

Φ22 mm brushless motor (4pole)



Motor Data		254005201				
Values at nominal voltage 额定电压值						
1	Nominal voltage 额定电压	U_N	24			V
2	No load speed 空载转速	n_0	16400			rpm
3	No load current 空载电流	I_0	380			mA
4	Stall torque 堵转转矩	M_H	557.9			mNm
5	Stall current 堵转电流	M_I	40.7			A
6	Max. efficiency 最大效率	η_{max}	82			%
7	Nominal power 额定功率	W_N	61.2			W
8	Nominal speed 额定转速	n_N	15150			rpm
9	Nominal torque (max.continuous torque) 额定转矩	M_N	40.4			mNm
10	Nominal current (max.continuous current) 额定电流	I_N	3.3			A

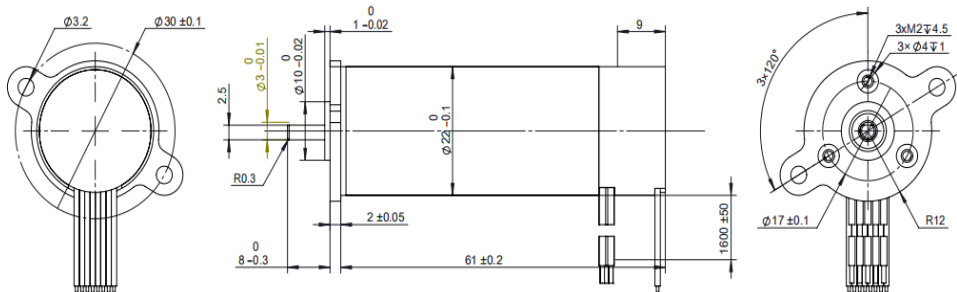
Characteristics 技术参数						
11	Terminal resistance phase to phase 相间电阻	R	0.59			Ω
12	Terminal inductance phase to phase 相间电感	L	32			μH
13	Back-EMF constant 反电势常数	K_E	1.45			mV/rpm
14	Torque constant 转矩常数	K_M	13.84			mNm/A
15	Speed constant 转速常数	K_n	690			rpm/V
16	Current constant 电流常数	K_I	0.072			A/mNm
17	Speed / torque gradient 转速/转矩斜率	$\Delta n/\Delta M$	29.40			rpm/mNm
18	Mechanical time constant 机械时间常数	τ_m	5.3			ms
19	Rotor inertia 转子惯量	J	7.4			gcm ²

Specifications 技术参数						
20	Operating temperature range: 工作温度范围:					
	Motor 电机		-20.....+155			°C
	winding, max permissible 线圈最高允许温度		+155			°C
21	Direction of rotation 旋转方向		electronically reversible			
22	Max. speed 最大允许转速	n_{max}	18000			rpm
23	Number of pole pairs 磁极对数		2			
24	Number of phases 相数		3			
25	Magnet material 磁钢材料		NdFeB			
26	Hall sensors 霍尔传感器					

Mechanical data 机械参数						
27	Bearing type 轴承类型		ball bearings, preloaded			
28	Axial play 轴向间隙		0 - 0.3			mm
29	Max. axial load (dynamic) 最大轴向载荷（动态）		3			N
30	Max. force for press fits (static) 最大轴向压配合力（静态）		35			N
	(static, shaft supported) （静态，支撑轴）		250			N
31	Max. radial loading, 5 mm from flange 最大径向载荷		10			N

Product 产品						
32	Weight of motor 重量		142			g

Dimensional drawing 尺寸图



Option, cable and connection information 选件，电缆和连接信息

Connection Motor (AF 250)						
Motor winding A		grey		Vhall 4.5V.....24V		red

Note:About the torque curves,please contact us for more information.

Motor winding B		yellow
Motor winding C		brown

GND		black
Hall sensors A		blue
Hall sensors B		green
Hall sensors C		white

