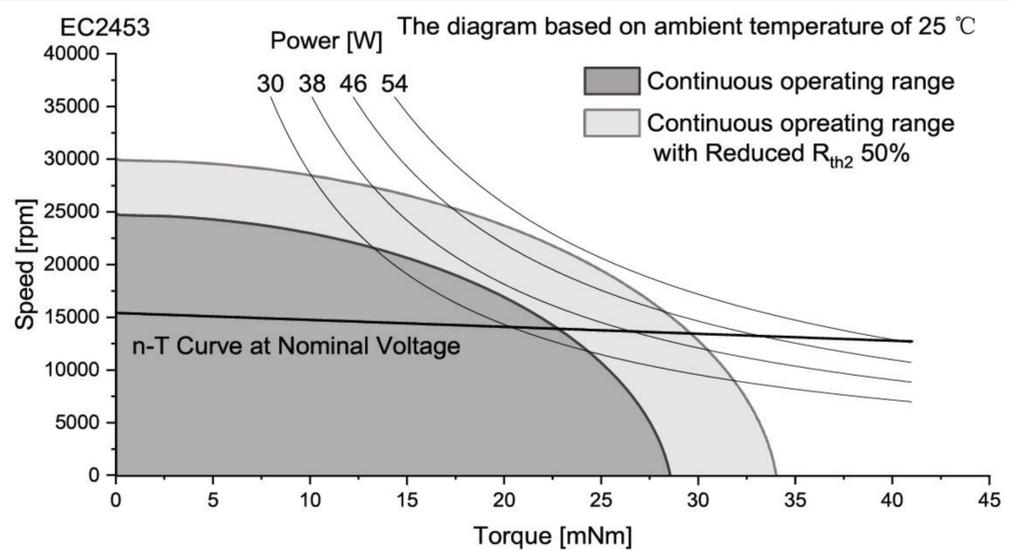


M 1:1.5

	Sensorless	EC2453L-...	1215	2415	3615	4815			
	With hall sensor	EC2453S-...							
Motor data									
Values at nominal voltage									
1	Nominal voltage	V	12	24	36	48			
2	No load speed	rpm	15083	15398	15202	15310			
3	No load current	mA	308	156	115	94			
4	Nominal speed	rpm	13938	14347	14211	14263			
5	Nominal torque	mNm	20	20	20	20			
6	Nominal current	A	2.96	1.51	1.01	0.77			
7	Stall torque	mNm	263.48	293.05	306.73	292.55			
8	Stall current	A	35.29	20.00	13.79	9.96			
9	Max. efficiency	%	82.2	83.1	82.6	81.5			
10	Terminal resistance	Ω	0.34	1.2	2.61	4.82			
11	Terminal inductance	mH	0.05	0.19	0.44	0.76			
12	Torque constant	mNm/A	7.53	14.77	22.43	29.66			
13	Speed constant	rpm/V	1268	647	426	322			
14	Speed/torque gradient	rpm/mNm	57	53	50	52			
15	Mechanical time constant	ms	2.5	2.3	2.2	2.3			
16	Rotor inertia	gcm ²	4.2	4.2	4.2	4.2			

17	Thermal resistance housing-ambient	10.2 K/W
18	Thermal resistance winding-housing	6.4 K/W
19	Thermal time constant winding	36 s
20	Thermal time constant motor	555 s
21	Ambient temperature	-30...+100°C
22	Max. permissible winding temperature	+150°C
23	Max. permissible speed	30000 rpm
24	Axial play at axial load	<4 N 0 mm >4 N max. 0.3 mm
25	Radial play	preloaded
26	Max. axial load (dynamic)	3.5 N
27	Max. force for press fits (static)	44 N
	(static, shaft supported)	1200 N
28	Max. radial loading, 5mm from flange	15 N
29	Number of pole pairs	1
30	Number of phases	3
31	Weight of motor	110 g

Operating Range



Connection

Connection A (Sensor)		
Pin 1	Vhall 3-18 VDC	AWG26 black
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	AWG26 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