

Φ13 mm brushless motor (high power)



Motor Data		101303701					
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	44500				rpm
3	No load current 空载电流	I_0	154				mA
4	Stall torque 堵转转矩	M_H	27.7				mNm
5	Stall current 堵转电流	M_I	5.7				A
6	Max. efficiency 最大效率	η_{max}	70				%
7	Nominal power 额定功率	W_N	13.8				W
8	Nominal speed 额定转速	n_N	49781				rpm
9	Nominal torque (max.continuous torque) 额定转矩	M_N	2.78				mNm
10	Nominal current (max.continuous current) 额定电流	I_N	0.67				A

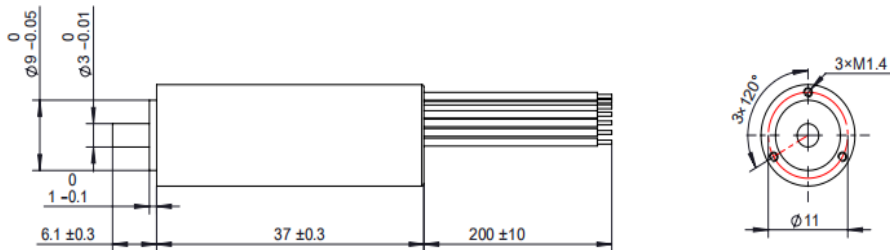
Characteristics 技术参数							
11	Terminal resistance phase to phase 相间电阻	R	4.22				Ω
12	Terminal inductance phase to phase 相间电感	L	117				μH
13	Back-EMF constant 反电势常数	K_E	0.52				mV/rpm
14	Torque constant 转矩常数	K_M	5.01				mNm/A
15	Speed constant 转速常数	K_n	1906				rpm/V
16	Current constant 电流常数	K_I	0.200				A/mNm
17	Speed / torque gradient 转速/转矩斜率	$\Delta n/\Delta M$	1605.03				rpm/mNm
18	Mechanical time constant 机械时间常数	τ_m	4.1				ms
19	Rotor inertia 转子惯量	J	0.25				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}		50000			rpm
23	Number of pole pairs 磁极对数			1			
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）			1 5			N
30	Max. force for press fits (static) 最大轴向压配合力（静态）			50			N
	(static, shaft supported) （静态，支撑轴）			1500			N
31	Max. radial loading, 5 mm from flange 最大径向载荷			6			N

Product 产品							
32	Weight of motor 重量		33				g

Dimensional drawing 尺寸图



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

Connection Motor (26AWG)							
Motor winding A		brown		Vhall 4.5V.....24V			red
Motor winding B		yellow		GND			black

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

Motor winding C		grey
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Hall sensors A		blue
Hall sensors B		green
Hall sensors C		white