

Standard Features

- ▶ Panel, Wall, and Floor mounted systems
- ▶ State of the art ferroresonant isolation transformers
- ▶ T800R/T800P/T800F



Power-Sure™ 800

*Single Phase
Power Conditioners*

Installation and User Manual

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS – This manual contains important instructions for Power-Sure™ 800R/800P/T800F that must be followed during operation of the equipment.



WARNING Opening enclosures expose hazardous voltages. Always refer service to qualified personnel only.

ATTENTION L'ouverture des cabinets expose des tensions dangereuses. Assurez-vous toujours que le service ne soit fait que par des personnes qualifiées.

WARNUNG! Das öffnen der Gehäuse legen gefährliche Spannungen bloss. Service sollte immer nur von qualifizierten Personal durchgeführt werden.



WARNING As standards, specifications, and designs are subject to change, please ask for confirmation of the information given in this publication.

ATTENTION Comme les normes, spécifications et produits peuvent changer, veuillez demander confirmation des informations contenues dans cette publication.

WARNUNG! Normen, Spezifizierungen und Pläne unterliegen Änderungen. Bitte verlangen Sie eine Bestätigung über alle Informationen, die in dieser Ausgabe gemacht wurden.



NOTE This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at users own expense.

Certification Standards

- ▶ ANSI/IEEE C57.12.91 Standards
- ▶ IEEE C62.41 cat.B3
- ▶ NFPA 70 – National Electrical Code
- ▶ FCC rules and regulations of Part 15, Subpart J, Class A
- ▶ UL listed under 1012, Power Supplies – General Purpose
- ▶ NEMA PE 1 (National Electrical Manufacturers Association)
- ▶ NEMA 250 (National Electrical Manufacturers Association)
– Enclosures for Electrical Equipment (1000 Volts Maximum)
- ▶ ISO 9001
- ▶ Occupational Safety & Health Administration (OSHA)



WARNING To reduce the risk of fire or electric shock, install in a temperature and humidity controlled indoor area free of conductive contaminants.

This equipment is intended only for installations in a **RESTRICTED ACCESS LOCATION**.

ATTENTION Pour réduire le risque d'incendie ou d'électrocution, installer dans une enciente intérieure contrôlée en température et humidité et sans contaminants conducteurs.

Ce matériel est destiné seulement pour des installations dans un **EMPLACEMENT RESTREINT d'accès**.

WARNUNG! Um die Gefahr von Feuer und elektrischem Schock zu reduzieren, muss das Gerät in einem temperatur - und feuchtigkeitskontrollierten Raum, frei von leitungsfähigen Verunreinigungen, installiert werden. Dieses Gerät ist nur für die Installation an einem Ort mit eingeschränkter Zugangserlaubnis vorgesehen.

Diese Ausrüstung ist nur für Anlagen in einem **INGESCHRÄNKTEN ZUGRIFF STANDORT** bestimmt.



WARNING **HIGH LEAKAGE CURRENT.** Earth connection is essential before connecting supply.

ATTENTION **COURANT DE FUITE ELEVE.** Raccordement a la terre indispensable avant le raccordement au reseau.

WARNUNG! **Hoher Ableitstrom Vor Inbetriebnahme Schutzleiterverbindung herstellen.**

How to Use This Manual and Symbol Usage

This manual is designed for ease of use and easy location of information.

Locate specific topics in the Table of Contents.

Typographical conventions use “< >” brackets in procedures to denote a prompt for User action:

For example: 1. After the selections are complete, click on the <Save> button.

This manual uses four icon symbols with text to convey important information and tips.



WARNING Indicates information provided to protect the user and service personnel against safety hazards and/or possible equipment damage.



CAUTION Indicates information provided to protect the user and service personnel against possible equipment damage.



IMPORTANT Indicates information provided as an operating instruction, or as an operating tip.



NOTE Indicates information provided as an operating tip or an equipment feature.

CAUTION: Record All Serial Numbers!

**RECORD ALL SERIAL NUMBERS FOR THE POWER-SURE™ T800R/T800P/T800F
AND COMPONENTS.**

**THESE SERIAL NUMBERS WILL BE REQUIRED IF YOUR SYSTEM NEEDS SERVICE.
KEEP THIS MANUAL IN A PLACE WHERE YOU CAN REFERENCE THE SERIAL
NUMBERS IF SERVICE IS REQUIRED!**

POWER-SURE™ T800R SERIAL NUMBER: _____

POWER-SURE™ T800P SERIAL NUMBER: _____

POWER-SURE™ T800F SERIAL NUMBER: _____

ADDITIONAL SERIAL NUMBERS:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
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Power-Sure™ 800

Single Phase
Power Conditioners

Installation and User Manual

Revision History

POWER-SURE™ 800 Single Phase Power Conditioners *Installation and User Manual* 86-109613-00

Revision:	A00	Initial Release	11/2003
	A01	ECN#: 003788	02/2004
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Office Protection Systems



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Introduction

1.0 Scope

This section is a general description of the Power-Sure™ T800R/T800P/T800F Power Conditioners. It includes receiving, electrical, environmental, mechanical specifications, and cabinet standard dimensions.

1.1 Reference Manuals

N/A

1.2 Section Descriptions

This manual is divided into four sections:

Section 1 Introduction

This section is a general description of the Power-Sure™ T800R/T800P/T800F Power Conditioners. It includes receiving, electrical, mechanical specifications, and cabinet measurements.

Section 2 Installation

This section guides the User through installation requirements, wire and circuit diagrams, hardwire connections, and factory configuration ratings for the Power-Sure™ T800R/T800P/T800F.

Section 3 Maintenance

This section contains preventive maintenance for the Power-Sure™ T800R/T800P/T800F and a troubleshooting guide to assist the User with any communication and configuration connections.

1.3 Receiving

Before accepting shipment from the freight carrier, inspect the exterior surfaces of all shipping containers or packaging used and the equipment, for damage that may have occurred during transit. If the shipping containers or equipment shows evidence of damage, note the damage on the receiving document (bill of lading) prior to signing for receipt of equipment.

ALL CLAIMS FOR SHIPPING DAMAGE MUST BE FILED DIRECTLY WITH THE CARRIER. Replacements for damaged components should be ordered through MGE Office Protection Systems.

Check by thorough inspection if any electrical connections have become loose because of vibration during shipment. Check the nameplate to be sure that the voltage and frequency match the available power supply. Under no circumstance should the unit be connected to a power source which does not conform to the nameplate rating.

1.4 Location and Storage

The unit has been completely inspected and extensively tested under various load conditions prior to shipment. Care to install it at a proper location will assure long trouble free operation. T800R models are forced air cooled with the air intake on the sides of the enclosure. Air exhausts at the rear of the enclosure. Therefore, it should be installed in a clean, dry place with enough clearance to allow a free flow of air. Allow at least 4 inches of space between the unit and the wall or other equipment for portable units. Allow enough space for maintenance on all four sides on larger units, and unrestricted air exhaust from the fan. Never mount T800P models one unit over the other or near a heat source. Heat rising from or blowing into the unit may cause premature failure.

If the equipment is to be stored prior to installation, it should be stored in a cool, dry, well-ventilated location that is protected from rain, splashing water, chemical agents, etc. The equipment should be covered with a tarpaulin or plastic wrapper to protect it against dust, dirt, paint, or other foreign materials.

1.5 Prerequisites to Installation

An efficient installation depends on careful planning and site preparation. Installation of the equipment must be handled by skilled technicians and electricians familiar with the special requirements of high-voltage electrical equipment. The installation must comply with the requirements of the National Electrical Code (ANSI/NFPA 70, latest issue) and local codes as applicable, and safety standard, UL1012 listed; UL1449 compliant; meets FCC Cat. A.

Startup service is offered by MGE Office Protection Systems. Do not allow unqualified personnel to handle, install, or operate Power-Sure™ 800 Power Conditioners.

1.6 General Description

The Power-Sure™ 800 is a state of the art ferroresonant isolation transformer. Its all passive electronic design provides unsurpassed reliability and power conditioning performance. The overall function of the Power-Sure™ 800 is to receive raw, extremely polluted electrical power and purify it for use by sensitive electronic equipment. This highly reliable product is ideal for heavy industrial applications where high power equipment constantly interferes with your building electrical system. Use the Power-Sure™ 800 where isolated, regulated, transient and noise free sinusoidal power is required.

- ▶ Ferroresonant, copper coils, dry type, convection cooled, 600 volt class, 200 degrees C system.
- ▶ Core uses M-6 grade, grain orientated, stress relieved transformer steel.
- ▶ Transformers are vacuum impregnated with epoxy resin.
- ▶ NEMA type 1, general purpose, indoor enclosure.
- ▶ Heavy gauge steel. Base sub-structure adequate for fork lifting.



Power-Sure™ T800R Models
Section 1.8



Power-Sure™ T800P/T800F Models
Section 1.9

1.7 Electrical Specifications

Specifications are for Power-Sure™ T800R/T800P/T800F models. Variable Range Regulation (VRR): Input voltage can fluctuate - 35% to +200% (for a short time) with the output regulating at usable tolerances. The following are typical regulation specifications with continuous input voltage variations:

Power Output	1 phase, 100% duty kVA/kw, for linear and non-linear loads.
Line Voltage Regulation	@ 100% load- $\pm 3\%$ Vout for +10% to -20% Vin. @ 75% load- $\pm 3\%$ Vout for +10% to -35% Vin. @ 50% load- $\pm 3\%$ Vout for +10% to -40% Vin. @ 25% load- $\pm 3\%$ Vout for +10% to -45% Vin.
Immunity to Distortion	Input distortion as high as 40% laden with transient noise will produce a maximum harmonic content of 5% on the sinusoidal transient free output.
Load Regulation	Output voltage remains $\pm 3\%$ with a load change of 0-100%.
K Factor	K Factor rating is 30.
Power Factor Correction	Remains within .95 approaching unity with load power factor as poor as 0.6. Meets FAA-G-201e power factor specifications.
Harmonic Attenuation	-23dB for load reflected harmonics.
Galvanic Isolation	NEC 250-5d, .001pf.
Surge Protection	Complies to UL 1449 rating 330V, ANSI/IEEE C62.41 Cat. B3.
Short Circuit Protection	The Power-Sure™ T800R/T800P/T800F can not be damaged by electrical short in the load.
MTBF	Inherent reliability of 200,000 hours.
Voltage Recovery	Output voltage returns to 95% of nominal voltage within 2 cycles and 100% within 3 cycles.
Frequency	Either 50 or 60 Hz specifically. A 60 Hz unit will not operate at 50 Hz and vice versa.
TMN Attenuation	120 dB. Common Mode Noise Attenuation: 140 dB.
Ride Through Capability	The output of the Power-Sure™ T800R/T800P/T800F will maintain a usable level with an input loss of up to 1 cycle (16.7ms) depending on the load.
Reliability	200,000 hr. (MTBF).
Audible Noise	Power-Sure™ T800R: 45 - 60 dB @ 1 meter, depending on size / Power-Sure™ T800P and T800F: 52 -56 dB @ 1 meter.
Efficiency	Typical full load efficiency is 90% to 92% for standard input and output voltage levels.
Operating Temperature	Ambient range -20 to +40 degrees C.

1.8 Power-Sure™ T800R Cabinet Dimensions

Table 1-1: Cabinet Standard Dimensions and Weights for Power-Sure™ T800R Models.

Model #	Power Rating	Watt	Input Voltage	Output Voltage	Input Interface	Output Interface	Cabinet WxDxH Inches	Weight Lb
T800R-00250	250 VA	250	120	120	5-15P	5-20R4	8.25 x 12.75 x 9.50	29
T800R-00500	500 VA	400	120	120	5-15P	5-20R4	8.25 x 12.75 x 9.50	32
T800R-00700	700 VA	500	120	120	5-15P	5-20R4	8.25 x 12.75 x 9.50	35
T800R-00850	850 VA	600	120	120	5-15P	5-20R4	8.25 x 12.75 x 9.50	37
T800R-01000	1kVA	700	120	120	5-15P	5-20R4	8.25 x 12.75 x 17.50	46
T800R-01600	1.6kVA	1,200	120	120	5-15P	5-20R4	8.25 x 12.75 x 17.50	62
T800R-02100	2.1kVA	1,500	120	120	5-20P	5-20R4	8.25 x 12.75 x 17.50	65
T800R-02500	2.5kVA	1,750	120	120	5-30P	5-20R4	8.25 x 12.75 x 17.50	68
T800R-03500	3.5kVA	2,450	120	120/240/208	Note 1	5-20R4	8.25 x 12.75 x 17.50	72
T800R-03501	3.5kVA	2,450	208/240	120/240/208	Note 1	5-20R4	8.25 x 12.75 x 17.50	73
T800R-05000	5kVA	3,500	208/240	120/240/208	HW	Note 2	15 x 23.75 x 22.50	176
T800R-07500	7.5kVA	5,250	208/240	120/240/208	HW	Note 2	15 x 23.75 x 22.50	210
T800R-10000	10kVA	7,000	208/240	120/240/208	HW	Note 2	15 x 23.75 x 22.50	256
T800R-15000	15kVA	10,500	208/240	120/240/208	HW	Note 2	15 x 23.75 x 22.50	314

Note 1: 120V-5-50P, 208/240V-6-20P, HW-Denotes Hard Wired. Input cords are 8 ft. long.

Note 2: 5 panels available for distribution. HW output utilizes 1 panel, other 4 panels can be used for receptacle interface or cabling. Panels available from 5 to 15kVA.

Note 3: Load on 120 volt outputs from 3.5 to 15kVA must be split when there is a 120/240 volt output.

Note 4: Medical grade UL544 listed models are provided with hospital grade receptacles and input plug.

Figure 1-1: Cabinet Standard Dimensions for 250-850 VA, Power-Sure™ T800R Models.

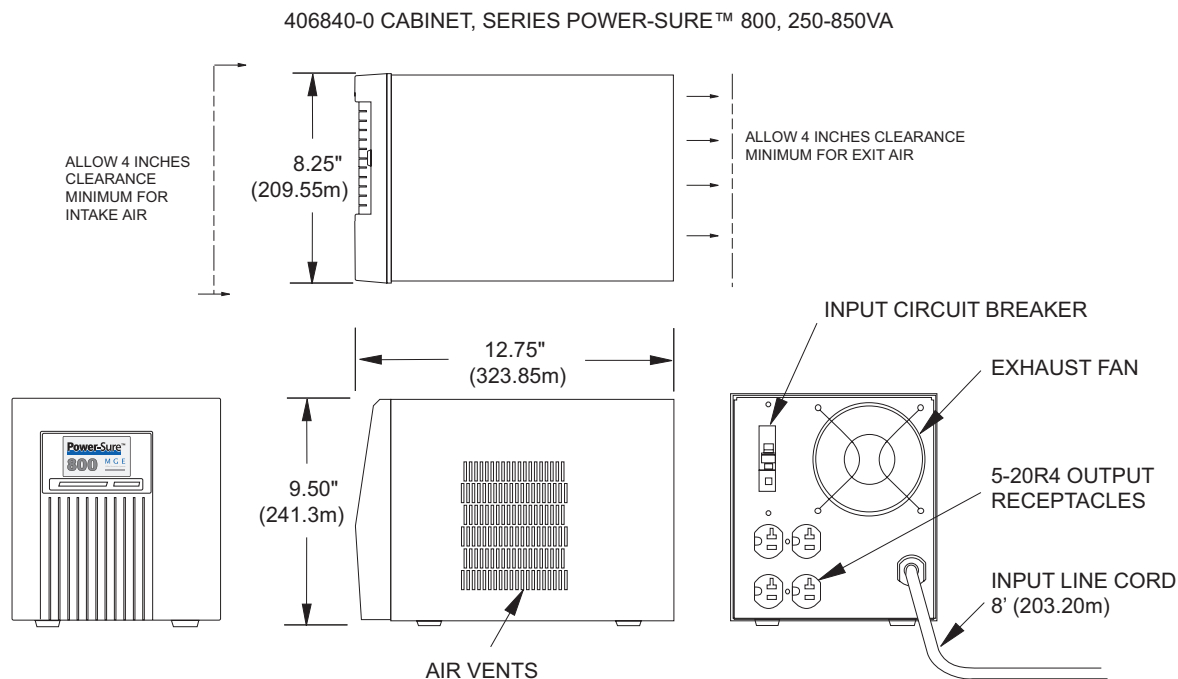


Figure 1-2: Cabinet Standard Dimensions for 1.0-3.5kVA, Power-Sure™ T800R Models.

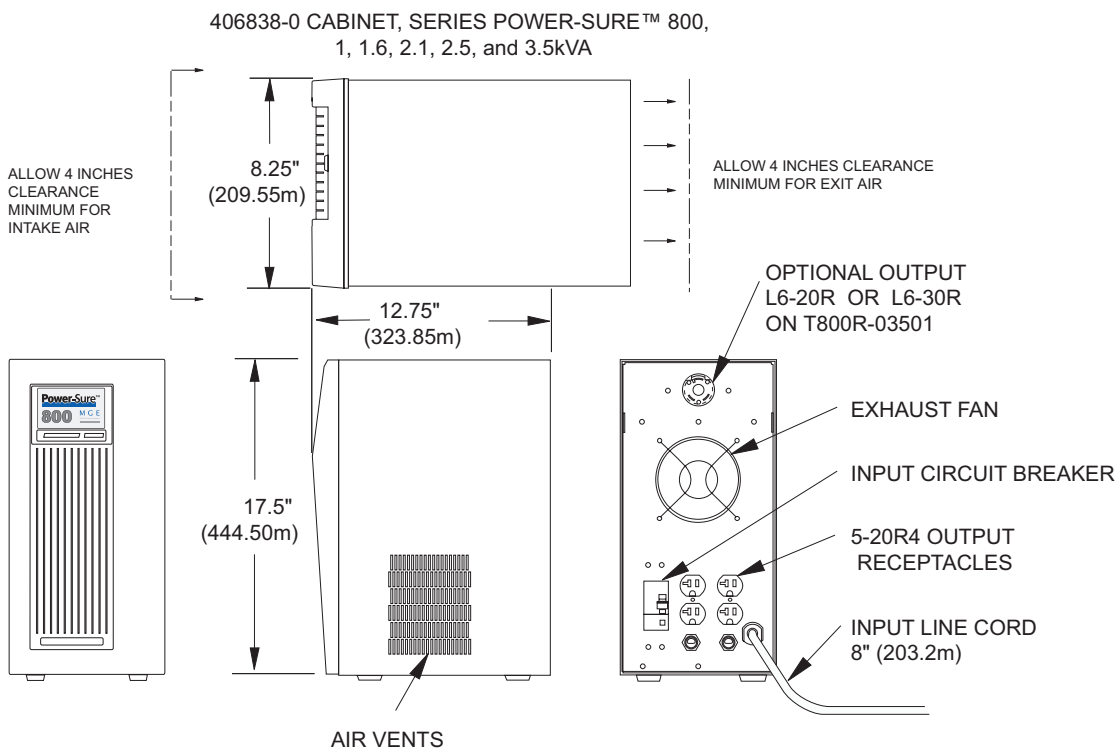
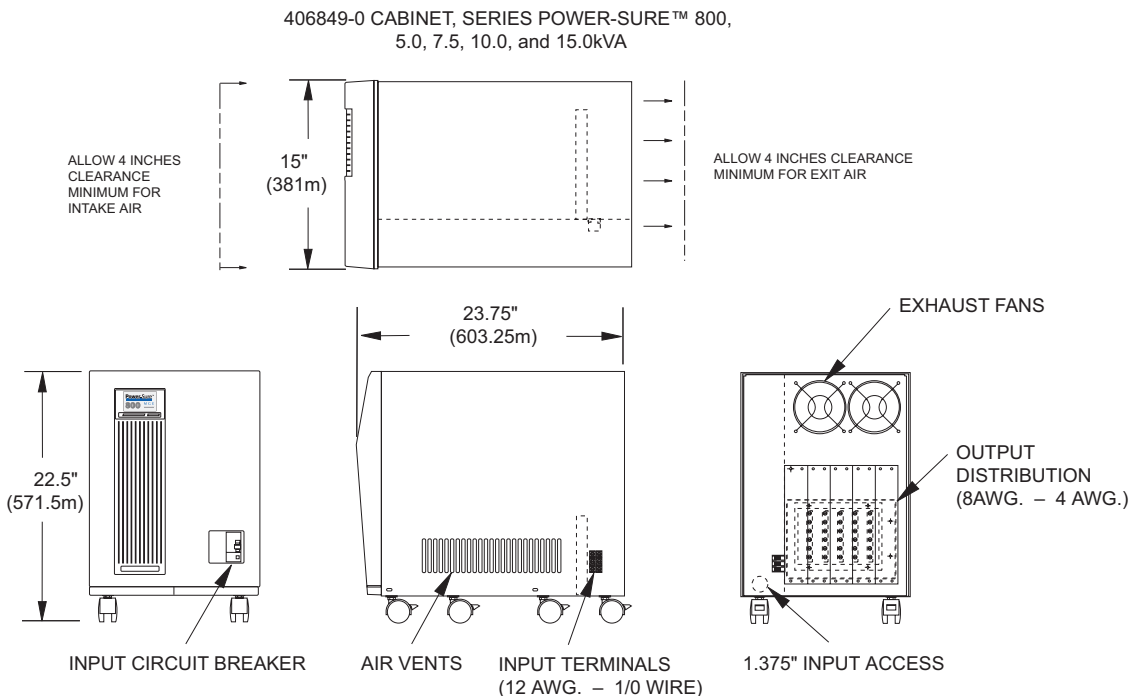


Figure 1-3: Cabinet Standard Dimensions for 5-15kVA, Power-Sure™ T800R Models.



1.9 Power-Sure™ T800P/T800F Dimensions and Weights, Hardwired Models

Table 1-2: Panel, Wall, and Floor Mounted Cabinet Standard Dimensions and Weights for Power-Sure™ T800P/T800F Models.

Power Rating	Input	Output	Wgt. Lbs	Dimensions								Model #
				A	B	C	D	E	F	G	H	
250 VA	120/208/240/480	120	29	10.5	8	6.75	8.50	7.75	4.13	2.19	.31	T800P-00250
500 VA	120/208/240/480	120/208/240	52	14.0	10	7.25	9.00	8.13	5.63	4.06	.38	T800P-00500
750 VA	120/208/240/480	120/208/240	60	14.0	10	7.25	9.00	8.13	5.63	4.06	.38	T800P-00750
1kVA	120/208/240/480	120/208/240	82	14.0	10	7.25	9.00	8.13	5.63	4.06	.38	T800P-01000
1.5kVA	120/208/240/480	120/208/240	106	16.5	14.75	10.50	13.00	11.75	5.00	5.19	.44	T800P-01500
2kVA	120/208/240/480	120/208/240	125	16.5	14.75	10.50	13.00	11.75	5.00	5.19	.44	T800P-02000
2.5kVA	120/208/240/480	120/208/240	142	16.5	14.75	10.50	13.00	11.75	5.00	5.19	.44	T800P-02500
3kVA	120/208/240/480	120/208/240	157	16.5	14.75	10.50	13.00	11.75	5.00	5.19	.44	T800P-03000
5kVA	120/208/240/480	120/208/240	407	27	22.50	28.012						T800P-05000
8kVA	208/240/480	120/208/240	465	27	22.50	28.012						T800P-08000
10kVA	208/240/480	120/208/240	507	27	22.50	28.012						T800P-10000
5kVA	120/208/240/480	120/208/240	407	23.175	20.125	28.012						T800F-05000
8kVA	208/240/480	120/208/240	465	23.175	20.125	28.012						T800F-08000
10kVA	208/240/480	120/208/240	507	23.175	20.125	28.012						T800F-10000
15kVA	208/240/480	120/208/240	830	35.0	25	39.50						T800F-15000
20kVA	208/240/480	120/208/240	950	35.0	25	39.50						T800F-20000
25kVA	208/240/480	120/208/240	1070	35.0	25	39.50						T800F-25000

Figure 1-4: Panel or Wall Models 250VA-3kVA and Floor Mounted Models 5kVA to 25kVA.

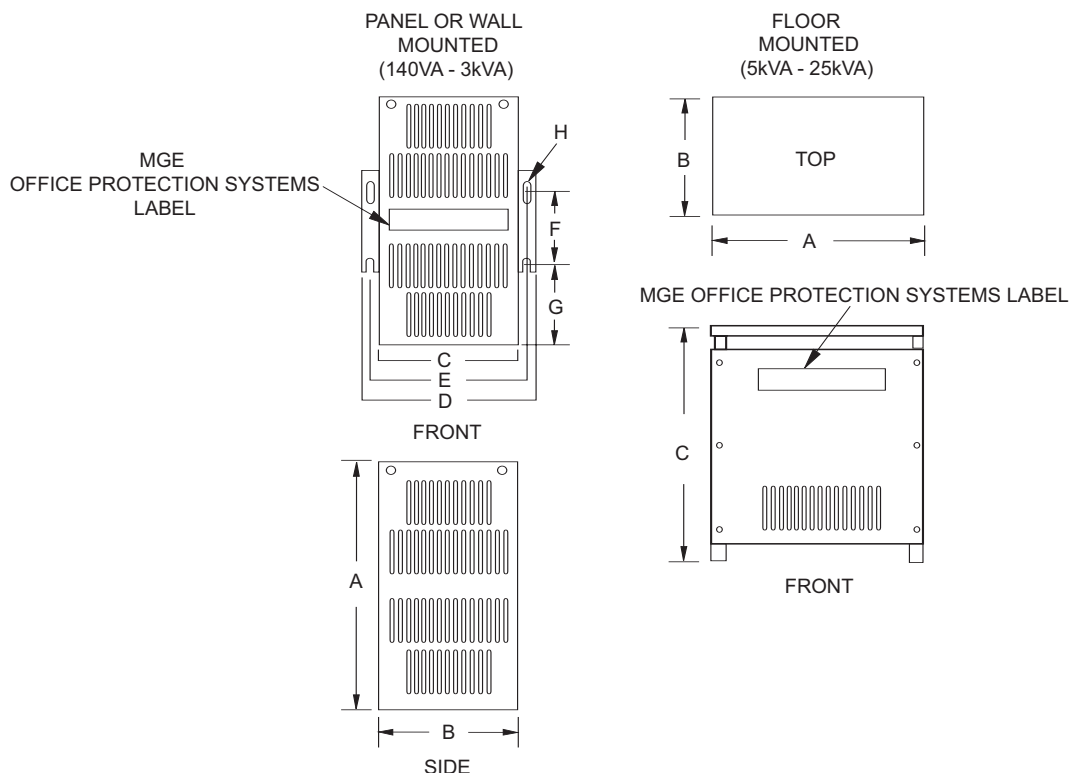
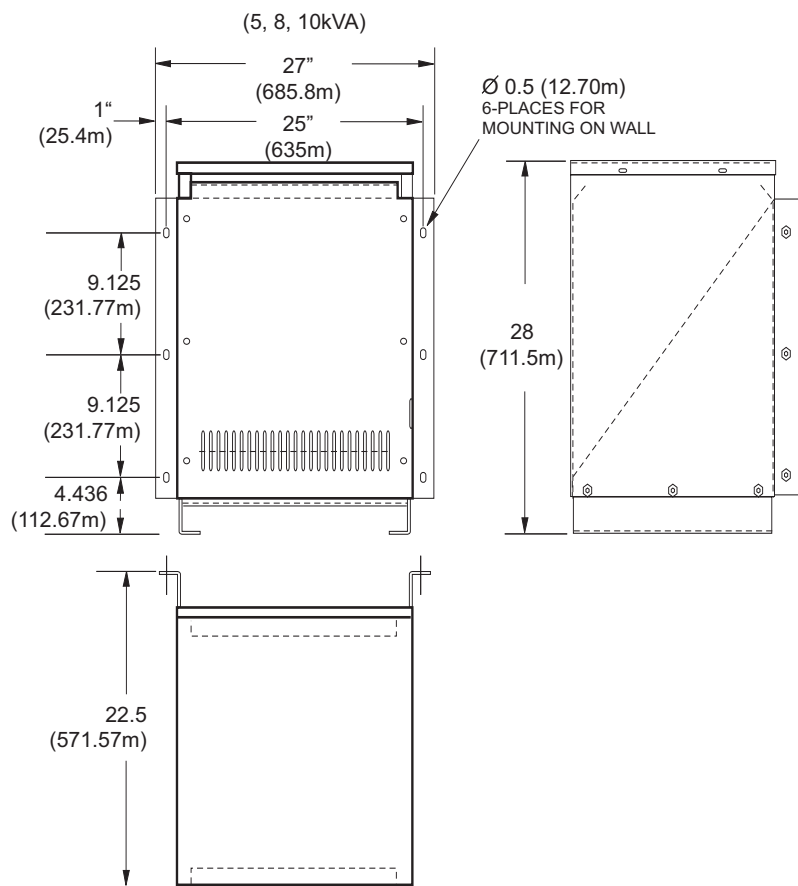


Figure 1-5: Cabinet Dimensions for 5, 8, and 10kVA Wall Mounting Units, Power-Sure™ T800P Model.



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Installation

2.0 Scope

This section guides the User through installation requirements, circuit wiring diagrams, hardwire connections, and factory input/output configurations for the Power-Sure™ T800R/T800P/T800F models.

**WARNING:**

High voltage. Only qualified electricians should install or perform maintenance.

2.1 Installation Notes

- ▶ The Power-Sure™ T800R/T800P/T800F requires ventilation and should not be mounted in a non-ventilated control cabinet.
- ▶ After installation is complete, verify the output voltage is within its rated specifications.
- ▶ Certain loads connected to the Power-Sure™ T800R/T800P/T800F with high inrush currents will cause the output voltage to fall below usable levels if they exceed 150% of the units current rating. If high inrush currents are expected, the Power-Sure™ T800R/T800P/T800F must be oversized.
- ▶ If the Power-Sure™ T800R/T800P/T800F Power Conditioner is overloaded, the output voltage will drop below its rated specifications and the input fusing will clear.
- ▶ For installation of conduit, reference NEC Article 248 and 350 and any applicable local electrical codes.
- ▶ Quantity 8-10 output cables are available on 5-15kVA units (see Note 2 on page 1-4). Cable length must be specified in lengths of 10 feet. Cables may have receptacles on the terminating end.

Refer to the following typical wiring diagrams for electrical hookup.

2.2 Installation on Hardwired Models

The Power-Sure™ T800R/T800P/T800F hardwired models are shipped from the factory with all available input and output voltage selections accessible via terminal blocks for ease of installation. It is critical to verify the source voltage prior to making input power connections to the Power-Sure™ T800R/T800P/T800F. Verify that the desired input and output field wiring connections are made to the correct terminal blocks, as shown for the specific model being installed. Refer to Figure 2-5, 2-6, 2-7, and 2-8, depending on the model being installed.

2.3 Wiring Diagrams

Figure 2-1: Wiring Diagram for 250VA-850VA (120VAC Input and Output, 60 Hz)

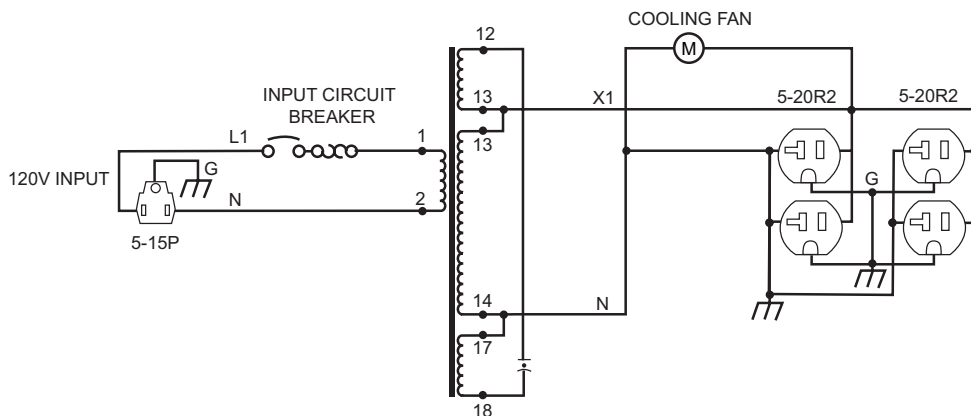


Figure 2-2: Wiring Diagram for 1-2.5kVA (120VAC Input and Output, 60 Hz)

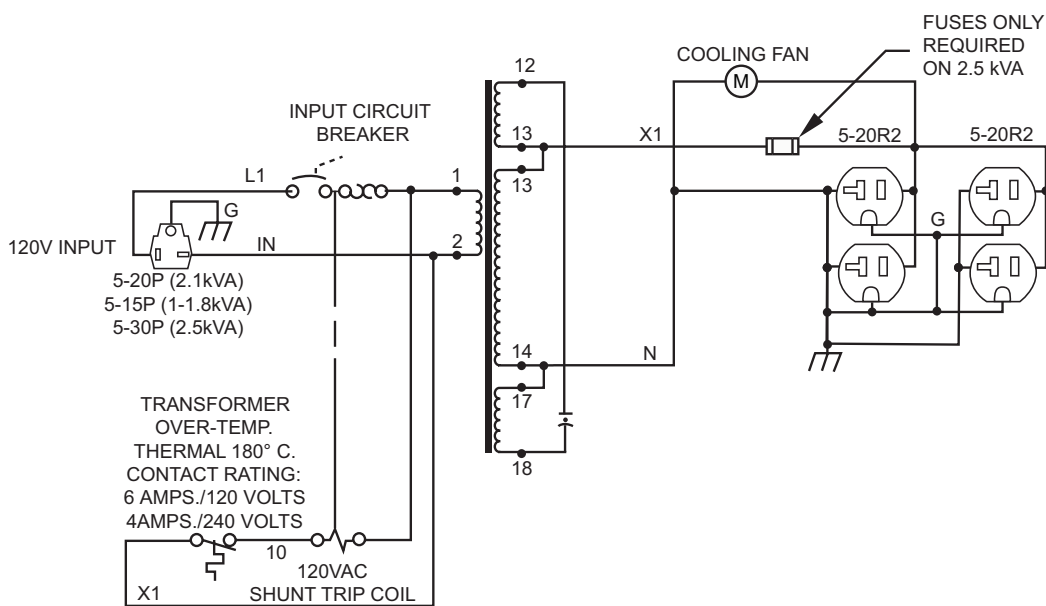
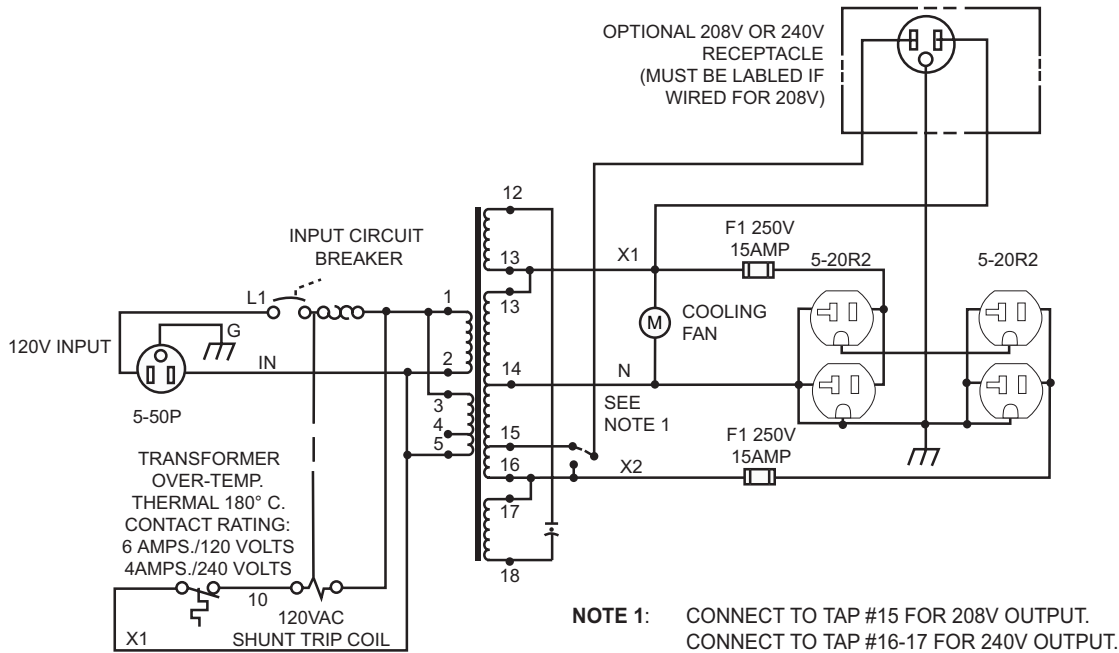


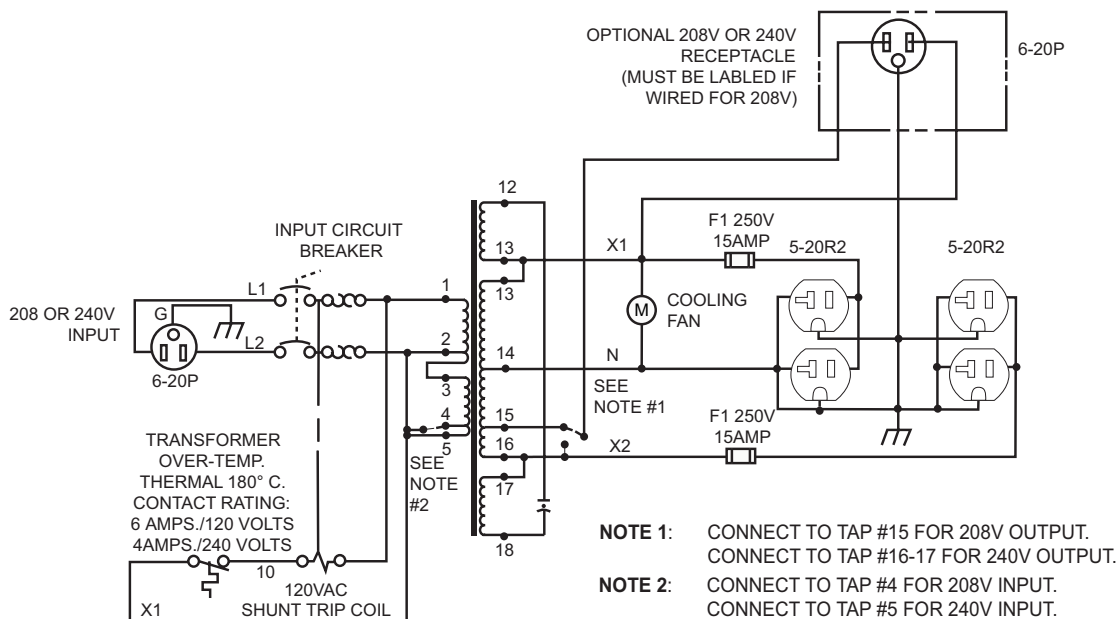
Figure 2-3: Wiring Diagram for 3.5kVA (120VAC Input and Output, 60 Hz)



NOTE:

3.5kVA 120VAC load currents (X1-N or X2-N) should not exceed 50% of the unit's rated power @ 120VAC. Neither duplex receptacle should be loaded more than 14.5 amps.

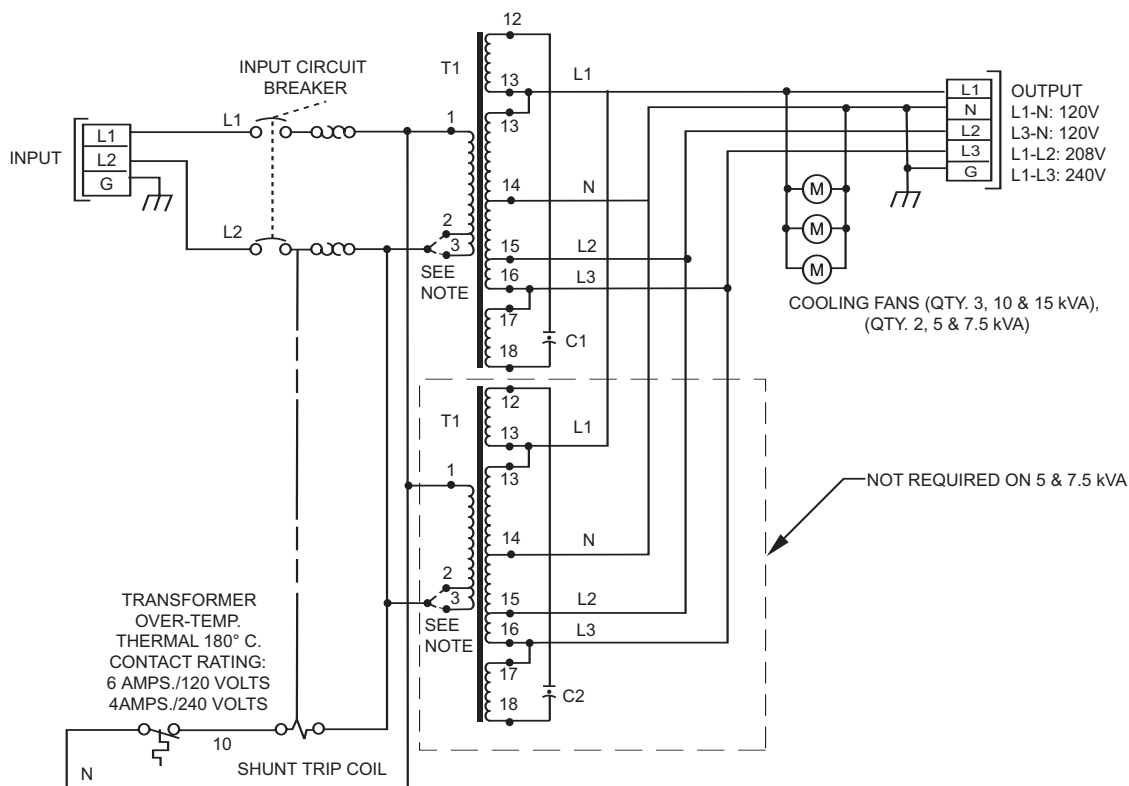
Figure 2-4: Wiring Diagram for 3.5kVA (208/240VAC Input and 120VAC Output, 60 Hz)



NOTE:

3.5kVA 120VAC load currents (X1-N or X2-N) should not exceed 50% of the unit's rated power @ 120VAC. Neither duplex receptacle should be loaded more than 14.5 amps.

Figure 2-5: Wiring Diagram 5-15kVA (208/240VAC Input, 120/208/240VAC Output, 60 Hz)



NOTE: CONNECT TO TAP #2 FOR 208V INPUT.
CONNECT TO TAP #3 FOR 240V INPUT.

*INPUT TAP SELECTION MUST BE MADE ON BOTH TRANSFORMERS FOR 10kVA AND 15kVA MODELS.



NOTE:

5-15kVA 120VAC load currents (L1-N or L3-N) should not exceed 50% of the unit's rated power @ 120VAC.

2.4 250VA

Table 2-1: 250VA Input Volts and Amps Specifications.

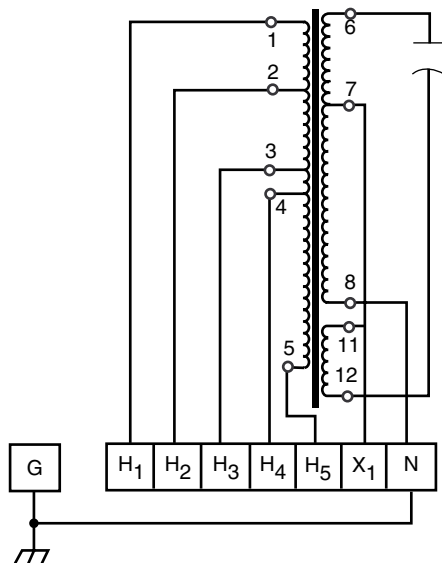
VA	Model	120V	208V	240V	480V
250	T800P-00250	2.3A	1.3A	1.1A	.57A

Note: Recommended input circuit breaker should be sized 125% of stated input amperage.

Input	120V H1 – H2	Output	120V X1 – N
	208V H1 – H3		
	240V H1 – H4		
	480V H1 – H5		

Terminals	#8 Stud
	Maximum Wire Size: 10AWG
	Recommended Torque: 15 In. Lbs

Figure 2-6: Hardwiring for 250VA Units.



2.5 0.5kVA-5kVA

Full kVA ratings may be used at 120VAC on secondary windings (X1-N or X3-N).

Table 2-2: 0.5kVA-5kVA Input Volts and Amps Specifications.

Power Rating	Model	120V	208V	240V	480V
500 VA	T800P-00500	4.6A	2.6A	2.3A	1.1A
750 VA	T800P-00750	6.9A	3.9A	3.4A	1.7A
1kVA	T800P-01000	9.2A	5.3A	4.6A	2.3A
1.5kVA	T800P-01500	13.7A	7.9A	6.8A	3.4A
2kVA	T800P-02000	18.3A	10.5A	9.2A	4.6A
2.5kVA	T800P-02500	22.9A	13.2A	11.4A	5.7A
3kVA	T800P-03000	27.5A	15.8A	13.7A	6.9A
5kVA	T800*-05000	45.8A	26.4A	22.9A	11.4A

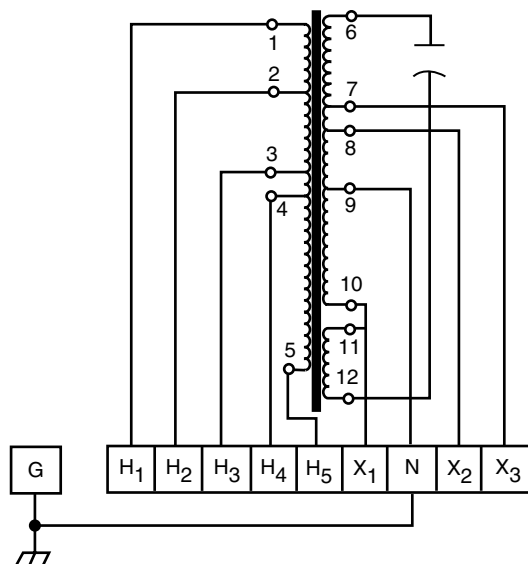
*P = Wall Mounted, F = Floor Mounted.

Note: Recommended input circuit breaker should be sized 125% of stated input amperage.

Input	120V H1 – H2	Output	120V X1 – N
	208V H1 – H3		208V X1 – X2
	240V H1 – H4		240V X1 – X3
	480V H1 – H5		120V X3 – N

Terminals	#8 Stud
	Maximum Wire Size: 10AWG
	Recommended Torque: 15 In. Lbs
	#10 Stud
Maximum Wire Size: 6AWG	
Recommended Torque: 20 In. Lbs	

Figure 2-7: Hardwiring for 500VA-5kVA Units.



2.6 8kVA-25kVA

Full kVA ratings may be used at 120VAC on secondary windings (X1-N or X3-N) with exception of 20kVA and 25kVA units, in which case 120VAC loads (X1-N or X3-N) should not exceed 50% of the units rated power.

Table 2-3: 8kVA-25kVA Input Volts and Amps Specifications.

Power Rating	Model	208V	240V	480V
8kVA	T800*-08000	42A	37A	18A
10kVA	T800*-10000	53A	46A	23A
15kVA	T800F-15000	80A	70A	34A
20kVA	T800F-20000	106A	92A	46A
25kVA	T800F-25000	132A	115A	57A

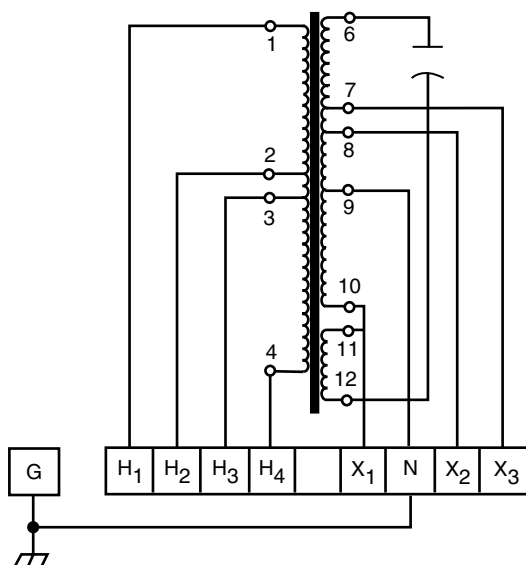
* P = Wall Mounted, F = Floor Mounted

Note: Recommended input circuit breaker should be sized 125% of stated input amperage.

Input	208V H1 – H2	Output	120V X1 – N
	240V H1 – H3		208V X1 – X2
	480V H1 – H4		240V X1 – X3
			120V X3 – N

Terminals	Wire Range:	10 – 1/0AWG
	Recommended Torque:	45 – 50 In. Lbs

Figure 2-8: Hardwiring for 8kVA-25kVA Units.



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Maintenance

3.0 Scope

This section contains preventative maintenance and troubleshooting for the Power-Sure™ T800R/T800P/T800F Power Conditioner, transformer, capacitors, and cooling fans. Including troubleshooting to assist the user with any communication and configuration connections.

**WARNING:**

HIGH VOLTAGE, ALL POWER MUST BE OFF PRIOR TO ANY MAINTENANCE. ONLY QUALIFIED ELECTRICIANS SHOULD PERFORM MAINTENANCE OR TROUBLESHOOTING.

3.1 Preventive Maintenance

To ensure longer component life and trouble free operation, minor preventive maintenance procedures should be performed at regular intervals, for example once every year. More frequent inspection intervals would be needed for more severe operation conditions.

At each service inspection, remove any dust, dirt, or foreign particles. A slight tug should be used to test if there are any loose electrical connections.

3.2 Troubleshooting

Corrective maintenance might have to be performed on any of the three main component types in the Power-Sure™ T800R/T800P/T800F Power Conditioners, transformer, capacitors, and cooling fans.

1. Transformers: The transformer is designed with a considerable safety margin. Normally, the only malfunction that can take place is a short to the core. It can be checked easily with an ohmmeter.
2. Capacitors: Capacitors can be defective in the open or shorted mode and checked easily with an ohmmeter. Visually, when a capacitor is defective the enclosure will swell or leak liquid. In either case, the capacitor should be replaced. Another indication of a bad capacitor is to measure the output voltage while the unit is energized. If it is not within its rated specifications, turn the unit off and check the capacitors visually and with an ohmmeter.
3. 1kVA-15kVA T800R units utilize a transformer overtemp device to shut off the AC breaker if a cooling fan fails. Replace the cooling fan if this situation exists. 250VA – 850VA uses fans to keep the cabinet cool to the touch. If a fan fails, the unit will still operate but the cabinet will feel hot. Replace the fan in this situation.

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MGE Office Protection Systems Customer Care Center

Technical Support and Product Services



Technical questions? If you encounter a problem while following the instructions in this manual, or have questions about the operation, repair, or servicing of your equipment, please visit our web site www.mgeops.com for complete service information.

To insure that your questions are correctly answered, please obtain the part number, assembly number, and serial number of the unit and include them in any discussions or correspondence.

Part Number: _____

Assembly Number: _____

Serial number: _____

Who To Contact

For Technical Support, Customer Care Center, Customer FAQ please visit our website: www.mgeops.com

Scheduling Field Service Engineer Support

Scheduling of the MGE Office Protection Systems Field Service Engineers typically should be done 7 to 10 days before they are required on-site. If the startup of the UPS is critical to maintaining your schedule, please contact MGE Office Protection Systems, to insure a safe installation and start-up that will maintain the MGE Office Protection Systems warranty and insure smooth performance.

Return Policy for Single Phase Products (RMA)

Should you require factory service for your equipment, contact MGE Office Protection Systems Customer Care Center and obtain a Return Materials Authorization (RMA) prior to shipping your unit. Never ship equipment to MGE Office Protection Systems without first obtaining an RMA number.

For further details please visit our website: www.mgeops.com

Date: _____

RMA Number: _____

Contact Name: _____

**Contact MGE Office
Protection Systems**

United States

MGE Office Protection Systems
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Irvine, CA 92618

(949) 268-2800

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