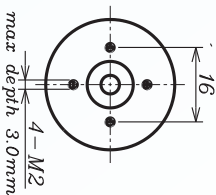
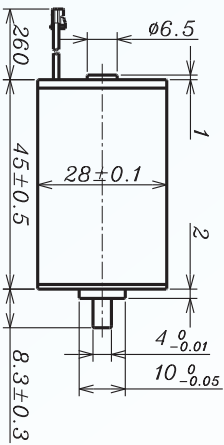
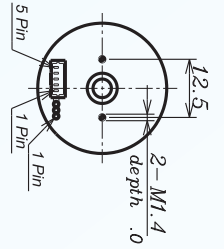




DC Brushless Motor AM-BD2845A/B Series

ASSUN MOTOR

2015 edition. Specifications are subject to change without notice.



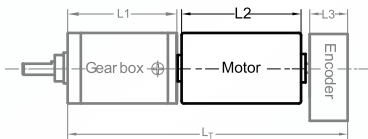
BRUSHLESS MOTOR BALL BEARING

MOTOR MODEL		1203	1215	1210	1813	1810	2412	2409
NOMINAL VOLTAGE	V	12	12	12	18	18	24	24
NO LOAD SPEED ±12%	rpm	3300	14800	10000	12520	9680	11680	9080
NO LOAD CURRENT Max 150%	mA	55	300	190	170	120	120	85
	mN.m	25.2	20.7	26.2	23.8	26.0	24.1	27.9
Recommend Limit for Continuous Operating	rpm	2122	13760	8814	11502	8580	10608	7909
	mA	800	3000	2500	1920	1600	1360	1200
	W	5.6	29.9	24.2	28.7	23.4	26.8	23.1
STARTING CURRENT	mA	2143	38710	19672	21687	13139	13636	8727
STALL TORQUE	mN.m	71	295	221	293	229	263	216
MAXIMUM POWER OUTPUT	W	6.1	114.3	57.9	96.1	58.0	80.4	51.3
MAXIMUM EFFICIENCY	%	71	83	81	83	82	82	81
OPERATING RANGE	V	10-28	10-28	10-28	10-28	10-28	10-28	10-28
TYPE OF CURRENT		controlled	controlled	controlled	controlled	controlled	controlled	controlled
MECHANICAL TIME CONSTANT	ms	3.0	3.3	2.9	2.8	2.7	2.9	2.7
MOMENT OF INERTIA	gcm ²	6.19	6.19	6.19	6.19	6.19	6.19	6.19
TORQUE CONSTANT	mN.m/A	33.8	7.7	11.3	13.6	17.6	19.4	25.0
SPEED CONSTANT	rpm/V	282	1243	841	701	543	491	382
SPEED/TORQUE GRADIENT	rpm/mN.m	46.7	50.2	45.2	42.7	42.3	44.4	42.0
WEIGHT	g	138.8	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-BD2845A/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: +VCC	L1:28P	L1:32P	L2:BL16	L3:EN16-S	L3:EN24-T
CABLE 2: GND	28.4	31.2	45.0	10.7	10.0
PLUG DEFINATION	34.7	38.6			12.0
MOLEX: 51021 - 0500	41.0	46.2			
	47.3	53.6			
PLUG 1 GND					
PLUG 2 FG PULSE					
PLUG 3 CW/CCW					
PLUG 4 PWM					
PLUG 5 BRAKE					

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.