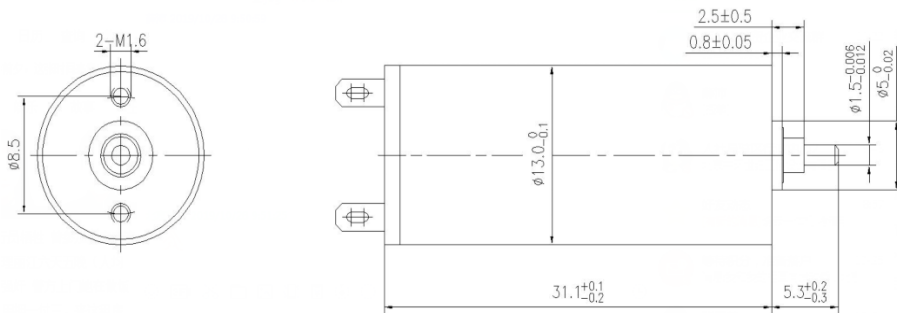


Ø13mm, precious metal brushes, front ball bearing, with terminals/Ø13mm贵金属电刷, 前滚动轴承, 引出片

1331 Series / 1331 系列		型号/model	7230.A	7090.M				
Motor data (25°C) / 运行参数 (25°C)								
1 Assigned power/标称功率	W		1.5	1.0				
2 Nominal voltage/额定电压	Volt		3	12				
3 Terminal resistance/端电阻 ±10%	Ohm		0.608	15.2				
4 No-Load speed/空载转速 ±10%	rpm		12100	11700				
5 No-Load current/空载电流 ≤125%	mA		59.2	9.47				
6 Speed constant/速度常数	rpm/V		4030	975				
7 Torque constant/转矩常数	mNm/A		2.34	9.68				
8 Starting current/启动电流	mA		4930	789				
9 Stall torque/堵转转矩	mNm		11.5	7.64				
10 Mechanical time constant/机械时间常数	ms		4.36	6.50				
11 Rotor inertia/转动惯量	gcm ²		0.392	0.401				
12 Max. efficiency/最大效率	%		79	79				
13 Motor inductance/电机电感	mH		0.0362	0.351				
14 Weight of motor/电机重量	g		16.5	16.5				
Limits for continuous operation/电机连续运行区域上限								
15 Max. continuous current/最大连续工作电流	mA		706	108				
16 Max. continuous torque/最大连续工作转矩	mNm		1.65	1.05				
17 Nominal speed/最大连续工作电流下的转速	rpm		10400	10100				
18 Max. continuous power/最大连续输出功率	W		1.79	1.16				
Dimensions/外形尺寸								

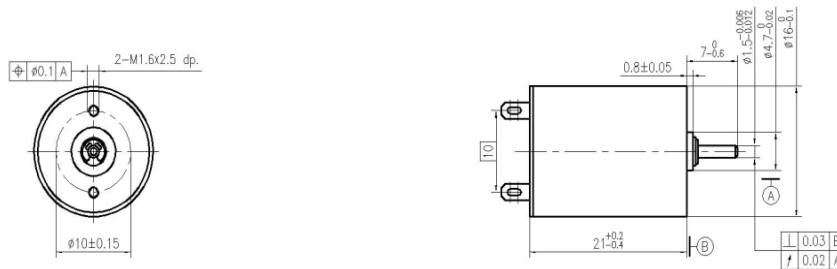


Additional information/其它相关信息

- Axial play (measured at 4N axial force)/轴向间隙 (沿轴向施加4N力时的间隙) 0.05~0.15 mm
- Max. sleeve bearing loads/滑动轴承最大载荷
 - Axial (dynamic)/轴向(动态) 0.8N
 - Radial (4 mm from jamming ring)/径向 (卡簧外4mm) 1.4 N
 - Force for press-fits (static)/最大允许安装力 (静态) 15N
- Max. radial play sleeve bearing/滑动轴承最大径向间隙 0.02 mm
- Ambient temperature range/环境温度范围 -20~+65°C
- Max. rotor temperature/转子承受最高温度 +85°C
- Options: gearbox/其它可选项: 减速器

Ø16mm, precious metal brushes, sleeve bearing, with terminals/Ø16mm贵金属电刷, 滑动轴承,引出片

1621 Series / 1621系列		型号/model	1208.A					
Motor data (25°C) / 运行参数 (25°C)								
1 Assigned power/标称功率	W	0.7						
2 Nominal voltage/额定电压	Volt	9						
3 Terminal resistance/端电阻 ±10%	Ohm	24.90						
4 No-Load speed/空载转速 ±10%	rpm	8,060						
5 No-Load current/空载电流 ≤125%	mA	9.8						
6 Speed constant/速度常数	rpm/V	896						
7 Torque constant/转矩常数	mNm/A	10.4						
8 Starting current/启动电流	mA	361						
9 Stall torque/堵转转矩	mNm	3.75						
10 Mechanical time constant/机械时间常数	ms	10.2						
11 Rotor inertia/转动惯量	gcm ²	0.489						
12 Max. efficiency/最大效率	%	70						
13 Motor inductance/电机电感	mH	0.53						
14 Weight of motor/电机重量	g	16						
Limits for continuous operation/电机连续运行区域上限								
15 Max. continuous current/最大连续工作电流	mA	85.4						
16 Max. continuous torque/最大连续工作转矩	mNm	0.89						
17 Nominal speed/最大连续工作电流下的转速	rpm	6,155						
18 Max. continuous power /最大连续输出功率	W	0.57						
Dimensions/外形尺寸								

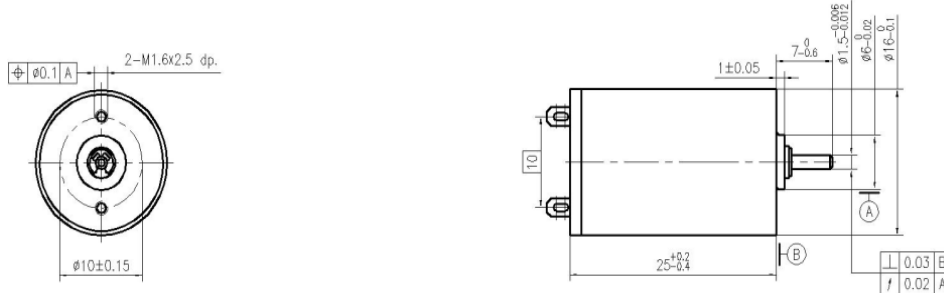


Additional information/其它相关信息

- Axial play (measured at 4N axial force)/轴向间隙 (沿轴向施加4N力时的间隙) 0.05~0.15 mm
- Max. sleeve bearing loads/滑动轴承最大载荷
 - Axial (dynamic)/轴向(动态) 0.8N
 - Radial (4 mm from jamming ring)/径向 (卡簧外4mm) 1.4 N
 - Force for press-fits (static)/最大允许安装力 (静态) 15N
- Max. radial play sleeve bearing/滑动轴承最大径向间隙 0.02 mm
- Ambient temperature range/环境温度范围 -20~+65°C
- Max. rotor temperature/转子承受最高温度 +85°C
- Weight of motor/电机重量 17g
- Options: gearbox/其它可选项: 减速器

Ø16mm, precious metal brushes, sleeve bearing, with terminals/Ø16mm贵金属电刷, 滑动轴承, 引出片

1625 Series / 1625系列		型号/model	2116.A	2112.A	2212.A	2209.A	2207.A	2206.A
Motor data (25°C) / 运行参数 (25°C)								
1 Assigned power/标称功率	W		1	0.7	1.22	0.8	0.6	0.6
2 Nominal voltage/额定电压	Volt		3.6	4.5	6	9	12	18
3 Terminal resistance/端电阻 ±10%	Ohm		1.9	4.3	8.0	17.2	39.4	60.60
4 No-Load speed/空载转速 ±10%	rpm		8750	7900	7730	8290	8210	8,840
5 No-Load current/空载电流 ≤125%	mA		38.1	21.6	12.8	8.4	5.7	5.5
6 Speed constant/速度常数	rpm/V		2431	1756	1288	921	684	491
7 Torque constant/转矩常数	mNm/A		3.9	5.3	7.3	10.2	13.7	19.1
8 Starting current/启动电流	mA		1905	1056	750	523	305	297
9 Stall torque/堵转转矩	mNm		7.3	5.6	5.5	5.3	4.2	5.7
10 Mechanical time constant/机械时间常数	ms		11.9	10.1	15.8	12.1	13.4	13.8
11 Rotor inertia/转动惯量	gcm ²		0.7	0.5	0.8	0.7	0.6	0.5
12 Max. efficiency/最大效率	%		74	73	76	76	75	75
13 Motor inductance/电机电感	mH		0.08	0.12	0.52	0.57	1.05	1.08
14 Weight of motor/电机重量	g		20	20	18	18	18	18
Limits for continuous operation/电机连续运行区域上限								
15 Max. continuous current/最大连续工作电流	mA		342	192	226	108	65	48
16 Max. continuous torque/最大连续工作转矩	mNm		1.3	1.0	1.6	1.1	0.9	0.92
17 Nominal speed/最大连续工作电流下的转速	rpm		7181	6463	5406	6577	6447	7,410
18 Max. continuous power /最大连续输出功率	W		1.0	0.7	0.9	0.8	0.6	0.71
Dimensions/外形尺寸								

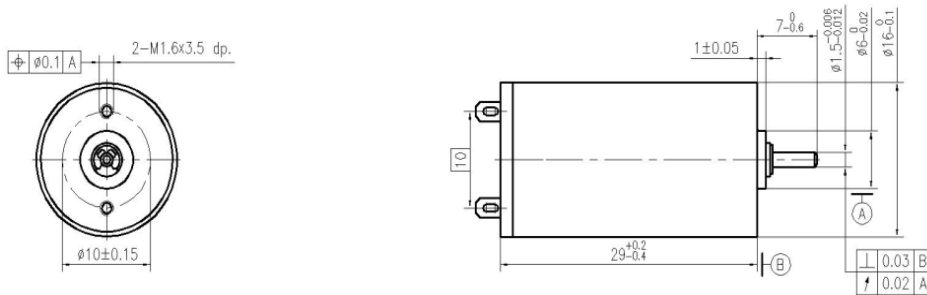


Additional information/其它相关信息

- Axial play (measured at 4N axial force)/轴向间隙 (沿轴向施加4N力时的间隙) 0.05~0.15 mm
- Max. sleeve bearing loads/滑动轴承最大载荷
 - Axial (dynamic)/轴向(动态) 0.8N
 - Radial (4 mm from jamming ring)/径向 (卡簧外4mm) 1.4 N
 - Force for press-fits (static)/最大允许安装力 (静态) 15N
- Max. radial play sleeve bearing/滑动轴承最大径向间隙 0.02 mm
- Ambient temperature range/环境温度范围 -20~+65 °C
- Max. rotor temperature/转子承受最高温度 +85 °C
- Options: gearbox/其它可选项: 减速器

Ø16mm, precious metal brushes, sleeve bearing, with terminals/Ø16mm贵金属电刷, 滑动轴承,引出片

1630 Series / 1630系列		型号/model	5123.A	5113.A	5213.A	5210.A	5207.A		
Motor data (25°C) / 运行参数 (25°C)									
1 Assigned power/标称功率	W		1.7	1.12	1.6	1.3	1.0		
2 Nominal voltage/额定电压	Volt		3	6	9	12	18		
3 Terminal resistance/端电阻 ±10%	Ohm		0.79	4.44	8.73	18.4	45.00		
4 No-Load speed/空载转速 ±10%	rpm		10000	9350	9500	9200	9,900		
5 No-Load current/空载电流 ≤125%	mA		45	20.2	15.2	8.1	10.0		
6 Speed constant/速度常数	rpm/V		3333	1558	1056	767	550		
7 Torque constant/转矩常数	mNm/A		2.8	6.0	8.9	12.3	16.9		
8 Starting current/启动电流	mA		3797	1351	1031	652	400		
9 Stall torque/堵转转矩	mNm		10.8	8.2	9.2	8.0	6.8		
10 Mechanical time constant/机械时间常数	ms		15.8	11.4	18.2	16.4	14.6		
11 Rotor inertia/转动惯量	gcm ²		1.3	0.8	1.3	1.1	0.9		
12 Max. efficiency/最大效率	%		79	77	77	79	71		
13 Motor inductance/电机电感	mH		0.04	0.12	0.41	0.69	0.96		
14 Weight of motor/电机重量	g		22	22	22	22	22		
Limits for continuous operation/电机连续运行区域上限									
15 Max. continuous current/最大连续工作电流	mA		706	226	226	133	65		
16 Max. continuous torque/最大连续工作转矩	mNm		2.0	1.4	2.0	1.6	1.11		
17 Nominal speed/最大连续工作电流下的转速	rpm		8141	7790	7422	7317	8,282		
18 Max. continuous power/最大连续输出功率	W		1.7	1.1	1.6	1.3	1.0		
Dimensions/外形尺寸									

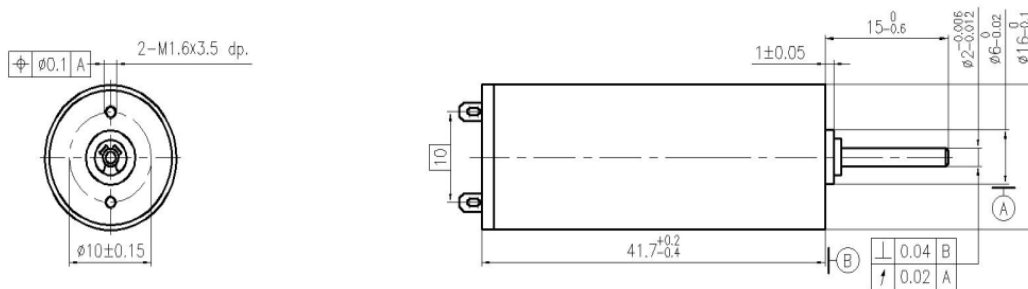


Additional information/其它相关信息

- Axial play (measured at 4N axial force)/轴向间隙 (沿轴向施加4N力时的间隙) 0.05~0.15 mm
- Max. sleeve bearing loads/滑动轴承最大载荷
 - Axial (dynamic)/轴向(动态) 0.8N
 - Radial (4 mm from jamming ring)/径向 (卡簧外4mm) 1.4 N
 - Force for press-fits (static)/最大允许安装力 (静态) 15N
- Max. radial play sleeve bearing/滑动轴承最大径向间隙 0.02 mm
- Ambient temperature range/环境温度范围 -20~+65°C
- Max. rotor temperature/转子承受最高温度 +85°C
- Options: gearbox/其它可选项: 减速器

Ø16mm, precious metal brushes, sleeve bearing, with terminals/Ø16mm 贵金属电刷, 滑动轴承, 引出片

1643 Series / 1643系列		型号/model	8123.A	8118.A	8113.A	8110.A	8211.A	8208.A
Motor data (25°C) / 运行参数 (25°C)								
1 Assigned power/标称功率	W		2.6	2.1	1.7	1.3	2.4	1.65
2 Nominal voltage/额定电压	Volt		4.5	6	9	12	18	24
3 Terminal resistance/端电阻 ±10%	Ohm		1.2	2.5	6.1	13.40	20.2	50.5
4 No-Load speed/空载转速 ±10%	rpm		7700	7800	7800	7,710	7900	8080
5 No-Load current/空载电流 ≤125%	mA		55.8	36.7	21.8	20.0	12.1	8.9
6 Speed constant/速度常数	rpm/V		1711	1300	867	643	439	337
7 Torque constant/转矩常数	mNm/A		5.5	7.2	10.9	14.5	21.5	27.8
8 Starting current/启动电流	mA		3719	2449	1475	896	891	475
9 Stall torque/堵转转矩	mNm		20.5	17.7	16.0	13.0	19.1	13.2
10 Mechanical time constant/机械时间常数	ms		7.9	8	6.8	5.6	6.9	7.7
11 Rotor inertia/转动惯量	gcm ²		1.7	1.4	1.1	0.8	1.4	1
12 Max. efficiency/最大效率	%		77	77	77	72	78	75
13 Motor inductance/电机电感	mH		0.062	0.10	0.19	0.28	0.85	1.51
14 Weight of motor/电机重量	g		35	37	37	37	35	33
Limits for continuous operation/电机连续运行区域上限								
15 Max. continuous current/最大连续工作电流	mA		706	432	226	133	161	85
16 Max. continuous torque/最大连续工作转矩	mNm		3.9	3.1	2.4	1.94	3.5	2.2
17 Nominal speed/最大连续工作电流下的转速	rpm		6238	6423	6608	6,561	6468	7095
18 Max. continuous power /最大连续输出功率	W		2.5	2.1	1.7	1.3	2.3	1.6
Dimensions/外形尺寸								

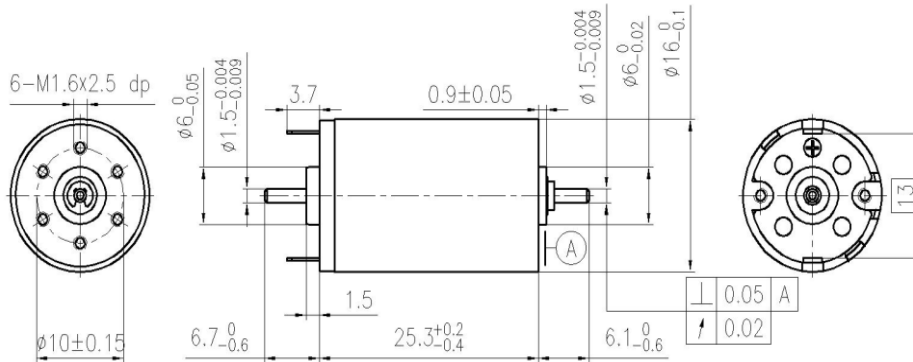


Additional information/其它相关信息

- Axial play (measured at 4N axial force)/轴向间隙 (沿轴向施加4N力时的间隙) 0.05~0.15 mm
- Max. sleeve bearing loads/滑动轴承最大载荷
 - Axial (dynamic)/轴向(动态) 0.8N
 - Radial (4 mm from jamming ring)/径向 (卡簧外4mm) 1.4 N
 - Force for press-fits (static)/最大允许安装力 (静态) 15N
- Max. radial play sleeve bearing/滑动轴承最大径向间隙 0.02 mm
- Ambient temperature range/环境温度范围 -20~+65°C
- Max. rotor temperature/转子承受最高温度 +85°C
- Options: gearbox /其它可选项: 减速器

Ø16mm, graphite brushes, sleeve bearing, with terminals/wires/Ø16mm 石墨电刷, 滑动轴承, 引出片/引出线

1625Series / 1625系列		型号/model	6130.E						
Motor data (25°C)/ 运行参数 (25°C)									
Max. power at short term/短时运行最大功率		W	1						
values at nominal voltage/额定电压下数值									
1 Nominal voltage/额定电压	Volt	5							
2 Terminal resistance/端电阻 ±10%	Ohm	5.20							
3 No-Load speed/空载转速 ±10%	rpm	10,000							
4 No-Load current/空载电流 ≤125%	mA	35							
5 Speed constant/速度常数	rpm/V	2,000							
6 Torque constant/转矩常数	mNm/A	4.6							
7 Starting current/启动电流	mA	962							
8 Stall torque/堵转转矩	mNm	4.4							
9 Mechanical time constant/机械时间常数	ms	10.3							
10 Rotor inertia/转动惯量	gcm ²	0.5							
11 Max. efficiency/最大效率	%	65							
12 Motor inductance/电机电感	mH	0.16							
13 Weight of motor/电机重量	g	19							
Limits for continuous operation/电机连续运行区域上限									
14 Max. continuous current/最大连续工作电流	mA	226							
15 Max. continuous torque/最大连续工作转矩	mNm	1.04							
16 Nominal speed/最大连续工作电流下的转速	rpm	7,654							
17 Max. continuous power /最大连续输出功率	W	0.83							
Dimensions/外形尺寸									

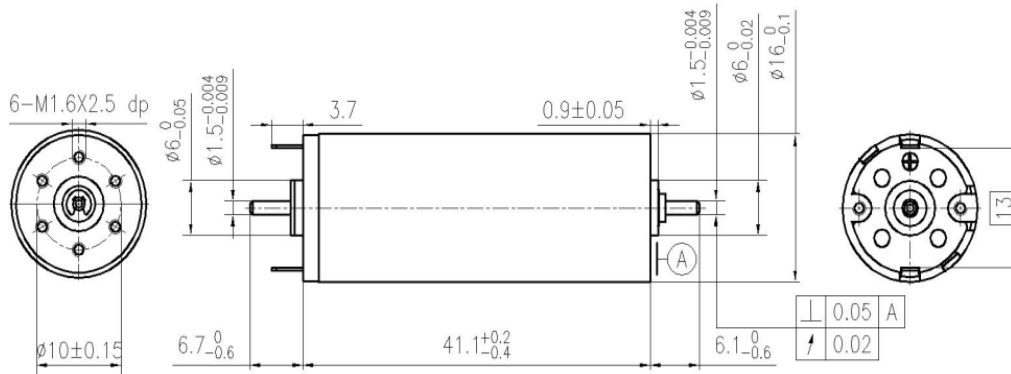


Additional information/其它相关信息

- Axial play (measured at 4N axial force)/轴向间隙 (沿轴向施加4N力时的间隙) 0.05~0.15 mm
- Max. sleeve bearing loads/滑动轴承最大载荷
 - Axial (dynamic)/轴向(动态) 0.8N
 - Radial (4 mm from jamming ring)/径向 (卡簧外4mm) 1.4N
 - Force for press-fits (static)/最大允许安装力 (静态) 15N
- Max. radial play sleeve bearing/滑动轴承最大径向间隙 0.02mm
- Ambient temperature range/环境温度范围 -20~+65°C
- Max. rotor temperature/转子承受最高温度 +85°C
- Options: gearbox, encoder and ball bearings/其它可选项: 减速器、编码器和滚动轴承

Ø16mm,graphite brushes,sleeve bearing,with terminals/wires/Ø16mm石墨电刷, 滑动轴承,引出片/引出线

1641Series / 1641系列		型号/model	9080.S					
Motor data (25°C)/ 运行参数 (25°C)								
Max. power at short term/短时运行最大功率		W	2					
values at nominal voltage/额定电压下数值								
1 Nominal voltage/额定电压	Volt	24						
2 Terminal resistance/端电阻 ±10%	Ohm	34.00						
3 No-Load speed/空载转速 ±10%	rpm	8,400						
4 No-Load current/空载电流 ≤125%	mA	10						
5 Speed constant/速度常数	rpm/V	350						
6 Torque constant/转矩常数	mNm/A	26.9						
7 Starting current/启动电流	mA	706						
8 Stall torque/堵转转矩	mNm	19.0						
9 Mechanical time constant/机械时间常数	ms	5.4						
10 Rotor inertia/转动惯量	gcm ²	0.6						
11 Max. efficiency/最大效率	%	78						
12 Motor inductance/电机电感	mH	1.3						
13 Weight of motor/电机重量	g	32						
Limits for continuous operation/电机连续运行区域上限								
14 Max. continuous current/最大连续工作电流	mA	85						
15 Max. continuous torque/最大连续工作转矩	mNm	2.30						
16 Nominal speed/最大连续工作电流下的转速	rpm	7,384						
17 Max. continuous power /最大连续输出功率	W	1.78						
Dimensions/外形尺寸								

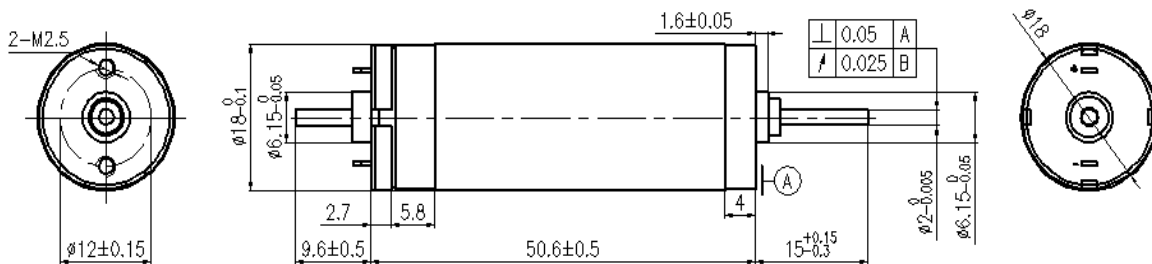


Additional information/其它相关信息

- Axial play (measured at 4N axial force)/轴向间隙 (沿轴向施加4N力时的间隙) 0.05~0.15 mm
- Max. sleeve bearing loads/滑动轴承最大载荷
 - Axial (dynamic)/轴向(动态) 0.8N
 - Radial (4 mm from jamming ring)/径向 (卡簧外4mm) 1.4 N
 - Force for press-fits (static)/最大允许安装力 (静态) 15N
- Max. radial play sleeve bearing/滑动轴承最大径向间隙 0.02mm
- Ambient temperature range/环境温度范围 -20~+65°C
- Max. rotor temperature/转子承受最高温度 +85°C
- Options: gearbox ,encoder and ball bearings/其它可选项: 减速器、编码器和滚动轴承

Ø18mm, Graphite brushes, ball bearing, with terminals/Ø18mm, 碳刷电机, 滚动轴承, 引出片

1850Series / 1850系列		型号/model	4000.A					
Motor data (25°C)/ 运行参数 (25°C)								
1 Assigned power/标称功率	W	5						
2 Nominal voltage/额定电压	Volt	24						
3 Terminal resistance/端电阻 ±10%	Ohm	11.9						
4 No-Load speed/ 空载转速 ±10%	rpm	8300						
5 No-Load current/空载电流 ≤125%	mA	15						
6 Speed constant/速度常数	rpm/V	346						
7 Torque constant/转矩常数	mNm/A	27.40						
8 Starting current/启动电流	mA	2017						
9 Stall torque/堵转转矩	mNm	55.0						
10 Max. efficiency/最大效率	%	83						
11 Weight of motor/电机重量	g	61						
Limits for continuous operation/电机连续运行区域上限								
12 Max. continuous current/最大连续工作电流	mA	262						
13 Max. continuous torque/最大连续工作转矩	mNm	7.20						
14 Nominal speed/最大连续工作电流下的转速	rpm	7224						
15 Max. continuous power/ 最大连续输出功率	W	5.40						
Dimensions/外形尺寸								

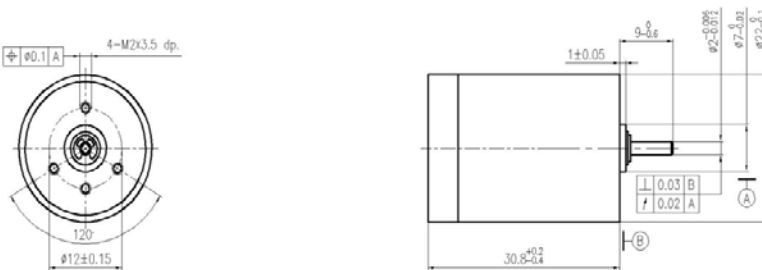


Additional information/其它相关信息

- Axial play (measured at 4N axial force)/轴向间隙 (沿轴向施加4N力时的间隙) 0.05~0.15 mm
- Max. sleeve bearing loads/滑动轴承最大载荷
 - Axial (dynamic)/轴向(动态) 0.8N
 - Radial (4 mm from jamming ring)/径向 (卡簧外4mm) 1.4 N
 - Force for press-fits (static)/最大允许安装力 (静态) 15N
- Max. radial play sleeve bearing/滑动轴承最大径向间隙 0.02 mm
- Ambient temperature range/环境温度范围 -20~+65°C
- Max. rotor temperature/转子承受最高温度 +85°C
- Options: gearbox or encoder/其它可选项: 减速器或编码器

Ø22mm, precious metal brushes, sleeve bearing, with wires/Ø22mm 贵金属电刷, 滑动轴承, 引出线

2230 Series / 2230系列		型号/model	2135.A	2120.A	2218.A	2216.A	2214.A	2211.A
Motor data (25°C) / 运行参数 (25°C)								
1 Assigned power/标称功率	W		3.95	2.7	3.1	3.3	3.2	2.4
2 Nominal voltage/额定电压	Volt		3	6	9	12	15	18
3 Terminal resistance/端电阻 ±10%	Ohm		0.4	1.9	4.3	6.8	9.8	19.9
4 No-Load speed/空载转速 ±10%	rpm		7450	7400	7580	7550	7670	7500
5 No-Load current/空载电流 ≤125%	mA		80	24	19.5	14.7	12.1	9.1
6 Speed constant/速度常数	rpm/V		2483	1233	842	629	511	417
7 Torque constant/转矩常数	mNm/A		3.8	7.7	11.2	15.1	18.5	22.7
8 Starting current/启动电流	mA		7895	3209	2093	1770	1524	905
9 Stall torque/堵转转矩	mNm		30.1	24.7	23.5	26.7	28.3	20.5
10 Mechanical time constant/机械时间常数	ms		18.3	11.3	19.4	15.6	14.8	13.6
11 Rotor inertia/转动惯量	gcm ²		5.4	3	4.9	4.5	4.3	3
12 Max. efficiency/最大效率	%		81	83	82	83	83	81
13 Motor inductance/电机电感	mH		0.104	0.10	0.33	0.49	0.68	0.944
14 Weight of motor/电机重量	g		46	48	45	46	46	46
Limits for continuous operation/电机连续运行区域上限								
15 Max. continuous current/最大连续工作电流	mA		1682	534	432	342	262	161
16 Max. continuous torque/最大连续工作转矩	mNm		6.4	4.1	4.9	5.1	4.8	3.7
17 Nominal speed/最大连续工作电流下的转速	rpm		5863	6169	6014	6093	6354	6161
18 Max. continuous power /最大连续输出功率	W		3.9	2.6	3.1	3.3	3.2	2.4
Dimensions/外形尺寸								

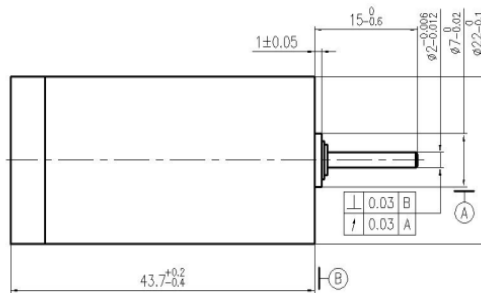
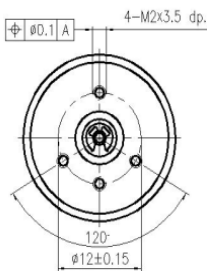


Additional information/其它相关信息

- Axial play (measured at 4N axial force)/轴向间隙 (沿轴向施加4N力时的间隙) 0.05~0.15 mm
- Max. sleeve bearing loads/滑动轴承最大载荷
 - Axial (dynamic)/轴向(动态) 1.0N
 - Radial (4 mm from jamming ring)/径向 (卡簧外4mm) 2.7N
 - Force for press-fits (static)/最大允许安装力 (静态) 80N
- Max. radial play sleeve bearing/滑动轴承最大径向间隙 0.02 mm
- Ambient temperature range/环境温度范围 -20~+65°C
- Max. rotor temperature/转子承受最高温度 +85°C
- Options: gearbox and ball bearings/其它可选项: 减速器和滚动轴承

Ø22mm, precious metal brushes, sleeve bearing, with wires/Ø22mm 贵金属电刷, 滑动轴承, 引出线

2243 Series / 2243系列		型号/model	5125.A	5225.A	5218.A	5216.A			
Motor data (25°C) / 运行参数 (25°C)									
1 Assigned power/标称功率	W		6.6	8.4	6.6	7.1			
2 Nominal voltage/额定电压	Volt		9	12	18	24			
3 Terminal resistance/端电阻 ±10%	Ohm		1.3	2.2	6.3	9.1			
4 No-Load speed/空载转速 ±10%	rpm		7130	7350	7280	7500			
5 No-Load current/空载电流 ≤125%	mA		38.2	38.2	12.5	13.3			
6 Speed constant/速度常数	rpm/V		792	613	404	313			
7 Torque constant/转矩常数	mNm/A		12.0	15.5	23.5	30.4			
8 Starting current/启动电流	mA		6767	5455	2880	2652			
9 Stall torque/堵转转矩	mNm		81.1	84.5	67.7	80.7			
10 Mechanical time constant/机械时间常数	ms		5.4	9	9.8	7.4			
11 Rotor inertia/转动惯量	gcm ²		4.6	8.2	6.9	6.3			
12 Max. efficiency/最大效率	%		86	88	87	86			
13 Motor inductance/电机电感	mH		0.1	0.22	0.50	0.72			
14 Weight of motor/电机重量	g		73	71	69	70			
Limits for continuous operation/电机连续运行区域上限									
15 Max. continuous current/最大连续工作电流	mA		834	834	432	342			
16 Max. continuous torque/最大连续工作转矩	mNm		10.0	12.9	10.2	10.4			
17 Nominal speed/最大连续工作电流下的转速	rpm		6251	6226	6187	6534			
18 Max. continuous power /最大连续输出功率	W		6.5	8.4	6.6	7.1			
Dimensions/外形尺寸									

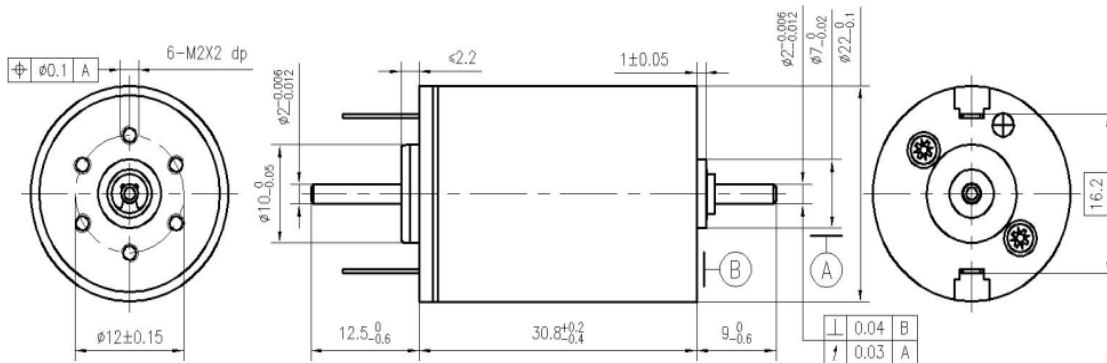


Additional information/其它相关信息

- Axial play (measured at 4N axial force)/轴向间隙 (沿轴向施加4N力时的间隙) 0.05~0.15 mm
- Max. sleeve bearing loads/滑动轴承最大载荷
 - Axial (dynamic)/轴向(动态) 1.0N
 - Radial (4 mm from jamming ring)/径向 (卡簧外4mm) 2.7N
 - Force for press-fits (static)/最大允许安装力 (静态) 80N
- Max. radial play sleeve bearing/滑动轴承最大径向间隙 0.02 mm
- Ambient temperature range/环境温度范围 -20~+65°C
- Max. rotor temperature/转子承受最高温度 +85°C
- Options: gearbox and ball bearings/其它可选项: 减速器和滚动轴承

Ø22mm, graphite brushes, sleeve bearing, with terminals/wires/Ø22mm 石墨电刷, 滑动轴承, 引出片/引出线

2230Series / 2230系列		型号/model	6280.E	6200.E	6200.T	6180.S	6130.S		
Motor data (25°C)/ 运行参数 (25°C)									
Max. power at short term/短时运行最大功率		W	6	5	6	6	5		
values at nominal voltage/额定电压下数值									
1 Nominal voltage/额定电压	Volt		6	9	12	15	24		
2 Terminal resistance/端电阻 ±10%	Ohm		0.90	2.00	3.78	5.20	19.3		
3 No-Load speed/空载转速 ±10%	rpm		8,900	9,040	7,400	8,300	8,950		
4 No-Load current/空载电流 ≤125%	mA		94	50	36	29.1	16.0		
5 Speed constant/速度常数	rpm/V		1,483	1,004	617	553	373		
6 Torque constant/转矩常数	mNm/A		6.4	9.4	15.3	17.1	25.3		
7 Starting current/启动电流	mA		6,667	4,500	3,175	2,885	1,244		
8 Stall torque/堵转转矩	mNm		42.3	42.3	49	49	31		
9 Mechanical time constant/机械时间常数	ms		5.6	5.2	5.2	4.9	4.3		
10 Rotor inertia/转动惯量	gcm ²		11.1	10.4	8.4	9.0	10.3		
11 Max. efficiency/最大效率	%		81	81	80	81	79		
12 Motor inductance/电机电感	mH		0.3	0.5	0.3	0.3	0.4		
13 Weight of motor/电机重量	g		55	56	53	53	54		
Limits for continuous operation/电机连续运行区域上限									
14 Max. continuous current/最大连续工作电流	mA		1,046	534	534	432	226		
15 Max. continuous torque/最大连续工作转矩	mNm		6.64	5.02	8.18	7.4	5.7		
16 Nominal speed/最大连续工作电流下的转速	rpm		7,503	7,968	6,156	7,056	7,327		
17 Max. continuous power /最大连续输出功率	W		5.22	4.19	5.27	5.5	4.37		
Dimensions/外形尺寸									

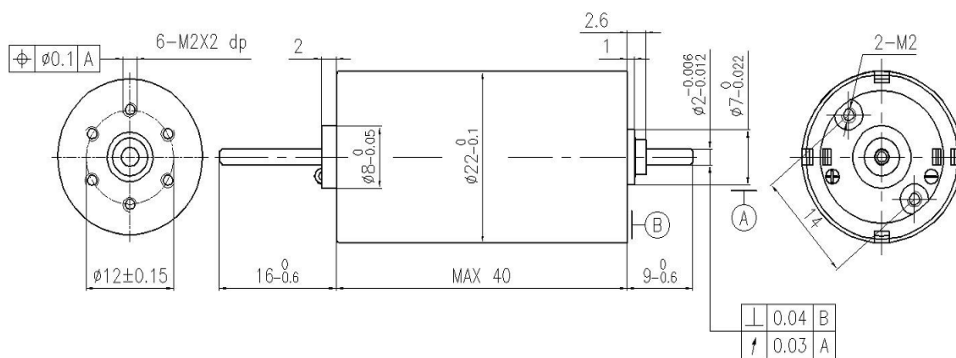


Additional information/其它相关信息

- Axial play (measured at 4N axial force)/轴向间隙 (沿轴向施加4N力时的间隙) 0.05~0.15 mm
- Max. sleeve bearing loads/滑动轴承最大载荷
 - Axial (dynamic)/轴向(动态) 1.0N
 - Radial (4 mm from jamming ring)/径向 (卡簧外4mm) 2.7N
 - Force for press-fits (static)/最大允许安装力 (静态) 80N
- Max. radial play sleeve bearing/滑动轴承最大径向间隙 0.02mm
- Ambient temperature range/环境温度范围 -20~+65°C
- Max. rotor temperature/转子承受最高温度 +85°C
- Options: gearbox, encoder and ball bearings/其它可选项: 减速器、编码器和滚动轴承

Ø22mm,graphite brushes,sleeve bearing,with terminals / Ø22mm, 石墨电刷, 滑动轴承, 引出片

2239Series / 2239系列		型号/model	7230.E	7230.S	7180.S	7120.S			
Motor data (25°C) / 运行参数 (25°C)									
Max. power at short term/短时运行最大功率	W		7	9	10	7			
values at nominal voltage/额定电压下数值									
1 Nominal voltage/额定电压	Volt		12	15	24	36			
2 Terminal resistance/端电阻	±10% Ohm		2.2	4.4	6.2	16.8			
3 No-Load speed/空载转速	±10% rpm		8,380	8,000	8,688	8,240			
4 No-Load current/空载电流	≤125% mA		39	25	39	20			
5 Speed constant/速度常数	rpm/V		698	533	362	229			
6 Torque constant/转矩常数	mNm/A		12.8	17.8	26.1	41.4			
7 Starting current/启动电流	mA		5,357	3,409	3,871	2,143			
8 Stall torque/堵转转矩	mNm		68.8	60.6	101.1	88.6			
9 Mechanical time constant/机械时间常数	ms		5.4	5.4	9.8	7.2			
10 Rotor inertia/转动惯量	gc·m ²		11.0	10.7	6.9	6.2			
11 Max. efficiency/最大效率	%		57	84	81	82			
12 Inductance/电机电感	mH		0.40	0.22	0.40	0.60			
13 Weight/电机重量	g		70	71	70	70			
Limits for continuous operation/电机连续运行区域上限									
14 Max. continuous current/最大连续工作电流	mA		706	706	433	192			
15 Max. continuous torque/最大连续工作转矩	mNm		9.06	12.55	11.30	7.95			
16 Nominal speed/最大连续工作电流下的转速	rpm		7,276	6,343	7,716	7,501			
17 Max. continuous power /最大连续输出功率	W		6.9	8.3	9.1	6.2			
Dimensions/外形尺寸									

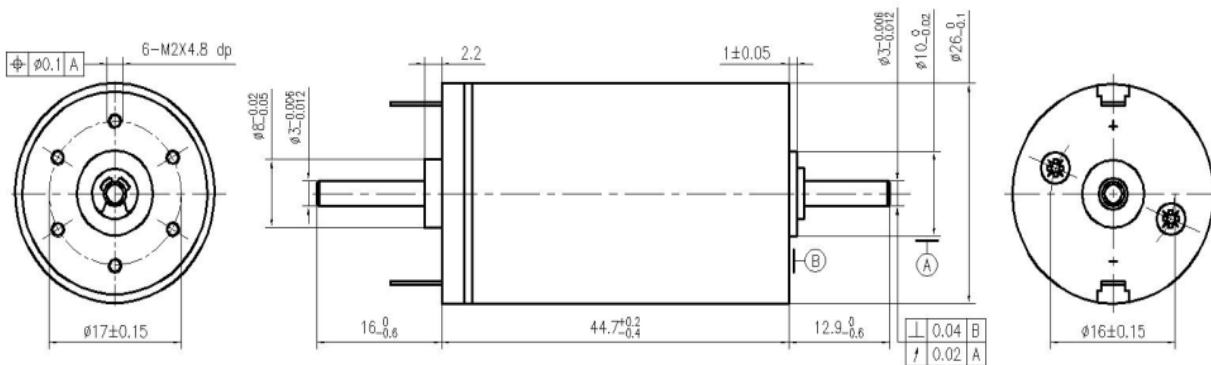


Additional information/其它相关信息

- Axial play (measured at 4N axial force)/轴向间隙 (沿轴向施加4N力时的间隙) 0.05~0.15 mm
- Max. sleeve bearing loads/滑动轴承最大载荷
 - Axial (dynamic)/轴向(动态) 1.0N
 - Radial (4 mm from jamming ring)/径向 (卡簧外4mm) 2.7N
 - Force for press-fits (static)/最大允许安装力 (静态) 80N
- Max. radial play sleeve bearing/滑动轴承最大径向间隙 0.02mm
- Ambient temperature range/环境温度范围 -20~+65°C
- Max. rotor temperature/转子承受最高温度 +85°C
- Options: gearbox ,encoder and ball bearings/其它可选项: 减速器、编码器和滚动轴承

Ø26mm, graphite brushes, sleeve bearing, with terminals/Ø26mm石墨电刷, 滑动轴承,引出片

2644Series / 2644系列		型号/model	6400.E	6315.E	6280.E	6250.S	6230.S	6200.S
Motor data (25°C)/ 运行参数 (25°C)								
Max. power at short term/短时运行最大功率		W	25	25	25	25	25	25
values at nominal voltage/额定电压下数值								
1 Nominal voltage/额定电压	Volt		12	15	18	24	32	36
2 Terminal resistance/端电阻 ±10%	Ohm		0.56	0.87	1.17	3.08	3.8	5.300
3 No-Load speed/空载转速 ±10%	rpm		10,200	9,900	9,600	8,300	9,800	10,000
4 No-Load current/空载电流 ≤125%	mA		200	170	150	87.0	60.0	40
5 Speed constant/速度常数	rpm/V		833	667	556	346	313	278
6 Torque constant/转矩常数	mNm/A		11.4	14.2	17.0	27.3	30.4	34.2
7 Starting current/启动电流	mA		21,429	17,241	15,385	7,792	8,421	6,792
8 Stall torque/堵转转矩	mNm		243.4	244.7	262	213	256	232
9 Mechanical time constant/机械时间常数	ms		7.0	6.6	5.8	6.7	6.4	6.0
10 Rotor inertia/转动惯量	gcm ²		20.1	16.3	11.1	18.1	15.3	11.3
11 Max. efficiency/最大效率	%		82	81	81	80	84	85
12 Motor inductance/电机电感	mH		0.27	0.15	0.11	0.43	0.55	1.24
13 Weight of motor/电机重量	g		109	110	110	108	109	107
Limits for continuous operation/电机连续运行区域上限								
14 Max. continuous current/最大连续工作电流	mA		2,136	1,325	1,047	834	700	534
15 Max. continuous torque/最大连续工作转矩	mNm		24.26	18.80	17.83	22.8	21.3	18
16 Nominal speed/最大连续工作电流下的转速	rpm		9,003	9,232	9,319	7,412	9,169	9,214
17 Max. continuous power /最大连续输出功率	W		22.86	18.17	17.39	17.7	20.39	17.6
Dimensions/外形尺寸								

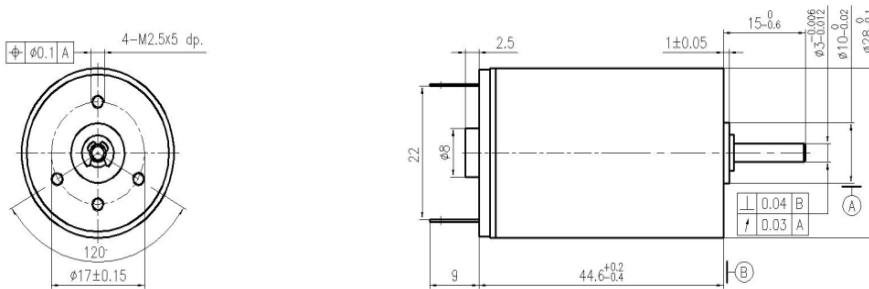


Additional information/其它相关信息

- Axial play (measured at 4N axial force)/轴向间隙 (沿轴向施加4N力时的间隙) 0.05~0.15 mm
- Max. sleeve bearing loads/滑动轴承最大载荷
 - Axial (dynamic)/轴向(动态) 1.7N
 - Radial (4 mm from jamming ring)/径向 (卡簧外4mm) 5.5N
 - Force for press-fits (static)/最大允许安装力 (静态) 80N
- Max. radial play sleeve bearing/滑动轴承最大径向间隙 0.02mm
- Ambient temperature range/环境温度范围 -20~+65°C
- Max. rotor temperature/转子承受最高温度 +85°C
- Weight of motor/电机重量
- Options: gearbox, encoder and ball bearings/其它可选项: 减速器、编码器和滚动轴承

Ø28mm, precious metal brushes, sleeve bearing, with terminals/Ø28mm 贵金属电刷, 滑动轴承, 引出片

2844 Series / 2844系列		型号/model	2125.A	2223.A	2220.A	2215.A		
Motor data (25°C) / 运行参数 (25°C)								
1 Assigned power/标称功率	W		8.8	10.8	10.9	9.4		
2 Nominal voltage/额定电压	Volt		12	18	24	36		
3 Terminal resistance/端电阻 ±10%	Ohm		1.7	3.9	6.7	15.3		
4 No-Load speed/空载转速 ±10%	rpm		5760	5220	5600	5610		
5 No-Load current/空载电流 ≤125%	mA		40	20	17.1	11.3		
6 Speed constant/速度常数	rpm/V		480	290	233	156		
7 Torque constant/转矩常数	mNm/A		19.8	32.8	40.8	61.0		
8 Starting current/启动电流	mA		7186	4675	3593	2353		
9 Stall torque/堵转转矩	mNm		142.2	153.4	146.4	143.6		
10 Mechanical time constant/机械时间常数	ms		5.2	9.5	8.2	6		
11 Rotor inertia/转动惯量	gcm ²		11.2	18.4	17.6	13.2		
12 Max. efficiency/最大效率	%		86	87	87	87		
13 Motor inductance/电机电感	mH		0.13	0.48	0.75	1.37		
14 Weight of motor/电机重量	g		126	120	118	122		
Limits for continuous operation/电机连续运行区域上限								
15 Max. continuous current/最大连续工作电流	mA		834	706	534	300		
16 Max. continuous torque/最大连续工作转矩	mNm		16.5	23.2	21.8	18.3		
17 Nominal speed/最大连续工作电流下的转速	rpm		5091	4432	4768	4894		
18 Max. continuous power /最大连续输出功率	W		8.8	10.7	10.9	9.4		
Dimensions/外形尺寸								

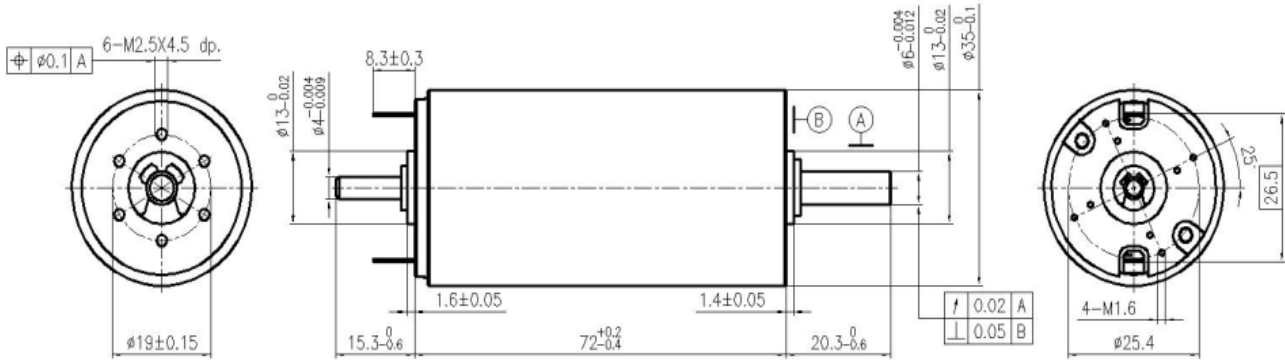


Additional information/其它相关信息

- Axial play (measured at 4N axial force)/轴向间隙 (沿轴向施加4N力时的间隙) 0.05~0.15 mm
- Max. sleeve bearing loads/滑动轴承最大载荷
 - Axial (dynamic)/轴向(动态) 1.7N
 - Radial (4 mm from jamming ring)/径向 (卡簧外4mm) 5.5N
 - Force for press-fits (static)/最大允许安装力 (静态) 80N
- Max. radial play sleeve bearing/滑动轴承最大径向间隙 0.02 mm
- Ambient temperature range/环境温度范围 -20~+65°C
- Max. rotor temperature/转子承受最高温度 +85°C
- Options: gearbox and ball bearings/其它可选项: 减速器和滚动轴承

Ø35mm, graphite brushes, ball bearing, with terminals/Ø35mm石墨电刷, 滚动轴承,引出片

3572 Series / 3572系列		型号/model	7450.R	3000.A	7450.S				
Motor data (25°C) / 运行参数 (25°C)									
Max. power at short term/短时运行最大功率	W		90	90	90				
values at nominal voltage/额定电压下数值									
1 Nominal voltage/额定电压	Volt		18	24	36				
2 Terminal resistance/端电阻	±10% Ohm		0.3	0.5	1.2				
3 No-Load speed/ 空载转速	±10% rpm		7,500	8,000	7,950				
4 No-Load current/空载电流	≤125% mA		413	122	225				
5 Speed constant/速度常数	rpm/V		417	333	221				
6 Torque constant/转矩常数	mNm/A		22.8	28.6	42.9				
7 Starting current/启动电流	mA		60,000	47,059	30,000				
8 Stall torque/堵转转矩	mNm		1,366	1,345.3	1,288.2				
9 Max. efficiency/最大效率	%		84	90	83				
Limits for continuous operation/电机连续运行区域上限									
10 Max. continuous current/最大连续工作电流	mA		5,723	4,121	2,861				
11 Max. continuous torque/最大连续工作转矩	mNm		130.3	117.82	122.86				
12 Nominal speed/最大连续工作电流下的转速	rpm		6,785	7,299	7,192				
13 Max. continuous power /最大连续输出功率	W		92.5	90.0	92.5				
Dimensions/外形尺寸									

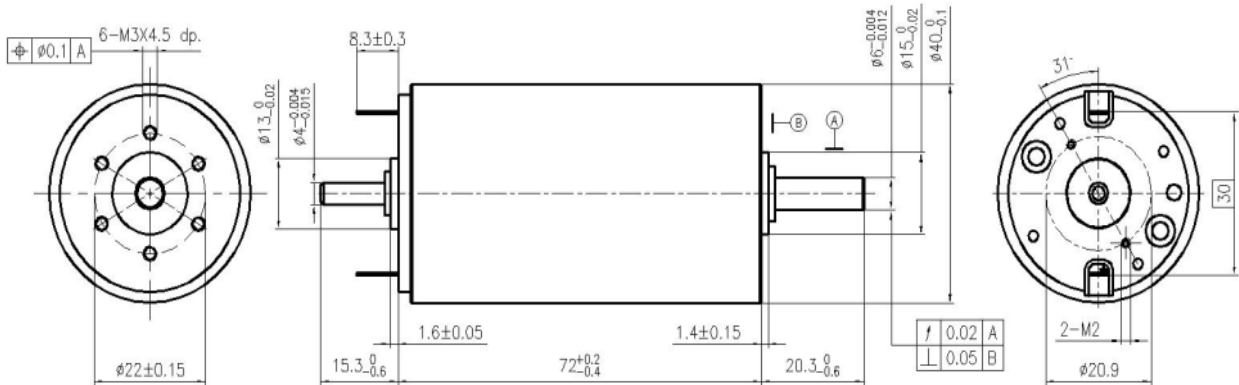


Additional information/其它相关信息

- Axial play (measured at 4N axial force)/轴向间隙 (沿轴向施加4N力时的间隙) 0.02~0.07 mm
- Max. ball bearing loads/滚动轴承最大载荷
 - Axial (dynamic)/轴向(动态) 5.6N
 - Radial (4 mm from jamming ring)/径向 (卡簧外4mm) 28N
 - Force for press-fits (static)/最大允许安装力 (静态) 110N
- Max. radial play ball bearing/滚动轴承最大径向间隙 0.025 mm
- Ambient temperature range/环境温度范围 -20~+65°C
- Max. rotor temperature/转子承受最高温度 +85°C
- Extreme ambient temperature range/环境极限温度 -40~+85°C (Customized/需定制)
- Max. rotor temperature/转子承受最高温度 +125°C (Customized/需定制)
- Options: gearbox, encoder and rolling bearings/其它可选项: 减速器、编码器和滑动轴承

Ø40mm, graphite brushes, ball bearing, with terminals/Ø40mm石墨电刷, 滚动轴承,引出片

4072 Series /4072系列		型号/model	4000.C	4000.L	4000.F			
Motor data (25°C)/ 运行参数 (25°C)								
Max. power at short term/短时运行最大功率	W		150	150	150			
values at nominal voltage/额定电压下数值								
1 Nominal voltage/额定电压	Volt		24	30	48			
2 Terminal resistance/端电阻	±10% Ohm		0.3	0.6	1.3			
3 No-Load speed/ 空载转速	±10% rpm		8,000	7,875	7,600			
4 No-Load current/空载电流	≤125% mA		360.0	306	67			
5 Speed constant/速度常数	rpm/V		333	263	158			
6 Torque constant/转矩常数	mNm/A		28.5	36.2	60.2			
7 Starting current/启动电流	mA		80,000	50,000	36,923			
8 Stall torque/堵转转矩	mNm		2,283	1,809	2,224			
9 Max. efficiency/最大效率	%		87	85	92			
Limits for continuous operation/电机连续运行区域上限								
11 Max. continuous current/最大连续工作电流	mA		7,065	5,778	3,497			
12 Max. continuous torque/最大连续工作转矩	mNm		201.59	209.0	210.65			
13 Nominal speed/最大连续工作电流下的转速	rpm		7,294	6,965	6,880			
14 Max. continuous power /最大连续输出功率	W		153.9	152.4	151.7			
Dimensions/外形尺寸								



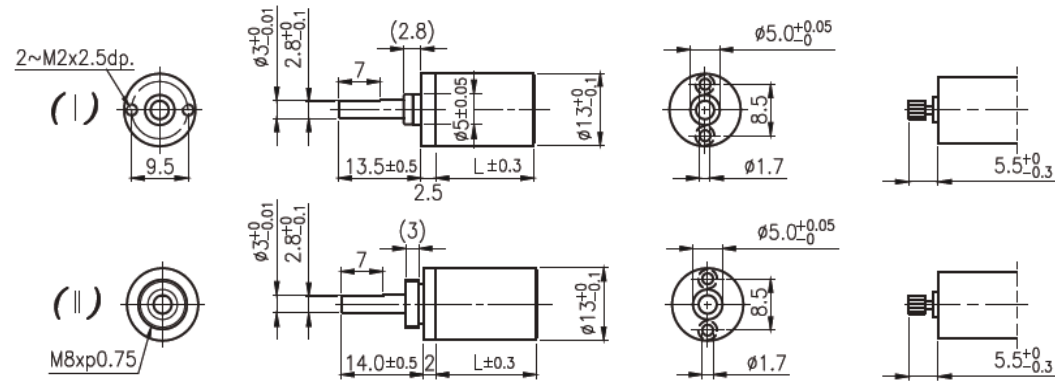
Additional information/其它相关信息

- Axial play (measured at 4N axial force)/轴向间隙 (沿轴向施加4N力时的间隙) 0.02~0.07 mm
- Max. ball bearing loads/滚动轴承最大载荷
 - Axial (dynamic)/轴向(动态) 5.6N
 - Radial (4 mm from jamming ring)/径向 (卡簧外4mm) 28N
 - Force for press-fits (static)/最大允许安装力 (静态) 110N
- Max. radial play ball bearing/滚动轴承最大径向间隙 0.025 mm
- Ambient temperature range/环境温度范围 -20~+65°C
- Max. rotor temperature/转子承受最高温度 +85°C
- Extreme ambient temperature range/环境极限温度 -40~+85°C (Customized/需定制)
- Max. rotor temperature/转子承受最高温度 +125°C (Customized/需定制)
- Options: gear box, encoder and rolling bearings/其它可选项: 减速器、编码器和滑动轴承



Planetary Gearbox

Diameter:13mm



Gearbox Number	Reduction Ratio	Rated Torque	Max. Momentary tolerance torque	Efficiency	Radial play of shaft	Axial play of shaft	L	Weight(I)	Weight(II)
		kgcm	kgcm		%	mm			
P 13A0004-11100	4	0.8	2.4	85	≤0.08	≤0.2	10.3	10.7	11.2
P 13A0016-12100	16	1.2	3.6	75	≤0.08	≤0.2	13.6	12.8	13.3
P 13A0064-13100	64	1.6	4.8	65	≤0.08	≤0.2	16.9	14.9	15.4
P 13A0256-14100	256	1.8	5.4	55	≤0.08	≤0.2	20.2	17	17.5
P 13A1024-15100	1024	2	6	45	≤0.08	≤0.2	23.5	19.1	19.6
P 13A4096-15100	4096	2	6	40	≤0.08	≤0.2	26.8	21.2	21.7

Planetary Gearbox

Diameter:16mm

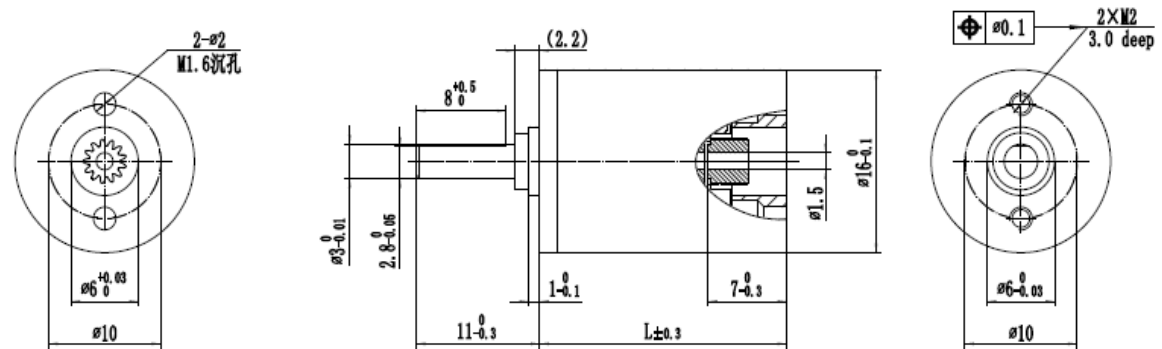
Material of housing: stainless steel

Material of gears: steel

Material of mounting flange: aluminium alloy

Max. axial load: 8N

Max. radial load:10N



Gearbox Number	Reduction Ratio	Rated Torque	Max. Momentary tolerance torque	Efficiency	No-load Backlash	Radial play of shaft	Axial play of shaft	L	Weight
		kgcm	kgcm	%		mm	mm		
P16H0003-51000	3.79	2	3	90	$\leq 1^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	14.80	15
P16H0004-51000	4.31	2	3	90	$\leq 1^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	14.80	15
P16H0005-51000	5.08	2	3	90	$\leq 1^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	14.80	15
P16H0014-52000	14.36	2	3	81	$\leq 1.5^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	18.40	20
P16H0016-52000	16.34	2	3	81	$\leq 1.5^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	18.40	20
P16H0018-52000	18.06	2	3	81	$\leq 1.5^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	18.40	20
P16H0021-52000	21.89	2	3	82	$\leq 1.5^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	18.40	20
P16H0054-53000	54.42	3	4.5	73	$\leq 1.5^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	22.00	25
P16H0070-53000	70.48	3	4.5	73	$\leq 1.5^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	22.00	25
P16H0080-53000	80.20	3	4.5	73	$\leq 1.5^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	22.00	25
P16H0094-53000	94.42	3	4.5	73	$\leq 1.5^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	22.00	25
P16H0111-53000	111.16	3	4.5	73	$\leq 1.5^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	22.00	25
P16H0130-53000	130.86	3	4.5	73	$\leq 1.5^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	22.00	25
P16H0206-54000	206.21	3	4.5	65	$\leq 2^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	25.60	30
P16H0267-54000	267.06	3	4.5	65	$\leq 2^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	25.60	30
P16H0303-54000	303.92	3	4.5	65	$\leq 2^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	25.60	30
P16H0407-54000	407.18	3	4.5	65	$\leq 2^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	25.60	30
P16H0479-54000	479.36	3	4.5	65	$\leq 2^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	25.60	30
P16H0664-54000	664.36	3	4.5	65	$\leq 2^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	25.60	30
P16H1012-55000	1012.03	3.5	5	59	$\leq 2^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	29.20	35
P16H1151-55000	1151.72	3.5	5	59	$\leq 2^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	29.20	35
P16H1310-55000	1310.68	3.5	5	59	$\leq 2^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	29.20	35
P16H1491-55000	1491.58	3.5	5	59	$\leq 2^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	29.20	35

P16H1596-55000	1596.20	3.5	5	59	$\leq 2^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	29.20	35
P16H2067-55000	2067.23	3.5	5	59	$\leq 2^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	29.20	35
P16H2433-55000	2433.66	3.5	5	59	$\leq 2^\circ$	$\leq 0.1\text{mm}$	$\leq 0.2\text{mm}$	29.20	35

Planetary Gearbox

Diameter:22mm

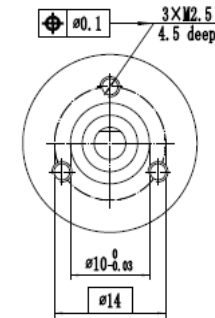
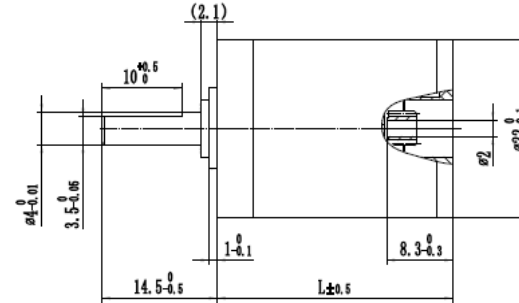
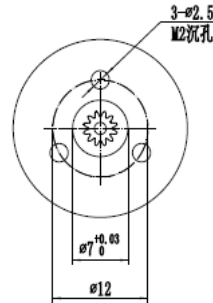
Material of housing: stainless steel

Material of gears: steel

Material of mounting flange: aluminium alloy

Max. axial load: 20N

Max. radial load:20N



Gearbox Number	Reduction Ratio	Rated Torque	Max. Momentary tolerance torque	Efficiency	No-load Backlash	Radial play of shaft	Axial play of shaft	L	Weight
		kgcm	kgcm	%		mm	mm		
P22H0003-51000	3.57	2	3	90	≤1.2°	≤0.04mm	≤0.04mm	22.10	30
P22H0004-51000	4.6	2	3	90	≤1.2°	≤0.04mm	≤0.04mm	22.10	30
P22H0012-52000	12.76	3	5	81	≤1.5°	≤0.04mm	≤0.04mm	25.90	35
P22H0016-52000	16.43	3	5	81	≤1.5°	≤0.04mm	≤0.04mm	25.90	35
P22H0021-52000	21.16	3	5	81	≤1.5°	≤0.04mm	≤0.04mm	25.90	35
P22H0045-53000	45.55	5	8	73	≤1.8°	≤0.04mm	≤0.04mm	29.70	46
P22H0058-53000	58.67	5	8	73	≤1.8°	≤0.04mm	≤0.04mm	29.70	46
P22H0075-53000	75.57	5	8	73	≤1.8°	≤0.04mm	≤0.04mm	29.70	46
P22H0097-53000	97.34	5	8	73	≤1.8°	≤0.04mm	≤0.04mm	29.70	46
P22H0162-54000	162.69	5	8	65	≤1.8°	≤0.04mm	≤0.04mm	33.50	55
P22H0209-54000	209.55	5	8	65	≤1.8°	≤0.04mm	≤0.04mm	33.50	55
P22H0269-54000	269.9	5	8	65	≤1.8°	≤0.04mm	≤0.04mm	33.50	55
P22H0347-54000	347.63	5	8	65	≤1.8°	≤0.04mm	≤0.04mm	33.50	55
P22H0447-54000	447.75	5	8	65	≤1.8°	≤0.04mm	≤0.04mm	33.50	55
P22H0581-55000	581.05	5	8	59	≤1.8°	≤0.04mm	≤0.04mm	37.30	55
P22H0748-55000	748.39	5	8	59	≤1.8°	≤0.04mm	≤0.04mm	37.30	55
P22H0963-55000	963.92	5	8	59	≤1.8°	≤0.04mm	≤0.04mm	37.30	55
P22H1241-55000	1241.53	5	8	59	≤1.8°	≤0.04mm	≤0.04mm	37.30	55
P22H1599-55000	1599.09	5	8	59	≤1.8°	≤0.04mm	≤0.04mm	37.30	55
P22H2059-55000	2059.63	5	8	59	≤1.8°	≤0.04mm	≤0.04mm	37.30	55

Planetary Gearbox

Diameter:22mm

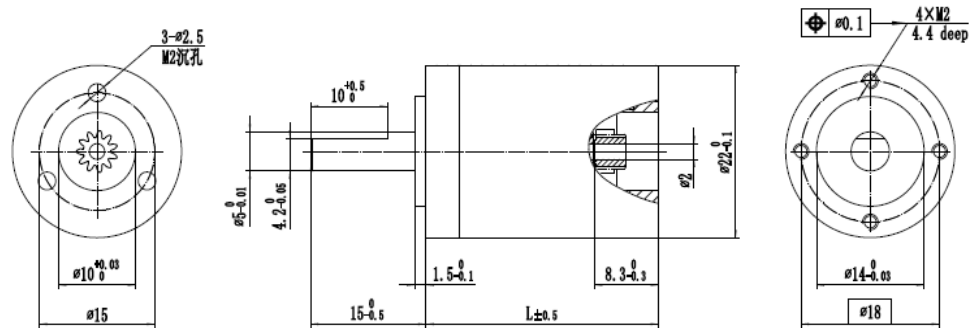
Material of housing: stainless steel

Material of gears: steel

Material of mounting flange: aluminium alloy

Max. axial load: 10N

Max. radial load:10N



Gearbox Number	Reduction Ratio	Rated Torque	Max. Momentary tolerance torque	Efficiency	No-load Backlash	Radial play of shaft	Axial play of shaft	L
		kgcm	kgcm	%		mm	mm	
P22J0003-51000	3.71	5	10	90	$\leq 0.8^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	20.30
P22J0004-51000	4.29	5	10	90	$\leq 0.8^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	20.30
P22J0010-52000	10.89	10	20	81	$\leq 1.2^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	24.40
P22J0012-52000	12.23	10	20	81	$\leq 1.2^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	24.40
P22J0013-52000	13.73	10	20	81	$\leq 1.2^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	24.40
P22J0014-52000	14.14	10	20	81	$\leq 1.2^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	24.40
P22J0015-52000	15.88	10	20	81	$\leq 1.2^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	24.40
P22J0018-52000	18.37	10	20	81	$\leq 1.2^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	24.40
P22J0019-52000	19.20	10	20	81	$\leq 1.2^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	24.40
P22J0022-52000	22.21	10	20	81	$\leq 1.2^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	24.40
P22J0026-52000	26.85	10	20	81	$\leq 1.2^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	24.40
P22J0035-53000	35.94	20	40	73	$\leq 1.5^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	30.20
P22J0040-53000	40.36	20	40	73	$\leq 1.5^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	30.20
P22J0045-53000	45.32	20	40	73	$\leq 1.5^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	30.20
P22J0046-53000	46.67	20	40	73	$\leq 1.5^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	30.20
P22J0050-53000	50.89	20	40	73	$\leq 1.5^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	30.20
P22J0052-53000	52.41	20	40	73	$\leq 1.5^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	30.20
P22J0058-53000	58.86	20	40	73	$\leq 1.5^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	30.20
P22J0060-53000	60.61	20	40	73	$\leq 1.5^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	30.20
P22J0068-53000	68.07	20	40	73	$\leq 1.5^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	30.20
P22J0071-53000	71.17	20	40	73	$\leq 1.5^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	30.20
P22J0078-53000	78.72	20	40	73	$\leq 1.5^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	30.20
P22J0118-54000	118.59	20	40	65	$\leq 1.5^\circ$	$\leq 0.01\text{mm}$	$\leq 0.01\text{mm}$	34.30

P22J0133-54000	133.18	20	40	65	≤1.5°	≤0.01mm	≤0.01mm	34.30
P22J0149-54000	149.56	20	40	65	≤1.5°	≤0.01mm	≤0.01mm	34.30
P22J0154-54000	154.02	20	40	65	≤1.5°	≤0.01mm	≤0.01mm	34.30
P22J0167-54000	167.95	20	40	65	≤1.5°	≤0.01mm	≤0.01mm	34.30
P22J0172-54000	172.96	20	40	65	≤1.5°	≤0.01mm	≤0.01mm	34.30
P22J0188-54000	188.61	20	40	65	≤1.5°	≤0.01mm	≤0.01mm	34.30
P22J0194-54000	194.23	20	40	65	≤1.5°	≤0.01mm	≤0.01mm	34.30
P22J0200-54000	200.02	20	40	65	≤1.5°	≤0.01mm	≤0.01mm	34.30
P22J0218-54000	218.12	20	40	65	≤1.5°	≤0.01mm	≤0.01mm	34.30
P22J0224-54000	224.62	20	40	65	≤1.5°	≤0.01mm	≤0.01mm	34.30
P22J0252-54000	252.25	20	40	65	≤1.5°	≤0.01mm	≤0.01mm	34.30
P22J0259-54000	259.77	20	40	65	≤1.5°	≤0.01mm	≤0.01mm	34.30
P22J0291-54000	291.72	20	40	65	≤1.5°	≤0.01mm	≤0.01mm	34.30
P22J0337-54000	337.36	20	40	65	≤1.5°	≤0.01mm	≤0.01mm	34.30
P22J0391-55000	391.35	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J0439-55000	439.49	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J0493-55000	493.54	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J0508-55000	508.25	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J0544-55000	544.25	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J0622-55000	622.42	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J0640-55000	640.97	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J0660-55000	660.07	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J0698-55000	698.97	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J0719-55000	719.80	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J0741-55000	741.25	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J0808-55000	808.33	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J0832-55000	832.42	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J0857-55000	857.23	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J0934-55000	934.81	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J0962-55000	962.67	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J1113-55000	1113.29	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40
P22J1250-55000	1250.21	20	40	59	≤1.5°	≤0.01mm	≤0.01mm	38.40

Planetary Gearbox

Diameter:28mm

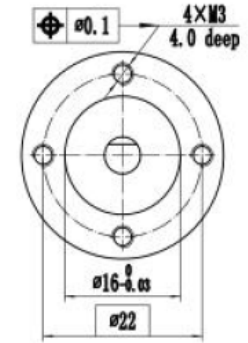
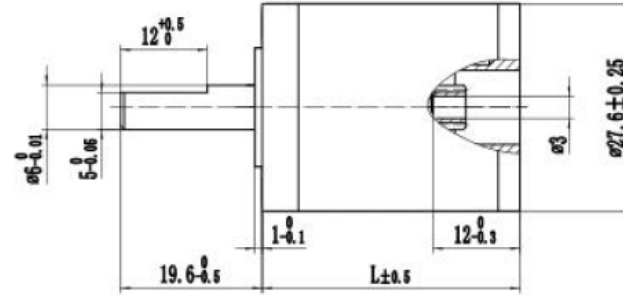
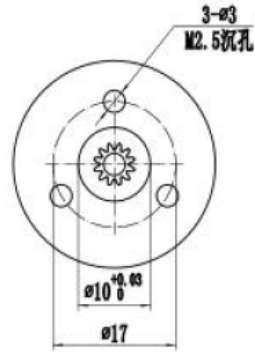
Material of housing: stainless steel

Material of gears: steel

Material of mounting flange: aluminium alloy

Max. axial load: 20N

Max. radial load:20N



Gearbox Number	Reduction Ratio	Rated Torque	Max. Momentary tolerance torque	Efficiency	No-load Backlash	Radial play of shaft	Axial play of shaft	L	Weight
		kgcm	kgcm	%		mm	mm		
P28H0003-51000	3.57	5	6	90	≤1.2°	≤0.04mm	≤0.04mm	26.70	50
P28H0004-51000	4.00	5	6	90	≤1.2°	≤0.04mm	≤0.04mm	26.70	50
P28H0004.6-51000	4.60	5	6	90	≤1.2°	≤0.04mm	≤0.04mm	26.70	50
P28H0012-52000	12.76	20	25	81	≤1.8°	≤0.04mm	≤0.04mm	31.20	65
P28H0014-52000	14.29	20	25	81	≤1.8°	≤0.04mm	≤0.04mm	31.20	65
P28H0016-52000	16.00	20	25	81	≤1.8°	≤0.04mm	≤0.04mm	31.20	65
P28H0018-52000	18.40	20	25	81	≤1.8°	≤0.04mm	≤0.04mm	31.20	65
P28H0021-52000	21.16	20	25	81	≤1.8°	≤0.04mm	≤0.04mm	31.20	65
P28H0045-53000	45.55	30	40	73	≤2°	≤0.04mm	≤0.04mm	35.70	85
P28H0051-53000	51.02	30	40	73	≤2°	≤0.04mm	≤0.04mm	35.70	85
P28H0057-53000	57.14	30	40	73	≤2°	≤0.04mm	≤0.04mm	35.70	85
P28H0058-53000	58.67	30	40	73	≤2°	≤0.04mm	≤0.04mm	35.70	85
P28H0065-53000	65.71	30	40	73	≤2°	≤0.04mm	≤0.04mm	35.70	85
P28H0075-53000	75.57	30	40	73	≤2°	≤0.04mm	≤0.04mm	35.70	85
P28H0084-53000	84.64	30	40	73	≤2°	≤0.04mm	≤0.04mm	35.70	85
P28H0097-53000	97.34	30	40	73	≤2°	≤0.04mm	≤0.04mm	35.70	85
P28H0162-54000	162.69	30	40	65	≤2°	≤0.04mm	≤0.04mm	40.20	95
P28H0182-54000	182.22	30	40	65	≤2°	≤0.04mm	≤0.04mm	40.20	95
P28H0204-54000	204.08	30	40	65	≤2°	≤0.04mm	≤0.04mm	40.20	95
P28H0209-54000	209.55	30	40	65	≤2°	≤0.04mm	≤0.04mm	40.20	95
P28H0228-54000	228.57	30	40	65	≤2°	≤0.04mm	≤0.04mm	40.20	95
P28H0234-54000	234.69	30	40	65	≤2°	≤0.04mm	≤0.04mm	40.20	95
P28H0256-54000	256.00	30	40	65	≤2°	≤0.04mm	≤0.04mm	40.20	95

P28H0262-54000	262.86	30	40	65	≤2°	≤0.04mm	≤0.04mm	40.20	95
P28H0294-54000	294.40	30	40	65	≤2°	≤0.04mm	≤0.04mm	40.20	95
P28H0302-54000	302.29	30	40	65	≤2°	≤0.04mm	≤0.04mm	40.20	95
P28H0338-54000	338.56	30	40	65	≤2°	≤0.04mm	≤0.04mm	40.20	95
P28H0347-54000	347.63	30	40	65	≤2°	≤0.04mm	≤0.04mm	40.20	95
P28H0389-54000	389.34	30	40	65	≤2°	≤0.04mm	≤0.04mm	40.20	95
P28H0447-54000	447.75	30	40	65	≤2°	≤0.04mm	≤0.04mm	40.20	95
P28H0581-55000	581.05	30	40	60	≤2°	≤0.04mm	≤0.04mm	44.70	110
P28H0650-55000	650.77	30	40	60	≤2°	≤0.04mm	≤0.04mm	44.70	110
P28H0728-55000	728.86	30	40	60	≤2°	≤0.04mm	≤0.04mm	44.70	110
P28H0748-55000	748.39	30	40	60	≤2°	≤0.04mm	≤0.04mm	44.70	110
P28H0816-55000	816.33	30	40	60	≤2°	≤0.04mm	≤0.04mm	44.70	110
P28H0838-55000	838.19	30	40	60	≤2°	≤0.04mm	≤0.04mm	44.70	110
P28H0914-55000	914.29	30	40	60	≤2°	≤0.04mm	≤0.04mm	44.70	110
P28H0938-55000	938.78	30	40	60	≤2°	≤0.04mm	≤0.04mm	44.70	110
P28H0963-55000	963.92	30	40	60	≤2°	≤0.04mm	≤0.04mm	44.70	110
P28H1024-55000	1024.00	30	40	60	≤2°	≤0.04mm	≤0.04mm	44.70	110
P28H1051-55000	1051.43	30	40	60	≤2°	≤0.04mm	≤0.04mm	44.70	110
P28H1079-55000	1079.59	30	40	60	≤2°	≤0.04mm	≤0.04mm	44.70	110



Planetary Gearbox

Diameter:32mm

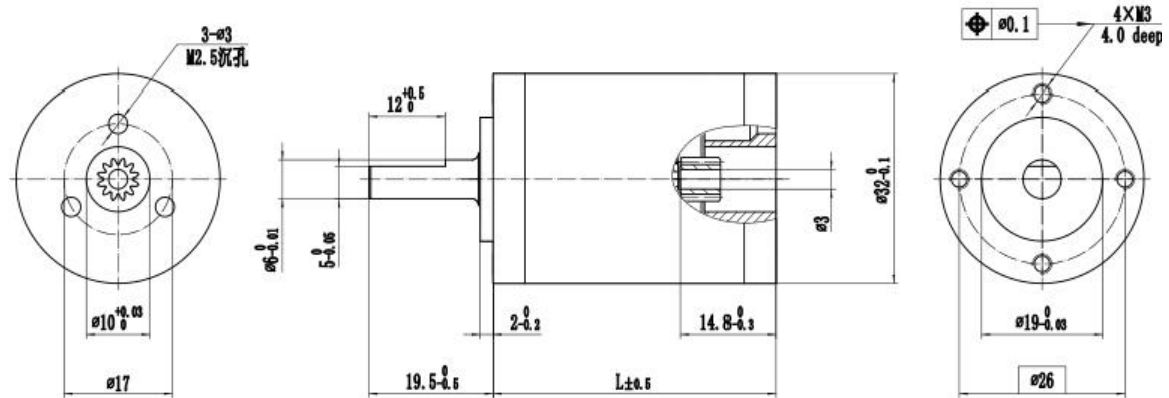
Material of housing: stainless steel

Material of gears: steel

Material of mounting flange: aluminium alloy

Max. axial load: 50N

Max. radial load:50N



Gearbox Number	Reduction Ratio	Rated Torque	Max. Momentary tolerance torque	Efficiency	No-load Backlash	Radial play of shaft	Axial play of shaft	L	Weight
		kgcm	kgcm	%		mm	mm		
P32H0003.1-51000	3.11	10	12.5	90	≤1°	≤0.03mm	≤0.03mm	31.60	125
P32H0003.7-51000	3.71	10	12.5	90	≤1°	≤0.03mm	≤0.03mm	31.60	125
P32H0004-51000	4.80	10	12.5	90	≤1°	≤0.03mm	≤0.03mm	31.60	125
P32H0005-51000	5.75	10	12.5	90	≤1°	≤0.03mm	≤0.03mm	31.60	125
P32H0009-52000	9.68	30	37.5	81	≤1.2°	≤0.03mm	≤0.03mm	37.90	147
P32H0011-52000	11.56	30	37.5	81	≤1.2°	≤0.03mm	≤0.03mm	37.90	147
P32H0013-52000	13.80	30	37.5	81	≤1.2°	≤0.03mm	≤0.03mm	37.90	147
P32H0014-52000	14.93	30	37.5	81	≤1.2°	≤0.03mm	≤0.03mm	37.90	147
P32H0017-52000	17.89	30	37.5	81	≤1.2°	≤0.03mm	≤0.03mm	37.90	147
P32H0021-52000	21.36	30	37.5	81	≤1.2°	≤0.03mm	≤0.03mm	37.90	147
P32H0023-52000	23.04	30	37.5	81	≤1.2°	≤0.03mm	≤0.03mm	37.90	147
P32H0027-52000	27.60	30	37.5	81	≤1.2°	≤0.03mm	≤0.03mm	37.90	147
P32H0033-52000	33.06	30	37.5	81	≤1.2°	≤0.03mm	≤0.03mm	37.90	147
P32H0030-53000	30.11	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0035-53000	35.95	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0042-53000	42.92	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0046-53000	46.46	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0051-53000	51.24	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0055.4-53000	55.47	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0055.6-53000	55.65	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0066.2-53000	66.22	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0066.4-53000	66.44	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0071-53000	71.68	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169

P32H0079-53000	79.33	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0085.5-53000	85.58	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0085.8-53000	85.87	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0102.5-53000	102.51	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0102.8-53000	102.86	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0110-53000	110.59	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0122-53000	122.80	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0132-53000	132.48	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0158-53000	158.70	60	75	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0190-53000	190.11	40	50	73	≤1.5°	≤0.03mm	≤0.03mm	44.20	169
P32H0093-54000	93.68	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0111-54000	111.85	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0133-54000	133.53	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0144-54000	144.54	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0159-54000	159.42	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0172-54000	172.56	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0173-54000	173.15	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0190-54000	190.33	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0206-54000	206.02	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0206.7-54000	206.72	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0223-54000	223.00	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0245-54000	245.96	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0246-54000	246.79	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0266-54000	266.24	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0267-54000	267.14	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0294-54000	294.64	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0317-54000	317.86	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0318-54000	318.93	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0320-54000	320.01	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0344-54000	344.06	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0380-54000	380.77	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0382-54000	382.06	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0410-54000	410.77	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0412-54000	412.16	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0456-54000	456.13	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0492-54000	492.07	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0493-54000	493.73	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0530-54000	530.84	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191

P32H0589-54000	589.46	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0591-54000	591.45	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0635-54000	635.90	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0706-54000	706.12	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0761-54000	761.76	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0912-54000	912.53	60	75	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H1093-54000	1093.13	40	50	65	≤1.5°	≤0.03mm	≤0.03mm	50.50	191
P32H0291-55000	291.46	60	75	59	≤1.5°	≤0.03mm	≤0.03mm	56.80	213
P32H0347-55000	347.97	60	75	59	≤1.5°	≤0.03mm	≤0.03mm	56.80	213
P32H0415-55000	415.43	60	75	59	≤1.5°	≤0.03mm	≤0.03mm	56.80	213
P32H0449-55000	449.68	60	75	59	≤1.5°	≤0.03mm	≤0.03mm	56.80	213
P32H0495-55000	495.97	60	75	59	≤1.5°	≤0.03mm	≤0.03mm	56.80	213
P32H0536-55000	536.86	60	75	59	≤1.5°	≤0.03mm	≤0.03mm	56.80	213
P32H0538-55000	538.68	60	75	59	≤1.5°	≤0.03mm	≤0.03mm	56.80	213
P32H0592-55000	592.13	60	75	59	≤1.5°	≤0.03mm	≤0.03mm	56.80	213
P32H0640-55000	640.95	60	75	59	≤1.5°	≤0.03mm	≤0.03mm	56.80	213
P32H0643-55000	643.12	60	75	59	≤1.5°	≤0.03mm	≤0.03mm	56.80	213
P32H0693-55000	693.79	60	75	59	≤1.5°	≤0.03mm	≤0.03mm	56.80	213
P32H0706-55000	706.93	60	75	59	≤1.5°	≤0.03mm	≤0.03mm	56.80	213
P32H0765-55000	765.21	60	75	59	≤1.5°	≤0.03mm	≤0.03mm	56.80	213
P32H0767-55000	767.80	60	75	59	≤1.5°	≤0.03mm	≤0.03mm	56.80	213
P32H0828-55000	828.30	60	75	59	≤1.5°	≤0.03mm	≤0.03mm	56.80	213

Planetary Gearbox

Diameter:35mm

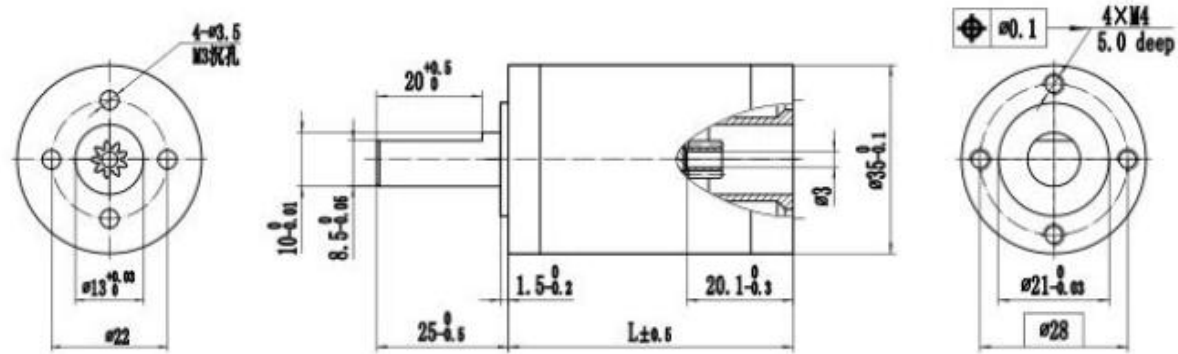
Material of housing: stainless steel

Material of gears: steel

Material of mounting flange: aluminium alloy

Max. axial load: 100N

Max. radial load:500N



Gearbox Number	Reduction Ratio	Rated Torque	Max. Momentary tolerance torque	Efficiency	No-load Backlash	Radial play of shaft	Axial play of shaft	L	Weight
		kgcm	kgcm	%		mm	mm		
P35H0003-51000	3.50	30	50	90	$\leq 1^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	40.60	210
P35H0004-51000	4.00	30	50	90	$\leq 1^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	40.60	210
P35H0004.7-51000	4.75	30	50	90	$\leq 1^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	40.60	210
P35H0006-51000	6.00	30	50	90	$\leq 1^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	40.60	210
P35H0012-52000	12.25	80	120	83	$\leq 1.2^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	47.40	245
P35H0014-52000	14.00	80	120	83	$\leq 1.2^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	47.40	245
P35H0016-52000	16.00	80	120	83	$\leq 1.2^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	47.40	245
P35H0016.6-52000	16.63	80	120	83	$\leq 1.2^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	47.40	245
P35H0019-52000	19.00	80	120	83	$\leq 1.2^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	47.40	245
P35H0021-52000	21.00	80	120	83	$\leq 1.2^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	47.40	245
P35H0022-52000	22.56	80	120	83	$\leq 1.2^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	47.40	245
P35H0024-52000	24.00	80	120	83	$\leq 1.2^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	47.40	245
P35H0028-52000	28.50	80	120	83	$\leq 1.2^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	47.40	245
P35H0036-52000	36.00	60	80	83	$\leq 1.2^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	47.40	245
P35H0042-53000	42.88	160	250	77	$\leq 1.5^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	54.00	280
P35H0049-53000	49.00	160	250	77	$\leq 1.5^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	54.00	280
P35H0056-53000	56.00	160	250	77	$\leq 1.5^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	54.00	280
P35H0058-53000	58.19	160	250	77	$\leq 1.5^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	54.00	280
P35H0064-53000	64.00	160	250	77	$\leq 1.5^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	54.00	280
P35H0066-53000	66.50	160	250	77	$\leq 1.5^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	54.00	280
P35H0073-53000	73.50	160	250	77	$\leq 1.5^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	54.00	280
P35H0076-53000	76.00	160	250	77	$\leq 1.5^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	54.00	280
P35H0078-53000	78.97	160	250	77	$\leq 1.5^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	54.00	280

P35H0084-53000	84.00	160	250	77	≤1.5°	≤0.02mm	≤0.02mm	54.00	280
P35H0090-53000	90.25	160	250	77	≤1.5°	≤0.02mm	≤0.02mm	54.00	280
P35H0096-53000	96.00	160	250	77	≤1.5°	≤0.02mm	≤0.02mm	54.00	280
P35H0099-53000	99.75	160	250	77	≤1.5°	≤0.02mm	≤0.02mm	54.00	280
P35H0107-53000	107.17	100	120	77	≤1.5°	≤0.02mm	≤0.02mm	54.00	280
P35H0114-53000	114.00	160	250	77	≤1.5°	≤0.02mm	≤0.02mm	54.00	280
P35H0126-53000	126.00	100	120	77	≤1.5°	≤0.02mm	≤0.02mm	54.00	280
P35H0135-53000	135.38	100	120	77	≤1.5°	≤0.02mm	≤0.02mm	54.00	280
P35H0144-53000	144.00	100	120	77	≤1.5°	≤0.02mm	≤0.02mm	54.00	280
P35H0171-53000	171.00	100	120	77	≤1.5°	≤0.02mm	≤0.02mm	54.00	280
P35H0216-53000	216.00	60	80	77	≤1.5°	≤0.02mm	≤0.02mm	54.00	280
P35H0150-54000	150.06	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0171-54000	171.50	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0196-54000	196.00	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0203-54000	203.66	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0224-54000	224.00	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0232-54000	232.75	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0256-54000	256.00	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0257-54000	257.25	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0266-54000	266.00	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0276-54000	276.39	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0294-54000	294.00	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0304-54000	304.00	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0315-54000	315.88	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0336-54000	336.00	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0349-54000	349.13	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0361-54000	361.00	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0375-54000	375.10	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0384-54000	384.00	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0399-54000	399.00	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0428-54000	428.69	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0441-54000	441.00	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0456-54000	456.00	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0473-54000	473.81	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0504-54000	504.00	100	120	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0509-54000	509.07	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0541-54000	541.50	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0576-54000	576.00	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315

P35H0598-54000	598.50	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0643-54000	643.03	100	120	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0684-54000	684.00	160	250	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0756-54000	756.00	100	120	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0812-54000	812.25	100	120	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0864-54000	864.00	100	120	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H1026-54000	1026.00	100	120	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H1296-54000	1296.00	60	80	72	≤1.5°	≤0.02mm	≤0.02mm	60.60	315
P35H0525-55000	525.22	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H0600-55000	600.25	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H0686-55000	686.00	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H0712-55000	712.80	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H0784-55000	784.00	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H0814-55000	814.63	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H0896-55000	896.00	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H0900-55000	900.38	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H0931-55000	931.00	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H0967-55000	967.37	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1024-55000	1024.00	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1029-55000	1029.00	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1064-55000	1064.00	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1105-55000	1105.56	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1176-55000	1176.00	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1216-55000	1216.00	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1221-55000	1221.94	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1263-55000	1263.50	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1312-55000	1312.86	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1344-55000	1344.00	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1396-55000	1396.50	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1444-55000	1444.00	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1500-55000	1500.41	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1536-55000	1536.00	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1543-55000	1543.50	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1596-55000	1596.00	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1658-55000	1658.34	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1714-55000	1714.75	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1764-55000	1764.00	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350
P35H1781-55000	1781.73	200	300	67	≤1.5°	≤0.02mm	≤0.02mm	67.20	350

P35H1824-55000	1824.00	200	300	67	$\leq 1.5^\circ$	$\leq 0.02\text{mm}$	$\leq 0.02\text{mm}$	67.20	350
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Planetary Gearbox

Diameter:42mm

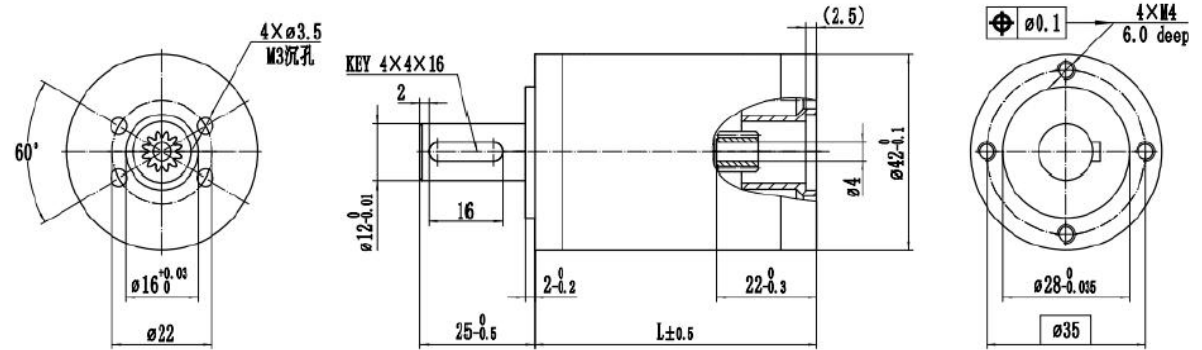
Material of housing: carbon steel

Material of gears:carbon steel

Material of mounting flange: aluminium alloy

Max. axial load: 120N

Max. radial load:500N



Gearbox Number	Reduction Ratio	Rated Torque	Max. Momentary tolerance torque	Efficiency	Radial play of shaft	Axial play of shaft	L
		kgcm	kgcm		mm	mm	
P42H0003.1-51000	3.11	10	20	90	≤ 0.1 mm	≤ 0.2 mm	41.20
P42H0003.3-51000	3.38	10	20	90	≤ 0.1 mm	≤ 0.2 mm	41.20
P42H0003.7-51000	3.71	10	20	90	≤ 0.1 mm	≤ 0.2 mm	41.20
P42H0004-51000	4.00	10	20	90	≤ 0.1 mm	≤ 0.2 mm	41.20
P42H0004.8-51000	4.80	10	20	90	≤ 0.1 mm	≤ 0.2 mm	41.20
P42H0005-51000	5.75	10	20	90	≤ 0.1 mm	≤ 0.2 mm	41.20
P42H0007-51000	7.33	10	20	90	≤ 0.1 mm	≤ 0.2 mm	41.20
P42H0010-52000	10.50	100	200	83	≤ 0.1 mm	≤ 0.2 mm	53.20
P42H0011.3-52000	11.39	100	200	83	≤ 0.1 mm	≤ 0.2 mm	53.20
P42H0011.5-52000	11.56	100	200	83	≤ 0.1 mm	≤ 0.2 mm	53.20
P42H0012.5-52000	12.54	100	200	83	≤ 0.1 mm	≤ 0.2 mm	53.20
P42H0012.9-52000	12.96	100	200	83	≤ 0.1 mm	≤ 0.2 mm	53.20
P42H0013-52000	13.80	100	200	83	≤ 0.1 mm	≤ 0.2 mm	53.20
P42H0014-52000	14.06	100	200	83	≤ 0.1 mm	≤ 0.2 mm	53.20
P42H0015-52000	15.48	100	200	83	≤ 0.1 mm	≤ 0.2 mm	53.20
P42H0016-52000	16.20	100	200	83	≤ 0.1 mm	≤ 0.2 mm	53.20
P42H0017.3-52000	17.36	100	200	83	≤ 0.1 mm	≤ 0.2 mm	53.20
P42H0017.8-52000	17.83	100	200	83	≤ 0.1 mm	≤ 0.2 mm	53.20
P42H0019.2-52000	19.20	100	200	83	≤ 0.1 mm	≤ 0.2 mm	53.20
P42H0019.4-52000	19.41	100	200	83	≤ 0.1 mm	≤ 0.2 mm	53.20
P42H0023-52000	23.04	100	200	83	≤ 0.1 mm	≤ 0.2 mm	53.20
P42H0027-52000	27.60	100	200	83	≤ 0.1 mm	≤ 0.2 mm	53.20
P42H0032-53000	32.67	150	300	70	≤ 0.1 mm	≤ 0.2 mm	62.20

P42H0035-53000	35.44	150	300	70	≤0.1mm	≤0.2mm	62.20
P42H0038-53000	38.44	150	300	70	≤0.1mm	≤0.2mm	62.20
P42H0039-53000	39.00	150	300	70	≤0.1mm	≤0.2mm	62.20
P42H0042-53000	42.31	150	300	70	≤0.1mm	≤0.2mm	62.20
P42H0045-53000	45.56	150	300	70	≤0.1mm	≤0.2mm	62.20
P42H0046-53000	46.56	150	300	70	≤0.1mm	≤0.2mm	62.20
P42H0050-53000	50.14	150	300	70	≤0.1mm	≤0.2mm	62.20
P42H0051-53000	51.24	150	300	70	≤0.1mm	≤0.2mm	62.20
P42H0055-53000	55.18	150	300	70	≤0.1mm	≤0.2mm	62.20
P42H0060-53000	60.17	150	300	70	≤0.1mm	≤0.2mm	62.20
P42H0064-53000	64.80	150	300	70	≤0.1mm	≤0.2mm	62.20
P42H0066-53000	66.22	150	300	70	≤0.1mm	≤0.2mm	62.20
P42H0077-53000	77.76	150	300	70	≤0.1mm	≤0.2mm	62.20
P42H0092-53000	92.16	150	300	70	≤0.1mm	≤0.2mm	62.20
P42H0110-53000	110.25	150	300	70	≤0.1mm	≤0.2mm	62.20
P42H0115-53000	115.00	150	300	70	≤0.1mm	≤0.2mm	62.20
P42H0119-54000	119.60	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0121-54000	121.33	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0129-54000	129.75	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0131-54000	131.63	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0142-54000	142.79	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0157-54000	157.14	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0169-54000	169.23	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0172-54000	172.94	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0184-54000	184.53	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0186-54000	186.24	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0190-54000	190.33	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0203-54000	203.08	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0204-54000	204.97	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0218-54000	218.70	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0223-54000	223.49	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0245-54000	245.96	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0259-54000	259.20	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0262-54000	262.44	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0264-54000	264.88	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0285-54000	285.26	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0317-54000	317.86	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0373-54000	373.25	150	300	60	≤0.1mm	≤0.2mm	77.20

P42H0410-54000	410.77	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0442-54000	442.37	150	300	60	≤0.1mm	≤0.2mm	77.20
P42H0372-55000	372.09	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0403-55000	403.66	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0437-55000	437.89	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0481-55000	481.91	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0518-55000	518.99	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0530-55000	530.36	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0571-55000	571.16	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0583-55000	583.68	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0628-55000	628.58	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0642-55000	642.35	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0691-55000	691.77	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0706-55000	706.93	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0754-55000	754.29	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0761-55000	761.31	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0821-55000	821.04	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0830-55000	830.12	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0885-55000	885.74	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0913-55000	913.57	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0962-55000	962.74	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H0983-55000	983.85	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H1059-55000	1059.53	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H1271-55000	1271.43	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H1259-55000	1259.71	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H1386-55000	1386.35	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H1525-55000	1525.72	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H1643-55000	1643.08	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H1769-55000	1769.47	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H1791-55000	1791.59	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H1971-55000	1971.70	150	300	50	≤0.1mm	≤0.2mm	86.20
P42H2123-55000	2123.37	150	300	50	≤0.1mm	≤0.2mm	86.20