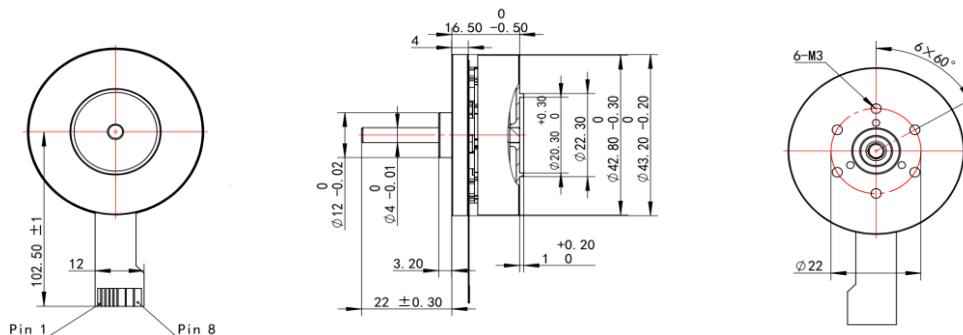


Motor Data		1004001601	1004001604	1004001607			
Values at nominal voltage							
1 Nominal voltage	U_N	24	12	36			V
2 No load speed	n_o	4300	4370	4760			rpm
3 No load current	I_o	120	200	78			mA
4 Stall torque	M_H	299.3	304.3	377.5			mNm
5 Stall current	M_I	5.9	10.0	5.4			A
6 Max. efficiency	η_{max}	75	75	80			%
7 Nominal power	W_N	15.7	15.4	21.7			W
8 Nominal speed	n_N	2900	2800	3290			rpm
9 Nominal torque (max.continuous torque)	M_N	54	55	66			mNm
10 Nominal current (max.continuous current)	I_N	1.3	2.2	0.9			A
Characteristics							
11 Terminal resistance phase to phase	R	4.1	1	6.69			Ω
12 Terminal inductance phase to phase	L	1.2	0.275	2.13			mH
13 Back-EMF constant	K_E	5.47	2.70	7.45			mV/rpm
14 Torque constant	K_M	52.21	25.79	71.17			mNm/A
15 Speed constant	K_n	183	370	134			rpm/V
16 Current constant	K_I	0.019	0.039	0.014			A/mNm
17 Speed / torque gradient	$\Delta n/\Delta M$	14.37	14.36	12.61			rpm/mNm
18 Mechanical time constant	τ_m	17.2	17.1	12.4			ms
19 Rotor inertia	J	92.5	92.5	92.5			gcm ²
Specifications							
20 Operating temperature range:							
-Motor				-40.....+100			°C
-winding, max permissible				+125			°C
21 Direction of rotation				electronically reversible			
22 Max. speed	n_{max}			10000			rpm
23 Number of pole pairs				8			
24 Number of phases				3			
25 Magnet material				NdFeB			
26 Hall sensors				digital			
Mechanical data							
27 Bearing type				ball bearings, preloaded			
28 Axial play				0 - 0.3			mm
29 Max. axial load (dynamic)				4.8			N
30 Max. force for press fits (static)				53			N
(static, shaft supported)				1000			N
31 Max. radial loading, 5 mm from flange				21			N
Product							
32 Weight of motor		75					g

Dimensional drawing



Option, cable and connection information

Connector: FPC, 11-pol, Pitch, 1.0mm, top contact style

V_{hall} 4.5V.....24V	Pin 1	GND	Pin 5
Hall sensors C	Pin 2	Motor winding C	Pin 6
Hall sensors A	Pin 3	Motor winding B	Pin 7
Hall sensors B	Pin 4	Motor winding A	Pin 8

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