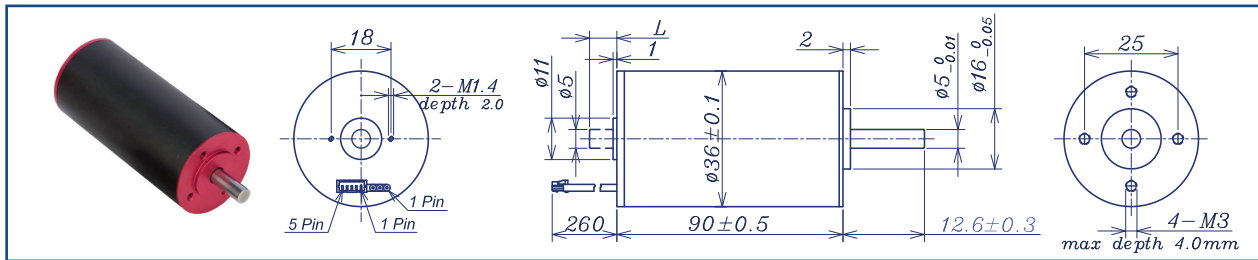


AM-BL3690BF Series



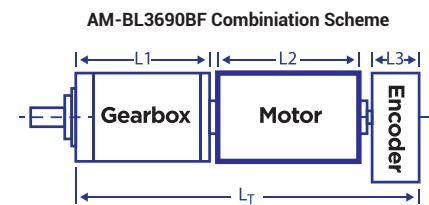
		Brushless Motor		Ball Bearings				
Motor Model		2408	2406	3609	3610	4809	4805	
Nominal voltage		V	24	24	36	36	48	48
No load speed ±12%		rpm	8488	6063	9095	5093	8935	4993
No load current Max 150%		mA	521	358	375	178	281	125
Recommend limit for continuous operating	Max cont. torque	mN.m	207.33	235.65	205.07	257.99	201.04	263.93
	Rated Speed	rpm	7995	5529	8626	4533	8474	4425
	Rated Current	mA	8200	6600	5800	4000	4200	3000
	Rated Power	W	173.59	136.62	185.23	122.46	178.40	122.30
Starting current		mA	141176	75000	112500	36364	81356	26374
Stall torque		mN.m	3812	2835	4253	2455	4174	2421
Maximum power output		W	847.1	450.0	1012.5	327.3	976.3	316.5
Maximum Efficiency		%	88	87	89	86	89	87
Terminal resistance ±12%		Ω	0.17	0.32	0.32	0.99	0.59	1.82
Inductance (1KHz)		mH	0.19	0.068	0.064	N/A	N/A	0.37
Mechanical time constant		ms	0.32	1.69	1.69	1.64	1.69	1.63
Moment of inertia		gcm ²	74.56	74.56	74.56	74.56	74.56	74.56
Torque constant		mN.m/A	27	37.8	37.8	67.5	51.3	91.8
Speed constant		rpm/V	354	253	253	141	186	104
Speed/torque gradient		rpm/mN.m	2.2	2.1	2.1	2.1	2.1	2.1
Weight		g	480	480	480	480	480	480

ADDITIONAL INFORMATION

Motor thermal resistance:	4.2K/W	Motor thermal time constant:	1380S
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:	155°C	Ambient temperature range:	-30 to 65°C
Standard rear shaft diameter:	5 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				
Cable 1: Yellow	Winding A	L1:36GP	L1:40GP	L2:BL36	L3:EN22S	L3:EN36T
Cable 2: Red	Winding B	39.6	46.8	90	10.7	12.0
Cable 3: Blue	Winding C	48.6	58.3			
Plug definition (AWG 28#) Molex: 51021-0500		57.6	69.8			
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-36GP
AM-40GP

Recommended Encoder:
Encoder S: AM-EN2211S***
2~3 Channels
Encoder T: AM-EN3612T***
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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