

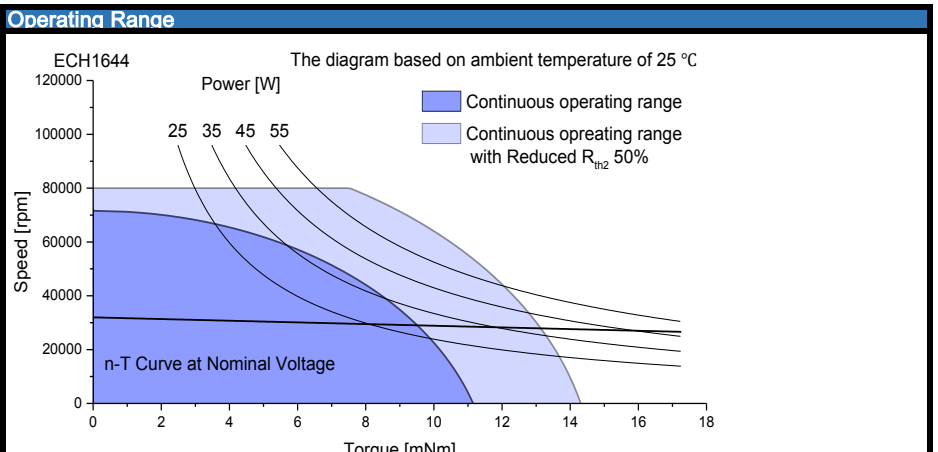
M 1.5:1

Sensorless	ECH1644L-...	2430	3040	3640				
With hall sensor	ECH1644S-...							

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	0,8	0,8	0,8			

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	-40...+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



Connection	
Connection A (Sensor)	
Pin 1 Vhall 3-18 VDC	PTFE
Pin 2 Hall sensor HA	AWG28 black
Pin 3 Hall sensor HB	AWG28 black
Pin 4 Hall sensor HC	AWG28 black
Pin 5 GND	AWG28 black
Pin 6 Motor winding MA	AWG28 black
Pin 7 Motor winding MB	AWG28 black
Pin 8 Motor winding MC	AWG28 black
Connector	JST PH2.0-8P
Connection B (Sensorless)	
Pin 1 Motor winding MA	PTFE yellow
Pin 2 Motor winding MB	AWG28 green
Pin 3 Motor winding MC	AWG28 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