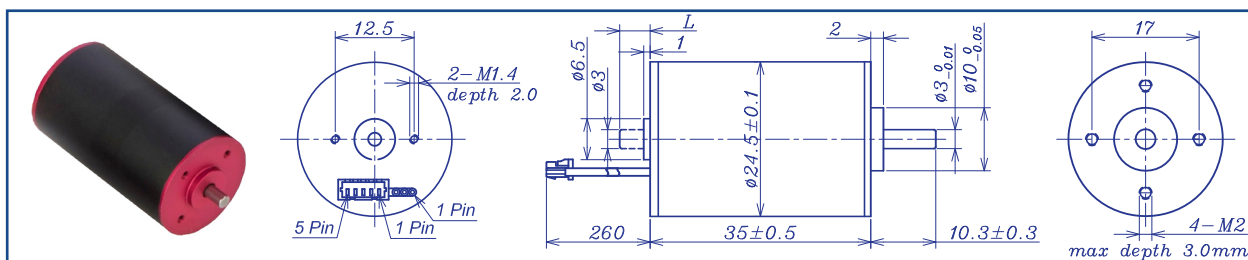


AM-BL2435AE Series



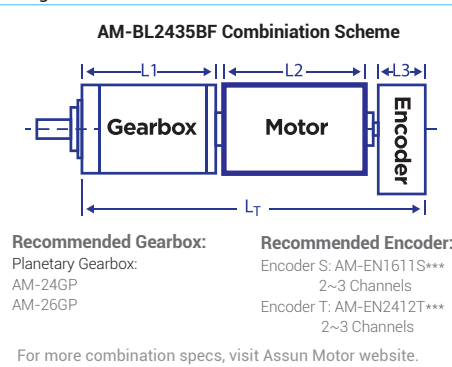
Motor Model	Brushless Motor				Ball Bearings			
		0915	1215	1815	2414	2412	2410	2809
Nominal voltage	V	9	12	18	24	24	24	28
No load speed ±12%	rpm	15350	15050	15350	14450	12040	10230	9700
No load current Max 150%	mA	95	90	85	80	60	50	40
Recommend limit for continuous operating	Max cont. torque	mN.m	14.2	14.8	14.6	14.4	14.8	16.5
	Rated Speed	rpm	12056	12073	12628	11862	9298	7165
	Rated Current	mA	2650	2050	1400	1000	850	800
	Rated Power	W	17.9	18.7	19.3	17.8	14.4	12.4
Starting current	mA	12000	10000	7500	5217	3529	2553	1958
Stall torque	mN.m	66	75	82	80	65	55	52
Maximum power output	W	26.6	29.5	33	30.4	20.5	14.7	13.2
Maximum Efficiency	%	83	82	80	77	76	74	73
Terminal resistance ±12%	Ω	0.75	1.2	2.4	4.6	6.8	9.4	14.3
Inductance (1KHz)	mH	Null	Null	Null	Null	Null	Null	Null
Mechanical time constant	ms	4.7	4.0	3.8	3.6	3.7	3.7	3.8
Moment of inertia	gcm ²	1.92	1.92	1.92	1.92	1.92	1.92	1.92
Torque constant	mN.m/A	5.6	7.5	11.1	15.6	18.7	22	27
Speed constant	rpm/V	1719	1266	863	611	510	435	354
Speed/torque gradient	rpm/mN.m	232.1	201.3	187	180.1	185.5	186.1	187.3
Weight	g	84	84	84	84	84	84	84

ADDITIONAL INFORMATION

Motor thermal resistance:	K/W	Motor thermal time constant:	S
Axial (dynamic):	2.5 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:	-40 to 85°C
Standard rear shaft diameter:	3 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	L1:24GP	L1:26GP	L2:BL16	L3:EN16S	L3:EN24T
Cable 2: Red Winding B	24	25.7	35	10.7	12.0
Cable 3: Blue Winding C	34.3	36			
Plug definition (AWG 28#) Molex: 51021-0500	42.8	44.5			
	51.3	53			
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.



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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