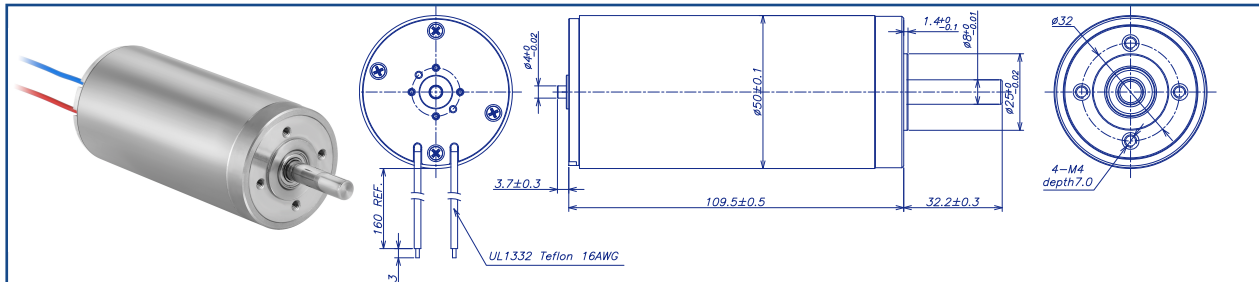


DC BRUSHED CORELESS MOTOR Graphite Brush

AM-CL50109GAF Series

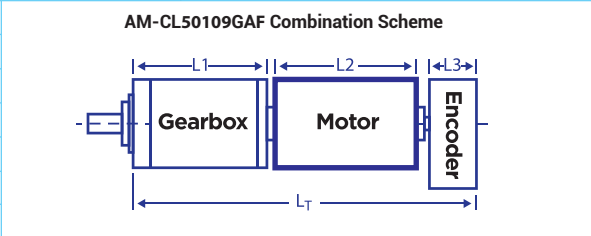


Motor Model	Graphite brush				Ball bearings			
		2406	2708	4805	7003			
Nominal voltage	V	24	27	48	70			
No load speed	$\pm 12\%$ rpm	5960	8000	4790	2990			
No load current	Max 150% mA	470	200	85	40			
Recommend limit for continuous operating	Max cont. torque	mN.m	405	520	420	450		
	Rated speed	rpm	5380	7600	4470	2700		
	Rated current	mA	10700	16200	4300	1960		
	Rated power	W	228	413	196.6	127		
Starting current	mA	105600	400000	63000	19600			
Stall torque	mN.m	4200	1300	6300	4550			
Maximum power output	W	650	1120	788	356			
Maximum efficiency	%	90	94	96	97			
Terminal resistance	$\pm 12\%$ Ω	0.094	0.067	0.57	3.3			
Inductance	(1KHZ) mH	-	-	-	-			
Mechanical time constant	ms	3.8	3.8	3.8	3.8			
Moment of inertia	gcm ²	545	545	545	545			
Torque constant	mN.m/A	39.6	223	99.7	232			
Speed constant	rpm/V	260	293	105	40.7			
Speed/torque gradient	rpm/mN.m	1.43	18.2	0.762	0.658			
Weight	g	1150	1150	1250	1250			

ADDITIONAL INFORMATION

Motor thermal resistance:	-K/W	Motor thermal time constant:	- S
Axial (dynamic):	30N	Radial (5mm from mounting face):	100N
Press-fit force (static):	150N	Max allowable screw depth into flange:	6.5mm
Maximum radial play (5mm from mounting face):	≤ 0.02 mm	Axial play:	Present
Maximum winding temperature:	125°C	Ambient temperature range:	-30 to 100°C
Standard rear shaft diameter:	8.0 mm	Standard rear shaft length "L":	0/3.7/5.5 mm

Total Length (Gearbox and Motor): $L_T = L_1 + L_2 + L_3$				
L1: 45GP	L1: 52GP	L2: CL50	L3: EN22S	L3: EN24T
36.1	46.3	109.5	10.7	12.0
48.1	62.8			
60.1	79.3			
72.1	95.8			



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-EN221S***
Encoder T: AM-EN2412T***

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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