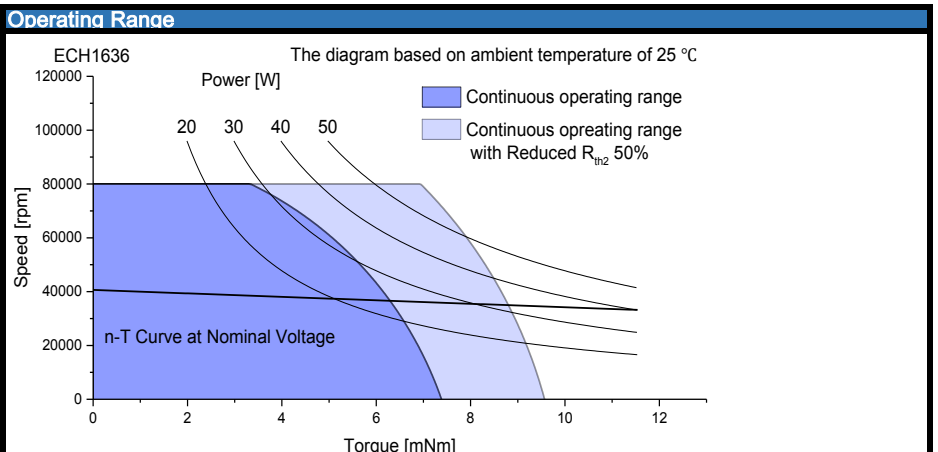


⊕ M 1.5:1

	Sensorless With hall sensor	ECH1636L-...	2440	3040	3640				
<b>Values at nominal voltage</b>									
1	Nominal voltage	V	24	30	36				
2	No load speed	rpm	40273	40225	40760				
3	No load current	mA	90	77	72				
4	Nominal speed	rpm	37067	36958	37406				
5	Nominal torque	mNm	5	5	5				
6	Nominal current	A	0,98	0,79	0,67				
7	Stall torque	mNm	62,8	61,6	60,8				
8	Stall current	A	11,2	8,8	7,35				
9	Max. efficiency	%	82,9	82,2	81,2				

10	Terminal resistance	Ω	2,14	3,41	4,9				
11	Terminal inductance	mH	0,11	0,17	0,24				
12	Torque constant	mNm/A	5,65	7,06	8,35				
13	Speed constant	rpm/V	1692	1353	1143				
14	Speed/torque gradient	rpm/mNm	641	653	671				
15	Mechanical time constant	ms	3,7	3,8	3,9				
16	Rotor inertia	gcm <sup>2</sup>	0,6	0,6	0,6				

17	Thermal resistance housing-ambient	18.6 K/W
18	Thermal resistance winding-housing	3.44 K/W
19	Thermal time constant winding	6 s
20	Thermal time constant motor	298 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	32 g



Connection	
<b>Connection A (Sensor)</b>	
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
<b>Connection B (Sensorless)</b>	
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