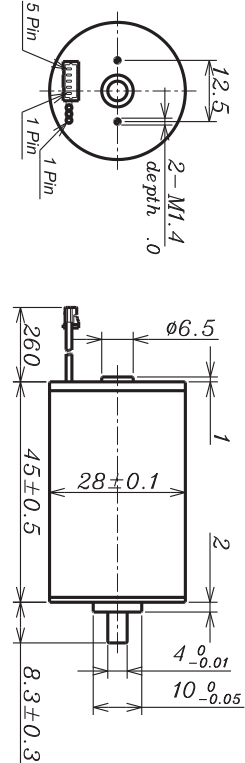




DC Brushless Motor AM-BL2845A/B Series

ASSUN MOTOR

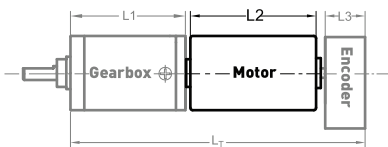
2015 edition. Specifications are subject to change without notice.



BRUSHLESS MOTOR		BALL BEARING					
MOTOR MODEL		1215	1210	1813	1810	2412	2409
NOMINAL VOLTAGE	V	12	12	18	18	24	24
NO LOAD SPEED ±12%	rpm	14800	10000	12520	9680	11680	9080
NO LOAD CURRENT Max 150%	mA	300	190	170	120	120	85
Recommend Limit for Continuous Operating	mN.m	28.4	34.2	30.4	33.1	28.8	35.4
	rpm	13374	8455	11222	8282	10401	7593
	mA	4000	3200	2400	2000	1600	1500
	W	39.8	30.2	35.7	28.7	31.4	28.1
STARTING CURRENT	mA	38710	19672	21687	13139	13636	8727
STALL TORQUE	mN.m	295	221	293	229	263	216
MAXIMUM POWER OUTPUT	W	114.3	57.9	96.1	58.0	80.4	51.3
MAXIMUM EFFICIENCY	%	83	81	83	82	82	81
TERMINAL RESISTANCE PHASE TO PHASE ±12%	Ω	0.31	0.61	0.83	1.37	1.76	2.75
INDUCTANCE (1kHz)	mH	0.034	0.086	0.126	0.22	0.27	0.46
MECHANICAL TIME CONSTANT	ms	3.3	2.9	2.8	2.7	2.9	2.7
MOMENT OF INERTIA	gcm²	6.19	6.19	6.19	6.19	6.19	6.19
TORQUE CONSTANT	mN.m/A	7.7	11.3	13.6	17.6	19.4	25.0
SPEED CONSTANT	rpm/V	1243	841	701	543	491	382
SPEED/TORQUE GRADIENT	rpm/mN.m	50.2	45.2	42.7	42.3	44.4	42.0
WEIGHT	g	138.8	138.7	139.1	140.1	138.4	139.2

ADDITIONAL INFORMATION			
MAXIMUM ROLLING BEARING LOADS			
AXIAL (DYNAMIX)	4.0 N	RADIAL (5MM FROM HEAD FACE)	16.0 N
PRESS-FIT FORCE	50N	L: MAX ALLOWABLE SCREW DEPTH INTO FLANGE	3.0 mm
MAXIMUM RADIAL PLAY	≤0.02mm	AXIAL PLAY:	0 (<4.0N)
MAXIMUM WINDING TEMPERATURE	85°C	AMBIENT TEMPERATURE RANGE:	-30 to 65°C

AM-BL2845A/B COMBINATION SCHEME



Recommend Gearbox:
Planetary Gearbox:
AM-28P
AM-32P

Recommend Encoder:
Encoder S: AM-EN16-S***
2~3 Channels
Encoder T: AM-EN24-T***
2~3 Channels

For more gearbox specs, see Assun Motor website.

CONNECTION (AWG22#)	TOTAL LENGTH (GEARBOX AND MOTOR): L _T = L ₁ +L ₂ + L ₃				
CABLE 1: WINDING A	L1:28P	L1:32P	L2:BL16	L3:EN16-S	L3:EN24-T
CABLE 2: WINDING B	28.4	31.2	45.0	10.7	10.0
CABLE 3: WINDING C	34.7	38.6			12.0
PLUG DEFINATION MOLEX: 51021 - 0500	41.0	46.2			
	47.3	53.6			
PLUG 1 HALL V_{CC}					
PLUG 2 HALL GND					
PLUG 3 HALL A					
PLUG 4 HALL B					
PLUG 5 HALL C					

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.