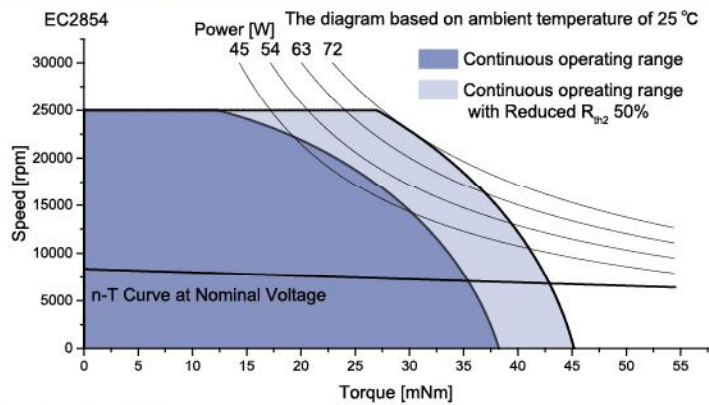


**M 1:1.5**

		Sensorless With hall sensor	EC2854L-...	1208	2408	3608	4808			
<b>Motor data</b>										
<b>Values at nominal voltage</b>										
1	Nominal voltage	V		12	24	36	48			
2	No load speed	rpm		8031	8336	8175	8325			
3	No load current	mA		142	94	65	51			
4	Nominal speed	rpm		6646	7084	6891	6805			
5	Nominal torque	mNm		35	35	35	35			
6	Nominal current	A		2.62	1.38	0.91	0.7			
7	Stall torque	mNm		203	233	223	192			
8	Stall current	A		14.5	8.66	5.43	3.58			
9	Max. efficiency	%		81.2	80.3	79.3	77.6			
10	Terminal resistance	$\Omega$		0.83	2.77	6.63	13.4			
11	Terminal inductance	mH		0.16	0.61	1.41	2.56			
12	Torque constant	mNm/A		14.1	27.2	41.5	54.3			
13	Speed constant	rpm/V		676	351	230	176			
14	Speed/torque gradient	rpm/mNm		39.6	35.8	36.7	43.4			
15	Mechanical time constant	ms		3.5	3.2	3.3	3.9			
16	Rotor inertia	gcm <sup>2</sup>		8.5	8.5	8.5	8.5			

17	Thermal resistance housing-ambient	7.1 K/W
18	Thermal resistance winding-housing	5 K/W
19	Thermal time constant winding	51 s
20	Thermal time constant motor	552 s
21	Ambient temperature	-30...+100°C
22	Max. permissible winding temperature	+150°C
23	Max. permissible speed	25000 rpm
24	Axial play at axial load <8 N	0 mm
	>8 N	max. 0.3 mm
25	Radial play	preloaded
26	Max. axial load (dynamic)	7.5 N
27	Max. force for press fits (static)	100 N
	(static, shaft supported)	2000 N
28	Max. radial loading, 5mm from flange	25 N
29	Number of pole pairs	1
30	Number of phases	3
31	Weight of motor	156 g

**Operating Range**



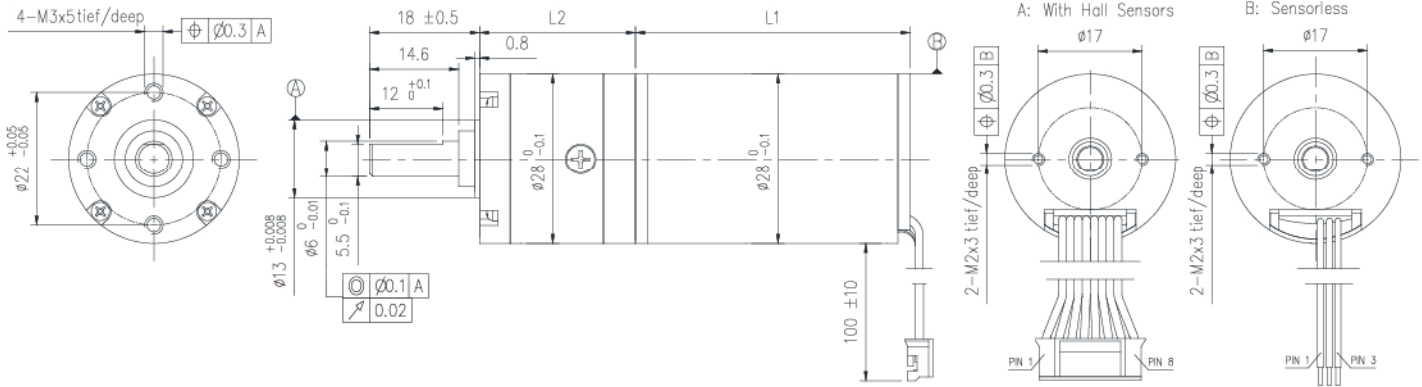
**Connection**

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

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



M 1:1

		ECG28..L	ECG28..S	P28	
<b>Motor type</b>					
1	Length of motor L1	ECG2845S/L	mm	45	Motor performance at P17
		ECG2854S/L	mm	54	Motor performance at P18
		ECG2864S/L	mm	64	Motor performance at P19
		ECDG2854S	mm	54	Motor performance at P34
		ECDG2863S	mm	63	Motor performance at P35

<b>Gearhead Data</b>						
2	Housing material				Steel	
3	Geartrain material				Steel	
4	Bearing type on output shaft				Ball bearing	
5	Max. radial load (10mm from flange)	N			58.8	
6	Max. axial load	N			29.4	
7	Radial play of shaft	mm			0.04	
8	Thrust play of shaft	mm			0.4	
9	Backlash at no load	°			2	
10	Max. continuous speed	rpm			36000	
11	Operating temperature range	°C			-30..+100	
12	Number of stages		1	2	3	4
13	Max continuous torque	Nm	1.55	2.1	2.6	3.1
14	Max. intermittent torque	Nm	3.1	4.2	5.2	6.2
15	Max. efficiency	%	90	83	77	72
16	Gearhead length L2	mm	28.4	34.7	41	47.3
17	Ratio	X:1	4.4, 5.2, 6.7, 8.3	15.1, 16.9, 18, 20.1, 23.1, 25.6, 27.6, 29.3, 31.8, 35, 43.5, 55.2,	61.7, 68, 7, 77.1, 87, 6, 100.6, 109, 120, 125, 129, 134.1, 139.8, 144.7, 149.1, 154, 166.8, 183.8, 211.7, 243, 264.5, 290	335.9, 385.5, 411.4, 494.8, 528, 630, 677.6, 705.8, 759.7, 860.4, 964.7, 1069, 1158, 1276, 1523, 1755, 2014, 3051, 3792, 4713

<b>Connection</b>			<b>Configuration</b>		
<b>Connection A (Sensor)</b>			Pinion: Metal/Plastic		
PVC			Ball bearing: Preload		
Pin 1	Vhall 3-18 VDC	AWG26 Black	Flange: Standard frange front&back/customize the frange		
Pin 2	Hall sensor HA	AWG26 Black	Shaft: Length/Diameter/Cut face/double shaft/hollow shaft		
Pin 3	Hall sensor HB	AWG26 Black	Leadwire: PVC/Silicon/Teflon/UL No/Dimensions/length		
Pin 4	Hall sensor HC	AWG26 Black	Connector: JST/MOLEX/TE		
Pin 5	GND	AWG26 Black	<b>More:</b>		
Pin 6	Motor winding MA	AWG26 Black	Special design for high speed/big torque		
Pin 7	Motor winding MB	AWG26 Black	ECD series can be chosen in some application		
Pin 8	Motor winding MC	AWG26 Black	Details please contact our sales engineer		
Conector JST PH2.0-8P					
<b>Connection B (Sensorless)</b>					
PTFE					
Pin 1	Motor winding MC	AWG26 Yellow			
Pin 2	Motor winding MB	AWG26 Green			
Pin 3	Motor winding MA	AWG26 Blue			