

Φ30 mm brushless motor (4pole)



Motor Data		255509901					
Values at nominal voltage 额定电压值							
1	Nominal voltage 额定电压	U_N	48				V
2	No load speed 空载转速	n_0	6420				rpm
3	No load current 空载电流	I_0	120				mA
4	Stall torque 堵转转矩	M_H	1788.0				mNm
5	Stall current 堵转电流	M_I	25.3				A
6	Max. efficiency 最大效率	η_{max}	87				%
7	Nominal power 额定功率	W_N	225.0				W
8	Nominal speed 额定转速	n_N	4815				rpm
9	Nominal torque (max.continuous torque) 额定转矩	M_N	447				mNm
10	Nominal current (max.continuous current) 额定电流	I_N	6.4				A

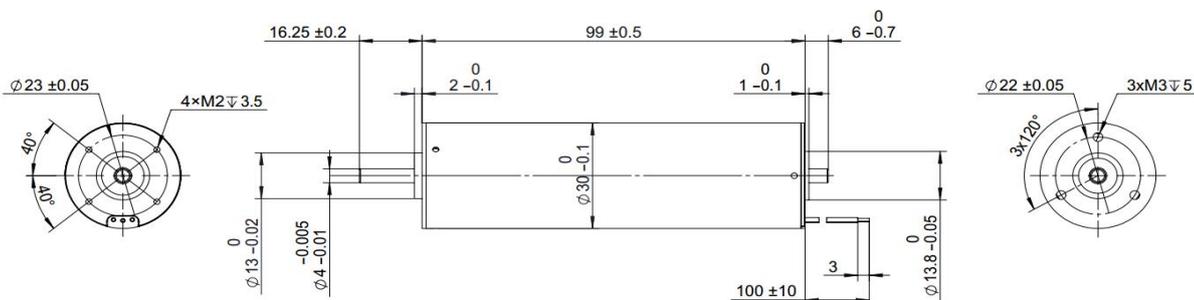
Characteristics 技术参数							
11	Terminal resistance phase to phase 相间电阻	R	1.9				Ω
12	Terminal inductance phase to phase 相间电感	L	25				μH
13	Back-EMF constant 反电势常数	K_E	7.44				mV/rpm
14	Torque constant 转矩常数	K_M	71.09				mNm/A
15	Speed constant 转速常数	K_n	134				rpm/V
16	Current constant 电流常数	K_I	0.014				A/mNm
17	Speed / torque gradient 转速/转矩斜率	$\Delta n/\Delta M$	3.59				rpm/mNm
18	Mechanical time constant 机械时间常数	τ_m	8.2				ms
19	Rotor inertia 转子惯量	J	59.5				gcm^2

Specifications 技术参数							
20	Operating temperature range: 工作温度范围:						
	Motor 电机					-20.....+155	$^{\circ}\text{C}$
	winding, max permissible 线圈最高允许温度					+155	$^{\circ}\text{C}$
21	Direction of rotation 旋转方向					electronically reversible	
22	Max. speed 最大允许转速	n_{max}				22000	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)					16	N
30	Max. force for press fits (static) 最大轴向压配合力 (静态)					80	N
	(static, shaft supported) (静态, 支撑轴)					3000	N
31	Max. radial loading, 5 mm from flange 最大径向载荷					75	N

Product 产品							
32	Weight of motor 重量		373				g

Dimensional drawing 尺寸图



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

Connection Motor (Cable AWG22)

Motor winding A		red
Motor winding B		black
Motor winding C		yellow

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