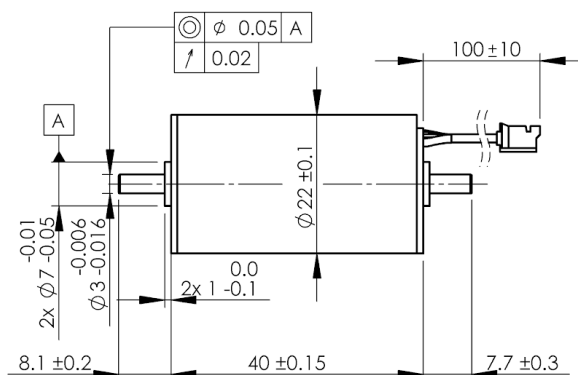
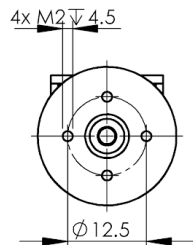
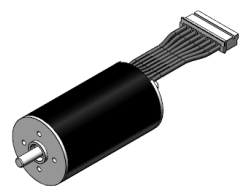
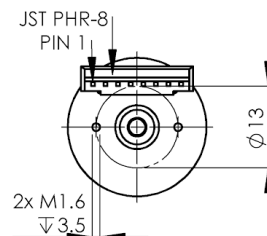


722-400 Brushless motor Slotless (inrunner)

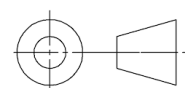
Ø22 x 40mm / with dual shafts / with sensors / fit for gearbox and encoder



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



3RD ANGLE PROJECTION



PIN	Description
1	U
2	V
3	W
4	GND
5	Hu
6	Hv
7	Hw
8	Vcc

		Samples available	Manufacturable on request		Custom design
		722-400	722-801	722-C00	722-XXX
Design and accessories	Units				
A Availability		Stocked design	8 weeks	8 weeks	8 weeks
B Motor Type		Brushless	Brushless	Brushless	Brushless
C Commutation		Digital Hall	Digital Hall	Sensored / sensorless	Sensored / sensorless
D Shafts		Dual	Dual	Dual	Dual / single
E Encoder		Not fitted	Not fitted	Not fitted	Magnetic / optical
F Gearbox		Not fitted	Not fitted	Not fitted	Range 1:4 ~ 1:5033
G Connections		8-pinned JST PHR-8	8-pinned JST PH2.0	8-pinned JST PHR-8	To requirement
H Cable		100mm x AWG26	100mm x AWG26	100mm x AWG26	To requirement
I Housing Material		Aluminium alloy	Aluminium alloy	Aluminium alloy	Aluminium alloy
J Body diameter	mm	22	22	22	
K Body length	mm	40	40	40	
L Weight	g	64.0	64.0	64.0	

Performance characteristics					This motor can be wound for nominal voltages in a 12 ~ 36V range. Nominal load, no load, and stall points, and efficiency will depend on the winding design. Please contact support@pmdri.com
1 Nominal voltage	v	12	24	36	
2 No load speed	rpm	16 380	16 390	16 780	
3 No load current	A	0.16	0.08	0.08	
4 Nominal speed	rpm	12 930	13 560	13 770	
5 Nominal torque	mNm	12.64	14.40	14.00	
6 Nominal current	A	2.00	1.13	0.77	
7 Stall torque	mNm	61.07	84.92	79.44	
8 Stall current	A	8.89	6.15	3.95	
9 Maximum efficiency	%	75.00	78.10	74.30	

Winding specific characteristics					Winding dependent
10 Terminal resistance	Ω	1.35	3.90	9.11	
11 Terminal inductance	mH	0.08	0.31	0.64	
12 Torque constant (Kt)	mNm/A	6.87	13.80	20.10	
13 Speed constant (Kv)	rpm/V	1 390	692	475	
14 Speed / torque gradient	rpm/mNm	273	196	215	
15 Mechanical time constant	ms	6.6	4.7	5.2	
16 Rotor inertia	g·cm ²	2.3	2.3	2.3	

Motor body characteristics		Operating range (based on ambient 25°C)		722-400	
17 Thermal resistance housing-ambient	°C/W	12.7			
18 Thermal resistance winding-housing	°C/W	5.0			
19 Thermal time constant winding	s	12			
20 Thermal time constant motor	s	420			
21 Ambient temperature	min °C	-30			
	max °C	+100			
22 Max. permissible winding temperature	°C	+150			
23 Max. permissible rotor speed	rpm	25 000			
24 Axial play at axial load	mm	0.3 max			
25 Radial play		Preloaded			
26 Max. axial load (dynamic)	N	3.5			
27 Max. force for press fits (static)	N	44.0			
	with shaft supported	kN	1.2		
28 Max. radial loading (5mm from flange)	N	15.0			
29 Number of pole pairs		1			
30 Number of winding phases		3			