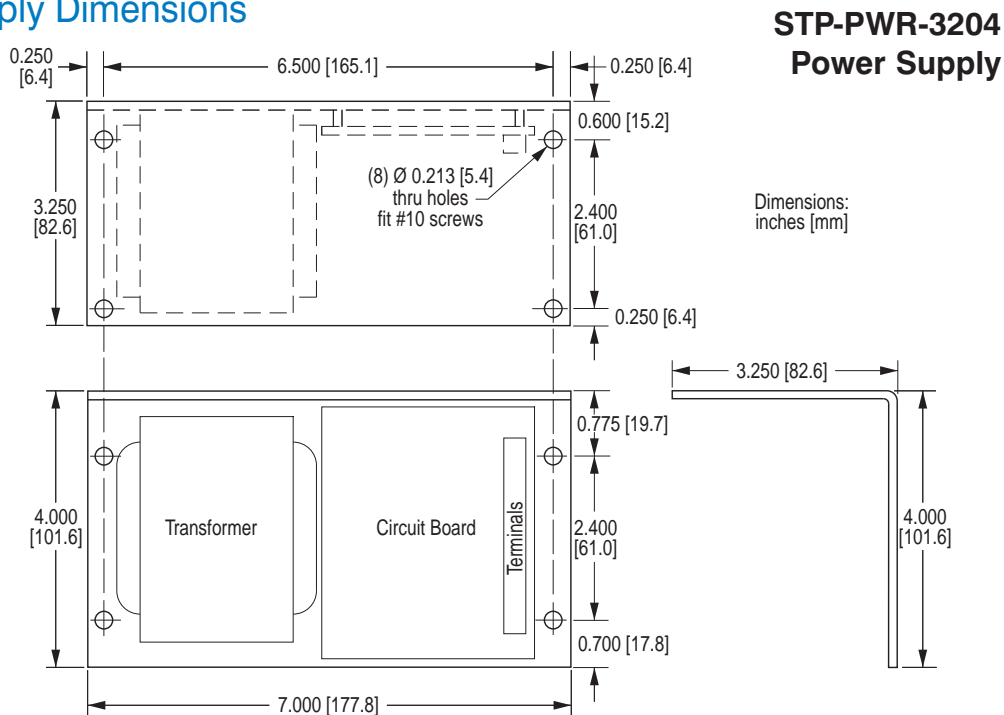


SureStep™ Series Specifications – Stepping System Power Supplies				
Power Supply	STP-PWR-3204	STP-PWR-4805	STP-PWR-4810	STP-PWR-7005
Price	<--->	<--->	<--->	<--->
Input Power (fuse protected *)	1-phase, 120/240 VAC, 50/60 Hz, 150 VA Fuse*: 3A	1-phase, 120/240 VAC, 50/60 Hz, 350 VA Fuse*: 5A	1-phase, 120/240 VAC, 50/60 Hz, 650 VA Fuse*: 8A	1-phase, 120/240 VAC, 50/60 Hz, 500 VA Fuse*: 7A
Input Voltage Range (switch selectable)	120/240 VAC ±10% (Voltage range switch is set to 240 VAC from factory)			
Inrush Current	120 VAC < 12 A / 240 VAC < 14 A	120 VAC < 20A / 240 VAC < 24A	120 VAC < 40A / 240 VAC < 50A	
Motor Supply Output (linear unregulated, fuse protected *, and power on LED indicator)	32 VDC @ 4A (fully loaded) 35 VDC @ 1A load 41 VDC @ no load Fuse*: 6A (Electrically isolated from Logic Supply Output)	46.5 VDC @ 5A (fully loaded) 52 VDC @ 1A load 57.5 VDC @ no load Fuse*: 8A	46.5 VDC @ 10A (fully loaded) 50 VDC @ 1A load 57.5 VDC @ no load Fuse*: 15A	70 VDC @ 5A (fully loaded) 79 VDC @ 1A load 86.5 VDC @ no load Fuse*: 8A
Logic Supply Output (regulated and power on LED indicator)	5 VDC ±5% @ 500 mA (Electronically Overload Protected) (Electrically isolated from Motor Supply Output)			
Watt Loss	13W	25W	51W	42W
Storage Temperature Range	-55 to 85 °C [-67 to 185 °F]			
Operating Temperature Range	0 to 50 °C [32 to 122 °F] full rated; derate current 1.1% per degree above 50°C; 70 °C [158 °F] maximum			
Humidity	95% (non-condensing) relative humidity maximum			
Cooling Method	Natural convection (mount power supply to metal surface if possible)			
Dimensions (in [mm])	4.00 x 7.00 x 3.25 [101.6 x 177.8 x 82.6]	5.00 x 8.10 x 3.88 [127.0 x 205.7 x 98.6]	5.62 x 9.00 x 4.62 [142.7 x 228.6 x 117.3]	
Mounting	Mount on either wide or narrow side with machine screws per dimension diagrams			
Weight (lb [kg])	6.5 [2.9]	11 [4.9]	18 [8.3]	16 [7.2]
Connections	Screw Terminals			
Agency Approvals	UL (file # E181899), CSA, CE			

* Fuses to be replaced by qualified service personnel only. Use (1-1/4 x 1/4 in) ceramic fast-acting fuses (Edison type ABC from AutomationDirect, or equivalent).

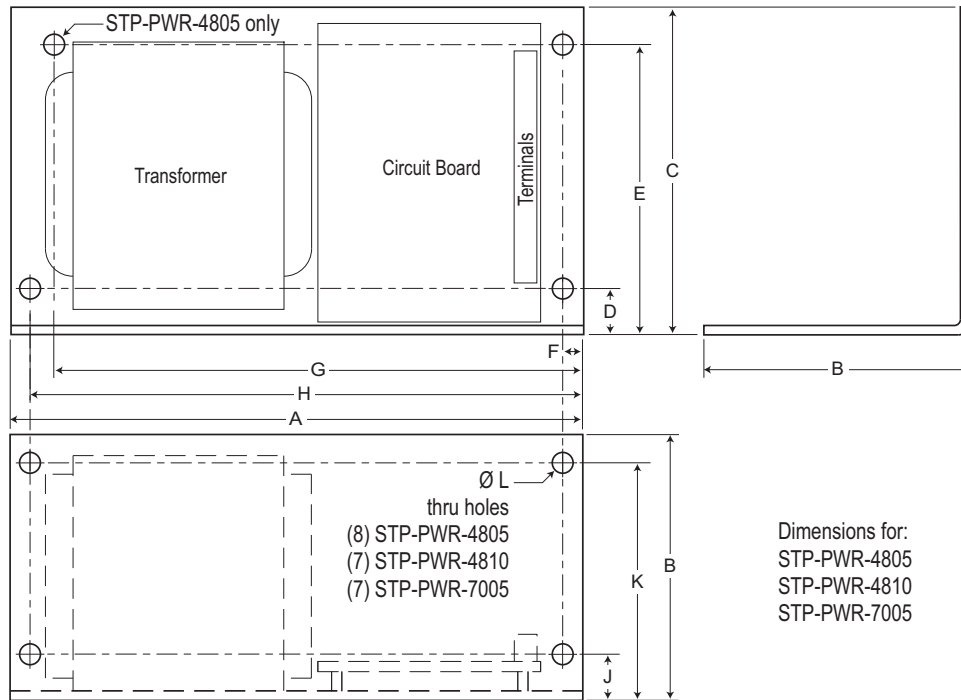
Power Supply Dimensions



SureStep™ Stepping System Power Supplies

Power Supply Dimensions (continued)

STP-PWR-4805, -4810, -7005 Power Supplies



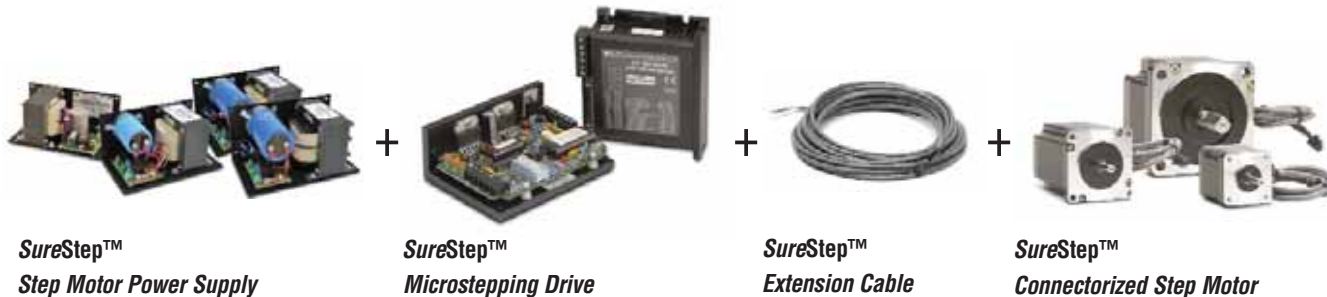
SureStep™ Series Dimensions – 48V & 70V Power Supplies												
Power Supply Part Number	Dimensions* (in [mm]*)											Mtg Screw
	A	B	C	D	E	F	G	H	J	K	L	
STP-PWR-4805	8.10 [205.7]	3.88 [98.6]	5.00 [127.0]	0.87 [22.1]	4.67 [118.6]	0.25 [6.4]	7.15 [181.6]	7.75 [196.9]	0.50 [12.7]	3.53 [89.7]	0.200 [5.1]	#10
STP-PWR-4810 STP-PWR-7005	9.00 [228.6]	4.62 [117.3]	5.62 [142.7]	1.56 [39.6]	4.06 [103.1]	0.35 [8.9]	n/a	8.59 [218.2]	0.50 [12.7]	4.27 [108.5]	9/32 [7.1]	1/4

* mm dimensions are for reference purposes only.



SureStep™ Stepping Systems

System Overview



**SureStep™
Step Motor Power Supply**

**SureStep™
Microstepping Drive**

**SureStep™
Extension Cable**

**SureStep™
Connectorized Step Motor**

The SureStep™ stepping system series includes:

- Four step motor power supplies
- One DIP-switch configurable microstepping drive
- Two software configurable advanced microstepping drives
- Two motor extension cables
- Nine step motors (NEMA 17, 23, 34 frame sizes)

Standard stepper drive features

- Max 3.5A, 40V
- DIP switch configurable
- Selectable microstepping: x2, x5, x10, x50 steps/revolution
- Self test feature
- Idle current reduction

SureStep Part Number Explanation

STP- MTR H - 23079

Component Capacity

- For DRV: 2-digit max nominal voltage followed by max current with 1 implied decimal place
4035: 40V, 3.5A
4850: 48V, 5.0A
80100: 80V, 10.0A
- For EXT(H): cable length in feet
- For MTR(H): 2-digit NEMA frame size followed by approximate length in mm
- For PWR: 2-digit output voltage followed by output current

Component Type

- DRV: stepper drive
- EXT: motor extension cable
- EXTH: high-power motor extension cable
- MTR: stepper motor
- MTRH: high-power stepper motor
- PWR: power supply

SureStep Series Designation: STP

Advanced stepper drive features

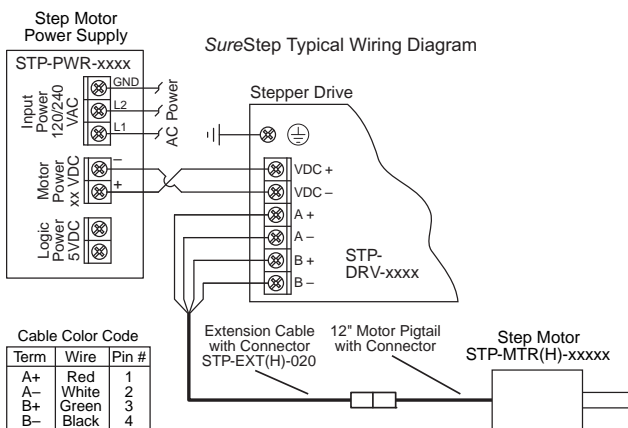
- Max 5A, 48V and max 10A, 80V models available
- Software configurable
- Programmable microsteps
- Internal indexer (via ASCII commands)
- Self test feature
- Idle current reduction
- Anti-resonance
- Torque ripple smoothing
- Step, analog, & serial communication inputs
- Serial communications allow point-to-point positioning

Motor features

- High torque, 2-phase, bipolar, 1.8° per step, 4-lead
- (2) NEMA 17 motors
- (3) NEMA 23 motors
- (4) NEMA 34 motors

Power supply features

- Linear, unregulated DC power supplies
- 120/240 VAC selectable input
- 32V, 48V, 70V DC output models available
- All models have additional 5VDC, 500 mA regulated logic supply
- Fusing included for both incoming AC and outgoing DC
- 5V supply has electronic overload protection



SureStep™ System Recommended Component Compatibility			
Drives (1)	Power Supplies (1)	Motors & Extension Cables (2,3)	
STP-DRV-4035	-	-	STP-MTR-xxxxx & STP-EXT-020
STP-DRV-4850	-	STP-PWR-4805	
STP-DRV-80100	STP-PWR-7005	STP-PWR-3204	STP-MTRH-xxxxx & STP-EXTH-020
		STP-PWR-4810	

1) Caution: Do not use a power supply that exceeds the drive input voltage range. Using a lower voltage power supply with a higher voltage drive is acceptable, but will not provide full system performance.

2) MTR motors have connectors compatible with the EXT extension cables.

3) MTRH motors have connectors compatible with the EXTH extension cables.

Company Information

Systems Overview

Programmable Controllers

Field I/O

Software

C-more & other HMI

Drives

Soft Starters

Motors & Gearbox

Steppers/Servos

Motor Controls

Proximity Sensors

Photo Sensors

Limit Switches

Encoders

Current Sensors

Pressure Sensors

Temperature Sensors

Pushbuttons/Lights

Process

Relays/Timers

Comm.

Terminal Blocks & Wiring

Power

Circuit Protection

Enclosures

Tools

Pneumatics

Appendix

Product Index

Part # Index