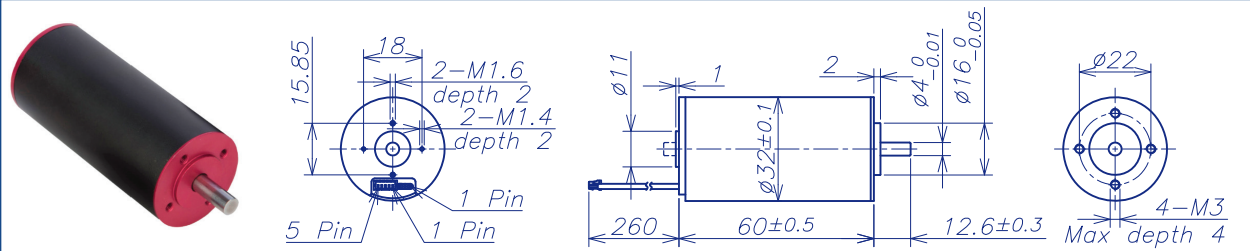


# DC BRUSHLESS MOTOR — HIGH TEMPERATURE SERIES



**ASSUN**  
DRIVING THE FUTURE

## AM-BL3260AE Series



		Brushless Motor			Ball Bearings			
Motor Model		1212	1208	2413	2409	3613	3610	
Nominal voltage	V	12	12	24	24	36	36	
No load speed $\pm 12\%$	rpm	12191	8127	12832	9680	12311	10449	
No load current Max 150%	mA	355	192	190	127	125	94	
Recommend limit for continuous operating	Max cont. torque	mN.m	52.7	60.3	49.9	57.8	55.8	
	Rated Speed	rpm	11037	6864	11805	8549	11548	9278
	Rated Current	mA	6000	4500	3000	2600	2000	1800
	Rated Power	W	61.0	43.4	61.7	51.7	61.5	54.2
Starting current	mA	60000	27907	35294	20168	22360	15319	
Stall torque	mN.m	557	388	624	468	603	438	
Maximum power output	W	177.9	82.6	209.5	119.5	80.4	136.2	
Maximum Efficiency	%	85	84	86	85	86	85	
Terminal resistance $\pm 12\%$	$\Omega$	0.2	0.43	0.68	1.19	1.61	2.35	
Inductance (1KHz)	mH	0.029	0.069	0.12	0.2	N/A	0.42	
Mechanical time constant	ms	3.0	2.9	2.9	2.9	2.9	2.9	
Moment of inertia	gcm <sup>2</sup>	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	27.1	32.7	
Speed constant	rpm/V	1022	682	538	409	352	292	
Speed/torque gradient	rpm/mN.m	21.9	20.9	20.6	20.8	20.9	21.0	
Weight	g	240	240	240	240	240	240	

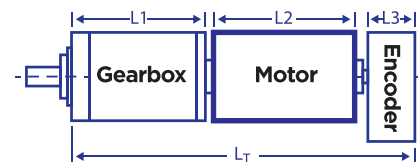
### ADDITIONAL INFORMATION

Motor thermal resistance:	7.8 K/W	Motor thermal time constant:	1089 S
Axial (dynamic):	6.0 N	Radial (5mm from mounting face):	28.0 N
Press-fit force (static):	110N	Max allowable screw depth into flange:	4.0 mm
Maximum radial play (5mm from mounting face):	$\leq 0.02$ mm	Axial play:	0 (<6.0N)
Maximum winding temperature:	125°C	Ambient temperature range:	-30 to 65°C
Standard rear shaft diameter:	4 mm	Standard rear shaft length "L":	0/3.7/5.5 mm

Connection (AWG 20#)	Total Length: $L_T = L_1 + L_2 + L_3$				
	L1:32GP	L1:36GP	L2:BL32	L3:EN22S	L3:EN24T
Cable 1: Yellow Winding A	27.4	39.6	60.0	10.7	12.0
Cable 2: Red Winding B	35.9	48.6			
Cable 3: Blue Winding C	44.4	57.6			
Plug definition (AWG 28#) Molex: 51021-0500					
Plug 1: Brown 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.

### AM-BL3260AE Combination Scheme



#### Recommended Gearbox:

Planetary Gearbox:  
AM-28GP  
AM-32GP

#### Recommended Encoder:

Encoder S: AM-EN221TS\*\*\*  
2~3 Channels  
Encoder T: AM-EN2412T\*\*\*  
2~3 Channels

For more combination specs, visit Assun Motor website.

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>

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