

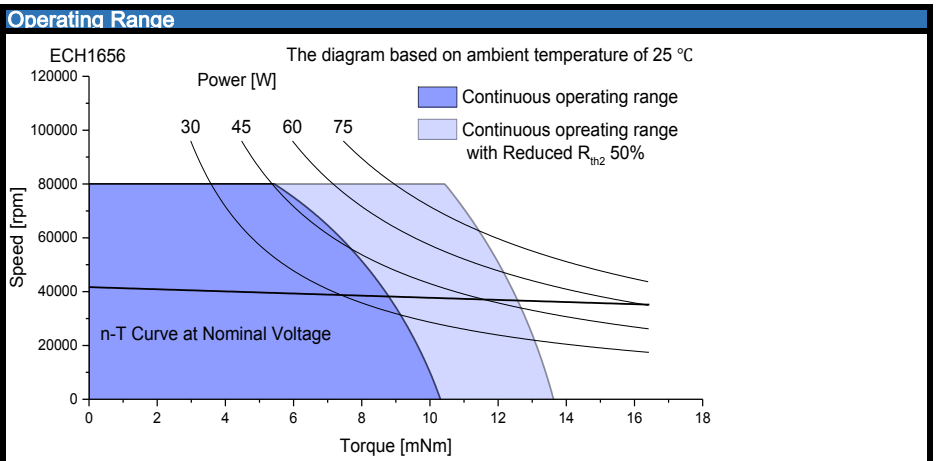
M 1.5:1

	Sensorless With hall sensor	ECH1656L-...	2440	3040	3640				
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Values at nominal voltage									
1	Nominal voltage	V	24	30	36				
2	No load speed	rpm	41670	40775	41311				
3	No load current	mA	103	89	79				
4	Nominal speed	rpm	39232	38438	38898				
5	Nominal torque	mNm	6	6	6				
6	Nominal current	A	1,2	0,95	0,8				
7	Stall torque	mNm	103	105	103				
8	Stall current	A	18,9	15,1	12,5				
9	Max. efficiency	%	85,8	85,2	84,7				

10	Terminal resistance	Ω	1,27	1,99	2,88				
11	Terminal inductance	mH	0,09	0,14	0,2				
12	Torque constant	mNm/A	5,47	6,98	8,27				
13	Speed constant	rpm/V	1746	1367	1155				
14	Speed/torque gradient	rpm/mNm	406	390	402				
15	Mechanical time constant	ms	2,6	2,5	2,6				
16	Rotor inertia	gcm ²	0,6	0,6	0,6				

17	Thermal resistance housing-ambient	16.2 K/W
18	Thermal resistance winding-housing	1.9 K/W
19	Thermal time constant winding	5 s
20	Thermal time constant motor	397 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	50 g



Connection	
Connection A (Sensor)	
Pin 1 Vhall 3-18 VDC	PTFE AWG28 black
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 AWG28 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