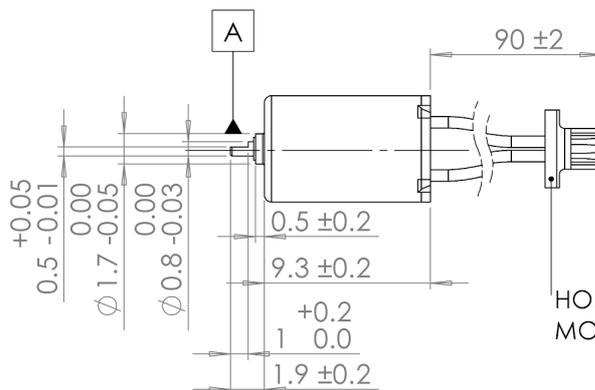
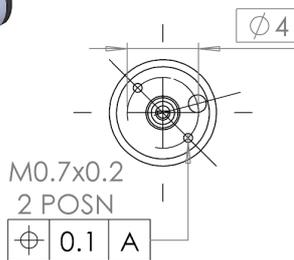
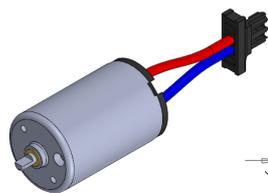
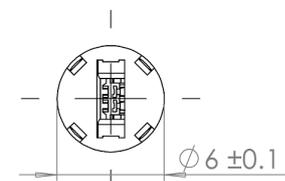


106-10E Brushed motor Coreless (precious metal brushes)

Ø6 x 9mm / fit for gearbox



DIMENSIONS ARE IN mm
SURFACE FINISH: N7
TOLERANCES:
LINEAR: ± 0.2
ANGULAR: ± 1°



HOUSING
MOLEX 2147192020

3RD ANGLE
PROJECTION

Design and accessories	Units	Samples available		Manufacturable on request		Custom design	
		106-10E	106-10F	106-10E	106-10F	106-XXX	106-XXX
A Availability		Stocked design	8 weeks	8 weeks	8 weeks	8 weeks	8 weeks
B Motor Type		Brushed	Brushed	Brushed	Brushed	Brushed	Brushed
C Commutation		Precious metal brush	Precious metal brush	Precious metal brush	Precious metal brush	Precious metal brush	Precious metal brush
D Shafts		Single	Single	Single	Single	Single	Single
E Gearbox		Not fitted	Not fitted	Not fitted	Not fitted	Range 1:5.14 ~ 1:698	Range 1:5.14 ~ 1:698
F Encoder		Not fitted	Not fitted	Not fitted	Not fitted	Please contact support@pmdri.com	Please contact support@pmdri.com
G Connections		Molex 2147192020	Molex 2147192020	Molex 2147192020	Molex 2147192020	support@pmdri.com	support@pmdri.com
H Cable		90mm x AWG32	90mm x AWG32	90mm x AWG32	90mm x AWG32		
I Housing Material		Nickel plated steel	Nickel plated steel	Nickel plated steel	Nickel plated steel	Nickel plated steel	Nickel plated steel
J Body diameter	mm	6	6	6	6		
K Body length	mm	9.3	9.3	9.3	9.3		
L Weight	g	1.0	1.0	1.0	1.0		

Performance characteristics		106-10E	106-10F	106-XXX
1 Nominal voltage	V	3.0	5.0	
2 No load speed	rpm	32 435	30 800	Nominal load, no load, and stall points, and efficiency will depend on the winding design. Please contact support@pmdri.com
3 No load current	A	0.017	0.010	
4 Nominal speed	rpm	15 205	11 700	
5 Nominal torque	mNm	0.08	0.08	
6 Nominal current	A	0.110	0.065	
7 Stall torque	mNm	0.141	0.13	
8 Stall current	A	0.185	0.10	
9 Maximum efficiency	%	51.6	49.6	

Winding specific characteristics		106-10E	106-10F	106-XXX
10 Terminal resistance	Ω	16.50	52.20	Winding dependent
11 Terminal inductance	uH	65	205	
12 Torque constant (Kt)	mNm/A	0.80	1.39	
13 Speed constant (Kv)	rpm/V	11 927	6 878	
14 Speed / torque gradient	rpm/mNm	229 699	238 767	
15 Mechanical time constant	ms	30	32	
16 Rotor inertia	g·cm ²	0.015	0.015	

Motor body characteristics		Performance curve (based on ambient 25°C)	
17 Thermal resistance housing-ambient	°C/W	100.8	
18 Thermal resistance winding-housing	°C/W	21.9	
19 Thermal time constant winding	s	2	
20 Thermal time constant motor	s	59	
21 Ambient temperature	min °C	-20	
	max °C	+60	
22 Max. permissible winding temperature	°C	+85	
23 Max. permissible rotor speed	rpm	40 000	
24 Axial play at axial load	mm	0.3 max	
25 Max. axial load (dynamic)	N	0.08	
26 Max. force for press fits (static)	N	8.0	
27 Max. radial loading (3mm from flange)	N	0.25	
28 Number of magnet pole pairs		1	

