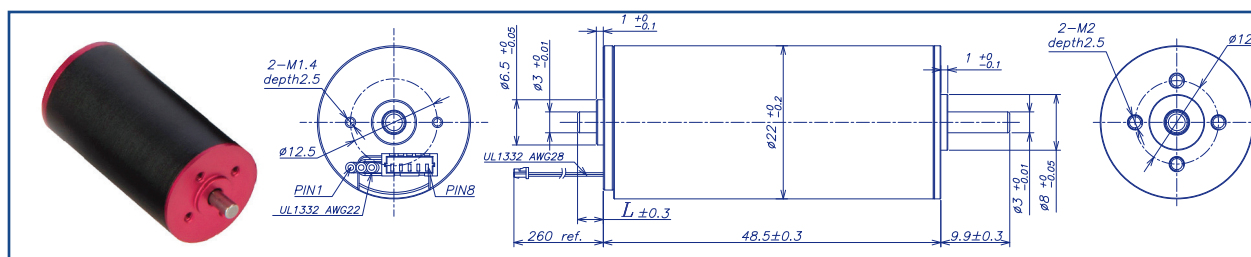


DC BRUSHLESS MOTOR

HIGH TEMPERATURE SERIES

ASSUN
DRIVING THE FUTURE

AM-BL2248AE Series



Brushless Motor			Ball Bearings		
Motor Model		2412	2432		
Nominal voltage	V	24	24		
No load speed $\pm 12\%$	rpm	11700	32000		
No load current Max 150%	mA	280	380		
Recommend limit for continuous operating	Max cont. torque	mN.m	22.5	22.7	
	Rated Speed	rpm	10400	30500	
	Rated Current	mA	1200	3400	
	Rated Power	W	24.5	72.7	
Starting current	mA	12100	64400		
Stall torque	mN.m	214	487		
Maximum power output	W	62	409		
Maximum Efficiency	%	86.7	91		
Terminal resistance $\pm 12\%$	Ω	2	0.32		
Inductance (1KHz)	mH	0.224	-		
Mechanical time constant	ms	5.2	-		
Moment of inertia	gcm ²	4.2	4.2		
Torque constant	mN.m/A	17.7	7.6		
Speed constant	rpm/V	487	1367		
Speed/torque gradient	rpm/mN.m	54.7	65.9		
Weight	g	96.2	96.2		

ADDITIONAL INFORMATION

Motor thermal resistance:	-K/W	Motor thermal time constant:	-S
Axial (dynamic):	4.0 N	Radial (5mm from mounting face):	4.0 N
Press-fit force (static):	60 N	Max allowable screw depth into flange:	2.5 mm
Maximum radial play (5mm from mounting face):	≤ 0.02 mm	Axial play:	Preset
Maximum winding temperature:	125°C	Ambient temperature range:	-40 to 65°C
Standard rear shaft diameter:	3 mm	Standard rear shaft length "L":	0/3.7/5.5 mm

Connection (AWG 24#)	Total Length: $L_T = L_1 + L_2 + L_3$				
Cable 1: Yellow Winding A	L1:19GP	L1:24GP	L2:BL22	L3:EN16S	L3:EN16T
Cable 2: Red Winding B	18.8	24.0	32.0	10.7	12.0
Cable 3: Blue Winding C	23.6	34.3			
Plug definition (AWG 28#) Molex: 51021-0500	28.4	42.8			
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-BL2248AE Combination Scheme

Recommended Gearbox:
Planetary Gearbox:
AM-19GP
AM-22GP
AM-24GP

Recommended Encoder:
Encoder S: AM-EN1611S***
Encoder T: AM-EN1612T***

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>

Visit Our Website and Online Shop at <https://assunmotor.com> Contact: info@assunmotor.com

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