

精密行星减速机

Precision Planetary Reducer

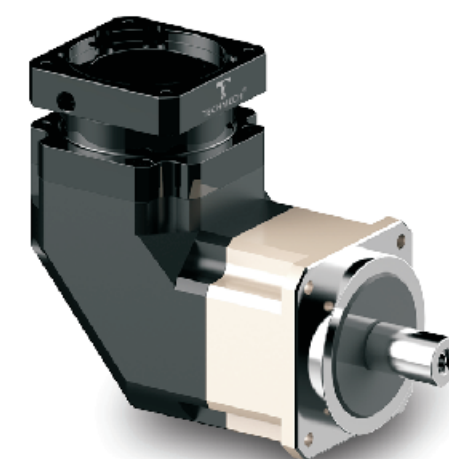


其优势在于：此款行星减速机即使在最高转速时也能达到最高效率，十分适用于高标准的生产工况，一款真正强效且价格合理的产品。

The advantage is that this planetary reducer achieves maximum efficiency even at the highest speeds, making it ideal for high-standard production conditions, a truly powerful and reasonably priced product.

TECHMECH DRIVES THE FUTURE

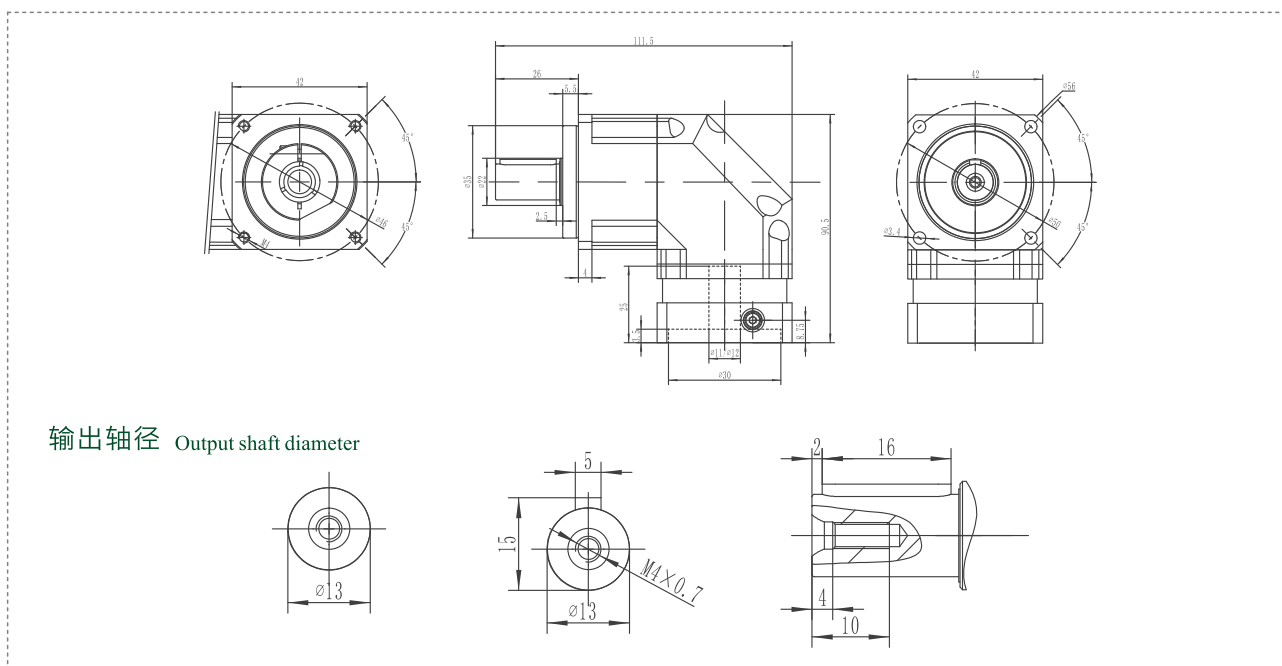
钛科玛格 传动未来



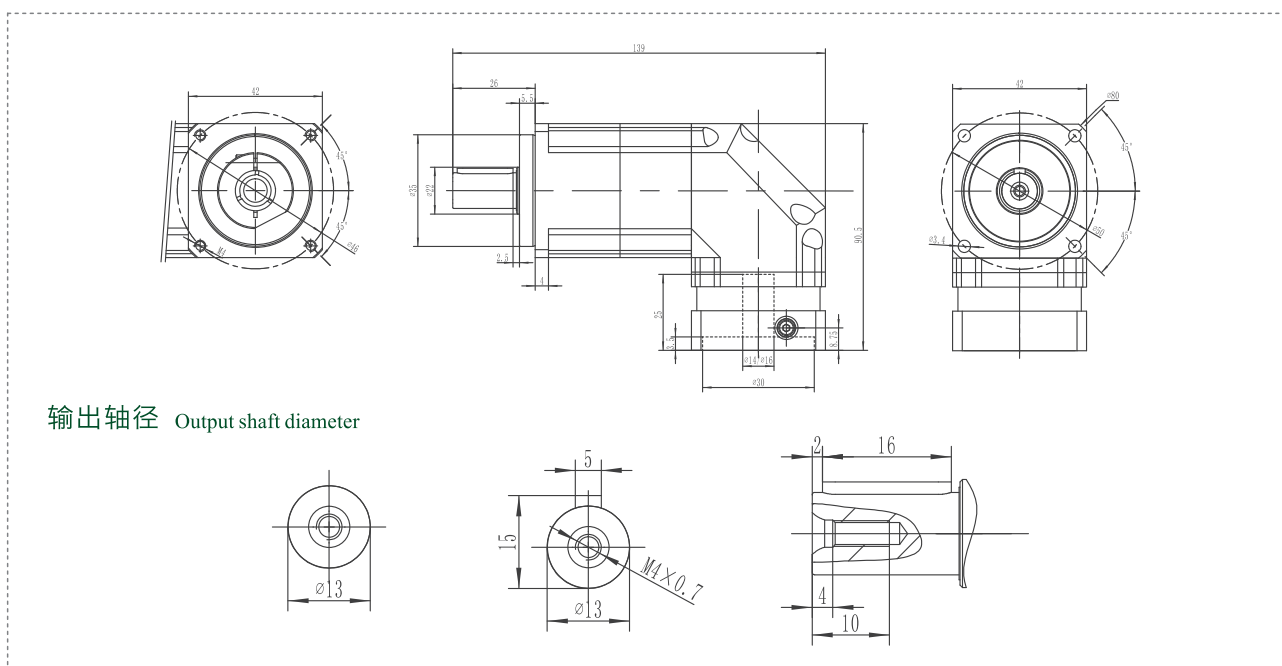
TBR042系列* TBR042 Series

外形尺寸表

TBR042单节* TBR042 One Stage



TBR042双节* TBR042 Two Stage



性能资料 Performance data

TB系列减速机采用了标准化的法兰界面，PSFN的安装便捷安全，由于抗倾斜力矩很高，这款高精度行星减速机可以完成许多高难度任务。

The TB series reducer adopts a standardized flange interface. The installation of PSFN is convenient and safe. Due to the high anti-tilt torque, this high-precision planetary reducer can perform many difficult tasks.

TBR042		单 节 One Stage										双 节 Two Stage										
速比 Speed Ratio		i	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	100	
额定输出力矩 Rated Output Torque	T ₁	Nm	9	12	15	18	19	17	-	14	14	14	15	20	19	17	14	20	19	17	14	
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%									
最大径向力 Maximum Radial Force	F _a	N	780										780									
最大轴向力 Maximum Axial Force	F _b	N	390										390									
扭转刚性 Torsional Rigidity	-	Nm/arcmin	3										3									
效率 Effectiveness	β	%	≥95%										≥92%									
寿命 Life	☒	h	20000h										20000h									
反馈噪音 Feedback Noise	☒	dB	≤61dB										≤61dB									
重量 Weight	☒	Kg	0.9										1.2									
回程间隙 Return Gap	P0	arcmin	-										-									
	P1		≤4										≤7									
	P2		≤6										≤9									
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	0.09										0.09									

依据说明:

- ⚙️ 变速比($i=S_{in}/S_{out}$)
- ⚙️ 结果输出转速100rpm时，作用于输出轴中心。
- ⚙️ 连续运转寿命10000h。
- ⚙️ 噪音值基于输入转速3000rpm, $i=10$ 所得。

According to the instructions:

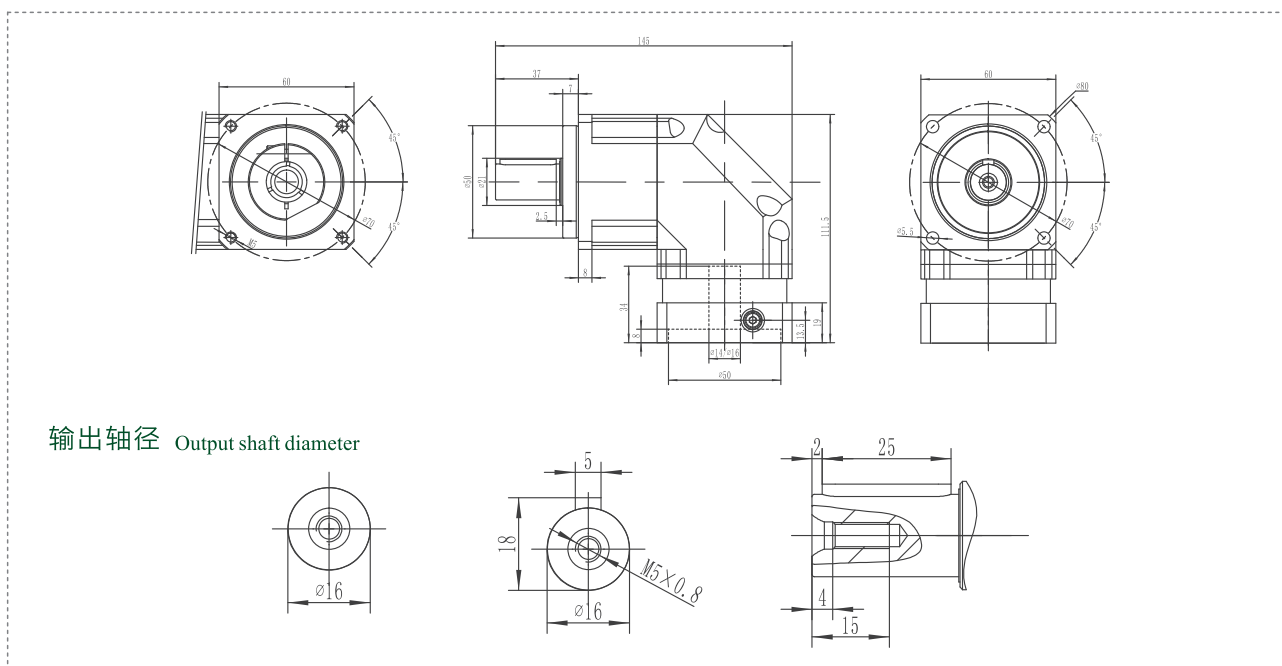
- ⊕ Speed ratio ($i = S_{in}/S_{out}$)
- ⊕ As a result, when the output speed is 100 rpm, it acts on the center of the output shaft.
- ⊕ Continuous operation life of 10000h.
- ⊕ The noise value was obtained based on the input rotational speed of 3000 rpm, $i=10$.

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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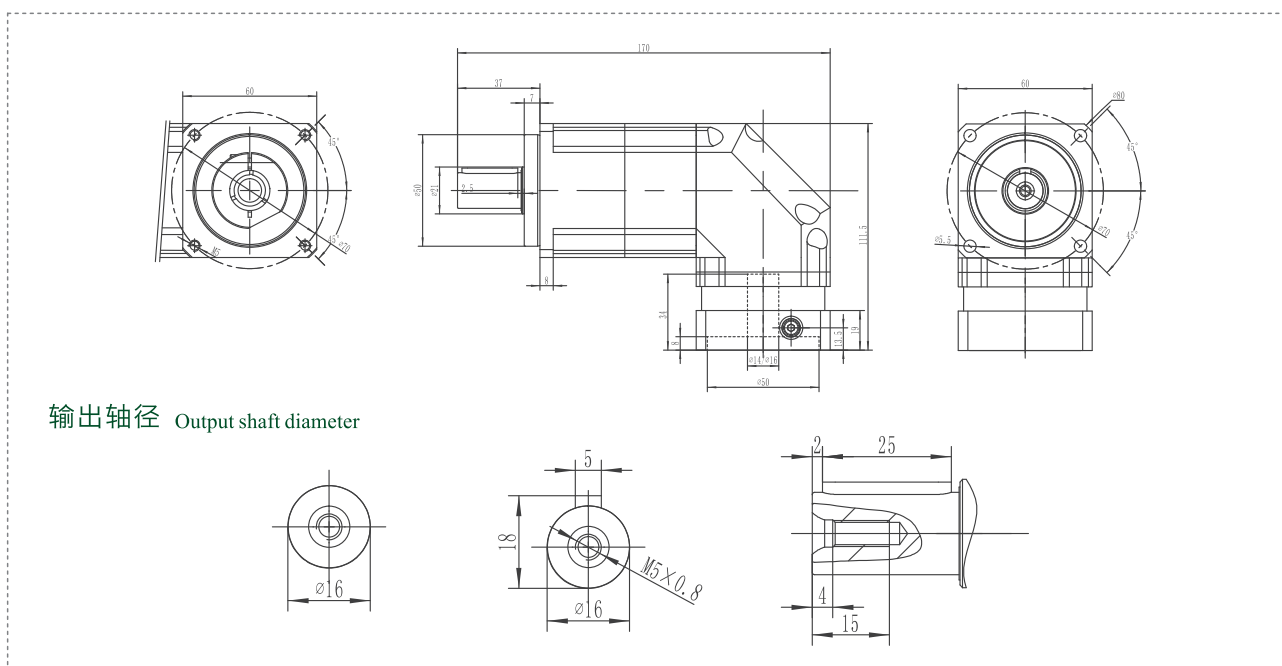
TBR060系列* TBR060 Series

外形尺寸表

TBR060单节* TBR060 One Stage



TBR060双节* TBR060 Two Stage



性能资料 Performance data

TB系列减速机采用了标准化的法兰界面，PSFN的安装便捷安全，由于抗倾斜力矩很高，这款高精度行星减速机可以完成许多高难度任务。

The TB series reducer adopts a standardized flange interface. The installation of PSFN is convenient and safe. Due to the high anti-tilt torque, this high-precision planetary reducer can perform many difficult tasks.

TBR060			单 节 One Stage										双 节 Two Stage									
速比 Speed Ratio	i		3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	100	
额定输出力矩 Rated Output Torque	T ₁	Nm	36	48	60	55	50	45	-	40	-	-	60	55	50	45	60	55	50	45	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%									
最大径向力 Maximum Radial Force	F _a	N	1530										1530									
最大轴向力 Maximum Axial Force	F _b	N	765										765									
扭转刚性 Torsional Rigidity	-	Nm/arcmin	7										7									
效率 Effectiveness	β	%	≥95%										≥92%									
寿命 Life	☒	h	20000h										20000h									
反馈噪音 Feedback Noise	☒	dB	≤63dB										≤63dB									
重量 Weight	☒	Kg	2.1										1.5									
回程间隙 Return Gap	P0	arcmin	-										-									
	P1		≤4										≤7									
	P2		≤6										≤9									
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	0.35										☒		0.09							

依据说明:

- ⚙ 变速比($i=S_{in}/S_{out}$)
- ⚙ 结果输出转速100rpm时，作用于输出轴中心。
- ⚙ 连续运转寿命10000h。
- ⚙ 噪音值基于输入转速3000rpm, $i=10$ 所得。

According to the instructions:

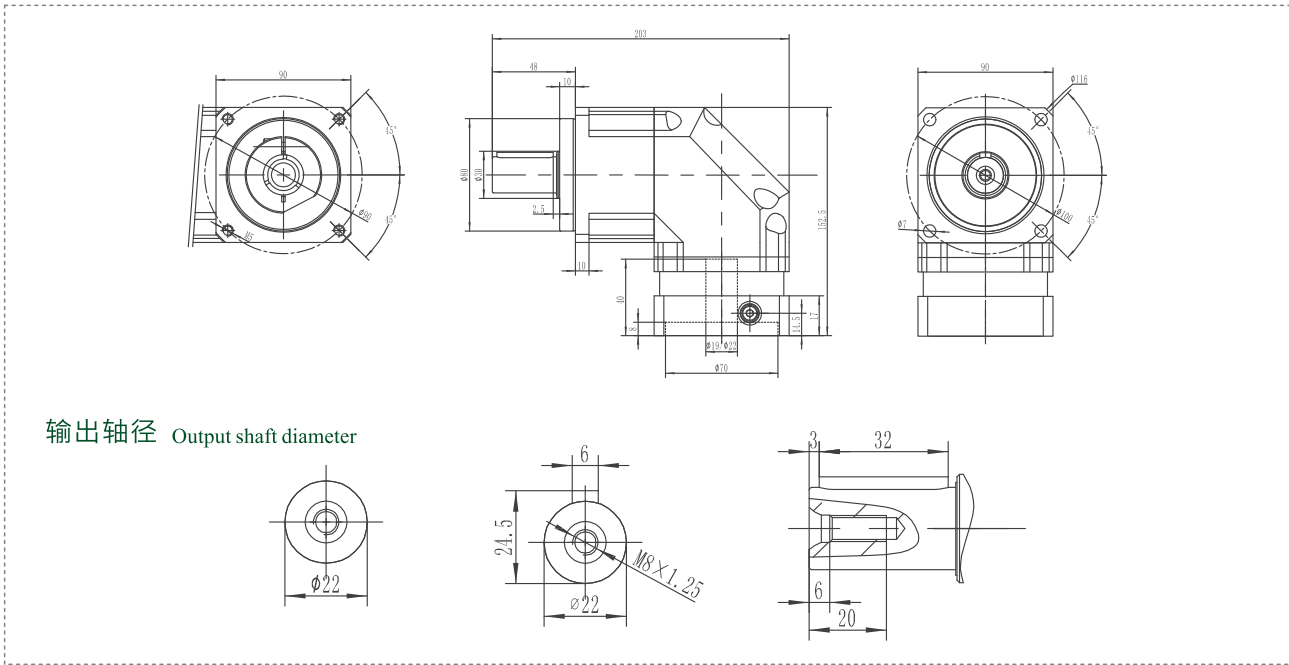
- ⊕ Speed ratio ($i = S_{in}/S_{out}$)
- ⊕ As a result, when the output speed is 100 rpm, it acts on the center of the output shaft.
- ⊕ Continuous operation life of 10000h.
- ⊕ The noise value was obtained based on the input rotational speed of 3000 rpm, $i=10$.

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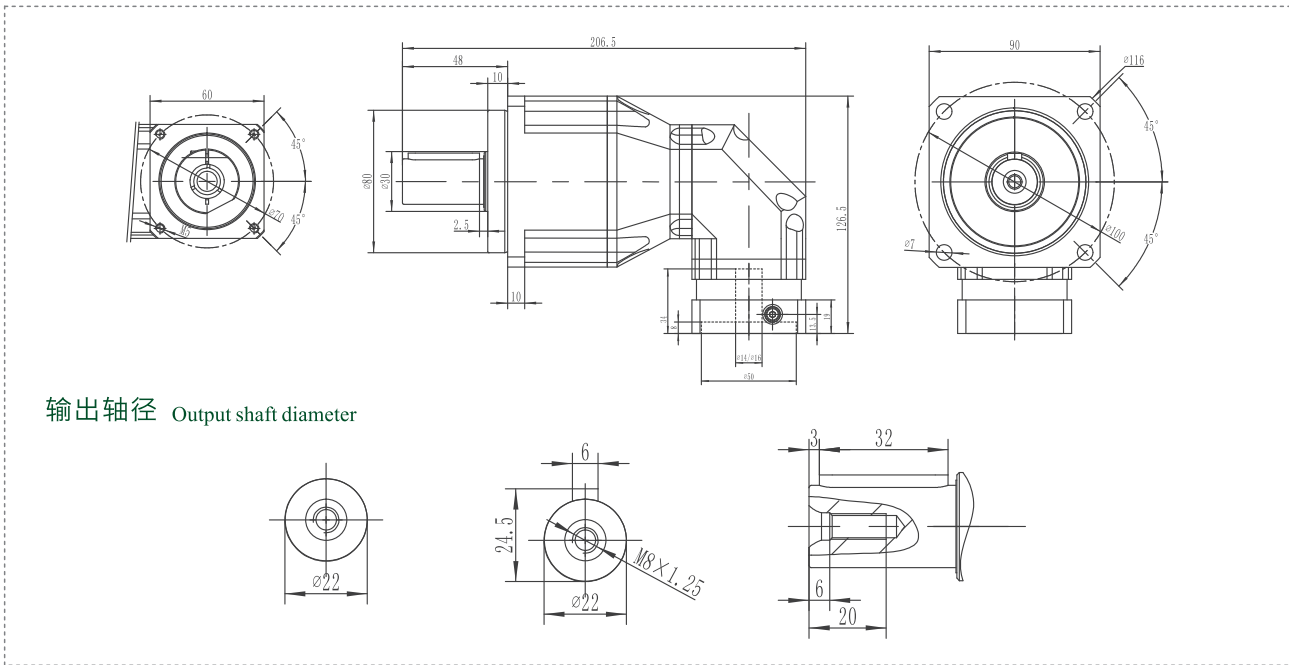
TBR090系列* TBR090 Series

外形尺寸表

TBR090单节* TBR090 One Stage



TBR090双节* TBR090 Two Stage



性能资料 Performance data

TB系列减速机采用了标准化的法兰界面，PSFN的安装便捷安全，由于抗倾斜力矩很高，这款高精度行星减速机可以完成许多高难度任务。

The TB series reducer adopts a standardized flange interface. The installation of PSFN is convenient and safe. Due to the high anti-tilt torque, this high-precision planetary reducer can perform many difficult tasks.

TBR090			单节 One Stage										双节 Two Stage										
速比 Speed Ratio		i	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	100		
额定输出力矩 Rated Output Torque	T ₁	Nm	90	120	150	150	140	120	-	100	-	-	150	150	140	120	100	150	140	120	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%										
最大径向力 Maximum Radial Force	F _a	N	3250										3250										
最大轴向力 Maximum Axial Force	F _b	N	1625										1625										
扭转刚性 Torsional Rigidity	-	Nm/arcmin	7										14										
效率 Effectiveness	β	%	≥95%										≥92%										
寿命 Life	☒	h	20000h										20000h										
反馈噪音 Feedback Noise	☒	dB	≤65dB										≤65dB										
重量 Weight	☒	Kg	6.4										7.8										
回程间隙 Return Gap	P0	arcmin	≤2										≤4										
	P1		≤4										≤7										
	P2		≤6										≤9										
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	2.25										☒	0.35									

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:

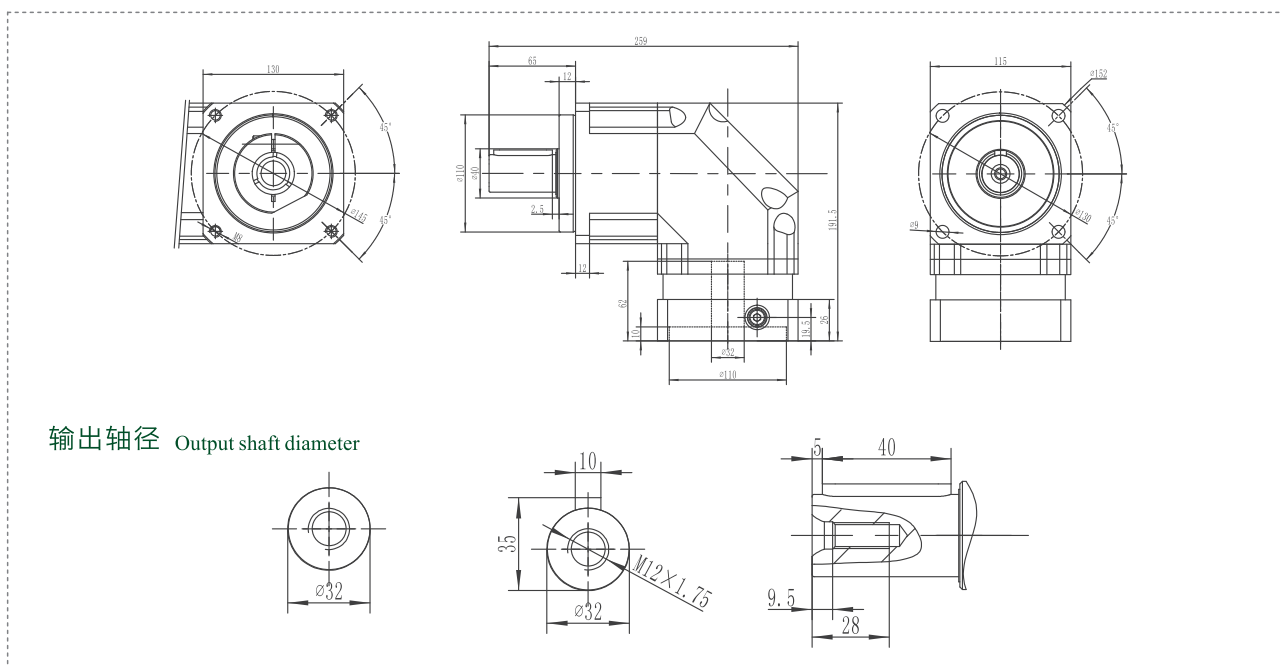
- 1 Speed ratio ($i=S_{in}/S_{out}$)
- 2 As a result, when the output speed is 100 rpm, it acts on the center of the output shaft.
- 3 Continuous operation life of 10000h.
- 4 The noise value was obtained based on the input rotational speed of 3000 rpm, $i=10$.

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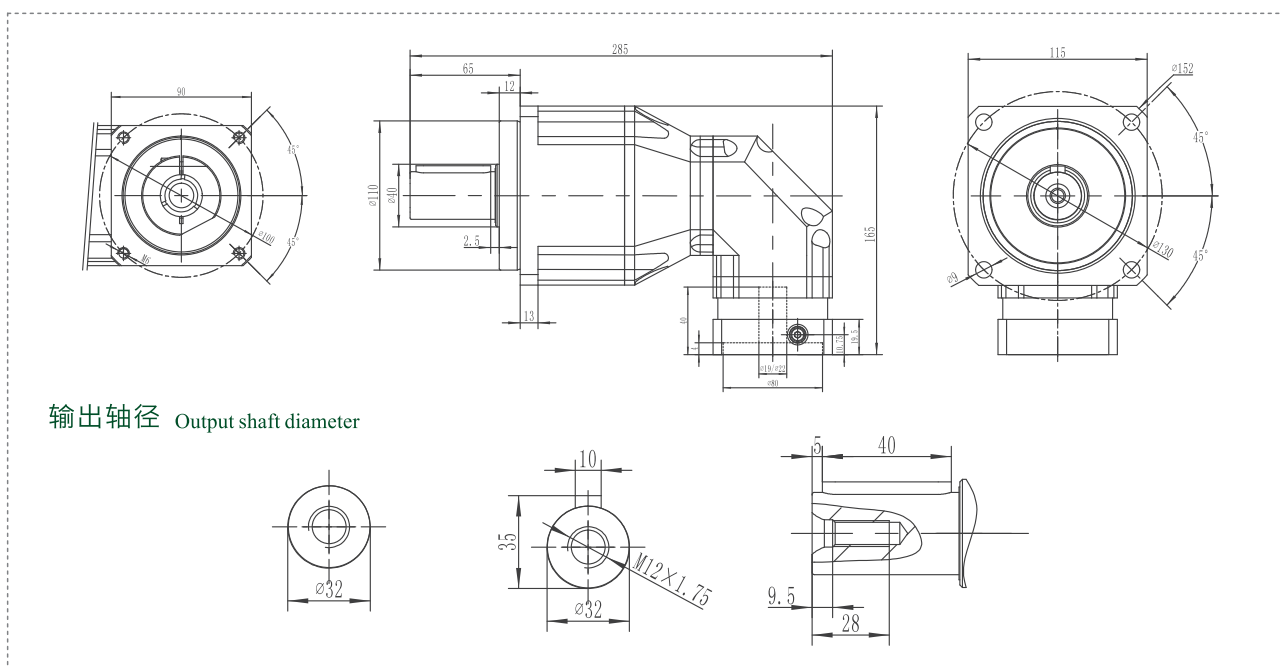
TBR115系列* TBR115 Series

外形尺寸表

TBR115单节* TBR115 One Stage



TBR115双节* TBR115 Two Stage



性能资料 Performance data

TB系列减速机采用了标准化的法兰界面，PSFN的安装便捷安全，由于抗倾斜力矩很高，这款高精度行星减速机可以完成许多高难度任务。

The TB series reducer adopts a standardized flange interface. The installation of PSFN is convenient and safe. Due to the high anti-tilt torque, this high-precision planetary reducer can perform many difficult tasks.

TBR115			单节 One Stage										双节 Two Stage									
速比 Speed Ratio	i		3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	100	
额定输出力矩 Rated Output Torque	T ₁	Nm	195	260	325	310	300	260	-	230	-	-	325	310	300	260	230	310	300	260	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%									
最大径向力 Maximum Radial Force	F _a	N	6700										6700									
最大轴向力 Maximum Axial Force	F _b	N	3350										3350									
扭转刚性 Torsional Rigidity	-	Nm/arcmin	25										25									
效率 Effectiveness	β	%	≥95%										≥92%									
寿命 Life	☒	h	20000h										20000h									
反馈噪音 Feedback Noise	☒	dB	≤68dB										≤68dB									
重量 Weight	☒	Kg	13										14.2									
回程间隙 Return Gap	P0	arcmin	≤2										≤4									
	P1		≤4										≤7									
	P2		≤6										≤9									
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	6.84										☒		2.25							

依据说明:

- ⚙️ 变速比($i=S_{in}/S_{out}$)
- ⚙️ 结果输出转速100rpm时，作用于输出轴中心。
- ⚙️ 连续运转寿命10000h。
- ⚙️ 噪音值基于输入转速3000rpm, $i=10$ 所得。

According to the instructions:

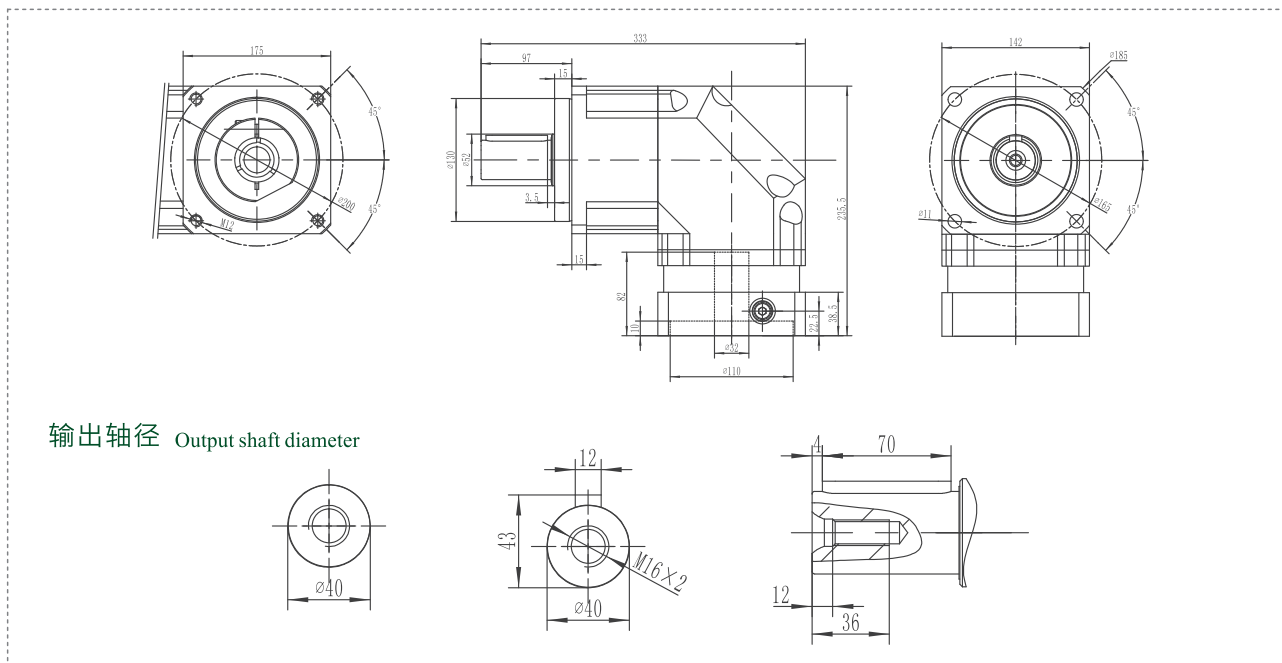
- ⊕ Speed ratio ($i = S_{in}/S_{out}$)
- ⊕ As a result, when the output speed is 100 rpm, it acts on the center of the output shaft.
- ⊕ Continuous operation life of 10000h.
- ⊕ The noise value was obtained based on the input rotational speed of 3000 rpm, $i=10$.

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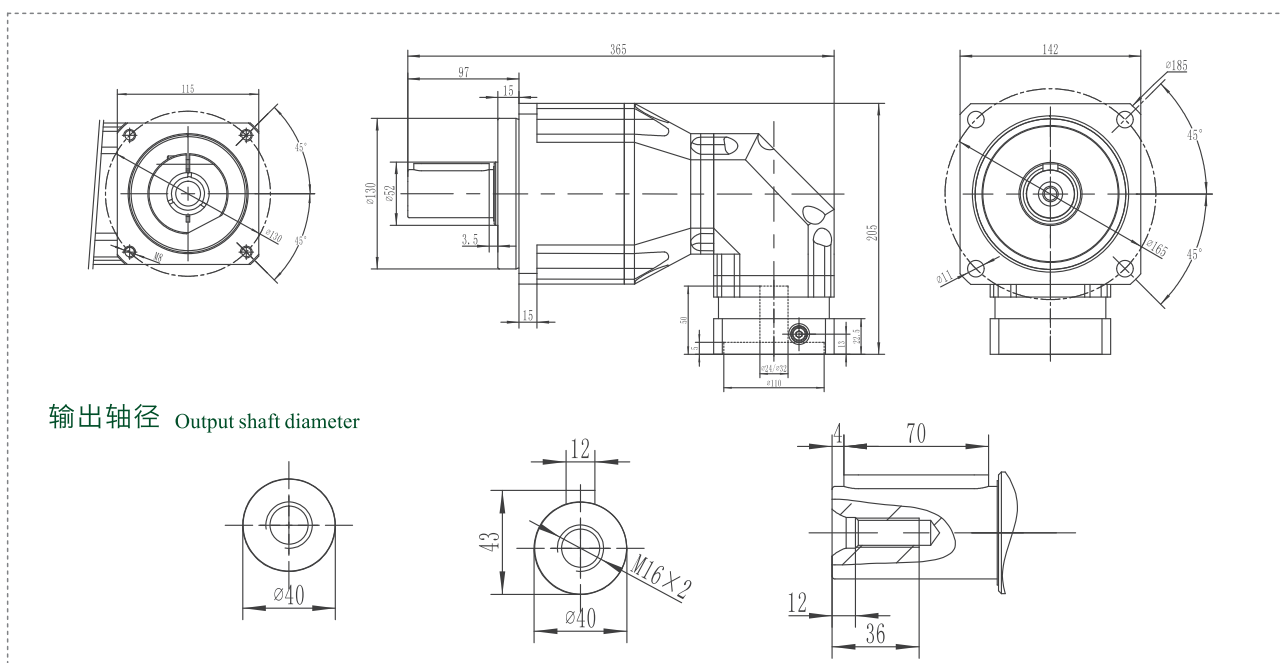
TBR142系列* TBR142 Series

外形尺寸表

TBR142单节* TBR142 One Stage



TBR142双节* TBR142 Two Stage



性能资料 Performance data

TB系列减速机采用了标准化的法兰界面，PSFN的安装便捷安全，由于抗倾斜力矩很高，这款高精度行星减速机可以完成许多高难度任务。

The TB series reducer adopts a standardized flange interface. The installation of PSFN is convenient and safe. Due to the high anti-tilt torque, this high-precision planetary reducer can perform many difficult tasks.

TBR142			单 节 One Stage										双节 Two Stage									
速比 Speed Ratio	i		3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	100	
额定输出力矩 Rated Output Torque	T ₁	Nm	342	520	650	600	550	500	-	450	-	-	650	600	550	500	650	600	550	500	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%									
最大径向力 Maximum Radial Force	F _a	N	9400										9400									
最大轴向力 Maximum Axial Force	F _b	N	4700										4700									
扭转刚性 Torsional Rigidity	-	Nm/arcmin	50										50									
效率 Effectiveness	β	%	≥95%										≥92%									
寿命 Life	☒	h	20000h										20000h									
反馈噪音 Feedback Noise	☒	dB	≤70dB										≤70dB									
重量 Weight	☒	Kg	24.5										27.5									
回程间隙 Return Gap	P0	arcmin	≤2										≤4									
	P1		≤4										≤7									
	P2		≤6										≤9									
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	23.4										☒		6.84							

依据说明:

- ⦿ 变速比($i=S_{in}/S_{out}$)
- ⦿ 结果输出转速100rpm时，作用于输出轴中心。
- ⦿ 连续运转寿命10000h。
- ⦿ 噪音值基于输入转速3000rpm, $i=10$ 所得。

According to the instructions:

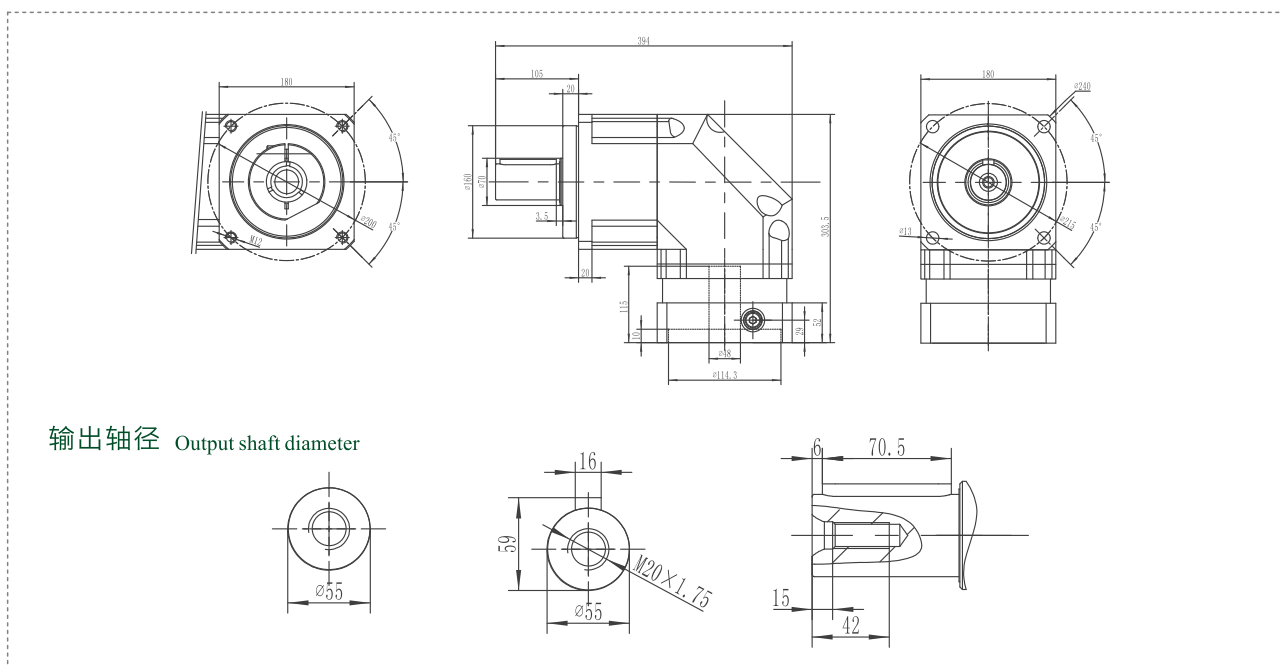
- ⊕ Speed ratio ($i = S_{in}/S_{out}$)
- ⊕ As a result, when the output speed is 100 rpm, it acts on the center of the output shaft.
- ⊕ Continuous operation life of 10000h.
- ⊕ The noise value was obtained based on the input rotational speed of 3000 rpm, $i=10$.

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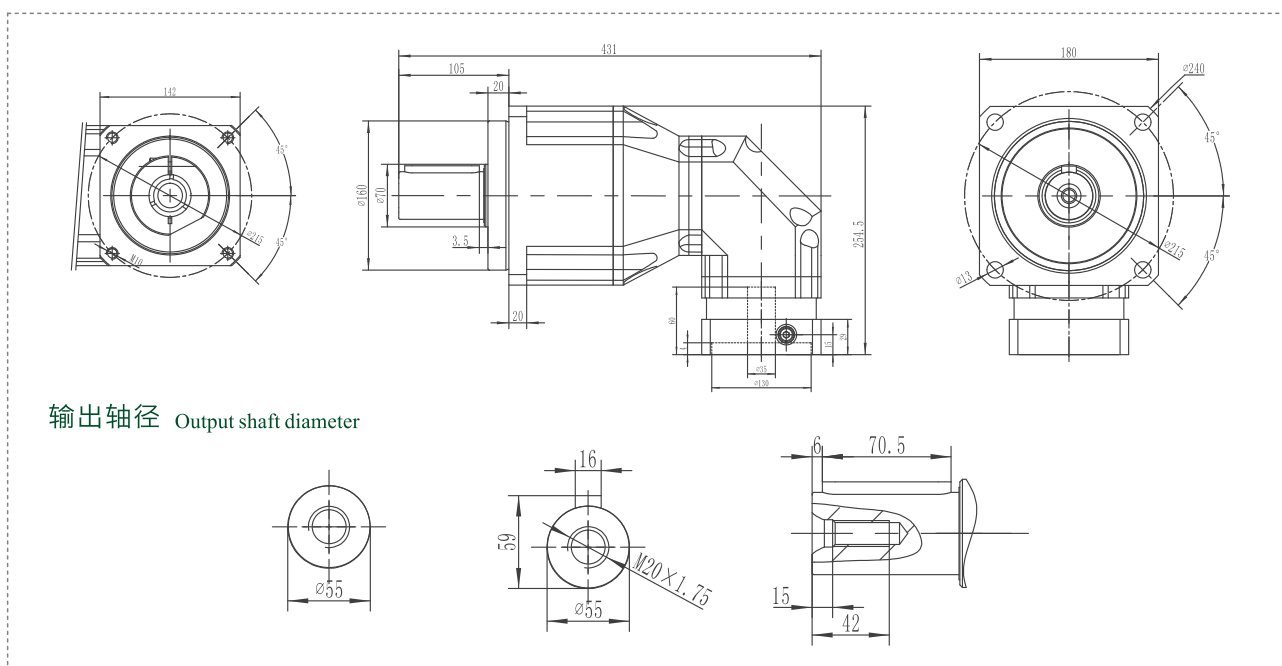
TBR180系列* TBR180 Series

外形尺寸表

TBR180单节* TBR180 One Stage



TBR180双节* TBR180 Two Stage



性能资料 Performance data

TB系列减速机采用了标准化的法兰界面，PSFN的安装便捷安全，由于抗倾斜力矩很高，这款高精度行星减速机可以完成许多高难度任务。

The TB series reducer adopts a standardized flange interface. The installation of PSFN is convenient and safe. Due to the high anti-tilt torque, this high-precision planetary reducer can perform many difficult tasks.

TBR180			单节 One Stage										双节 Two Stage									
速比 Speed Ratio	i		3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	100	
额定输出力矩 Rated Output Torque	T ₁	Nm	588	1040	1200	1100	1100	1000	-	900	-	-	1200	1100	1100	1000	1200	1100	1100	1000	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%									
最大径向力 Maximum Radial Force	F _a	N	14500										14500									
最大轴向力 Maximum Axial Force	F _b	N	7250										7250									
扭转刚性 Torsional Rigidity	-	Nm/arcmin	145										145									
效率 Effectiveness	β	%	≥95%										≥92%									
寿命 Life	☒	h	20000h										20000h									
反馈噪音 Feedback Noise	☒	dB	≤72dB										≤72dB									
重量 Weight	☒	Kg	51										54									
回程间隙 Return Gap	P0	arcmin	≤2										≤4									
	P1		≤4										≤7									
	P2		≤6										≤9									
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	68.9										☒		23.4							

依据说明:

- ⚙ 变速比($i=S_{in}/S_{out}$)
- ⚙ 结果输出转速100rpm时，作用于输出轴中心。
- ⚙ 连续运转寿命10000h。
- ⚙ 噪音值基于输入转速3000rpm, $i=10$ 所得。

According to the instructions:

- ⊕ 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, $i=10$.

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