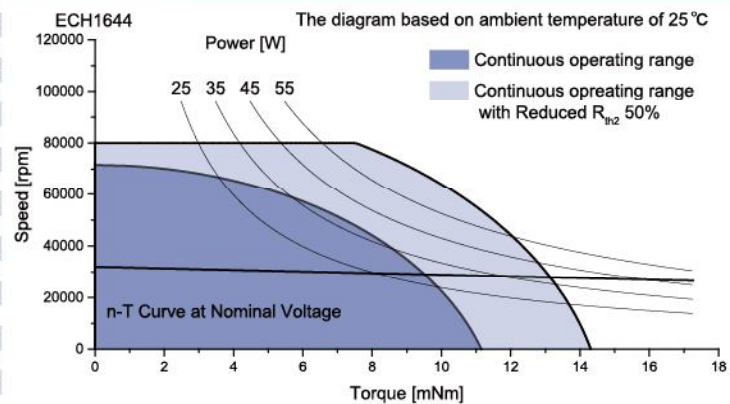


		Sensorless With hall sensor	ECH1644L-...	ECH1644S-...	2430	3040	3640			
Motor data										
Values at nominal voltage										
1	Nominal voltage	V	24	30	36					
2	No load speed	rpm	30580	30900	30160					
3	No load current	mA	95	80	76					
4	Nominal speed	rpm	28134	28403	27632					
5	Nominal torque	mNm	7.5	7.5	7.5					
6	Nominal current	A	1.1	0.9	0.74					
7	Stall torque	mNm	93.8	92.8	89.5					
8	Stall current	A	12.7	10.2	8					
9	Max. efficiency	%	83.4	83	81.5					
10	Terminal resistance	Ω	1.89	2.95	4.5					
11	Terminal inductance	mH	0.12	0.19	0.28					
12	Torque constant	mNm/A	7.44	9.2	11.3					
13	Speed constant	rpm/V	1284	1038	846					
14	Speed/torque gradient	rpm/mNm	326	333	337					
15	Mechanical time constant	ms	2.8	2.9	2.9					
16	Rotor inertia	gcm ²	0.82	0.82	0.82					

17	Thermal resistance housing-ambient	16.2 K/W
18	Thermal resistance winding-housing	3.5 K/W
19	Thermal time constant winding	4 s
20	Thermal time constant motor	339 s
21	Ambient temperature	-30...+100°C
22	Max. permissible winding temperature	+150°C
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)	44 N
	(static, shaft supported)	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	43g

Operating Range



Connection

Connection A (Sensor)		
Pin 1 Vhall 3-18 VDC	PVC	
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)		
Pin 1 Motor winding MA	PVC	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