

### Compact. Programmable.

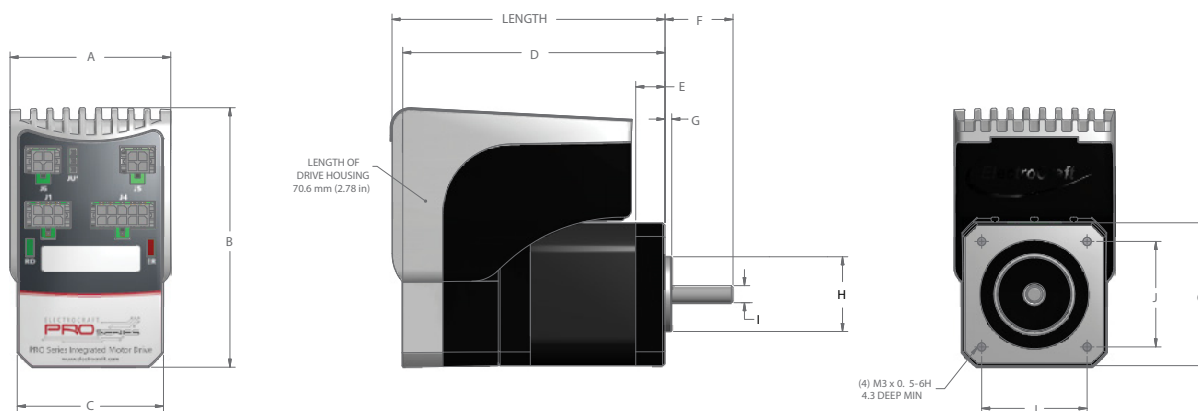
The PT42 combines the ElectroCraft TorquePower™ Plus high-performance stepper motor with the advanced functionality of the Integrated PRO Series Drive. The motor can be driven in open-loop stepper mode or in closed-loop using the integrated encoder and offers high holding torque and high accuracy in a robust, compact package. Two frame lengths are available in this size, offering holding torque of up to 55 Ncm (78 oz-in).



#### PT42 Integrated Motor Drive Controller

<b>Size</b>	42mm or Nema 17, 1.8°
<b>Holding Torque</b>	to 44 Ncm (62 oz-in)
<b>Speed</b>	to 50 RPS (3,000 RPM)

Model	Units	Length	A	B	C	D	E	F	G	H	I	J
PT42-A44	mm	72.27	47.24	76.3	42.96	69.32	8.6	20±0.76	2.0	21.97-22.0	4.99-5.0	31.0
	inch	2.85	1.86	3.0	1.69	2.73	0.34	0.79±0.03	0.08	0.8648-0.866	0.1963-0.1967	1.22
PT42-A55	mm	80.27	47.24	76.3	42.96	77.12	8.6	20±0.76	2.0	21.97-22.0	4.99-5.0	31.0
	inch	3.16	1.86	3.0	1.69	3.04	0.34	0.79±0.03	0.08	0.8648-0.866	0.1963-0.1967	1.22



### PT42 Model Number

1 - Motor Type  
(Imperial)

**P T**

Product Name

4 2

Frame Size

2 - Torque  
(Stack Length)

**A 5 5**

Drive Type Holding Torque (Ncm)

3 - Voltage

**V 4 8 A**

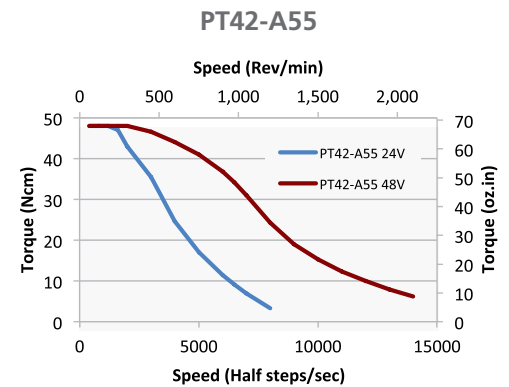
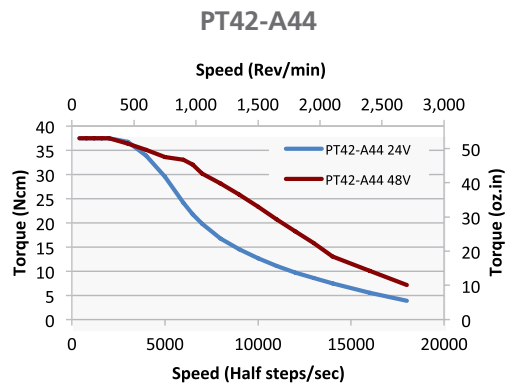
Voltage (Volts) Drive Version

4 - Features

**0 - X - CAN**

Front Shaft Feedback Network

## PT42 - Performance



## PT42 Mechanical Data

### PT42 Stack Size Mode/s

Stack Size Models	PT42-A44	PT42-A55
Holding Torque (oz-in)	62	78
Holding Torque (Ncm)	43.78	55.08
Length (inches)	2.85	3.16
Length (mm)	72.39	80.26
Rotor Inertia (oz-in-sec <sup>2</sup> )	0.0009	0.0012
Rotor Inertia (kg-cm <sup>2</sup> )	0.0636	0.0847
Phase Resistance $\pm 10\%$ (Ohms)	1.3	1.6
Phase Inductance $\pm 10\%$ (mH)	2.3	3.4
Weight (oz)	16.6	19.0
Weight (Kg)	0.5	0.5

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 $I^2t$
Regulatory Compliance	
CE	IEC60529
UL	UL508



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