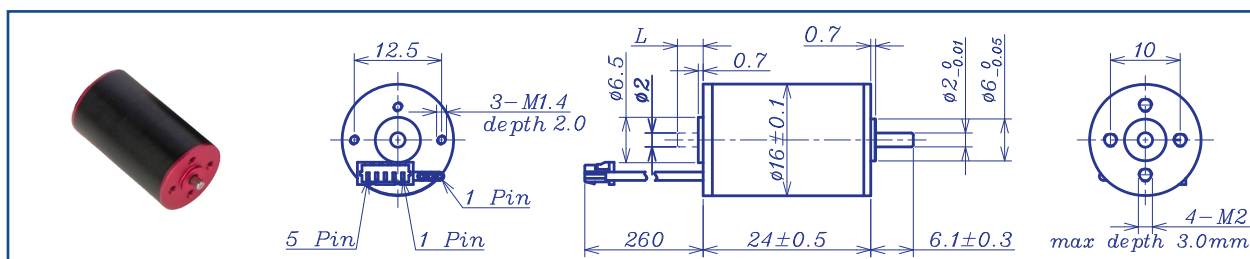


AM-BL1624AE Series



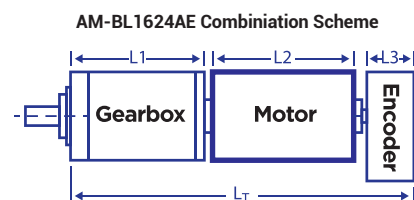
		Brushless Motor			Ball Bearings		
Motor Model		0514	0614	0914	1213	1215	
Nominal voltage	V	4.5	6	9	12	12	
No load speed	±12% rpm	13550	14098	13550	13426	14800	
No load current	Max 150% mA	150	125	75	65	60	
Recommend limit for continuous operating	Max cont. torque	mN.m	2.5	2.5	2.5	2.6	
	Rated Speed	rpm	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: $L_T = L_1 + L_2 + L_3$				
	L1:16GP	L1:19GP	L2:BL16	L3:EN16S	L3:EN16T
Cable 1: Yellow Winding A	15.9	18.8	24.0	10.7	12.0
Cable 2: Red Winding B	19.6	23.6			
Cable 3: Blue Winding C	23.3	28.4			
Plug definition (AWG 28#) Molex: 51021-0500	27.0	33.2			
Plug 1: Brown Hall 3~16V					
Plug 2: Black Hall GND					
Plug 3: Yellow Hall A					
Plug 4: Red Hall B					
Plug 5: Blue Hall C					

Remarks: Client can choose gearbox and encoder to match with this motor. Some combinations are listed here for reference.



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.

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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