



	Sensorless	EC2057L-...	1850	2450	3650	4850
Motor data						
Values at nominal voltage						
1	Nominal voltage	V	18	24	36	48
2	No load speed	rpm	50202	50832	51286	50700
3	No load current	mA	210	158	113	94
4	Nominal speed	rpm	46263	46714	47334	46436
5	Nominal torque	mNm	15	15	15	15
6	Nominal current	A	4.61	3.50	2.36	1.76
7	Stall torque	mNm	191.16	185.14	194.68	178.37
8	Stall current	A	56.25	41.38	29.27	19.92
9	Max. efficiency	%	88.2	88.0	88.0	86.7
10	Terminal resistance	Ω	0.32	0.58	1.23	2.41
11	Terminal inductance	mH	0.04	0.06	0.14	0.25
12	Torque constant	mNm/A	3.41	4.49	6.68	9.00
13	Speed constant	rpm/V	2799	2126	1430	1061
14	Speed/torque gradient	rpm/mNm	263	275	263	284
15	Mechanical time constant	ms	2.5	2.6	2.5	2.7
16	Rotor inertia	gcm ²	0.91	0.91	0.91	0.91
17	Thermal resistance housing-ambient	7.6 K/W	Operating Range			
18	Thermal resistance winding-housing	1.6 K/W	The diagram based on ambient temperature of 25 °C			
19	Thermal time constant winding	5 s				
20	Thermal time constant motor	410 s	<p>Legend: ■ Continuous operating range □ Continuous operating range with Reduced R_{th2} 50%</p>			
21	Ambient temprature	-30...+100°C	<p>Speed [rpm]</p> <p>120000 100000 80000 60000 40000 20000 0</p> <p>0 5 10 15 20 25 30</p> <p>Torque [mNm]</p>			
22	Max. permissible winding temperature	+150°C	<p>Power [W] 75 100 125 150</p> <p>n-T Curve at Nominal Voltage</p>			
23	Max. permissible speed	80000 rpm				
24	Axial play at axial load	<3 N 0 mm >3 N max. 0.3 mm				
25	Radial play	preloaded				
26	Max. axial load (dynamic)	2.5 N				
27	Max. force for press fits (static) (static, shaft supported)	44 N 1200 N				
28	Max. radial loading, 5mm from flange	11 N				
29	Number of pole pairs	1				
30	Number of phases	3				
31	Weight of motor	69 g				

Connection	Configuration
Connection special connector please contact sales engineer	Performance: Customized in the continuous operating range Ball bearing: Preload Flange: Standard frange front&back/customize the frange Shaft: Length/Diameter/Cut face/double shaft/hollow shaft Leadwire: PVC/Silicon/Teflon/UL No/Dimension/length Connector: JST/MOLEX/TE