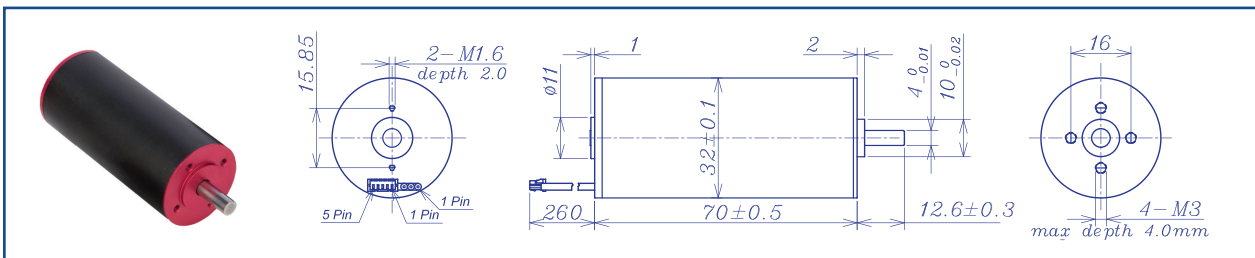


AM-BL3270AN Series

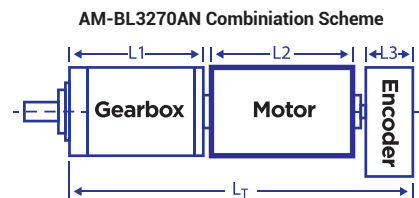


		Brushless Motor			Ball Bearings		
Motor Model		1210	1207	2412	2409	3611	3609
Nominal voltage		V	12	12	24	24	36
No load speed ±12%		rpm	9794	6529	11523	8904	10882
No load current Max 150%		mA	355	192	190	127	94
Recommend limit for continuous operating	Max cont. torque	mN.m	40.0	52.4	35.8	47.9	44.2
	Rated Speed	rpm	9143	5721	10982	8184	10225
	Rated Current	mA	3800	3200	2000	2000	1500
	Rated Power	W	38.3	31.4	41.2	41.1	47.4
Starting current		mA	52174	24490	38710	23301	23377
Stall torque		mN.m	602	423	762	593	733
Maximum power output		W	154.4	72.3	230.0	138.3	208.7
Maximum Efficiency		%	84	83	86	86	88
Terminal resistance ±12%		Ω	0.23	0.49	0.62	1.03	1.54
Inductance (1KHz)		mH	N/A	0.09	0.12	0.2	0.285
Mechanical time constant		ms	2.6	2.5	2.4	2.4	2.3
Moment of inertia		gcm <sup>2</sup>	15.3	15.3	15.3	15.3	15.3
Torque constant		mN.m/A	11.6	17.4	19.8	25.6	31.5
Speed constant		rpm/V	822	548	482	373	303
Speed/torque gradient		rpm/mN.m	16.3	15.4	15.1	15.0	14.9
Weight		g	280	280	280	280	280

ADDITIONAL INFORMATION			
Motor thermal resistance:	8.2 K/W	Motor thermal time constant:	822 S
Axial (dynamic):	6.0 N	Radial (5mm from mounting face):	28.0 N
Press-fit force (static):	110 N	Max allowable screw depth into flange:	4.0 mm
Maximum radial play (5mm from mounting face):	≤0.02 mm	Axial play:	0 (<6.0N)
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 <sub>T</sub> =L <sub>1</sub> +L <sub>2</sub> +L <sub>3</sub>				
Cable 1: Yellow Winding A	L1:32GP	L1:36GP	L2:BL32	L3:EN22S	L3:EN24T
Cable 2: Red Winding B	27.4	30.6	70.0	10.7	12.0
Cable 3: Blue Winding C	35.9	39.6			
Plug definition (AWG 28#) Molex: 51021-0500	44.4	48.6			
	52.9	57.6			
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-32GP  
AM-36GP

**Recommended Encoder:**  
Encoder S: AM-EN2211S\*\*\*  
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>

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