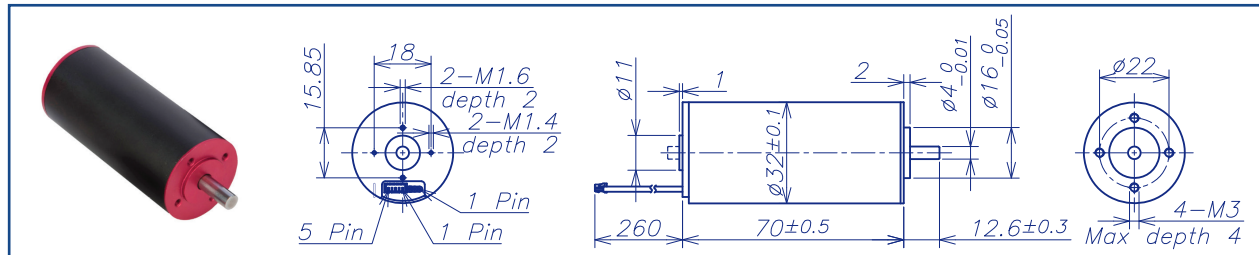


AM-BL3270BF Series



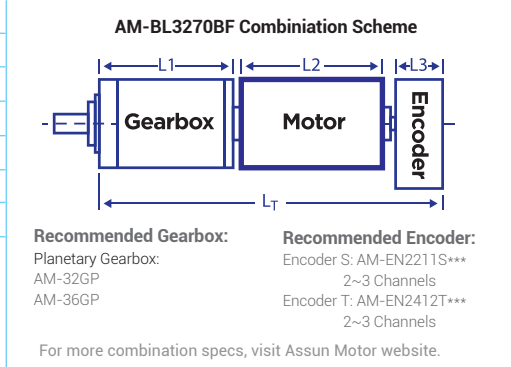
		Brushless Motor			Ball Bearings		
Motor Model		1208	1207	2409	2407	3609	3607
Nominal voltage		V	12	12	24	24	36
No load speed ±12%		rpm	8426	6741	8988	7095	8792
No load current Max 150%		mA	750	500	375	250	167
Recommend limit for continuous operating	Max cont. torque	mN.m	125.8	139.4	123.0	140.5	123.2
	Rated Speed	rpm	7653	5959	8325	6347	8128
	Rated Current	mA	10000	8700	5200	4600	3400
	Rated Power	W	100.83	86.99	107.27	93.39	104.83
Starting current		mA	109091	750000	70588	43636	45000
Stall torque		mN.m	1484	1275	1800	1409	1760
Maximum power output		W	327.3	225.0	423.5	261.8	405.0
Maximum Efficiency		%	84	84	86	85	86
Terminal resistance ±12%		Ω	0.11	0.15	0.34	0.55	0.80
Inductance (1KHz)		mH	0.01	0.01	0.048	0.08	0.12
Mechanical time constant		ms	1.12	1.05	0.99	1.00	0.99
Moment of inertia		gcm <sup>2</sup>	18.9	18.9	18.9	18.9	18.9
Torque constant		mN.m/A	13.6	17.0	25.5	32.3	39.1
Speed constant		rpm/V	702	562	374	296	244
Speed/torque gradient		rpm/mN.m	5.7	5.3	5.0	5.0	4.8
Weight		g	280	280	280	280	280

ADDITIONAL INFORMATION

Motor thermal resistance:	7.0 K/W	Motor thermal time constant:	1163 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 (<6.0 N)
Maximum winding temperature:	155°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>				
	L1:32GP	L1:36GP	L2:BL28	L3:EN22S	L3:EN24T
Cable 1: Yellow Winding A					
Cable 2: Red Winding B	27.4	39.6	70.0	10.7	12.0
Cable 3: Blue Winding C	35.9	48.6			
Plug definition (AWG 28#) Molex: 51021-0500	44.4	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.



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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