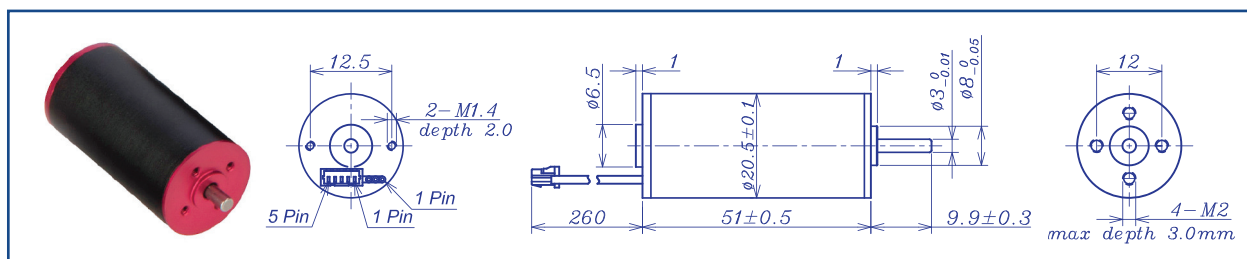


AM-BL2051AN Series

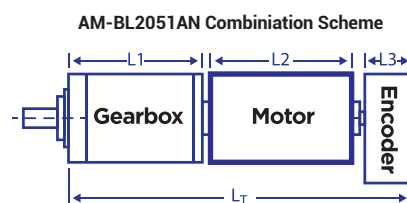


		Brushless Motor				Ball Bearings		
Motor Model		1221	1216	2426	2421	3619	3624	
Nominal voltage	V	12	12	24	24	36	36	
No load speed ±12%	rpm	20604	15670	25800	21400	19297	24781	
No load current Max 150%	mA	250	185	155	126	65	90	
Recommend limit for continuous operating	Max cont. torque	mN.m	6.9	9.5	3.0	6.6	5.6	
	Rated Speed	rpm	19520	14156	25336	20309	17917	23899
	Rated Current	mA	1500	1500	500	750	620	500
	Rated Power	W	14.1	14.1	8.1	14.1	18.4	14.1
Starting current	mA	24000	13793	19355	12371	7826	11613	
Stall torque	mN.m	131	98	169	130	137	159	
Maximum power output	W	70.5	40.3	114.3	72.7	69.3	102.9	
Maximum Efficiency	%	81	78	83	81	83	83	
Terminal resistance ±12%	Ω	0.5	0.87	1.24	1.94	4.6	3.1	
Inductance (1KHz)	mH	0.04	0.07	0.1	0.16	0.47	0.29	
Mechanical time constant	ms	2.4	2.4	2.3	2.5	2.1	2.3	
Moment of inertia	gcm ²	1.43	1.43	1.43	1.43	1.43	1.43	
Torque constant	mN.m/A	5.5	7.2	8.8	10.6	17.7	13.8	
Speed constant	rpm/V	1735	1324	1084	901	541	694	
Speed/torque gradient	rpm/mN.m	157.6	159.6	152.5	164.9	140.7	156.2	
Weight	g	87	87	87	87	87	87	

ADDITIONAL INFORMATION			
Motor thermal resistance:	15 K/W	Motor thermal time constant:	720 S
Axial (dynamic):	2.5 N	Radial (5mm from mounting face):	16.0 N
Press-fit force (static):	50 N	Max allowable screw depth into flange:	3.0 mm
Maximum radial play (5mm from mounting face):	≤0.02 mm	Axial play:	0 (<4.0N)
Maximum winding temperature:	85°C	Ambient temperature range:	-30 to 65°C
Standard rear shaft diameter:	3 mm	Standard rear shaft length "L":	0/3.7/5.5 mm

Connection (AWG 24#)	Total Length: $L_T = L_1 + L_2 + L_3$				
Cable 1: Yellow Winding A	L1:19GP	L1:24GP	L2:BL20	L3:EN16S	L3:EN16T
Cable 2: Red Winding B	18.8	24	51.0	10.7	12.0
Cable 3: Blue Winding C	23.6	34.3			
Plug definition (AWG 28#) Molex: 51021-0500	28.4	42.8			
	33.2	51.3			
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-19GP
AM-22GP
AM-24GP

Recommended Encoder:
Encoder S: AM-EN1611S***
2~3 Channels
Encoder T: AM-EN1612T***
2~3 Channels

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-downloads>

Visit Our Website and Online Shop at <https://assunmotor.com> Contact: info@assunmotor.com