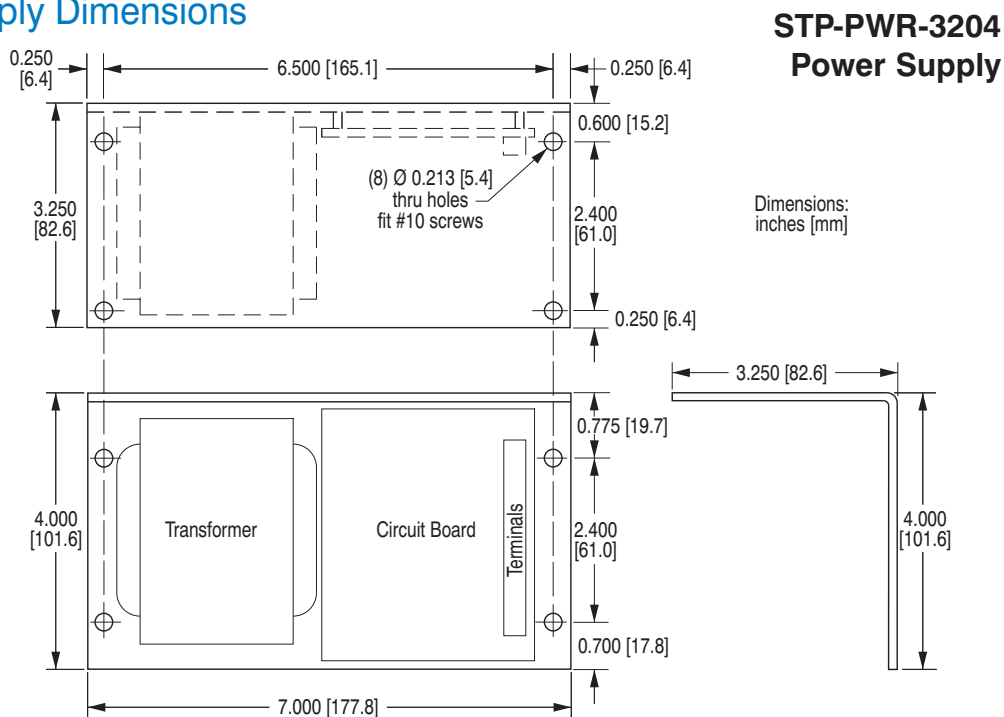


SureStep® Series Specifications – Stepping System Power Supplies				
Power Supply	STP-PWR-3204	STP-PWR-4805	STP-PWR-4810	STP-PWR-7005
Price	<--->	<--->	<--->	<--->
Input Power (fuse protected *)	1-phase, 120/240 VAC, 50/60 Hz, 150 VA Fuse*: 3A	1-phase, 120/240 VAC, 50/60 Hz, 350 VA Fuse*: 5A	1-phase, 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 < 20 A / 240 VAC < 24 A	120 VAC < 40 A / 240 VAC < 50 A	
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



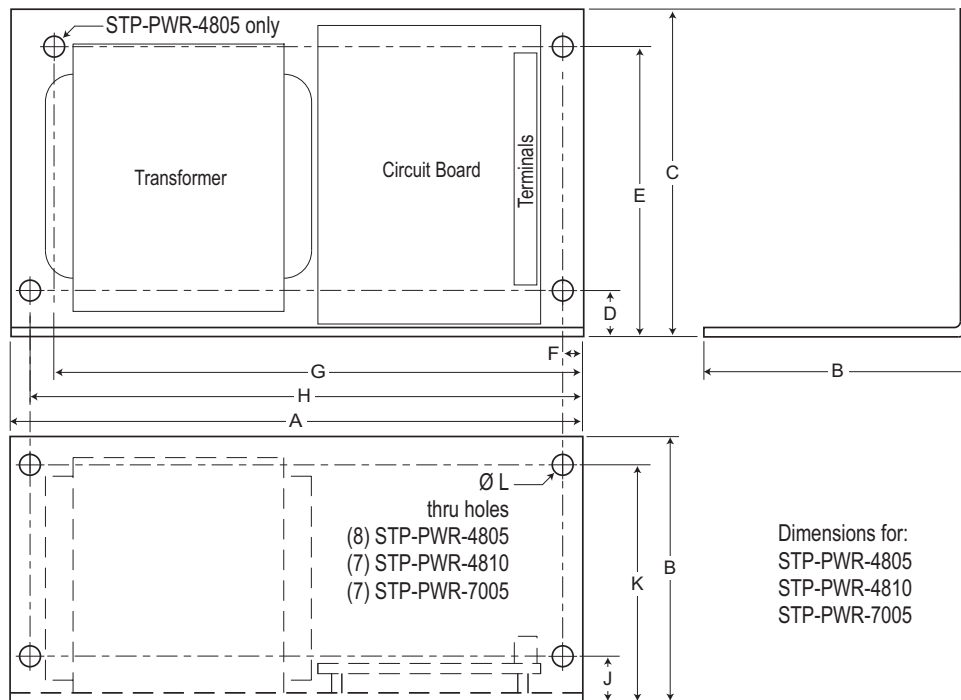
**STP-PWR-3204  
Power Supply**

Dimensions:  
inches [mm]

# SureStep<sup>®</sup> Stepping System Power Supplies

## Power Supply Dimensions (continued)

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



SureStep <sup>®</sup> 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	
<b>STP-PWR-4805</b>	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
<b>STP-PWR-4810</b> <b>STP-PWR-7005</b>	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<sup>®</sup> Stepping Systems

## System Overview



**SureStep<sup>®</sup> Step Motor Power Supply**

**SureStep<sup>®</sup> Microstepping Drive**

**SureStep<sup>®</sup> Extension Cable**

**SureStep<sup>®</sup> Connectorized Step Motor**

The SureStep<sup>®</sup> 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

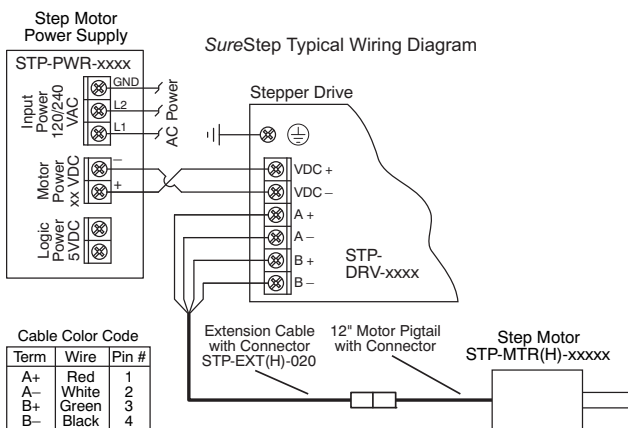
- Max 5A, 48V and max 10A, 80V models available
- Software configurable
- Programmable microsteps
- Internal indexer (via ASCII commands)
- Self test feature
- Idle current reduction
- Anti-resonance
- Torque ripple smoothing
- Step, analog, & serial communication inputs
- Serial communications allow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