
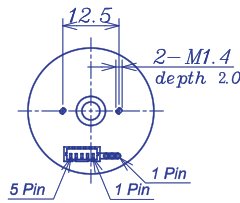
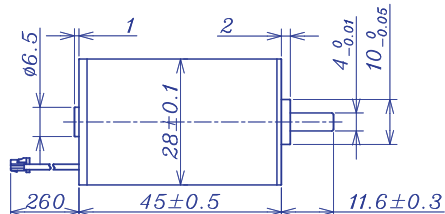
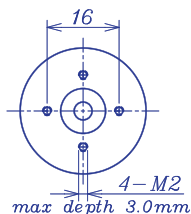
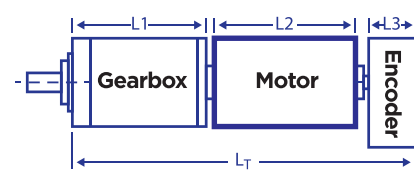


## AM-BL2845BF Series

   											
Brushless Motor		Ball Bearings									
Motor Model		1210	1208	1810	1808	2410	2408				
Nominal voltage	V	12	12	18	18	24	24				
No load speed ±12%	rpm	10370	7930	10111	7995	10370	8171				
No load current Max 150%	mA	417	333	278	222	208	167				
Recommend limit for continuous operating	Max cont. torque	mN.m	61.69	61.66	59.87	64.03	65.44				
	Rated Speed	rpm	9126	6684	8916	6801	9217				
	Rated Current	mA	6000	4600	3800	3200	2900				
	Rated Power	W	58.96	43.16	55.90	45.60	57.43				
Starting current	mA	50000	29268	32143	21429	26087	17391				
Stall torque	mN.m	553	523	546	455	577	488				
Maximum power output	W	150.0	87.8	144.6	96.4	156.5	104.3				
Maximum Efficiency	%	83	80	82	81	83	81				
Terminal resistance ±12%	Ω	0.24	0.41	0.56	0.84	0.92	1.38				
Inductance (1KHz)	mH	0.014	0.03	N/A	0.077	0.078	0.14				
Mechanical time constant	ms	2.28	2.28	2.25	2.11	2.19	2.03				
Moment of inertia	gcm <sup>2</sup>	11.6	11.6	11.6	11.6	11.6	11.6				
Torque constant	mN.m/A	11.06	14.45	17.00	21.50	22.10	28.05				
Speed constant	rpm/V	864	661	562	444	432	340				
Speed/torque gradient	rpm/mN.m	22.8	20.8	20.3	19.7	26.2	20.1				
Weight	g	180	180	180	180	180	180				
ADDITIONAL INFORMATION											
Motor thermal resistance:	10.2 K/W	Motor thermal time constant:	822 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:	3.0mm								
Maximum radial play (5mm from mounting face):	≤0.02 mm	Axial play:	0 (<4.0N)								
Maximum winding temperature:	155°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 22#)	Total Length: $L_T = L_1 + L_2 + L_3$										
Cable 1: Yellow Winding A	L1:28GP	L1:32GP	L2:BL28	L3:EN16S	L3:EN16T						
Cable 2: Red Winding B	26.1	27.4	45.0	10.7	12.0						
Cable 3: Blue Winding C	33.3	35.9									
Plug definition (AWG 28#) Molex: 51021-0500	40.5	44.4									
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.											
				<b>Recommended Gearbox:</b> Planetary Gearbox: AM-28GP AM-32GP				<b>Recommended Encoder:</b> Encoder S: AM-EN1611S*** 2~3 Channels Encoder T: AM-EN1612T*** 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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