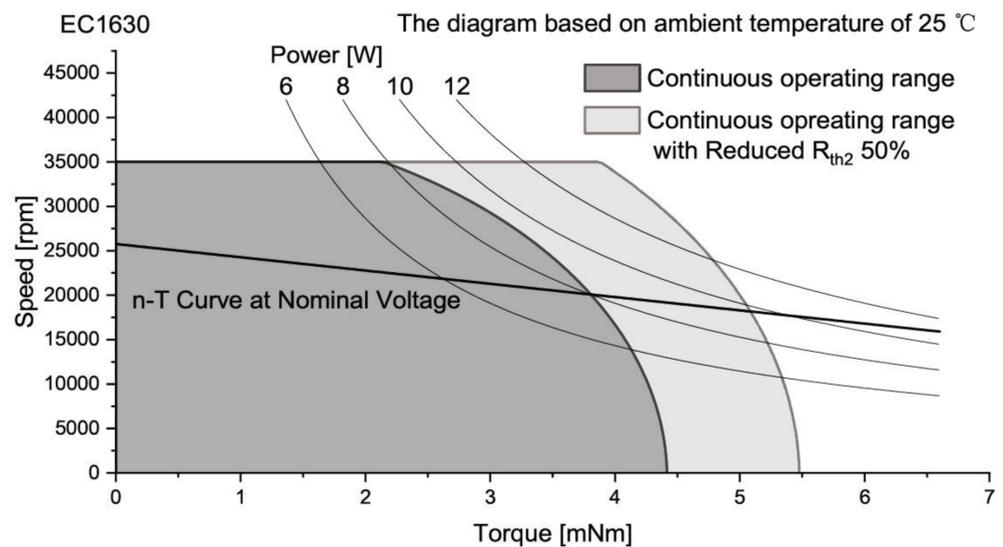


M 1:1.2

	Sensorless	EC1630L-...	1223	1823	2423				
	With hall sensor	EC1630S-...							
Motor data									
Values at nominal voltage									
1	Nominal voltage	V	12	18	24				
2	No load speed	rpm	23220	23511	23760				
3	No load current	mA	210	150	100				
4	Nominal speed	rpm	19138	19506	19203				
5	Nominal torque	mNm	3.5	3.5	3.5				
6	Nominal current	A	0.95	0.65	0.48				
7	Stall torque	mNm	19.91	20.55	18.25				
8	Stall current	A	4.44	3.10	2.09				
9	Max. efficiency	%	61.3	60.9	61.0				
10	Terminal resistance	Ω	2.7	5.8	11.5				
11	Terminal inductance	mH	0.08	0.17	0.33				
12	Torque constant	mNm/A	4.70	6.96	9.18				
13	Speed constant	rpm/V	2031	1373	1040				
14	Speed/torque gradient	rpm/mNm	1166	1144	1302				
15	Mechanical time constant	ms	5.9	5.8	6.5				
16	Rotor inertia	gcm ²	0.48	0.48	0.48				

17	Thermal resistance housing-ambient	20.0 K/W
18	Thermal resistance winding-housing	8.8 K/W
19	Thermal time constant winding	8 s
20	Thermal time constant motor	236 s
21	Ambient temperature	-30...+100°C
22	Max. permissible winding temperature	+150°C
23	Max. permissible speed	35000 rpm
24	Axial play at axial load	<1.8 N 0 mm >1.8 N max. 0.3 mm
25	Radial play	preloaded
26	Max. axial load (dynamic)	1.3 N
27	Max. force for press fits (static)	15 N
	(static, shaft supported)	350 N
28	Max. radial loading, 5mm from flange	5 N
29	Number of pole pairs	1
30	Number of phases	3
31	Weight of motor	25 g

Operating Range



Connection

Connection A (Sensor)			
	PTFE		
Pin 1	Vhall 3-18 VDC	AWG30	black
Pin 2	Hall sensor HA	AWG30	black
Pin 3	Hall sensor HB	AWG30	black
Pin 4	Hall sensor HC	AWG30	black
Pin 5	GND	AWG30	black
Pin 6	Motor winding MA	AWG30	black
Pin 7	Motor winding MB	AWG30	black
Pin 8	Motor winding MC	AWG30	black
Conector JST PH2.0-8Y			
Connection B (Sensorless)			
	PVC		
Pin 1	Motor winding MA	AWG26	yellow
Pin 2	Motor winding MB	AWG26	green
Pin 3	Motor winding MC	AWG26	blue

Configuration

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