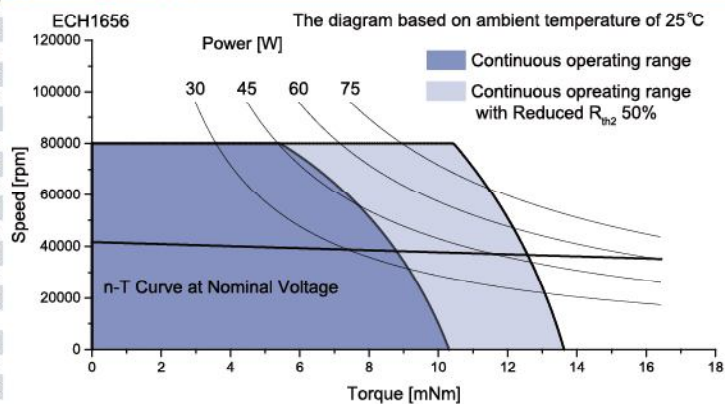


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	Sensorless With hall sensor	ECH1656L-...	2440	3040	3640			
Motor data								
Values at nominal voltage								
1	Nominal voltage	V	24	30	36			
2	No load speed	rpm	41670	40775	41311			
3	No load current	mA	103	89	79			
4	Nominal speed	rpm	39232	38438	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	0.61	0.61	0.61			

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	-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	50 g

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
Connector		
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