

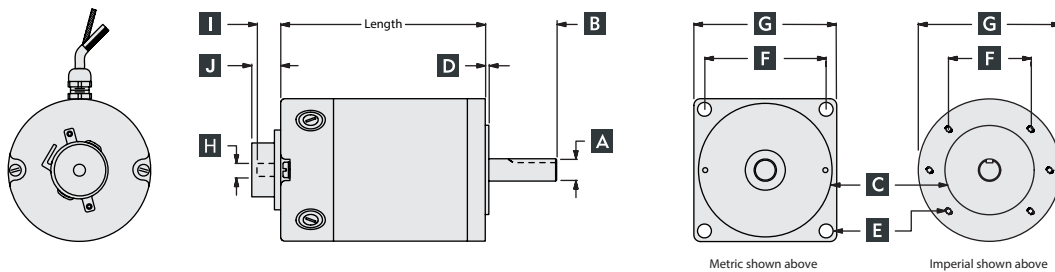
High-Torque. Long life.

Our ElectroCraft DirectPower™ Plus 701 Series features a rugged, heavy-gauge steel housing construction for long-life and durability. This series offers high output for low to mid voltages, high torque applications. This high-efficiency motor includes dynamically balanced armatures, sealed ball bearings, and replaceable brushes.



DPP700 BRUSH MOTOR	
Size	4.00 inches or 102mm
Peak Torque	to 2000 oz-in or 1412 Ncm

Model	MAX Length	A	B	C	D	E	F	G	H	I	J
		Front Shaft Diameter	Front Shaft Length	Pilot Diameter	Pilot Length (Ref)	Mounting Hole Pattern (Ref)	Mount Hole Spacing (Ref)	Flange External Dimension (Ref)	Rear Shaft Diameter	Rear Shaft Length	Encoder Length (Ref)
DPP702	5.75 in	0.6250 in 0.6245 in	2.000 in ±0.03	2.500 in 2.497 in	0.100 in	(4) 10-32 UNC-28 0.50 in Deep Min EQ SP on 3.250 in D.B.C.	2.298 in	4.00 in OD	0.3750 in 0.3747 in	0.43 in ±0.030	0.43 in
DPP703	6.75 in										
DPP702M	147 mm	16.00 mm 15.99 mm	40 mm ±0.762	95.00 mm 94.92 mm	3.8 mm	(4) 10 mm DIA THRU EQ SP on 122.34 mm D.B.C.	86.51 mm	102 mm SQ	8.00 mm 7.99 mm	10.9 mm ±0.762	10.9 mm
DPP703M	172 mm										



DPP700 Model Number

1 - Frame Size
(Imperial or Metric)

D P P 7 0 2

Product Name

Frame Size

2 - Torque

- 9 0 0

Continuous Torque (oz-in)

3 - Winding

V

9 0

Voltage

4 - Features

- 1 2 2 - C

Rear Shaft

Front Shaft

Lead Option

Encoder

D P P 7 0 2 M

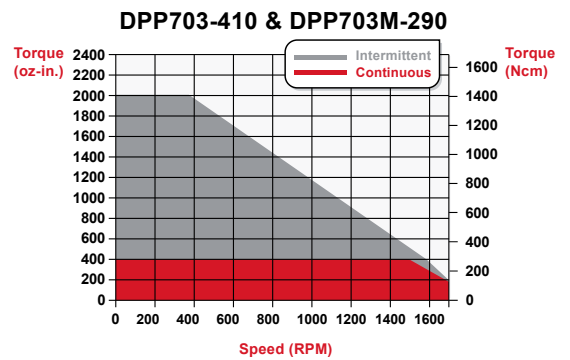
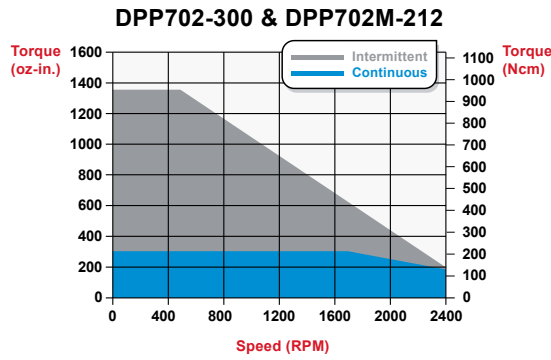
Product Name

Frame Size

Optional Metric

Continuous Torque (Ncm)

DPP700 - Performance



Continuous torque ratings developed with 12" x 12" x 0.50" heat sink at an ambient temperature of 20 degrees C.

DPP700 Mechanical / Winding Data

DPP700 Stack/Torque Sizes

Stack Size Models	DPP702-300	DPP703-410
Continuous Stall Torque (oz-in)	300	410
Continuous Stall Torque (Ncm)	211.83	289.50
Peak Torque (oz-in)	1350	2000
Peak Torque (Ncm)	953.24	1412.20
Rotor Inertia (oz-in-sec ²)	0.1500	0.2000
Rotor Inertia (g-cm ²)	10593.0	14124.0
Thermal Resistance (C / Watts)	1.6	1.3
Weight (lbs)	8.5	11.0
Weight (Kg)	3.9	4.99
Length (inches)	5.8	6.8
Length (mm)	14.7	17.3
Number of Poles	2	2

DPP700 Winding Options

Winding Models	300V24	300V48	300V60	300V90	410V24	410V48	410V60	410V90
Design Voltage (VDC)	24	48	60	90	24	48	60	90
Continuous Current (Amps)	16	8	6	4	18	9	7	5
Peak Current (Amps)	90	53	44	29	90	56	45	30
Voltage Constant ±10% (VDC/kRPM)	9.1	18.7	23.0	34.4	13.7	26.5	32.9	49.3
Torque Constant ±10% (oz-in / Amp)	12.3	25.3	31.1	46.6	18.5	35.8	44.4	66.7
Torque Constant ±10% (Ncm / Amp)	8.686	17.866	21.961	32.907	13.064	25.280	31.353	47.101
Resistance ±10% (Ohms)	0.24	0.52	0.71	1.34	0.25	0.56	0.79	1.51
Inductance ±10% (mH)	0.4	1.8	2.7	6.1	0.7	2.4	3.7	8.4
Motor Constant (oz-in / √ Watt)	25.11	35.23	36.76	40.16	36.59	47.7	49.91	54.19
Motor Constant (Nm / √ Watt)	2.84	3.98	4.15	4.54	4.13	5.39	5.64	6.12
Electrical Constant (msec)	1.77	3.48	3.79	4.53	2.54	4.31	4.72	5.57
Mechanical Constant (msec)	33.69	17.11	15.72	13.17	21.16	12.44	11.37	9.64

