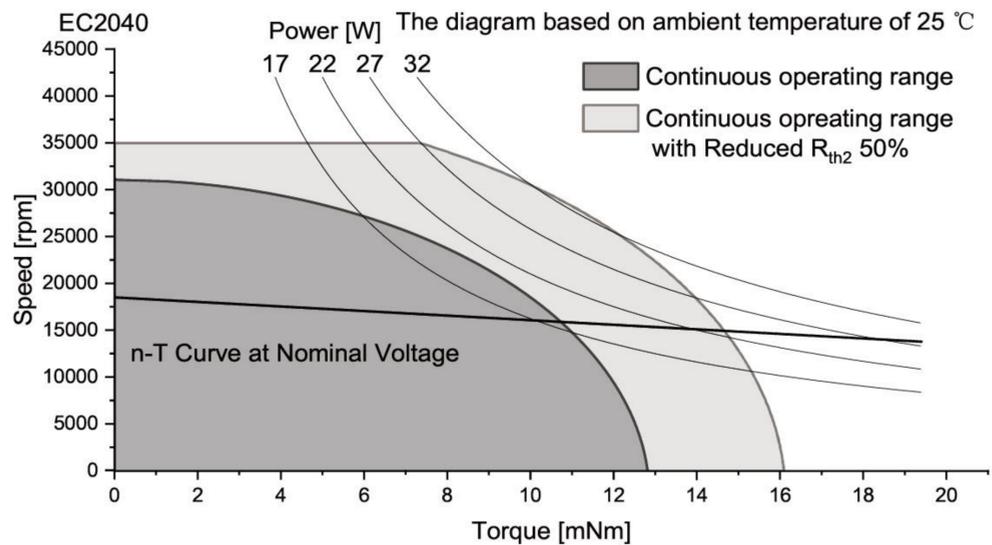


	Sensorless	EC2040L-...	1218	1818	2418	3618			
	With hall sensor	EC2040S-...							
Motor data									
Values at nominal voltage									
1	Nominal voltage	V	12	18	24	36			
2	No load speed	rpm	17780	18360	18500	18880			
3	No load current	mA	149	137	105	83			
4	Nominal speed	rpm	15083	16171	16042	16164			
5	Nominal torque	mNm	10	10	10	10			
6	Nominal current	A	1.72	1.22	0.93	0.64			
7	Stall torque	mNm	65.93	83.87	75.25	69.52			
8	Stall current	A	10.53	9.23	6.28	3.98			
9	Max. efficiency	%	77.6	77.1	75.8	73.2			
10	Terminal resistance	Ω	1.14	1.95	3.82	9.04			
11	Terminal inductance	mH	0.08	0.17	0.3	0.62			
12	Torque constant	mNm/A	6.35	9.22	12.18	17.83			
13	Speed constant	rpm/V	1503	1035	784	536			
14	Speed/torque gradient	rpm/mNm	270	219	246	272			
15	Mechanical time constant	ms	6.5	5.3	5.9	6.5			
16	Rotor inertia	gcm ²	2.3	2.3	2.3	2.3			

17	Thermal resistance housing-ambient	13.8 K/W
18	Thermal resistance winding-housing	4.3 K/W
19	Thermal time constant winding	8 s
20	Thermal time constant motor	366 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	<4 N 0 mm >4 N max. 0.3 mm
25	Radial play	preloaded
26	Max. axial load (dynamic)	3.5 N
27	Max. force for press fits (static)	44 N
	(static, shaft supported)	1200 N
28	Max. radial loading, 5mm from flange	15 N
29	Number of pole pairs	1
30	Number of phases	3
31	Weight of motor	56 g

Operating Range



Connection

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

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