

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



外形尺寸表

TD064			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 ₁	Nm	48	60	50	40	48	60	50	48	60	50	40	
急停扭矩 Emergency Stop Torque	T ₂	Nm	T ₁ ×3					T ₁ ×3						
额定输入转速 Rated Input Speed	S ₁	rpm	5000					5000						
最大输入转速 Maximum Input Speed	S ₂	rpm	10000					10000						
最大输出力矩 Maximum Output Torque	T ₄	Nm	T ₁ ×3×60%					T ₁ ×3×60%						
最大弯曲力 Maximum Bending Force	F _a	N	125					125						
最大轴向力 Maximum Axial Force	F _b	N	1050					1050						
扭转刚性 Torsional Rigidity	-	Nm/arcmin	13					13						
效率 Effectiveness	β	%	≥97%					≥94%						
寿命 Life	☒	h	20000h					20000h						
反馈噪音 Feedback Noise	☒	dB	≤58dB					≤58dB						
重量 Weight	☒	Kg	1.3					1.9						
回程间隙 Return Gap	P0	arcmin	≤1					≤3						
	P1		≤3					≤5						
	P2		≤5					≤7						
使用温度 Operating Temperature	☒	℃	-10℃~90℃					-10℃~90℃						
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 ²	0.14	0.13					0.03					

此样本中的所有产品型号及参数如有变更恕不另行通告，订货前请与本司确认。
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- ⚙️ Speed ratio ($i = \text{Sin}/\text{Sout}$)
- ⚙️ As a result, when the output speed is 100 rpm, it acts on the center of the output shaft.
- ⚙️ Continuous operation life of 10000h.
- ⚙️ The noise value was obtained based on the input rotational speed of 3000 rpm, $i=10$.

外形尺寸表

TD090			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 ₁	Nm	130	160	140	100	130	160	140	130	160	140	100
急停扭矩 Emergency Stop Torque	T ₂	Nm	T ₁ ×3				T ₁ ×3						
额定输入转速 Rated Input Speed	S ₁	rpm	4000				4000						
最大输入转速 Maximum Input Speed	S ₂	rpm	8000				8000						
最大输出力矩 Maximum Output Torque	T ₄	Nm	T ₁ ×3×60%				T ₁ ×3×60%						
最大弯曲力 Maximum Bending Force	F _a	N	235				235						
最大轴向力 Maximum Axial Force	F _b	N	2850				2850						
扭转刚性 Torsional Rigidity	-	Nm/arcmin	31				31						
效率 Effectiveness	β	%	≥97%				≥97%						
寿命 Life	☒	h	20000h				20000h						
反馈噪音 Feedback Noise	☒	dB	≤63dB				≤63dB						
重量 Weight	☒	Kg	3.0				3.7						
回程间隙 Return Gap	P0	arcmin	≤1				≤3						
	P1		≤3				≤5						
	P2		≤5				≤7						
使用温度 Operating Temperature	☒	℃	-10℃-90℃				-10℃-90℃						
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 ²	0.51	0.47	0.45	0.44	0.13						

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- ⚙️ Speed ratio ($i = S_{in}/S_{out}$)
- ⚙️ As a result, when the output speed is 100 rpm, it acts on the center of the output shaft.
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- ⚙️ The noise value was obtained based on the input rotational speed of 3000 rpm, $i=10$.

外形尺寸表

[illegible]

TD110			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 ₁	Nm	270	330	300	230	270	330	300	270	330	300	230
急停扭矩 Emergency Stop Torque	T ₂	Nm	T ₁ ×3				T ₁ ×3						
额定输入转速 Rated Input Speed	S ₁	rpm	4000				4000						
最大输入转速 Maximum Input Speed	S ₂	rpm	8000				8000						
最大输出力矩 Maximum Output Torque	T ₄	Nm	T ₁ ×3×60%				T ₁ ×3×60%						
最大弯曲力 Maximum Bending Force	F _a	N	430				430						
最大轴向力 Maximum Axial Force	F _b	N	2990				2990						
扭转刚性 Torsional Rigidity	-	Nm/arcmin	82				82						
效率 Effectiveness	β	%	≥97%				≥94%						
寿命 Life	☒	h	20000h				20000h						
反馈噪音 Feedback Noise	☒	dB	≤60dB				≤60dB						
重量 Weight	☒	Kg	7.7				9						
回程间隙 Return Gap	P0	arcmin	≤1				≤3						
	P1		≤3				≤5						
	P2		≤5				≤7						
使用温度 Operating Temperature	☒	℃	-10℃~90℃				-10℃~90℃						
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 ²	2.87	2.71	2.62	2.57	0.47			0.44			

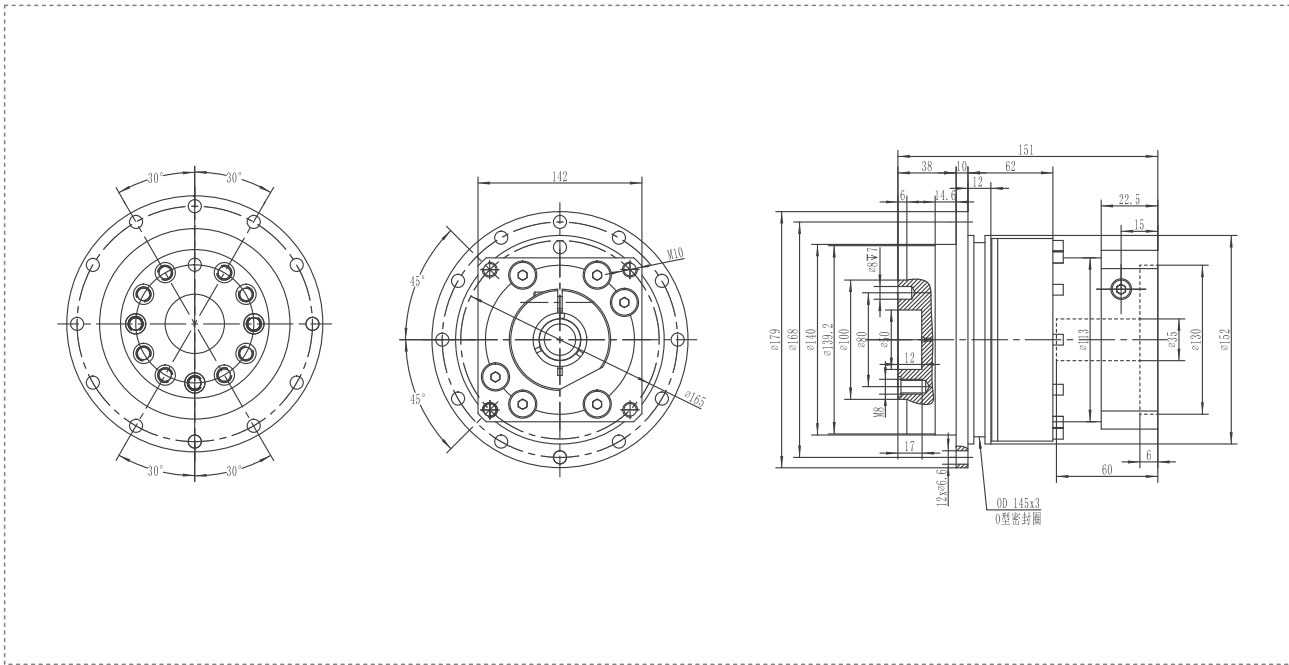
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- ⊕ Speed ratio ($i = S_{in}/S_{out}$)
- ⊕ As a result, when the output speed is 100 rpm, it acts on the center of the output shaft.
- ⊕ Continuous operation life of 10000h.
- ⊕ The noise value was obtained based on the input rotational speed of 3000 rpm, $i=10$.

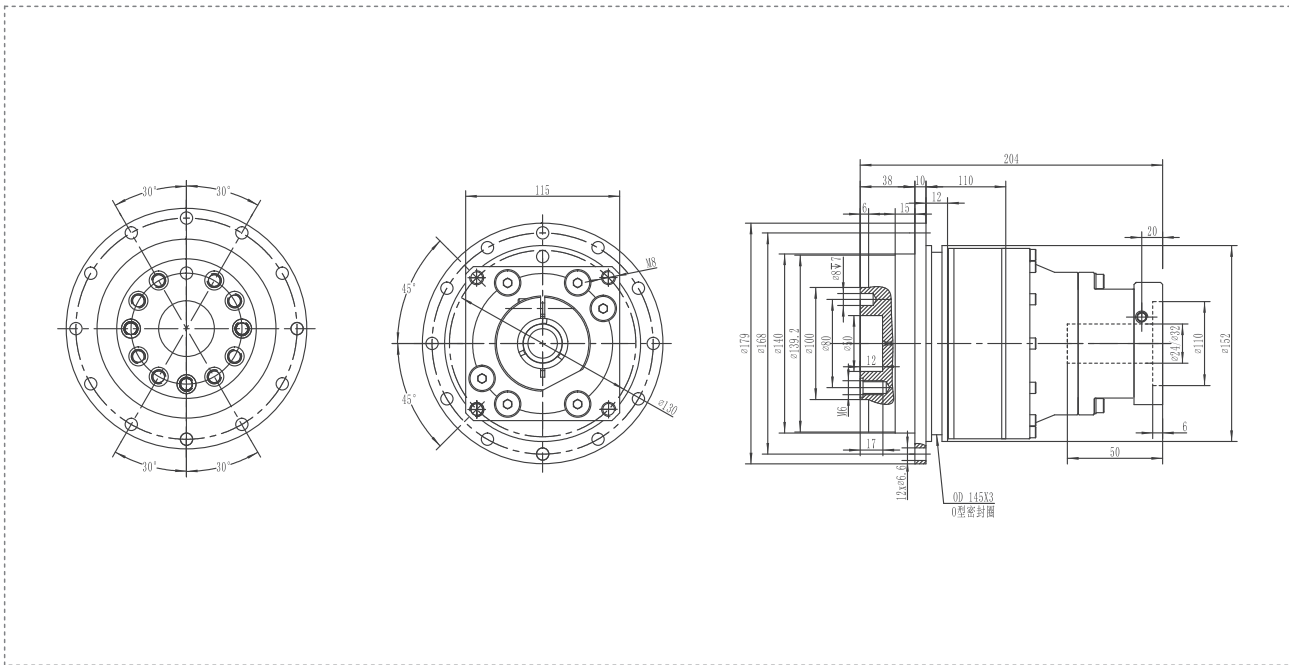
TD140系列* TD140 Single stage

外形尺寸表

TD140单节* TD140 One Stage



TD140双节* TD140 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.

TD140			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 ₁	Nm	560	650	550	450	560	650	550	560	650	550	450
急停扭矩 Emergency Stop Torque	T ₂	Nm	T ₁ ×3					T ₁ ×3					
额定输入转速 Rated Input Speed	S ₁	rpm	3000					3000					
最大输入转速 Maximum Input Speed	S ₂	rpm	6000					6000					
最大输出力矩 Maximum Output Torque	T ₄	Nm	T ₁ ×3×60%					T ₁ ×3×60%					
最大弯曲力 Maximum Bending Force	F _a	N	1300					1300					
最大轴向力 Maximum Axial Force	F _b	N	10590					10590					
扭转刚性 Torsional Rigidity	-	Nm/arcmin	151					151					
效率 Effectiveness	β	%	≥97%					≥94%					
寿命 Life	☒	h	20000h					20000h					
反馈噪音 Feedback Noise	☒	dB	≤65dB					≤65dB					
重量 Weight	☒	Kg	11.9					15.9					
回程间隙 Return Gap	P0	arcmin	≤1					≤3					
	P1		≤3					≤5					
	P2		≤5					≤7					
使用温度 Operating Temperature	☒	℃	-10℃~90℃					-10℃~90℃					
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.cm²	7.54	7.42	7.14	7.03	2.71			2.57			

依据说明:

- 1 变速比($i=S_{in}/S_{out}$)
- 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:

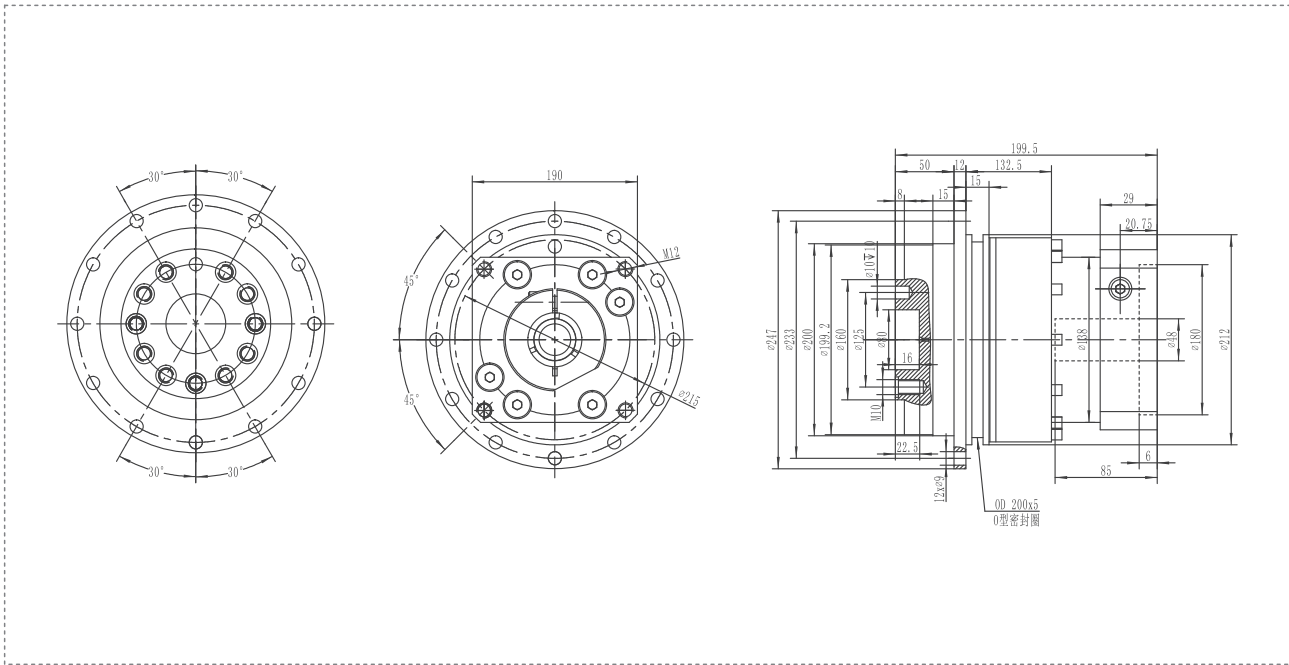
- 1 Speed ratio ($i=S_{in}/S_{out}$)
- 2 As a result, when the output speed is 100 rpm, it acts on the center of the output shaft.
- 3 Continuous operation life of 10000h.
- 4 The noise value was obtained based on the input rotational speed of 3000 rpm, $i=10$.

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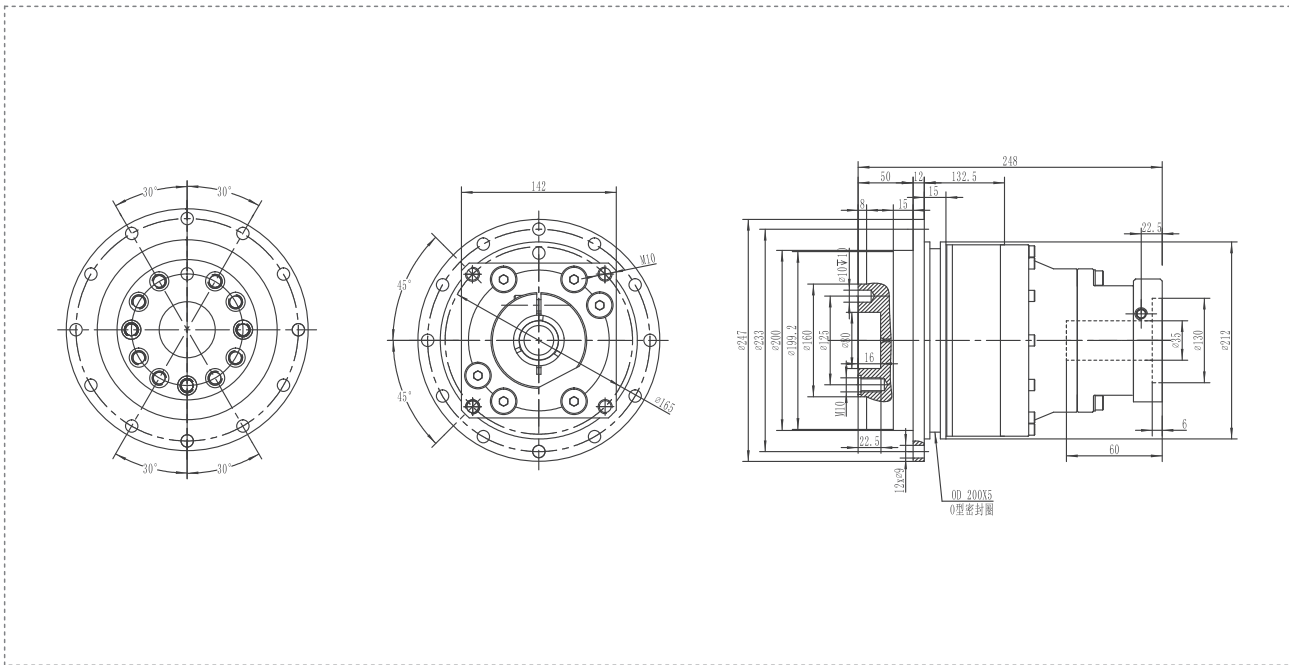
TD200系列* TD200 Single stage

外形尺寸表

TD200单节* TD200 One Stage



TD200双节* TD200 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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TD200		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 ₁	Nm	1100	1200	1100	900	1100	1200	1100	1100	1200	1100	900
急停扭矩 Emergency Stop Torque	T ₂	Nm	T ₁ ×3						T ₁ ×3				
额定输入转速 Rated Input Speed	S ₁	rpm	3000						3000				
最大输入转速 Maximum Input Speed	S ₂	rpm	6000						6000				
最大输出力矩 Maximum Output Torque	T ₄	Nm	T ₁ ×3×60%						T ₁ ×3×60%				
最大弯曲力 Maximum Bending Force	F _a	N	3064						3064				
最大轴向力 Maximum Axial Force	F _b	N	16660						16660				
扭转刚性 Torsional Rigidity	-	Nm/arcmin	440						440				
效率 Effectiveness	β	%	≥97%						≥94%				
寿命 Life	☒	h	20000h						20000h				
反馈噪音 Feedback Noise	☒	dB	≤66dB						≤66dB				
重量 Weight	☒	Kg	31.6						36.9				
回程间隙 Return Gap	P0	arcmin	≤1						≤3				
	P1		≤3						≤5				
	P2		≤5						≤7				
使用温度 Operating Temperature	☒	℃	-10℃~90℃						-10℃~90℃				
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 ²	25	23.3	22.4	22.5	7.4			7			

依据说明:

- 1 变速比($i=S_{in}/S_{out}$)
- 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:

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