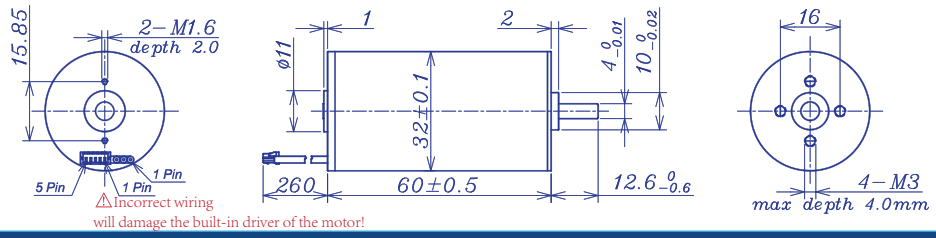
DC BRUSHLESS MOTOR

SPEED DRIVER INTEGRATED SERIES

ASSUN
DRIVING THE FUTURE

AM-BD3260AN Series



		Brushless Motor		Ball Bearings			
Motor Model		**1212**	**1208**	**2413**	**2409**	**2408**	**2407**
Nominal voltage	V	12	12	24	24	24	24
No load speed ±12%	rpm	12191	8127	12832	9752	8448	7008
No load current Max 150%	mA	355	192	190	127	110	86
Recommend limit for continuous operating — Max cont. torque	mN.m	23.8	36.5	21.5	29.7	32.0	36.1
Recommend limit for continuous operating — Rated Speed	rpm	11671	7362	12390	9133	7769	6237
Recommend limit for continuous operating — Rated Current	mA	2900	2800	1400	1400	1300	1200
Recommend limit for continuous operating — Rated Power	W	29.1	28.2	27.9	28.4	26.1	23.6
Starting current	mA	60000	27907	35294	20168	14907	10213
Stall torque	mN.m	557	388	624	468	398	328
Maximum power output	W	177.9	82.6	209.5	119.5	88.1	60.2
Maximum Efficiency	%	85	84	86	85	84	82
Operating Range	V	10~28	10~28	10~28	10~28	10~28	10~28
Type of Current		Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
Mechanical time constant	ms	3.0	2.9	2.9	2.9	3.0	3.0
Moment of inertia	gcm^2	13.3	13.3	13.3	13.3	13.3	13.3
Torque constant	mN.m/A	9.3	14.0	17.8	23.4	26.9	32.4
Speed constant	rpm/V	1022	682	538	409	355	294
Speed/torque gradient	rpm/mN.m	21.9	20.9	20.6	20.8	21.2	21.3
Weight	g	240	240	240	240	240	240

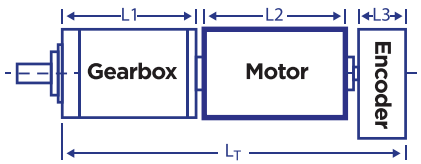
ADDITIONAL INFORMATION

Motor thermal resistance:	7.8 K/W	Motor thermal time constant:	1089 S
Axial (dynamic):	4.0 N	Radial (5mm from mounting face):	16.0 N
Press-fit force (static):	50 N	Max allowable screw depth into flange:	3.0 mm
Maximum radial play (5mm from mounting face):	≤0.02 mm	Axial play:	0 (＜4.0N)
Maximum radial play:	85ºC	Ambient temperature range:	-30 to 65ºC
Standard Rear Shaft Diameter:	4 mm	Standard rear shaft length "L":	0/3.7/5.5 mm

Connection (AWG 20#)		Total Length: L_T=L1+L2+L3				
		L1:32GP	**L1:36GP**	**L2:BD32**	**L3:EN22S**	**L3:EN24T**
Cable 1: Red	+Vcc	27.4	39.6	60.0	10.7	12.0
Cable 2: Blue	GND	35.9	48.9			
Plug definition (AWG 28#) Molex: 51021-0500		44.4	57.6			
Plug 1: Brown	GND					
Plug 2: Black	FG Pulse					
Plug 3 : Yellow	CW/CCW					
Plug 4: Red	PWM					
Plug 5: Blue	Brake					

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

AM-BD3260AN Combination Scheme



Recommended Gearbox:
Planetary Gearbox:
AM-32GP
AM-36GP

Recommended Encoder:
Encoder S: AM-EN2211S***
2~3 Channels
Encoder T: AM-EN2412T***
2~3 Channels

For more combination specs, visit Assun Motor website.

Motor data tested at 25ºC. 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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