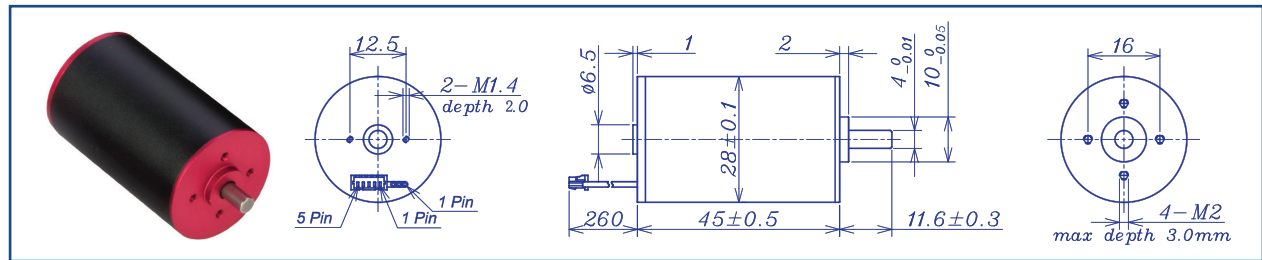


AM-BL2845AE Series

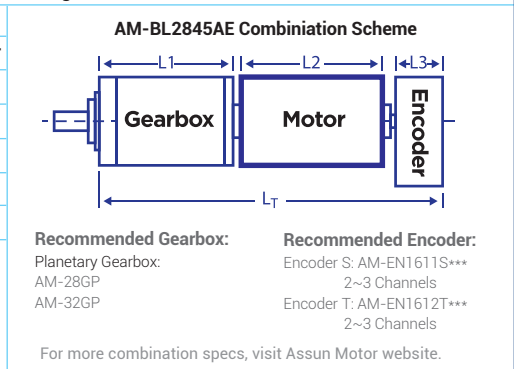


		Brushless Motor			Ball Bearings			
Motor Model		1215	1210	1813	1810	2412	2409	
Nominal voltage	V	12	12	18	18	24	24	
No load speed ±12%	rpm	14800	10000	12520	9680	11680	9080	
No load current Max 150%	mA	300	190	170	120	120	85	
Recommend limit for continuous operating	Max cont. torque	mN.m	33.8	38.7	37.2	40.1	40.4	
	Rated Speed	rpm	13105	8250	10913	7985	10055	7383
	Rated Current	mA	47000	3600	2900	2400	2000	1700
	Rated Power	W	46.4	33.4	42.6	33.5	38.5	31.2
Starting current	mA	38710	19672	21687	13139	13636	8727	
Stall torque	mN.m	295	221	293	229	263	216	
Maximum power output	W	114.3	57.9	96.1	58.0	80.4	51.3	
Maximum Efficiency	%	83	81	83	82	82	81	
Terminal resistance ±12%	Ω	0.31	0.61	0.83	1.37	1.76	2.75	
Inductance (1KH <sub>z</sub> )	mH	0.034	0.086	0.126	0.22	0.27	0.46	
Mechanical time constant	ms	3.3	2.9	2.8	2.7	2.9	2.7	
Moment of inertia	gcm <sup>2</sup>	6.19	6.19	6.19	6.19	6.19	6.19	
Torque constant	mN.m/A	7.7	11.3	13.6	17.6	19.4	25.0	
Speed constant	rpm/V	1243	1324	701	543	491	382	
Speed/torque gradient	rpm/mN.m	50.2	45.2	42.7	42.3	44.4	42.0	
Weight	g	138.8	138.7	139.1	140.1	138.4	139.2	

ADDITIONAL INFORMATION			
Motor thermal resistance:	10.2K/W	Motor thermal time constant:	822S
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:	3.0 mm
Maximum radial play (5mm from mounting face):	≤0.02 mm	Axial play:	0 (<4.0N)
Maximum winding temperature:	125°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 <sub>T</sub> =L1+L2+L3				
	L1:28GP	L1:32GP	L2:BL28	L3:EN16S	L3:EN16T
Cable 1: Yellow Winding A	25.9	27.4	45.0	10.7	12.0
Cable 2: Red Winding B	33.1	35.9			
Cable 3: Blue Winding C	40.3	44.4			
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.



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>