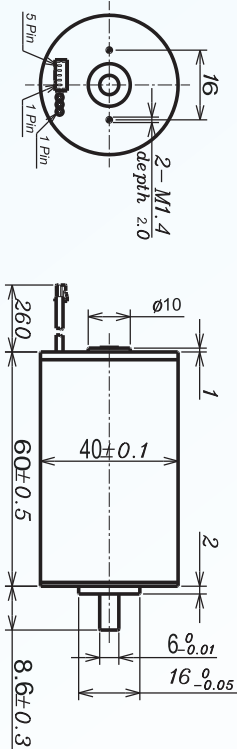


DC Brushless Motor AM-BL4060A/B-4P Series

ASSUN MOTOR

2015 edition. Specifications are subject to change without notice.

BRUSHLESS MOTOR BALL BEARING



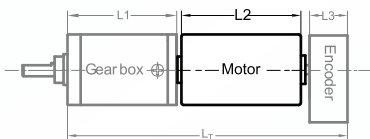
MOTOR MODEL		2409	2407	3609	3607	4809	4807
NOMINAL VOLTAGE	V	24	24	36	36	48	48
NO LOAD SPEED ±12%	rpm	9095	7074	9095	7074	9095	7074
NO LOAD CURRENT Max 150%	mA	375	292	250	194	188	146
	mN.m	177.03	184.94	171.99	184.97	182.04	191.42
Recommend Limit for	rpm	8534	6525	8573	6539	8569	6530
Continuous Operating	A	7.4	6.00	4.8	4.00	3.8	3.10
	W	158.2	126.38	154.41	126.66	163.36	130.89
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 PHASE TO PHASE ±12%	Ω	0.22	0.31	0.43	0.68	0.73	1.19
MECHANICAL TIME CONSTANT	ms	2.72	2.55	2.60	2.49	2.49	2.45
MOMENT OF INERTIA	gcm ²	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

MAXIMUM ROLLING BEARING LOADS

AXIAL (DYNAMIX)	6 N	RADIAL (5MM FROM HEAD FACE)	28 N
PRESS-FIT FORCE	110 N	L: MAX ALLOWABLE SCREW DEPTH INTO FLANGE	4.0 mm
MAXIMUM RADIAL PLAY	≤0.02mm	AXIAL PLAY:	0 (<6.0N)
MAXIMUM WINDING TEMPERATURE	155 °C	AMBIENT TEMPERATURE RANGE:	-30 to 65 °C

AM-BL4060A/B COMBINATION SCHEME



Recommend Gearbox:
Planetary Gearbox:
AM-36P
AM-45P

Recommend Encoder:
Encoder S: AM-EN22-S***
2~3 Channels
Encoder T: AM-EN36-T***
2~3 Channels

For more gearbox specs, see Assun Motor website.

CONNECTION (AWG22#)

CABLE 1: WINDING A
CABLE 2: WINDING B
CABLE 3: WINDING C

PLUG DEFINATION
MOLEX: 51021 - 0500

PLUG 1: HALL V_{CC}
PLUG 2: HALL GND
PLUG 3: HALL A
PLUG 4: HALL B
PLUG 5: HALL C

TOTAL LENGTH (GEARBOX AND MOTOR): L_T=L₁+L₂+L₃

	L1:36P	L1:45P	L2:BL36	L3:EN22-S	L3:EN36-T
CABLE 1: WINDING A					
CABLE 2: WINDING B	34.1	38.6	60.0	10.7	10.0
CABLE 3: WINDING C	42.7	49.4			12.0
PLUG DEFINATION	51.3	60.2			
MOLEX: 51021 - 0500	59.9	71.0			

REMARKS

Clients can choose gearbox and encoder to match with this motor. Some combinations are listed here for reference.

Motor Data Tested at 25°. Motor Operation exceeds continuous limits of operating range will compromise the life of the device.