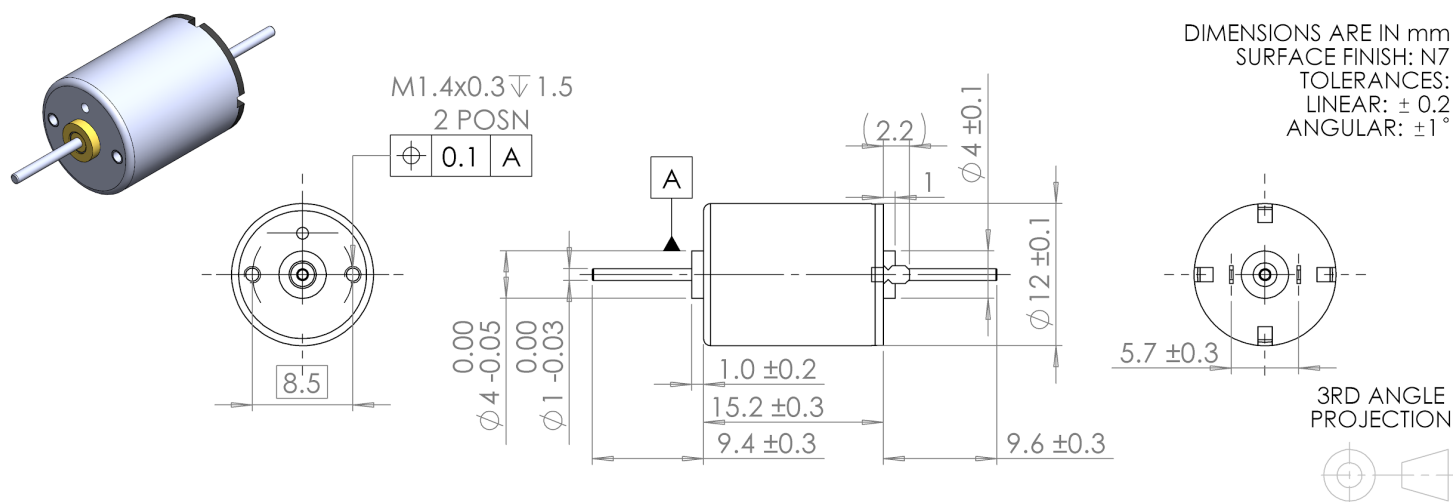


112-600 Brushed motor Coreless (precious metal brushes)

Ø12 x 15mm / fit for gearbox and encoder



			Samples available		Manuf. on request	Custom design	
Design and accessories			Units	112-600	112-109	112-408	112-XXX
A	Availability			Stocked design	Stocked design	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			Dual	Single	Dual	Single / Dual
E	Gearbox			Not fitted	Not fitted	Not fitted	Range 1:3.47 ~ 1:3194
F	Encoder			Not fitted	Not fitted	Not fitted	Magnetic / optical
G	Connections			Terminals	Molex 2147192020	Terminals	To requirement
H	Cable			N/A	50mm x AWG32	N/A	To requirement
I	Housing Material			Nickel plated steel	Nickel plated steel	Nickel plated steel	Nickel plated steel
J	Body diameter	mm		12	12	12	
K	Body length	mm		15.2	15.2	15.2	
L	Weight	g		8	8	8	
Performance characteristics							
1	Nominal voltage	V		15.0	5.0	9.0	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		17 755	22 615	18 375	
3	No load current	A		0.009	0.043	0.018	
4	Nominal speed	rpm		13 135	17 200	13 670	
5	Nominal torque	mNm		0.90	1.00	0.95	
6	Nominal current	A		0.140	0.535	0.245	
7	Stall torque	mNm		3.46	4.18	3.71	
8	Stall current	A		0.515	2.085	0.900	
9	Maximum efficiency	%		65.3	72.6	67.7	
Winding specific characteristics							
10	Terminal resistance	Ω		29.30	2.40	10.00	Winding dependent
11	Terminal inductance	mH		0.612	0.042	0.210	
12	Torque constant (Kt)	mNm/A		7.93	2.07	4.58	
13	Speed constant (Kv)	rpm/V		1 205	4 618	2 083	
14	Speed / torque gradient	rpm/mNm		5 130	5 412	4 949	
15	Mechanical time constant	ms		5.7	7.9	6.3	
16	Rotor inertia	g·cm²		0.14	0.14	0.14	
Motor body characteristics			Performance curve (based on ambient 25°C)				
17	Thermal resistance housing-ambient	°C/W	48.0	112-600 Speed Current Power Out Efficiency			
18	Thermal resistance winding-housing	°C/W	15.0				
19	Thermal time constant winding	s	6				
20	Thermal time constant motor	s	160				
21	Ambient temperature	min °C	-20				
		max °C	+60				
22	Max. permissible winding temperature	°C	+85				
23	Max. permissible rotor speed	rpm	26 000				
24	Axial play at axial load	mm	0.3 max				
25	Max. axial load (dynamic)	N	0.1				
26	Max. force for press fits (static)	N	10.0				
	with shaft supported	Dual-shaft version only					
27	Max. radial loading (3mm from flange)	N	0.3				
28	Number of magnet pole pairs		1				