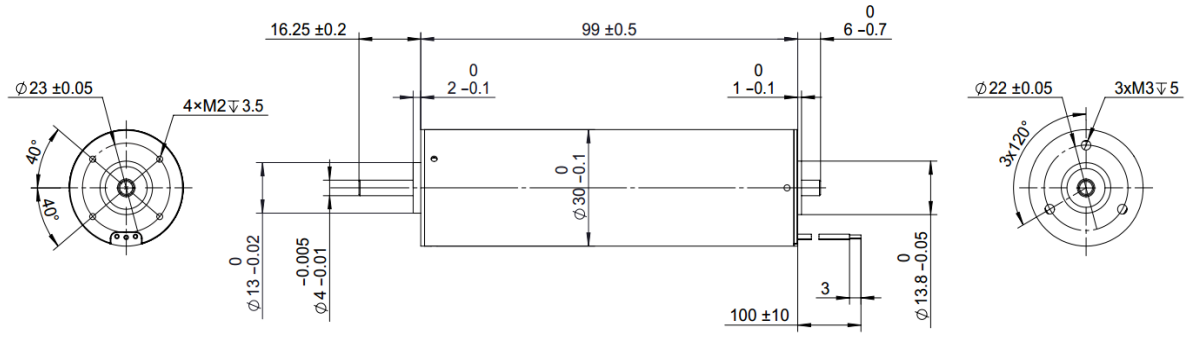
Φ30 mm brushless motor (4pole)

Motor Data			255509903					
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	20000					rpm
3	No load current 空载电流	I_0	1100					mA
4	Stall torque 堵转转矩	M_H	4950.1					mNm
5	Stall current 堵转电流	M_I	218.2					A
6	Max. efficiency 最大效率	η_{max}	86					%
7	Nominal power 额定功率	W_N	196.9					W
8	Nominal speed 额定转速	n_N	19496					rpm
9	Nominal torque (max.continuous torque) 额定转矩	M_N	101					mNm
10	Nominal current (max.continuous current) 额定电流	I_N	5.5					A
Characteristics 技术参数								
11	Terminal resistance phase to phase 相间电阻	R	0.22					Ω
12	Terminal inductance phase to phase 相间电感	L	27.9					uH
13	Back-EMF constant 反电势常数	K_E	2.39					mV/rpm
14	Torque constant 转矩常数	K_M	22.80					mNm/A
15	Speed constant 转速常数	K_n	419					rpm/V
16	Current constant 电流常数	K_I	0.044					A/mNm
17	Speed / torque gradient 转速/转矩斜率	$\Delta n/\Delta M$	4.04					rpm/mNm
18	Mechanical time constant 机械时间常数	τ_m	25.1					ms
19	Rotor inertia 转子惯量	J	59.5					gcm²
Specifications 技术参数								
20	Operating temperature range: 工作温度范围:							
	Motor 电机			-20……+155				℃
	winding, max permissible 线圈最高允许温度			+155				℃
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

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

Motor winding B		black
Motor winding C		yellow

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