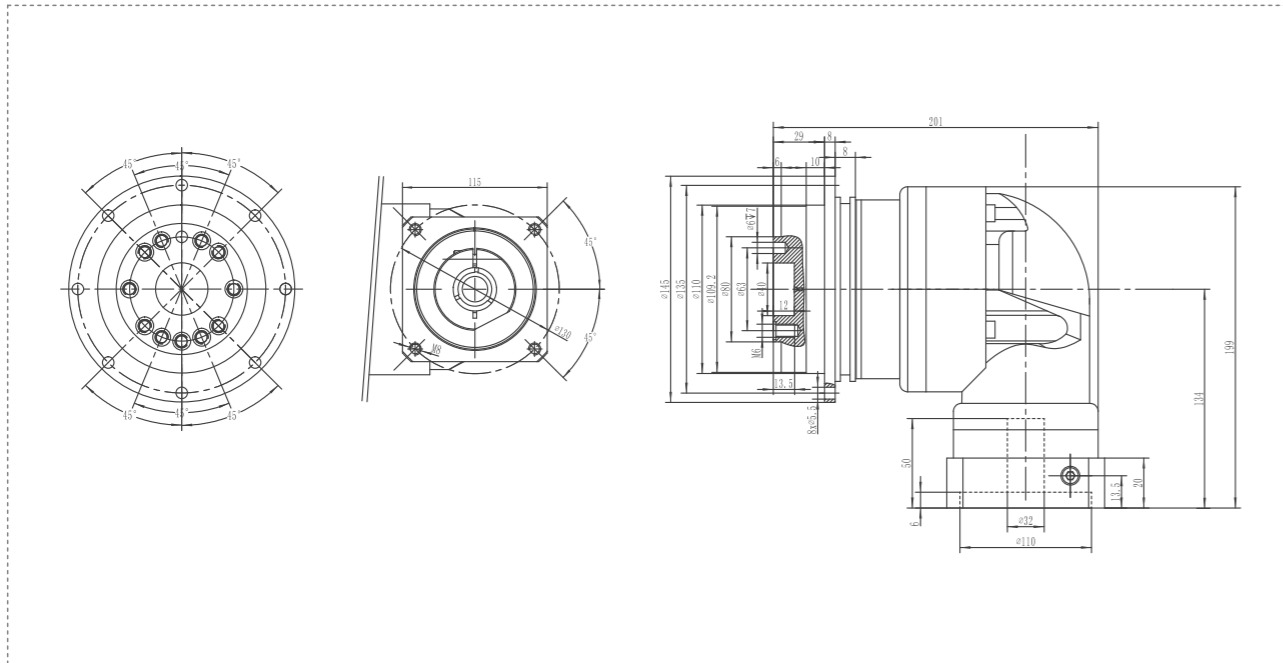
- ① Speed ratio (i=S<sub>in</sub>/S<sub>out</sub>)
- ② As a result, when the output speed is 100 rpm, it acts on the center of the output shaft.
- ③ Continuous operation life of 10000h.
- ④ The noise value was obtained based on the input rotational speed of 3000 rpm, i=10.

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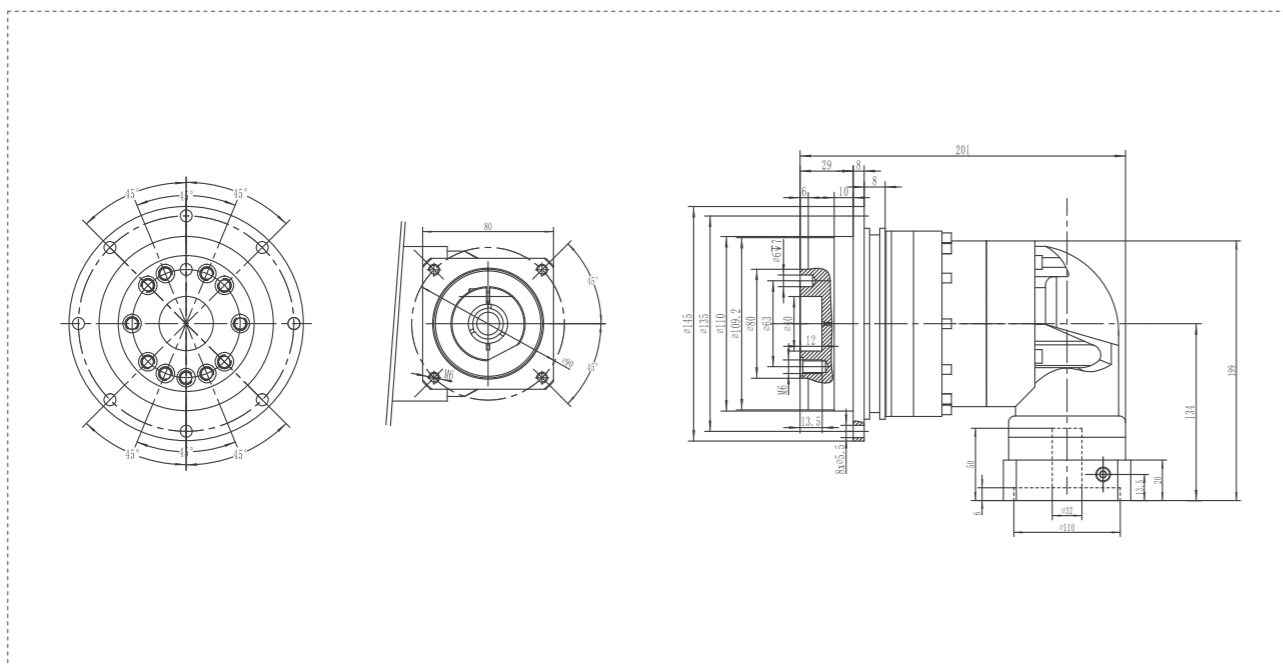
TDR110系列\* TDR110 Single stage

外形尺寸表

TDR110单节\* TDR110 One Stage



TDR110双节\* TDR110 Two Stage



性能资料 Performance data

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TDR110		单节 One Stage						双节 Two Stage						
速比 Speed Ratio	i		4	5	7	10	20	25	35	40	50	70	100	
额定输出力矩 Rated Output Torque	T <sub>1</sub>	Nm	270	330	300	230	270	330	300	270	330	300	230	
急停扭矩 Emergency Stop Torque	T <sub>2</sub>	Nm	T <sub>1</sub> ×3						T <sub>1</sub> ×3					
额定输入转速 Rated Input Speed	S <sub>1</sub>	rpm	4000						4000					
最大输入转速 Maximum Input Speed	S <sub>2</sub>	rpm	8000						8000					
最大输出力矩 Maximum Output Torque	T <sub>4</sub>	Nm	T <sub>1</sub> ×3×60%						T <sub>1</sub> ×3×60%					
最大弯曲力 Maximum Bending Force	F <sub>a</sub>	N	430						430					
最大轴向力 Maximum Axial Force	F <sub>b</sub>	N	2990						2990					
扭转刚性 Torsional Rigidity	-	Nm/arcmin	82						82					
效率 Effectiveness	β	%	≥95%						≥92%					
寿命 Life	☒	h	30000h						30000h					
反馈噪音 Feedback Noise	☒	dB	≤65dB						≤68dB					
重量 Weight	☒	Kg	10.5						9.8					
回程间隙 Return Gap	P0		≤2						≤4					
	P1	arcmin	≤4						≤7					
	P2		≤6						≤9					
使用温度 Operating Temperature	☒	°C	-10°C~90°C						-10°C~90°C					
润滑 Lubricating	☒		合成油脂 Synthetic Grease						合成油脂 Synthetic Grease					
防护等级 Protection Level	☒		IP65						IP65					
安装方向 Installation Direction	☒		任意方向 Any Direction						任意方向 Any Direction					
传动惯量 Transmission Inertia	J	kg·cm <sup>2</sup>	6.84						2.25					

依据说明:

- ① 变速比(i=S<sub>in</sub>/S<sub>out</sub>)
- ② 结果输出转速100rpm时，作用于输出轴中心。
- ③ 连续运转寿命10000h。
- ④ 噪音值基于输入转速3000rpm, i=10所得。

According to the instructions:

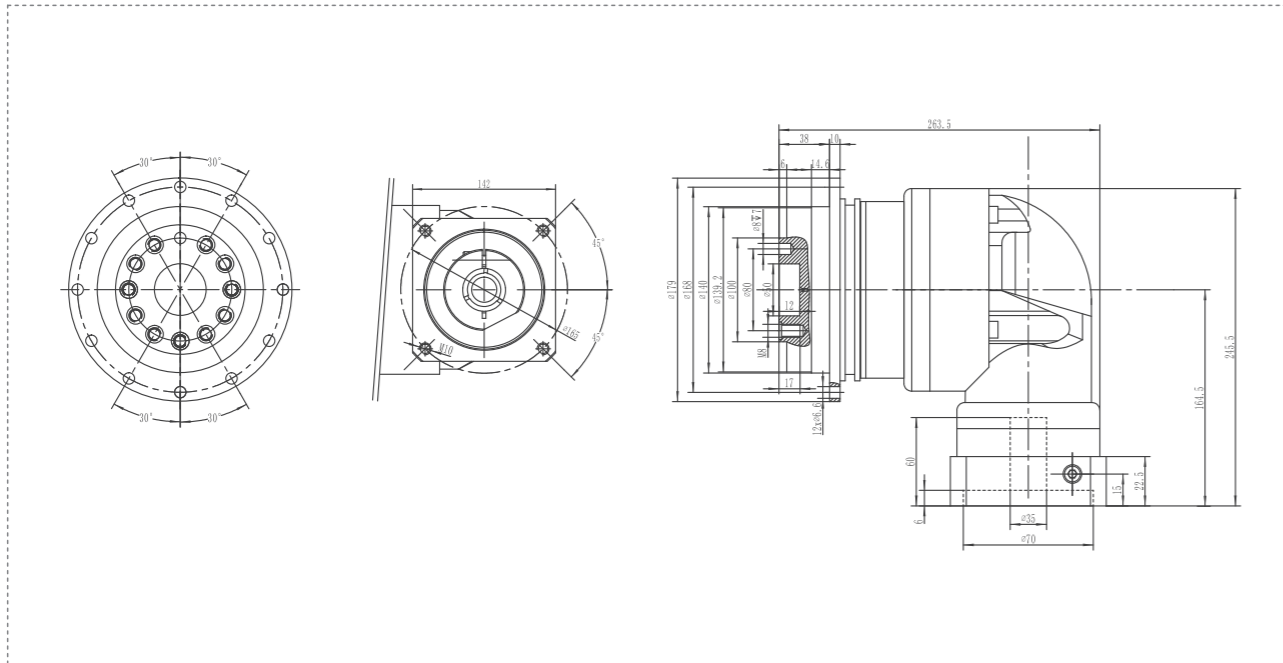
- ① Speed ratio (i=S<sub>in</sub>/S<sub>out</sub>)
- ② As a result, when the output speed is 100 rpm, it acts on the center of the output shaft.
- ③ Continuous operation life of 10000h.
- ④ The noise value was obtained based on the input rotational speed of 3000 rpm, i=10.

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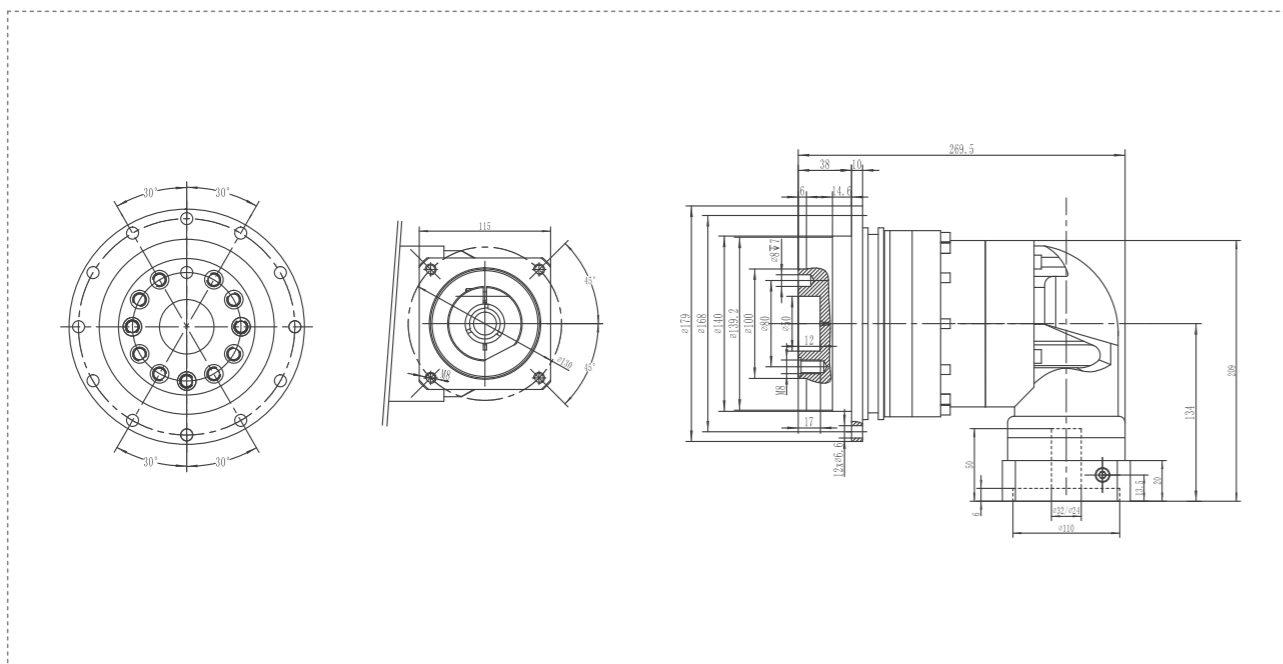
TDR140系列\* TDR140 Single stage

外形尺寸表

TDR140单节\* TDR140 One Stage



TDR140双节\* TDR140 Two Stage



性能资料 Performance data

TD系列减速机满足一些非常特殊的需求，高刚度、高性能和结构紧凑多变化性是该产品最主要的特点，可任意搭配。

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TDR140		单节 One Stage						双节 Two Stage						
速比 Speed Ratio	i	4	5	7	10	20	25	35	40	50	70	100		
额定输出力矩 Rated Output Torque	T <sub>1</sub>	Nm	560	650	550	450	560	650	550	560	650	550	450	
急停扭矩 Emergency Stop Torque	T <sub>2</sub>	Nm	T <sub>1</sub> ×3						T <sub>1</sub> ×3					
额定输入转速 Rated Input Speed	S <sub>1</sub>	rpm	3000						3000					
最大输入转速 Maximum Input Speed	S <sub>2</sub>	rpm	6000						6000					
最大输出力矩 Maximum Output Torque	T <sub>4</sub>	Nm	T <sub>1</sub> ×3×60%						T <sub>1</sub> ×3×60%					
最大弯曲力 Maximum Bending Force	F <sub>a</sub>	N	1300						1300					
最大轴向力 Maximum Axial Force	F <sub>b</sub>	N	10590						10590					
扭转刚性 Torsional Rigidity	-	Nm/arcmin	151						151					
效率 Effectiveness	β	%	≥95%						≥92%					
寿命 Life	☒	h	30000h						30000h					
反馈噪音 Feedback Noise	☒	dB	≤70dB						≤70dB					
重量 Weight	☒	Kg	21.9						20.1					
回程间隙 Return Gap	P0		≤2						≤4					
	P1	arcmin	≤4						≤7					
	P2		≤6						≤9					
使用温度 Operating Temperature	☒	°C	-10°C~90°C						-10°C~90°C					
润滑 Lubricating	☒		合成油脂 Synthetic Grease						合成油脂 Synthetic Grease					
防护等级 Protection Level	☒		IP65						IP65					
安装方向 Installation Direction	☒		任意方向 Any Direction						任意方向 Any Direction					
传动惯量 Transmission Inertia	J	kg·cm <sup>2</sup>	23.4						6.84					

依据说明:

- ① 变速比(i=S<sub>in</sub>/S<sub>out</sub>)
- ② 结果输出转速100rpm时，作用于输出轴中心。
- ③ 连续运转寿命10000h。
- ④ 噪音值基于输入转速3000rpm, i=10所得。

According to the instructions:

- ① Speed ratio (i=S<sub>in</sub>/S<sub>out</sub>)
- ② As a result, when the output speed is 100 rpm, it acts on the center of the output shaft.
- ③ Continuous operation life of 10000h.
- ④ The noise value was obtained based on the input rotational speed of 3000 rpm, i=10.

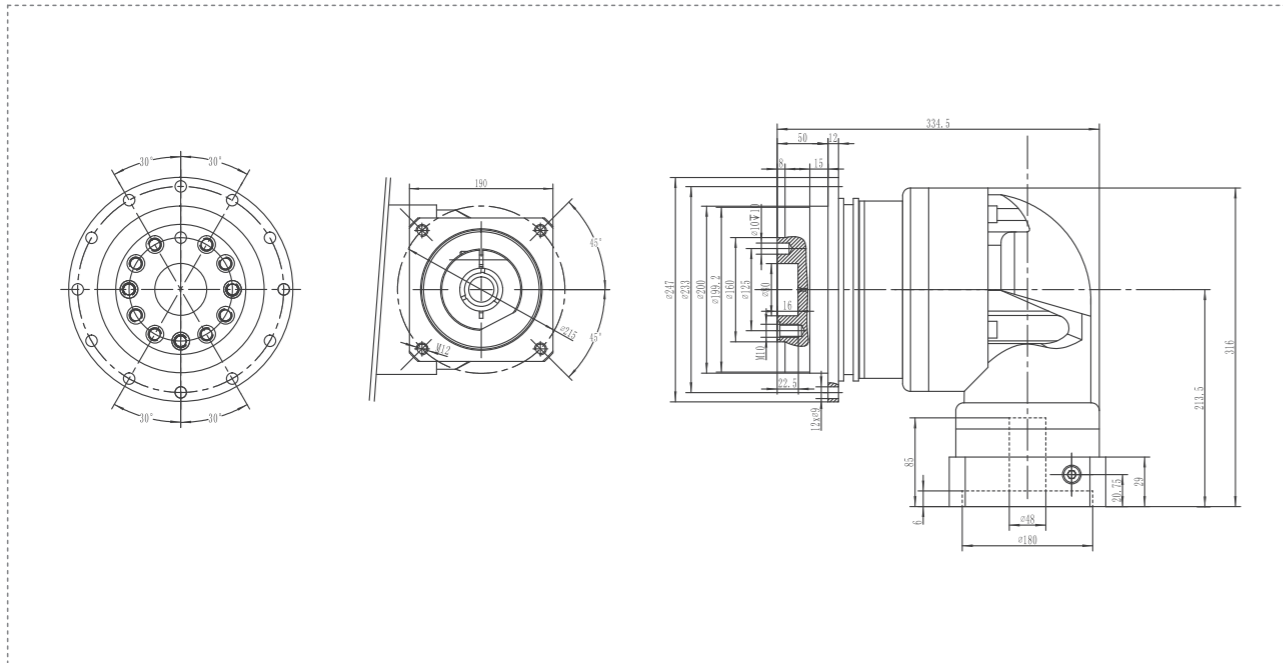
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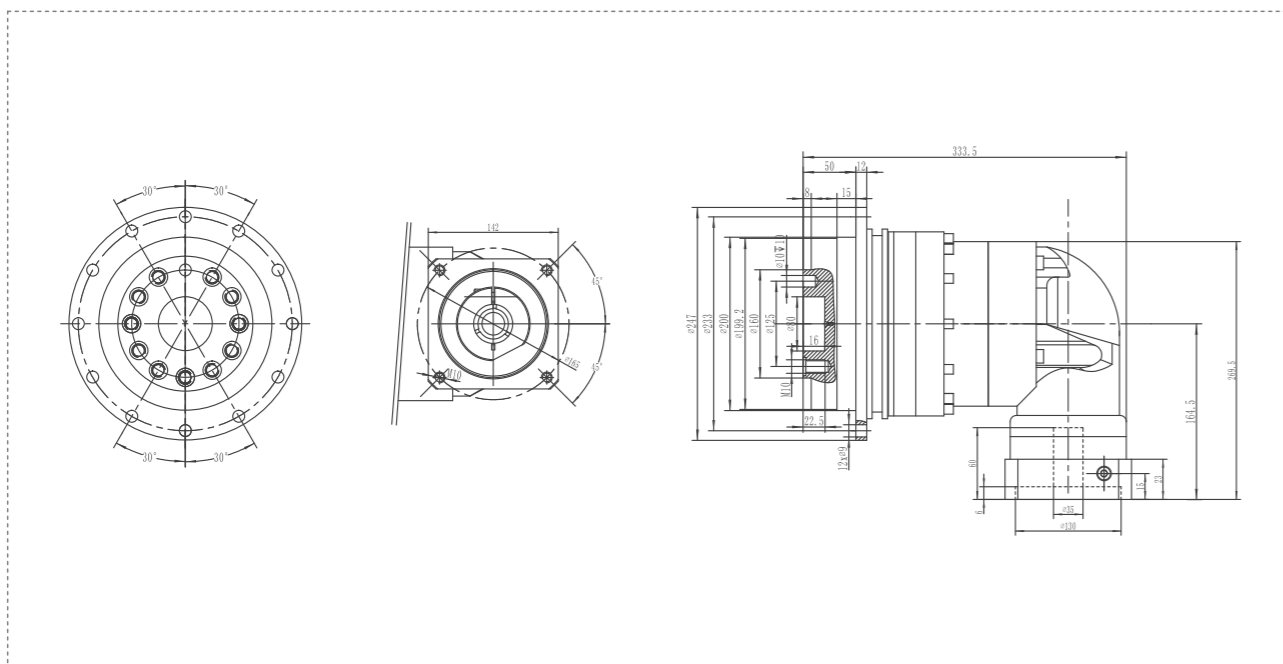
TDR200系列\* TDR200 Single stage

外形尺寸表

TDR200单节\* TDR200 One Stage



TDR200双节\* TDR200 Two Stage



性能资料 Performance data

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TDR200		单节 One Stage						双节 Two Stage						
速比 Speed Ratio	i	4	5	7	10	20	25	35	40	50	70	100		
额定输出力矩 Rated Output Torque	T <sub>1</sub>	Nm	1100	1200	1100	900	1100	1200	1100	1100	1200	1100	900	
急停扭矩 Emergency Stop Torque	T <sub>2</sub>	Nm	T <sub>1</sub> ×3						T <sub>1</sub> ×3					
额定输入转速 Rated Input Speed	S <sub>1</sub>	rpm	3000						3000					
最大输入转速 Maximum Input Speed	S <sub>2</sub>	rpm	6000						6000					
最大输出力矩 Maximum Output Torque	T <sub>4</sub>	Nm	T <sub>1</sub> ×3×60%						T <sub>1</sub> ×3×60%					
最大弯曲力 Maximum Bending Force	F <sub>a</sub>	N	3064						3064					
最大轴向力 Maximum Axial Force	F <sub>b</sub>	N	16660						16660					
扭转刚性 Torsional Rigidity	-	Nm/arcmin	440						440					
效率 Effectiveness	β	%	≥95%						≥92%					
寿命 Life	☒	h	30000h						30000h					
反馈噪音 Feedback Noise	☒	dB	≤72dB						≤72dB					
重量 Weight	☒	Kg	50.9						45.4					
回程间隙 Return Gap	P0		≤2						≤4					
	P1	arcmin	≤4						≤7					
	P2		≤6						≤9					
使用温度 Operating Temperature	☒	°C	-10°C~90°C						-10°C~90°C					
润滑 Lubricating	☒		合成油脂 Synthetic Grease						合成油脂 Synthetic Grease					
防护等级 Protection Level	☒		IP65						IP65					
安装方向 Installation Direction	☒		任意方向 Any Direction						任意方向 Any Direction					
传动惯量 Transmission Inertia	J	kg·cm <sup>2</sup>	68.9						23.4					

依据说明:

- ① 变速比(i=S<sub>in</sub>/S<sub>out</sub>)
- ② 结果输出转速100rpm时，作用于输出轴中心。
- ③ 连续运转寿命10000h。
- ④ 噪音值基于输入转速3000rpm, i=10所得。

According to the instructions:

- ① Speed ratio (i=S<sub>in</sub>/S<sub>out</sub>)
- ② As a result, when the output speed is 100 rpm, it acts on the center of the output shaft.
- ③ Continuous operation life of 10000h.
- ④ The noise value was obtained based on the input rotational speed of 3000 rpm, i=10.

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