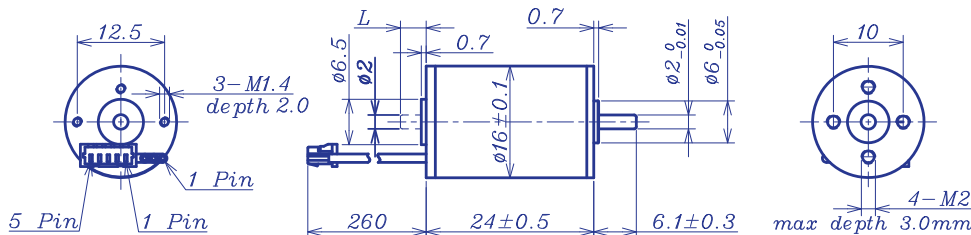
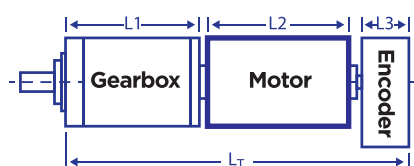


DC BRUSHLESS MOTOR

HIGH TEMPERATURE SERIES



AM-BL1624AE Series

								
Brushless Motor			Ball Bearings					
Motor Model			0514	0614	0914	1213	1215	
Nominal voltage		V	4.5	6	9	12	12	
No load speed ±12%		rpm	13550	14098	13550	13426	14800	
No load current Max 150%		mA	150	125	75	65	60	
Recommend limit for continuous operating	Max cont. torque	mN.m	2.5	2.5	2.5	2.5	2.6	
	Rated Speed	rpm	7771	8288	7992	7880	9382	
	Rated Current	mA	1000	780	500	380	420	
	Rated Power	W	2	2.1	2.1	2.0	2.6	
Starting current		mA	2143	1714	1111	828	1043	
Stall torque		mN.m	6	6	6	6	7	
Maximum power output		W	2.1	2.2	2.2	2.1	2.8	
Maximum Efficiency		%	54	53	55	52	58	
Terminal resistance ±12%		Ω	2.1	3.5	8.1	14.5	11.5	
Inductance (1KHz)		mH	Null	Null	Null	Null	0.5	
Mechanical time constant		ms	4.6	4.7	4.4	4.5	4.1	
Moment of inertia		gcm ²	0.19	0.19	0.19	0.19	0.19	
Torque constant		mN.m/A	2.9	3.8	5.9	7.9	7.3	
Speed constant		rpm/V	3238	2534	1615	1214	1309	
Speed/torque gradient		rpm/mN.m	2305.3	2354.4	2211.1	2238.6	2062.2	
Weight		g	31	31	31	31	31	
ADDITIONAL INFORMATION								
Motor thermal resistance:			**** K/W		Motor thermal time constant:			**** S
Axial (dynamic):			1.5 N		Radial (5mm from mounting face):			6.0 N
Press-fit force (static):			40 N		Max allowable screw depth into flange:			3.0 mm
Maximum radial play (5mm from mounting face):			≤0.02 mm		Axial play:			0 (<2.0N)
Maximum winding temperature:			125°C		Ambient temperature range:			-40 to 85°C
Standard rear shaft diameter:			2 mm		Standard rear shaft length "L":			No mm
Connection (AWG 26#)		Total Length: L _T =L ₁ +L ₂ +L ₃						
Cable 1: Yellow	Winding A	L1:16GP	L1:19GP	L2:BL16	L3:EN16S	L3:EN16T	 AM-BL1624AE Combination Scheme Recommended Gearbox: Planetary Gearbox: AM-16GP AM-19GP Recommended Encoder: Encoder S: AM-EN1611S*** 2~3 Channels Encoder T: AM-EN1612T*** 2~3 Channels For more combination specs, visit Assun Motor website.	
Cable 2: Red	Winding B	15.9	18.8	24.0	10.7	12.0		
Cable 3: Blue	Winding C	19.6	23.6					
Plug definition (AWG 28#) Molex: 51021-0500		23.3	28.4					
		27.0	33.2					
Plug 1: Brown	Hall 3~16V							
Plug 2: Black	Hall GND	Remarks: Client can choose gearbox and encoder to match with this motor. Some combinations are listed here for reference.						
Plug 3: Yellow	Hall A							
Plug 4: Red	Hall B							
Plug 5: Blue	Hall C							
Motor data tested at 25°C. Motor operation exceeding continuous limits will reduce life or result in damage. At elevated ambient temperatures, load current must be reduced.								

Download datasheet: <https://assunmotor.com/documents-download>

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