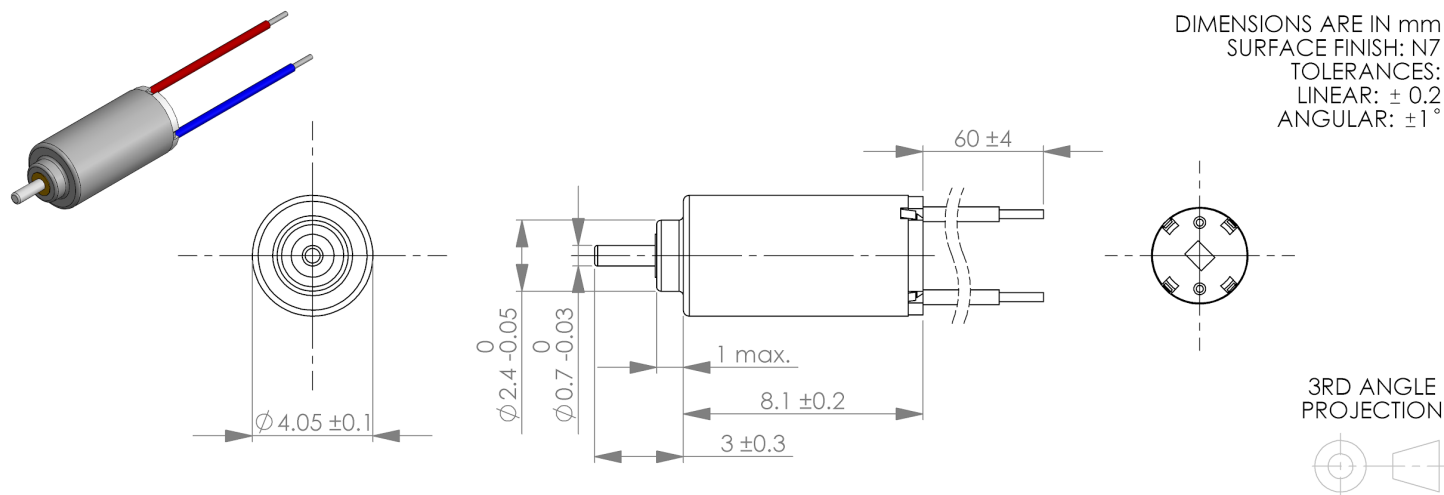


104-10J Brushed motor Coreless (precious metal brushes)

Ø4 x 8mm



			Samples available	Manufacturable on request		Custom design	
Design and accessories			Units	104-10J	104-008	104-10L	104-XXX
A	Availability			Stocked design	8 weeks	8 weeks	8 weeks
B	Motor Type			Brushed	Brushed	Brushed	Brushed
C	Commutation			Precious metal brush	Precious metal brush	Precious metal brush	Precious metal brush
D	Shafts			Single	Single	Single	Single
E	Gearbox			Not fitted	Not fitted	Not fitted	Please contact support@pmdri.com
F	Encoder			Not fitted	Not fitted	Not fitted	
G	Connections			Tinned	Tinned	Tinned	
H	Cable			60mm x AWG32	60mm x AWG32	60mm x AWG32	Nickel plated steel
I	Housing Material			Nickel plated steel	Nickel plated steel	Nickel plated steel	
J	Body diameter	mm		4.05	4.05	4.05	
K	Body length	mm		8.1	8.1	8.1	
L	Weight	g		0.5	0.5	0.5	
Performance characteristics							
1	Nominal voltage	V		3.0	2.4	3.7	Nominal load, no load, and stall points, and efficiency will depend on the winding design. Please contact support@pmdri.com
2	No load speed	rpm		51 500	54 480	54 000	
3	No load current	A		0.011	0.017	0.009	
4	Nominal speed	rpm		25 440	29 625	24 580	
5	Nominal torque	mNm		0.030	0.030	0.030	
6	Nominal current	A		0.080	0.106	0.066	
7	Stall torque	mNm		0.059	0.066	0.055	
8	Stall current	A		0.144	0.213	0.114	
9	Maximum efficiency	%		45.4	44.7	44.9	
Winding specific characteristics							
10	Terminal resistance	Ω		20.8	11.3	32.4	Winding dependent
11	Terminal inductance	uH		62	34	97	
12	Torque constant (Kt)	mNm/A		0.51	0.39	0.60	
13	Speed constant (Kv)	rpm/V		18 584	24 675	15 843	
14	Speed / torque gradient	rpm/mNm		868 615	828 515	980 661	
15	Mechanical time constant	ms		9.8	9.4	11.3	
16	Rotor inertia	g·mm²		0.15	0.15	0.15	
Motor body characteristics			Performance curve (based on ambient 25°C)				
17	Thermal resistance housing-ambient	°C/W	110.7	104-10J Speed [rpm] Current [mA] Power [mW] Efficiency [%] Speed Current Power Out Efficiency			
18	Thermal resistance winding-housing	°C/W	22.8				
19	Thermal time constant winding	s	1				
20	Thermal time constant motor	s	55				
21	Ambient temperature	min °C	-20				
		max °C	+60				
22	Max. permissible winding temperature	°C	+85				
23	Max. permissible rotor speed	rpm	63 000				
24	Axial play at axial load	mm	0.3 max				
25	Max. axial load (dynamic)	N	0.06				
26	Max. force for press fits (static)	N	5.0				
27	Max. radial loading (3mm from flange)	N	0.15				
28	Number of magnet pole pairs		1				