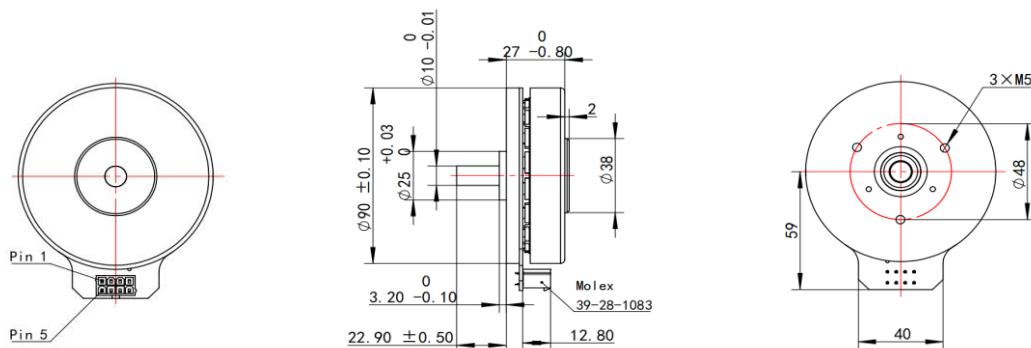


Motor Data		1006002729	1006002730	1006002731			
Values at nominal voltage							
1 Nominal voltage	U_N	24	36	60			V
2 No load speed	n_0	3170	3070	2600			rpm
3 No load current	I_0	700	500	220			mA
4 Stall torque	M_H	7932.2	9486.5	6416.8			mNm
5 Stall current	M_I	111.1	85.7	29.6			A
6 Max. efficiency	η_{max}	83	85	83			%
7 Nominal power	W_N	181.5	173.0	139.8			W
8 Nominal speed	n_N	2490	2420	2020			rpm
9 Nominal torque (max.continuous torque)	M_N	729	715	692			mNm
10 Nominal current (max.continuous current)	I_N	9.44	6.01	2.96			A
Characteristics							
11 Terminal resistance phase to phase	R	0.216	0.42	2.03			Ω
12 Terminal inductance phase to phase	L	0.209	0.522	2			mH
13 Back-EMF constant	K_E	7.52	11.66	22.91			mV/rpm
14 Torque constant	K_M	71.84	111.33	218.73			mNm/A
15 Speed constant	K_n	133	86	44			rpm/V
16 Current constant	K_I	0.014	0.009	0.005			A/mNm
17 Speed / torque gradient	$\Delta n/\Delta M$	0.40	0.32	0.41			rpm/mNm
18 Mechanical time constant	τ_m	50.3	55.7	48.1			ms
19 Rotor inertia	J	3060.0	3060.0	3060.0			gcm ²
Specifications							
20 Operating temperature range:							
-Motor				-20.....+100			°C
-winding, max permissible				+125			°C
21 Direction of rotation				electronically reversible			
22 Max. speed	n_{max}			5000			rpm
23 Number of pole pairs				11			
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)				12			N
30 Max. force for press fits (static)				183			N
(static, shaft supported)				8000			N
31 Max. radial loading, 7.5mm from flange				60			N
Product							
32 Weight of motor		600	600	600			g

Dimensional drawing



Option, cable and connection information

Connector Molex 39-28-1083

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

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