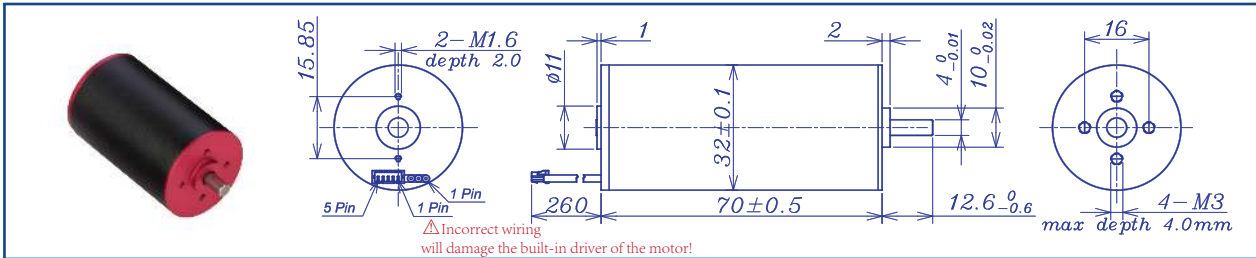


AM-BD3270AN Series



		Brushless Motor				Ball Bearings			
Motor Model		1210	1207	2412	2409	2407	2406		
Nominal voltage		V	12	12	24	24	24	24	
No load speed ±12%		rpm	9794	6529	11523	8904	7255	6121	
No load current Max 150%		mA	355	192	190	127	88	75	
Recommend limit for continuous running	Max cont. torque	mN.m	30.7	45.4	33.8	46.7	47.5	51.1	
	Rated Speed	rpm	9294	5828	11011	8204	6547	5373	
	Rated Current	mA	3000	2800	1900	1950	1600	1450	
	Rated Power	W	29.9	27.7	39.0	40.1	32.6	28.8	
Starting current		mA	52174	24490	38710	23301	15584	11321	
Stall torque		mN.m	602	423	762	593	487	418	
Maximum power output		W	154.4	72.3	230.0	138.3	92.5	67.0	
Maximum Efficiency		%	84	83	86	86	86	84	
Operating Range		V	10~28	10~28	10~28	10~28	10~28	10~28	
Type of Current			Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	
Mechanical time constant		ms	2.6	2.5	2.4	2.4	2.4	2.3	
Moment of inertia		gcm ²	15.3	15.3	15.3	15.3	15.3	15.3	
Torque constant		mN.m/A	11.6	17.4	19.8	25.6	31.4	37.2	
Speed constant		rpm/V	822	548	482	373	304	257	
Speed/torque gradient		rpm/mN.m	16.3	15.4	15.1	15.0	14.9	14.6	
Weight		g	290	290	290	290	290	290	

ADDITIONAL INFORMATION

Motor thermal resistance:	8.2 K/W	Motor thermal time constant:	822 S
Axial (dynamic):	4.0 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:	4 mm	Standard rear shaft length "L":	0/3.7/5.5 mm

Connection (AWG 20#)	Total Length: L _T =L ₁ +L ₂ +L ₃				
	L1:32GP	L1:36GP	L2:BD32	L3:EN22S	L3:EN24T
Cable 1: Red +Vcc	27.4	39.6	70.0	10.7	12.0
Cable 2: Blue GND	35.9	48.6			
Plug definition (AWG 28#) Molex: 51021-0500	44.4	57.6			
Plug 1: Red GND					
Plug 2: Black FG Pulse					
Plug 3: Yellow CW/CCW					
Plug 4: Red PWM					
Plug 5: Blue Brake					

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

AM-BD3270AN Combination Scheme

Recommended Gearbox:
AM-32GP
AM-36GP

Recommended Encoder:
Encoder S: AM-EN221S***
2~3 Channels
Encoder T: AM-EN2412T***
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>