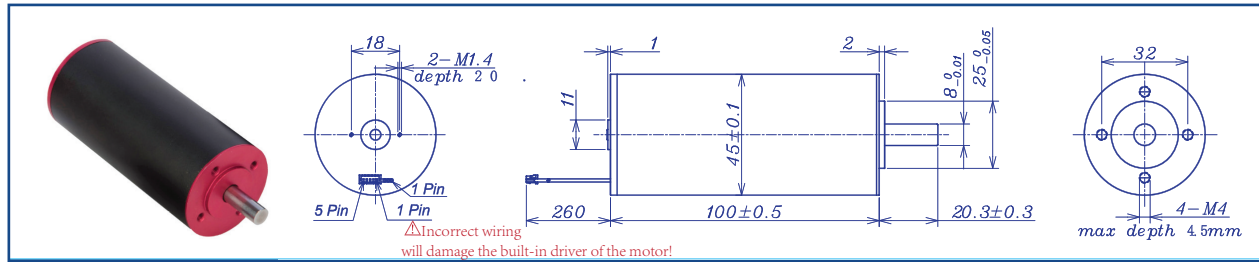


AM-BD45100AN Series

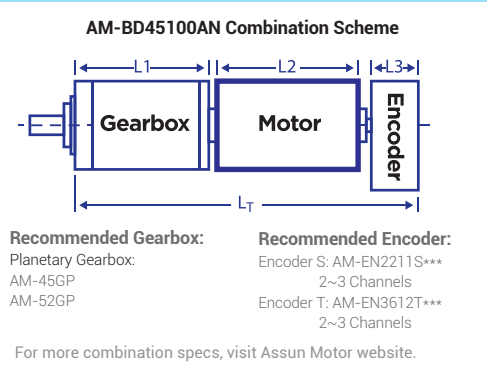


Brushless Motor		Ball Bearings						
Motor Model		2411	2406	2407	2404	2405	2403	
Nominal voltage	V	24	24	24	24	24	24	
No load speed ±12%	rpm	11240	5900	6912	4272	5208	3240	
No load current Max 150%	mA	600	320	320	180	220	160	
Recommend limit for continuous operating	Max cont. torque	mN.m	48.7	134.4	121.4	171.6	170.9	
	Rated Speed	rpm	11059	5539	6539	3782	4747	2748
	Rated Current	mA	3000	3800	4000	3400	3800	2600
	Rated Power	W	56.4	78.0	83.2	68.0	77.9	49.2
Starting current	mA	150000	57143	68571	28235	40678	16216	
Stall torque	mN.m	3034	2195	2252	1496	1771	1125	
Maximum power output	W	892.8	339.0	407.6	167.3	241.4	95.4	
Maximum Efficiency	%	88	86	87	85	86	81	
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	4.3	3.1	3.5	3.3	3.4	3.3	
Moment of inertia	gcm ²	109.8	109.8	109.8	109.8	109.8	109.8	
Torque constant	mN.m/A	20.3	38.6	33.0	53.3	43.8	70.0	
Speed constant	rpm/V	470	247	289	179	218	136	
Speed/torque gradient	rpm/mN.m	3.7	2.7	3.1	2.9	2.9	2.9	
Weight	g	846.5	850.2	852.5	841.5	847.5	840.3	

ADDITIONAL INFORMATION			
Motor thermal resistance:	3.6 K/W	Motor thermal time constant:	1286S
Axial (dynamic):	6.0 N	Radial (5mm from mounting face):	28.0 N
Press-fit force (static):	110 N	Max allowable screw depth into flange:	4.5 mm
Maximum radial play (5mm from mounting face):	≤0.02 mm	Axial play:	0 (<6.0N)
Maximum winding temperature:	85°C	Ambient temperature range:	-30 to 65°C
Standard rear shaft diameter:	8 mm	Standard rear shaft length "L":	0/3.7/5.5 mm

Connection (AWG 18#)	Total Length: L _T =L ₁ +L ₂ +L ₃				
	L1:45GP	L1:52GP	L2:BD45	L3:EN22S	L3:EN36T
Cable 1: Red +Vcc	60.1	79.3	100.0	10.7	12.0
Cable 2: Blue GND	72.1				
Plug definition (AWG 28#) Molex: 51021-0500					
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.



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.

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