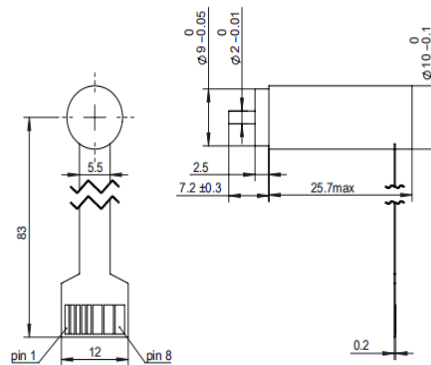


# Φ10 mm brushless motor (high power)



Motor Data		101002501					
<b>Values at nominal voltage 额定电压值</b>							
1	Nominal voltage 额定电压	$U_N$	12				V
2	No load speed 空载转速	$n_0$	53200				rpm
3	No load current 空载电流	$I_0$	95				mA
4	Stall torque 堵转转矩	$M_H$	13.5				mNm
5	Stall current 堵转电流	$M_I$	6.5				A
6	Max. efficiency 最大效率	$\eta_{max}$	77				%
7	Nominal power 额定功率	$W_N$	7.5				W
8	Nominal speed 额定转速	$n_N$	46600				rpm
9	Nominal torque (max.continuous torque) 额定转矩	$M_N$	1.62				mNm
10	Nominal current (max.continuous current) 额定电流	$I_N$	0.85				A
<b>Characteristics 技术参数</b>							
11	Terminal resistance phase to phase 相间电阻	$R$	1.86				$\Omega$
12	Terminal inductance phase to phase 相间电感	$L$	34				$\mu\text{H}$
13	Back-EMF constant 反电势常数	$K_E$	0.22				mV/rpm
14	Torque constant 转矩常数	$K_M$	2.12				mNm/A
15	Speed constant 转速常数	$K_n$	4500				rpm/V
16	Current constant 电流常数	$K_I$	0.471				A/mNm
17	Speed / torque gradient 转速/转矩斜率	$\Delta n/\Delta M$	3943.55				rpm/mNm
18	Mechanical time constant 机械时间常数	$\tau_m$	2.9				ms
19	Rotor inertia 转子惯量	$J$	0.07				$\text{gcm}^2$
<b>Specifications 技术参数</b>							
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	$n_{max}$				6500	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						
<b>Mechanical data 机械参数</b>							
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)					0 16	N
30	Max. force for press fits (static) 最大轴向压配合力 (静态)					12	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					2	N
<b>Product 产品</b>							
32	Weight of motor 重量		13				g

## Dimensional drawing 尺寸图



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

### Connection Motor

Motor winding A	pin 8	Vhall 4.5V.....24V	pin 1
Motor winding B	pin 7	GND	pin 5

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

Motor winding C		pin 6
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Hall sensors A		pin 3
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Hall sensors B		pin 4
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Hall sensors C		pin 2
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