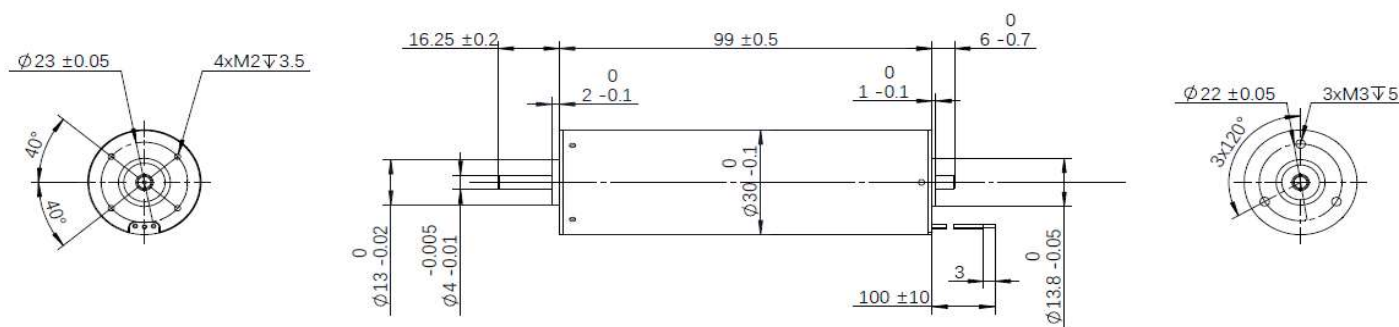


Φ30 mm brushless motor (4pole)

Motor Data		255510601					
Values at nominal voltage							
1	Nominal voltage	U_N	48				V
2	No load speed	n_o	6420				rpm
3	No load current	I_o	110				mA
4	Stall torque	M_H	1788.0				mNm
5	Stall current	M_I	25.3				A
6	Max. efficiency	η_{max}	87				%
7	Nominal power	W_N	225				W
8	Nominal speed	n_N	4815				rpm
9	Nominal torque (max.continuous torque)	M_N	447				mNm
10	Nominal current (max.continuous current)	I_N	6.4				A
Characteristics							
11	Terminal resistance phase to phase	R	1.9				Ω
12	Terminal inductance phase to phase	L	0.25				mH
13	Back-EMF constant	K_E	7.44				mV/rpm
14	Torque constant	K_M	71.09				mNm/A
15	Speed constant	K_n	134				rpm/V
16	Current constant	K_I	0.014				A/mNm
17	Speed / torque gradient	$\Delta n/\Delta M$	3.59				rpm/mNm
18	Mechanical time constant	τ_m	9.7				ms
19	Rotor inertia	J	118.0				gcm ²
Specifications							
20	Operating temperature range:						
	-Motor					-20.....+155	°C
	-winding, max permissible					+155	°C
21	Housing material					aluminium, black anodized	
22	Direction of rotation					electronically reversible	
23	Max. speed	n_{max}				10000	rpm
24	Number of pole pairs					1	
25	Number of phases					3	
26	Magnet material					NdFeB	
27	Hall sensors					sensorless	
Mechanical data							
28	Bearing type					ball bearings, preloaded	
29	Axial play					0 - 0.3	mm
30	Max. axial load (dynamic)					16	N
31	Max. force for press fits (static) (static, shaft supported)					80 3000	N N
32	Max. radial loading, 5 mm from flange					75	N
Product							
33	Weight of motor		373				g

Dimensional drawing



Option, cable and connection information

Connection Motor (Cable AWG20)

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