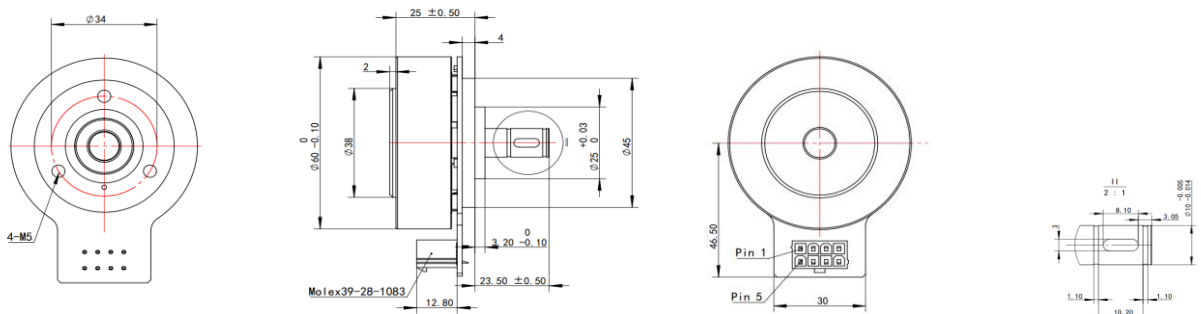


Motor Data	1006002502	1006002504				
<b>Values at nominal voltage</b>						
1 Nominal voltage	$U_N$	12	24			V
2 No load speed	$n_o$	2000	4000			rpm
3 No load current	$I_o$	300	350			mA
4 Stall torque	$M_H$	1263.1	2554.6			mNm
5 Stall current	$M_I$	22.6	45.3			A
6 Max. efficiency	$\eta_{max}$	83	83			%
7 Nominal power	$W_N$	28.1	70.3			W
8 Nominal speed	$n_N$	1407	3195			rpm
9 Nominal torque (max.continuous torque)	$M_N$	200	220			mNm
10 Nominal current (max.continuous current)	$I_N$	3.4	3.7			A
<b>Characteristics</b>						
11 Terminal resistance phase to phase	$R$	0.53	0.53			$\Omega$
12 Terminal inductance phase to phase	$L$	0.42	0.42			mH
13 Back-EMF constant	$K_E$	5.92	5.95			mV/rpm
14 Torque constant	$K_M$	56.54	56.85			mNm/A
15 Speed constant	$K_n$	169	168			rpm/V
16 Current constant	$K_I$	0.018	0.018			A/mNm
17 Speed / torque gradient	$\Delta n/\Delta M$	1.58	1.57			rpm/mNm
18 Mechanical time constant	$\tau_m$	17.0	19.9			ms
19 Rotor inertia	$J$	750.0	750.0			gcm <sup>2</sup>
<b>Specifications</b>						
20 Operating temperature range:						
-Motor					-40.....+100	°C
-winding, max permissible					+125	°C
21 Direction of rotation					electronically reversible	
22 Max. speed	$n_{max}$				6000	rpm
23 Number of pole pairs					7	
24 Number of phases					3	
25 Magnet material					NdFeB	
26 Hall sensors					digital	
<b>Mechanical data</b>						
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)					6000	N
31 Max. radial loading, 7.5mm from flange					100	N
<b>Product</b>						
32 Weight of motor		350				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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