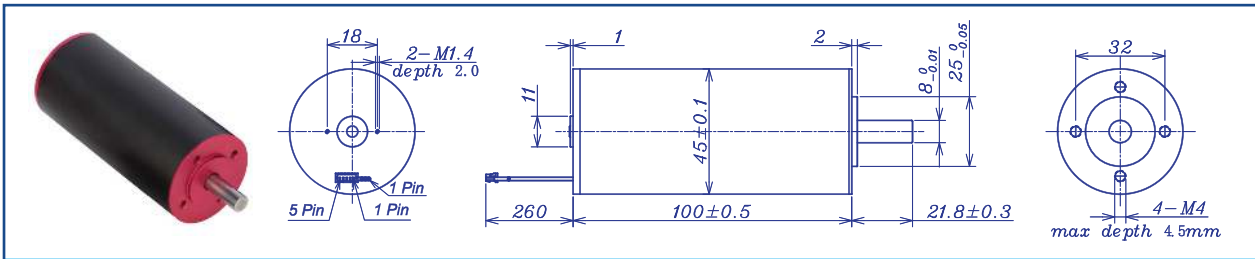


AM-BL45100AE Series



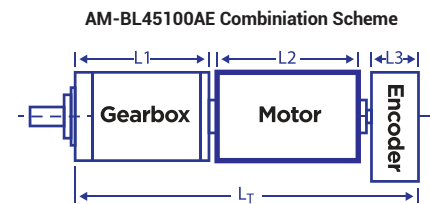
		Brushless Motor			Ball Bearings		
Motor Model		2411	2406	3610	3606	4810	4806
Nominal voltage		V	24	24	36	36	48
No load speed ±12%		rpm	11240	5900	10340	6380	10360
No load current Max 150%		mA	600	320	390	200	370
Recommend limit for continuous operating	Max cont. torque	mN.m	160.4	238.7	179.2	246.7	151.1
	Rated Speed	rpm	10646	5258	9794	5684	9921
	Rated Current	mA	8500	6500	5800	4800	3800
	Rated Power	W	178.9	131.4	183.8	146.8	156.9
Starting current		mA	150000	57143	102857	42353	81356
Stall torque		mN.m	3034	2195	3394	2261	3567
Maximum power output		W	892.8	1339.0	918.7	377.6	967.4
Maximum Efficiency		%	88	86	88	87	85
Terminal resistance ±12%		Ω	0.16	0.42	0.35	0.85	0.59
Inductance (1KH <sub>2</sub> )		mH	0.035	0.14	0.11	0.31	0.21
Mechanical time constant		ms	4.3	3.1	3.5	3.2	3.3
Moment of inertia		gcm <sup>2</sup>	109.8	109.8	109.8	109.8	109.8
Torque constant		mN.m/A	20.3	38.6	33.1	53.6	44.0
Speed constant		rpm/V	470	247	288	178	217
Speed/torque gradient		rpm/mN.m	3.7	2.7	3.0	2.8	2.9
Weight		g	846.5	850.0	852.5	841.5	840.3

ADDITIONAL INFORMATION

Motor thermal resistance:	3.6K/W	Motor thermal time constant:	1286S
Axial (dynamic):	8.0 N	Radial (5mm from mounting face):	180.0 N
Press-fit force (static):	170N	Max allowable screw depth into flange:	4.5mm
Maximum radial play (5mm from mounting face):	≤0.02 mm	Axial play:	0 (<8.0N)
Maximum winding temperature:	125°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 <sub>T</sub> =L <sub>1</sub> +L <sub>2</sub> +L <sub>3</sub>				
Cable	Winding	L1:45GP	L1:52GP	L2:BL45	L3:EN22S	L3:EN36T
Cable 1: Yellow	Winding A	62.8	81.0	100.0	10.7	12.0
Cable 2: Red	Winding B	74.8				
Cable 3: Blue	Winding C					
Plug definition (AWG 28#) Molex: 51021-0500						
Plug 1: Red	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.



Recommended Gearbox:  
Planetary Gearbox:  
AM-45GP  
AM-52GP

Recommended Encoder:  
Encoder S: AM-EN2211S\*\*\*  
2~3 Channels  
Encoder T: AM-EN3612\*\*\*  
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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