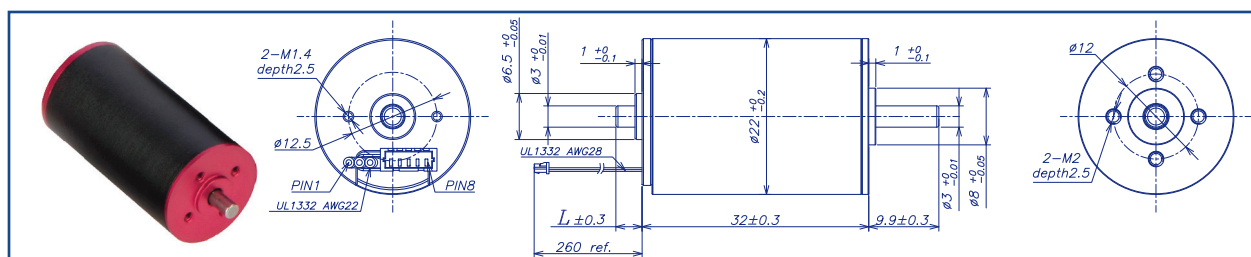


DC BRUSHLESS MOTOR

HIGH TEMPERATURE SERIES

ASSUN
DRIVING THE FUTURE

AM-BL2232AE Series



Brushless Motor		Ball Bearings					
Motor Model		1212	1812	2412	3612		
Nominal voltage	V	12	18	24	36		
No load speed $\pm 12\%$	rpm	11920	12000	12440	12080		
No load current Max 150%	mA	120	150	65	40		
Recommend limit for continuous operating	Max cont. torque	mN.m	10.2	13.9	10.8	10.6	
	Rated Speed	rpm	9050	8250	9330	8990	
	Rated Current	mA	1210	1100	660	430	
	Rated Power	W	9.66	12.0	10.6	10.0	
Starting current	mA	4700	2700	2500	1540		
Stall torque	mN.m	42.3	32	43.2	41.5		
Maximum power output	W	13.2	19.8	14.0	13.1		
Maximum Efficiency	%	70.5	68.5	70.7	70.2		
Terminal resistance $\pm 12\%$	Ω	2.57	4.84	9.67	23.33		
Inductance (1KHz)	mH	-	-	-	-		
Mechanical time constant	ms	6.7	6.7	6.7	6.7		
Moment of inertia	gcm ²	2.8	2.8	2.8	2.8		
Torque constant	mN.m/A	9.33	11.9	17.88	27.6		
Speed constant	rpm/V	1024	611	534	346		
Speed/torque gradient	rpm/mN.m	281	389	287	291		
Weight	g	60.2	60.2	60.6	60.6		

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 85°C
Standard rear shaft diameter:	3 mm	Standard rear shaft length "L":	0/3.7/5.5 mm

Connection (AWG 24#)	Total Length: $L_T = L_1 + L_2 + L_3$					AM-BL2232AE Combination Scheme
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	Remarks: Client can choose gearbox and encoder to match with this motor. Some combinations are listed here for reference.					Recommended Gearbox: Planetary Gearbox: AM-19GP AM-22GP AM-24GP For more combination specs, visit Assun Motor website.
Plug 3: Yellow Hall A						
Plug 4: Red Hall B						
Plug 5: Blue Hall C						

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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