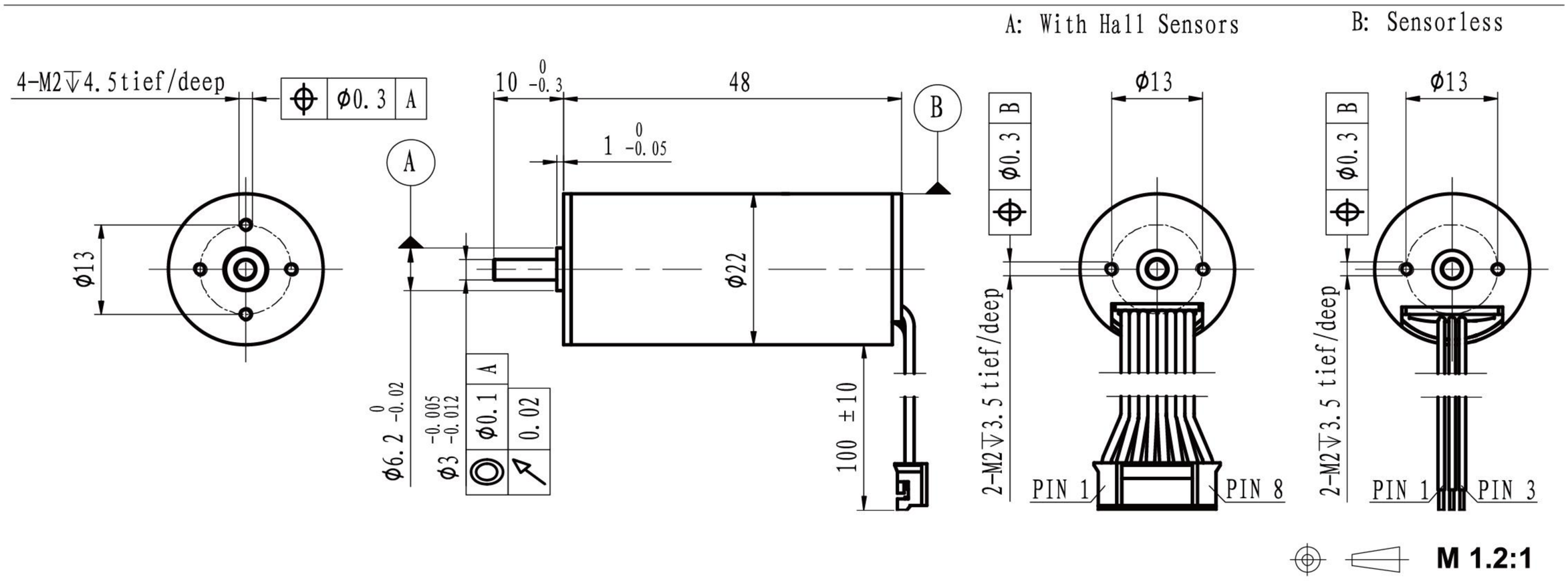
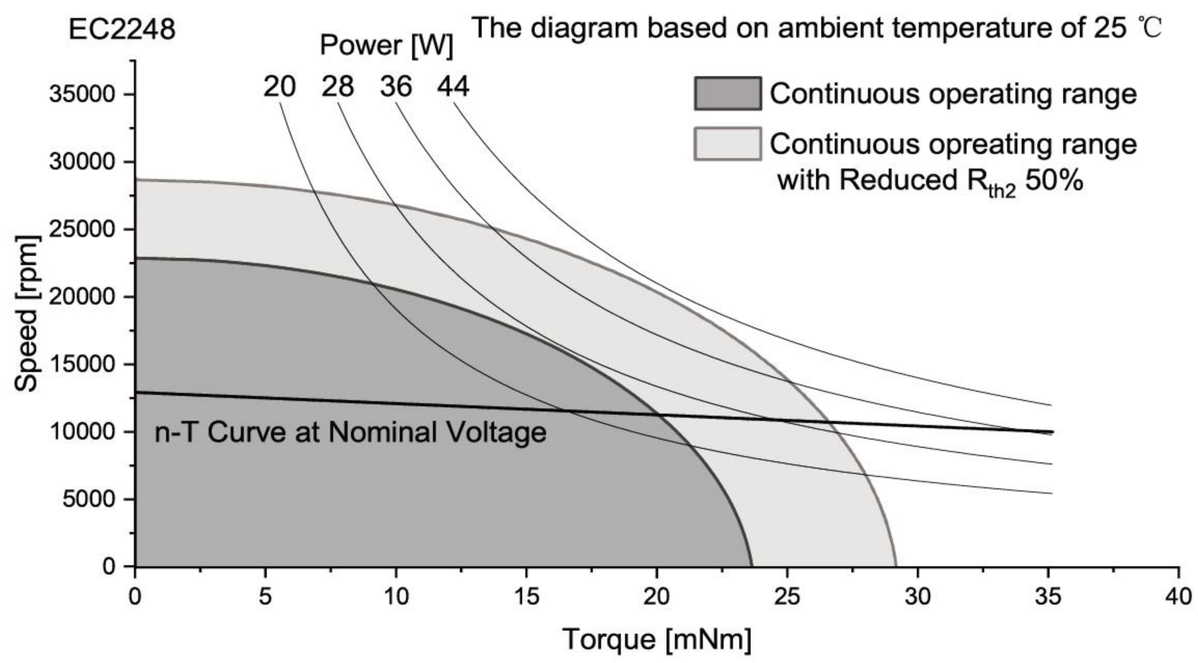


	Sensorless With hall sensor	EC2248L-… EC2248S-…	1213	2413	3613	4813				
Motor data										
Values at nominal voltage										
1	Nominal voltage	V	12	24	36	48				
2	No load speed	rpm	13004	12930	13390	13641				
3	No load current	mA	179	102	82	69				
4	Nominal speed	rpm	11422	11413	11749	12159				
5	Nominal torque	mNm	18	18	18	18				
6	Nominal current	A	2.24	1.13	0.79	0.61				
7	Stall torque	mNm	147.93	153.38	146.84	165.71				
8	Stall current	A	17.14	8.86	5.88	5.07				
9	Max. efficiency	%	80.6	79.7	77.8	78.0				
10	Terminal resistance	Ω	0.7	2.71	6.12	9.47				
11	Terminal inductance	mH	0.07	0.28	0.58	0.97				
12	Torque constant	mNm/A	8.72	17.52	25.32	33.14				
13	Speed constant	rpm/V	1095	545	377	288				
14	Speed/torque gradient	rpm/mNm	88	84	91	82				
15	Mechanical time constant	ms	2.9	2.7	3.0	2.7				
16	Rotor inertia	gcm^2	3.1	3.1	3.1	3.1				

17	Thermal resistance housing-ambient	11.8 K/W
18	Thermal resistance winding-housing	4.7 K/W
19	Thermal time constant winding	21 s
20	Thermal time constant motor	504 s
21	Ambient temprature	-30…+100℃
22	Max. permissible winding temperature	+150℃
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	85 g

Operating Range



Connection

Conection A (Sensor)		PVC	
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		
Conection B (Sensorless)		PVC	
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