

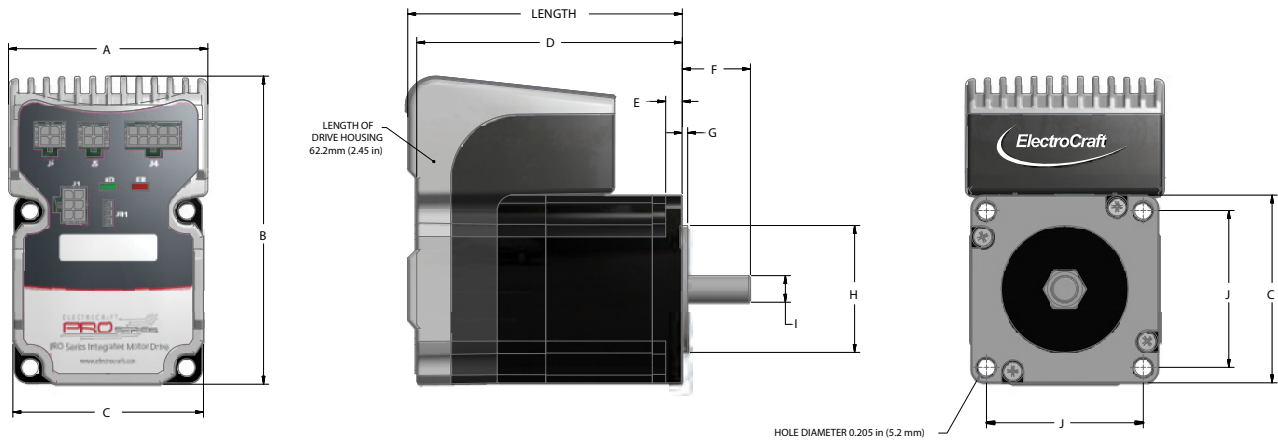
### Compact. Programmable.

The PT56 combines the ElectroCraft TorquePower™ Plus high-performance stepper motor with the advanced functionality of the Integrated PRO Series Drive. The motor can be driven in open-loop stepper mode or in closed-loop using the integrated encoder and offers high holding torque and high accuracy in a robust, compact package. Three frame lengths are available in this size, offering holding torque of up to 170 Ncm (241 oz-in).



PT56 Integrated Motor Drive Controller	
<b>Size</b>	56mm or NEMA 23, 1.8°
<b>Holding Torque</b>	to 170 Ncm (241 oz-in)
<b>Speed</b>	to 42 RPS (2,500 RPM)

Model	Units	Length	A	B	C	D	E	F	G	H	I	J
PT56-A64	mm	70.94	59.86	92.51	57.21	68.25	5	20.45±0.76	1.6	38.1±0.05	7.98-7.99	47.1
	inch	2.79	2.36	3.64	2.25	2.69	0.2	0.81±0.03	0.063	1.5±0.002	0.314-0.3145	1.85
PT56-A106	mm	82.44	59.86	92.51	57.21	79.75	5	20.45±0.76	1.6	38.1±0.05	7.98-7.99	47.1
	inch	3.25	2.36	3.64	2.25	3.14	0.2	0.81±0.03	0.063	1.5±0.002	0.314-0.3145	1.85
PT56-A170	mm	104.94	59.86	92.51	57.21	102.25	5	20.45±0.76	1.6	38.1±0.05	7.98-7.99	47.1
	inch	4.13	2.36	3.64	2.25	4.03	0.2	0.81±0.03	0.063	1.5±0.002	0.314-0.3145	1.85



### PT56 Model Number

#### 1 - Motor Type

**P T** **5 6**  
 Product Name      Frame Size

#### 2 - Torque

**A 1 0 6** **V**  
 Drive Type      Holding Torque (Ncm)

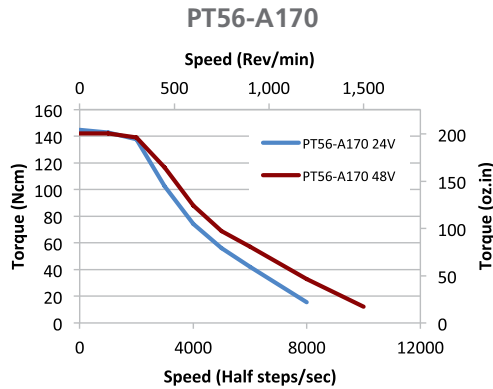
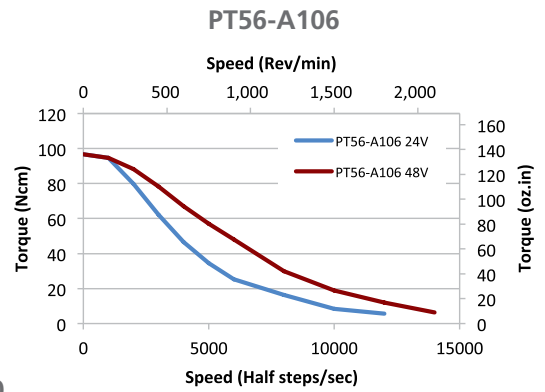
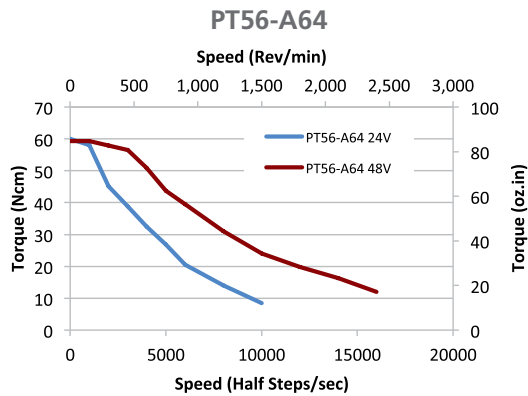
#### 3 - Voltage

**4 8** **A**  
 Voltage (Volts)      Drive Version

#### 4 - Features

**0** **X** **CAN**  
 Front Shaft      Feedback      Network

## PT56 - Performance



## PT56 Mechanical Data

### PT56 Stack Size Mode/s

Stack Size Models	PT56-A64	PT56-A106	PT56-A170
Holding Torque (oz-in)	91	150	241
Holding Torque (Ncm)	64.26	105.92	170.17
Length (inches)	2.79	3.25	4.13
Length (mm)	70.87	82.55	104.90
Rotor Inertia (oz-in-sec <sup>2</sup> )	0.0020	0.0035	0.0061
Rotor Inertia (kg-cm <sup>2</sup> )	0.1412	0.2472	0.4308
Phase Resistance ±10% (Ohms)	0.6	0.8	1.0
Phase Inductance ±10% (mH)	2.0	3.5	4.8
Weight (oz)	24.0	31.0	44.0
Weight (Kg)	0.7	0.9	1.2



**PT56 Mechanical Data Cont.**

Power Inputs	
Motor Supply Voltage (VDC)	12-48
Logic Supply Voltage (VDC)	9-36
Control Inputs	
AUX Analog Input (x1)	12-BIT, 0 - 5V
Digital inputs (x5) Enable, 2 Limit Switches, Plus 2 General Purpose	5 - 36V, NPN
Control Outputs	
Digital outputs (x2) Status, Plus 1 General Purpose	5 - 36V, 0.5A, NPN open Collector
Operation Modes	
Operation Mode	Single axis motion controller, Intelligent slave executing I/O triggered motion sequences, Multi-axis, distributed motion solution, Intelligent slave executing network (RS232 or CAN) triggered motion sequences
Communications	
Serial	RS232
CAN	CAN-bus 2.0
Environmental	
Operating Temperature (°C)	0 - +40
Storage Temperature (°C)	-40 - +80
Humidity Range Not Condensing (% Rh)	90
Protections	
Hardware protections	Short circuit - Phase to GND Short circuit - Phase to Phase Over-voltage Under-voltage I <sup>2</sup> t
Regulatory Compliance	
CE	IEC60529
UL	UL508



Your Genius. Our Drive.

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