

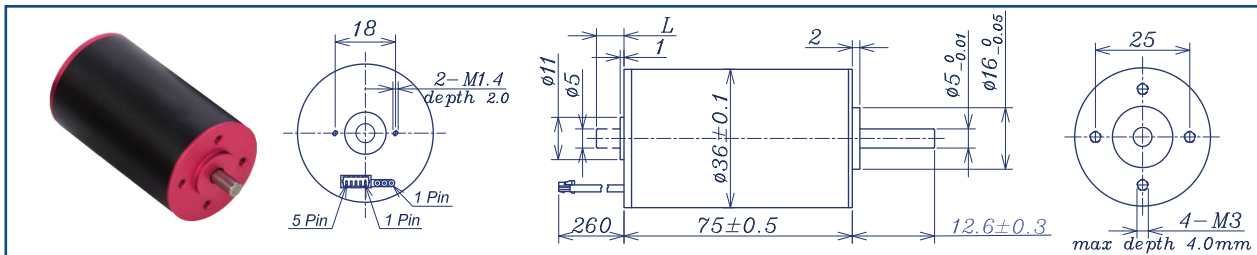
DC BRUSHLESS MOTOR

HIGH POWER SERIES

ASSUN

DRIVING THE FUTURE

AM-BL3675BF Series



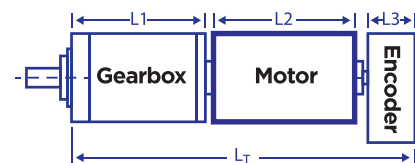
		Brushless Motor			Ball Bearings			
Motor Model		2408	2406	3609	3606	4808	4806	
Nominal voltage	V	24	24	36	36	48	48	
No load speed $\pm 12\%$	rpm	8013	6128	9192	6250	8334	5953	
No load current Max 150%	mA	454	338	339	225	227	169	
Recommend limit for continuous operating	Max cont. torque	mN.m	187.22	211.76	174.32	207.63	185.52	220.26
	Rated Speed	rpm	7452	5530	8694	5674	7815	5394
	Rated Current	mA	7000	6000	5000	4000	3600	2800
	Rated Power	W	146.11	122.64	158.71	123.37	151.83	114.43
Starting current	mA	100000	61538	92308	43373	57831	29814	
Stall torque	mN.m	2860	2302	3452	2386	3181	2296	
Maximum power output	W	600.0	369.2	830.8	390.4	694.30	357.7	
Maximum Efficiency	%	87	86	88	86	88	86	
Terminal resistance $\pm 12\%$	Ω	0.24	0.39	0.39	0.83	0.83	1.61	
Inductance (1KHz)	mH	0.39	0.068	N/A	N/A	N/A	0.33	
Mechanical time constant	ms	1.85	1.76	1.76	1.73	1.73	1.72	
Moment of inertia	gcm ²	63.21	63.21	63.21	63.21	63.21	63.21	
Torque constant	mN.m/A	28.6	37.4	37.4	55	55	77	
Speed constant	rpm/V	334	255	255	174	174	120	
Speed/torque gradient	rpm/mN.m	2.8	2.7	2.7	2.6	2.6	2.6	
Weight	g	400	400	400	400	400	400	

ADDITIONAL INFORMATION

Motor thermal resistance:	5.4 K/W	Motor thermal time constant:	1273 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:	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	75	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	Remarks: Client can choose gearbox and encoder to match with this motor. Some combinations are listed here for reference.				
Plug 4: Red Hall B					
Plug 5: Blue Hall C					

AM-BL3675BF Combination Scheme



Recommended Gearbox:

Planetary Gearbox:
AM-36GP
AM-40GP

Recommended Encoder:

Encoder S: AM-EN221S***
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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