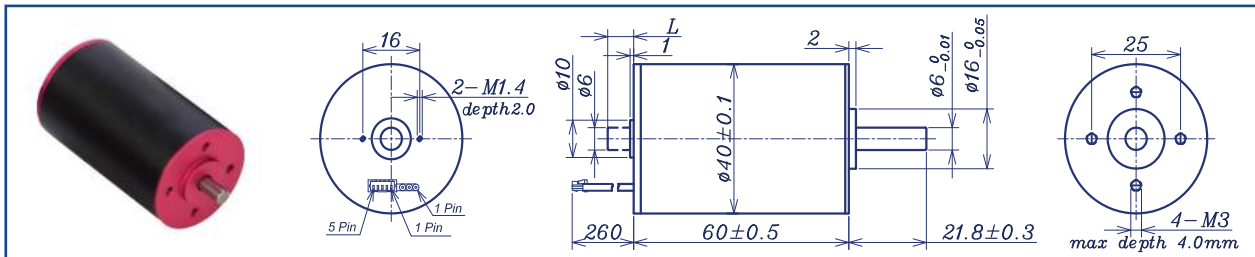


AM-BL4060BF Series

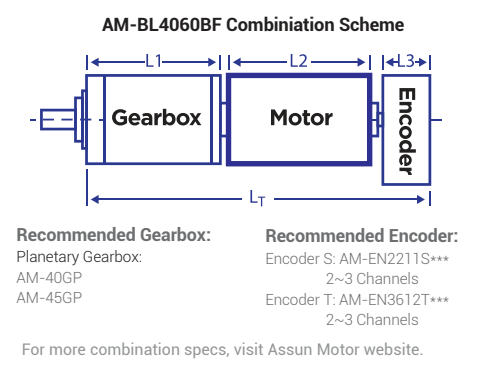


		Brushless Motor			Ball Bearings		
Motor Model		2409	2407	3609	3607	4809	4807
Nominal voltage	V	24	24	36	36	48	48
No load speed ±12%	rpm	9095	7074	9095	7074	9095	7074
No load current Max 150%	mA	375	292	250	150	188	146
Recommend limit for continuous operating	Max cont. torque	mN.m	177.03	184.94	171.99	184.97	182.04
	Rated Speed	rpm	8534	6425	8573	6539	8569
	Rated Current	mA	7400	6000	4800	4000	3800
	Rated Power	W	158.2	126.38	154.41	126.66	163.36
Starting current	mA	120000	77419	83721	52941	65753	40336
Stall torque	mN.m	3024	2508	3165	2573	3314	2614
Maximum power output	W	720.0	464.5	753.5	476.5	789.0	484.0
Maximum Efficiency	%	89	88	89	88	90	88
Terminal resistance ±12%	Ω	0.22	0.31	0.43	0.68	0.7319	1.82
Inductance (1KHz)	mH						
Mechanical time constant	ms	2.72	2.55	2.60	2.49	2.49	2.45
Moment of inertia	gcm <sup>2</sup>	86.51	86.51	86.51	86.51	86.51	86.51
Torque constant	mN.m/A	25.2	32.4	37.8	48.6	50.4	64.8
Speed constant	rpm/V	379	295	253	196	189	147
Speed/torque gradient	rpm/mN.m	3.0	2.8	2.9	2.7	2.7	2.7
Weight	g	356	356	356	356	356	356

ADDITIONAL INFORMATION			
Motor thermal resistance:	5.6 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 (<6.0N)
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 <sub>T</sub> =L <sub>1</sub> +L <sub>2</sub> +L <sub>3</sub>				
Cable 1: Yellow Winding A	L1:40GP	L1:45GP	L2:BL40	L3:EN22S	L3:EN36T
Cable 2: Red Winding B	35.3	38.8	60	10.7	12.0
Cable 3: Blue Winding C	46.8	50.8			
Plug definition (AWG 28#) Molex: 51021-0500	58.3	62.8			
Plug 1: Red 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>