CTFRP Series Power Supplies

Ferroresonant Non-Standby Power Supplies
User Manual

Myers Emergency Power Systems 6/2013 Manual

Chapter 1 General Information

Myers EPS' CTFRP Series Power Supply provides a stable non-standby power source for broadband cable operations.

Important Safety Instructions – Save These Instructions

This Safety Guide contains important instructions that should be followed during installation and maintenance of the Myers EPS equipment and batteries. It is intended for Myers EPS customers who setup, install, relocate, or maintain Myers EPS equipment.

Changes and modifications to this unit not expressly approved by Myers EPS could void the warranty.

Failure to observe these warnings may result in serious injury, death or damage to the equipment.

ELECTRICAL WARNINGS

- Do not work alone under hazardous conditions.
- Do not handle any metallic connector before the power has been disconnected.
- Servicing this equipment may require working with protective covers removed and utility power connected. Use extreme caution during these procedures.
- High current through conductive materials could cause severe burns.
- When grounding cannot be verified, disconnect the equipment from the utility power outlet before installing or connecting to other equipment. Reconnect the power cord only after all connections are made.
- Check that the power cord(s), plug(s), and sockets are in good condition.
- Replacement of fuses or other parts must be with identical types and ratings. Substitution of nonidentical parts may cause safety and fire hazards.

BATTERY WARNINGS

Danger of explosion if battery is incorrectly connected or replaced. Replace batteries with same or equivalent type recommended by the manufacturer.

OVERHEAD WARNINGS

Never stand below anything while it is being hoisted. Always wear a hard hat.

LIFTING WARNINGS

Transformer modules are heavy. Use proper lifting techniques and equipment to avoid injury.

Unpacking

Inspect the module upon receipt. Notify the carrier if there is damage. The packaging is recyclable; save it for reuse or dispose of it properly.

The package contents include:

- ✓ the CTFRP Power Supply this
- ✓ product documentation

Models Supported

CTFRP9003	CTFRP Power Supply In: 120VAC 60Hz, Out: 60/75/87V @ 3Amps
CTFRP9006	CTFRP Power Supply In: 120VAC 60Hz, Out: 60/75/87V @ 6Amps
CTFRP9015	CTFRP Power Supply In: 120VAC 60Hz, Out: 60/75/87V @ 15Amps
CTFRP9018	CTFRP Power Supply In: 120VAC 60Hz, Out: 60/75/87V @ 18Amps

Specifications

Environmental Specifications

OPERATING TEMPERATURE	-40º F to 158º F (-40º C to 70º C)
HUMIDITY	5% to 95% noncondensing within enclosure

Physical Specifications

CHARACTERISTIC	SPECIFICATION
Height	11.5”
Width	9.5”
Depth	7.5”
Weight – CTFRP9003	35 lbs
Weight – CTFRP9006	41 lbs
Weight – CTFRP9015	50 lbs
Weight – CTFRP9018	60 lbs

Electrical Specifications

CHARACTERISTIC	SPECIFICATION
Input	120VAC +/- 15%, 60Hz +/-3Hz
Output Voltage	60/75/87VAC quasi-square wave
Output Current – CTFRP9003	3 Amps, steady-state maximum
Output Current – CTFRP9006	6 Amps, steady-state maximum

Output Current – CTFRP9015	15 Amps, steady-state maximum
Output Current – CTFRP9018	18 Amps, steady-state maximum

Chapter 2 Installation and Maintenance

Only trained service personnel should install and maintain the CTFRP.

Prior to powering up the CTFRP, utility line voltage must be routed to the enclosure. Local, state, federal and/or National Electric Code (NEC) regulations regarding location, permits and electrical wiring must be adhered to.

Before installing the CTFRP, ensure that the input AC utility circuit breaker is OFF.

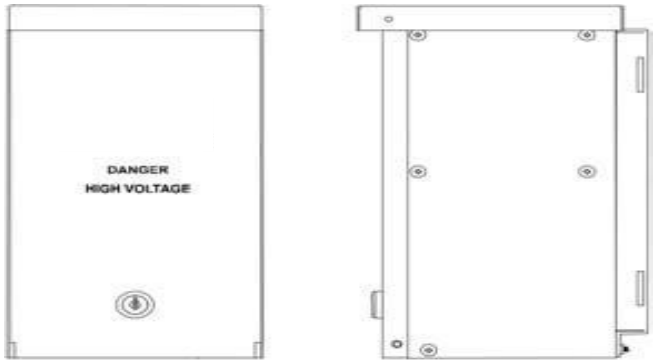
Failure to adhere to this warning may result in death, serious injury or equipment damage.

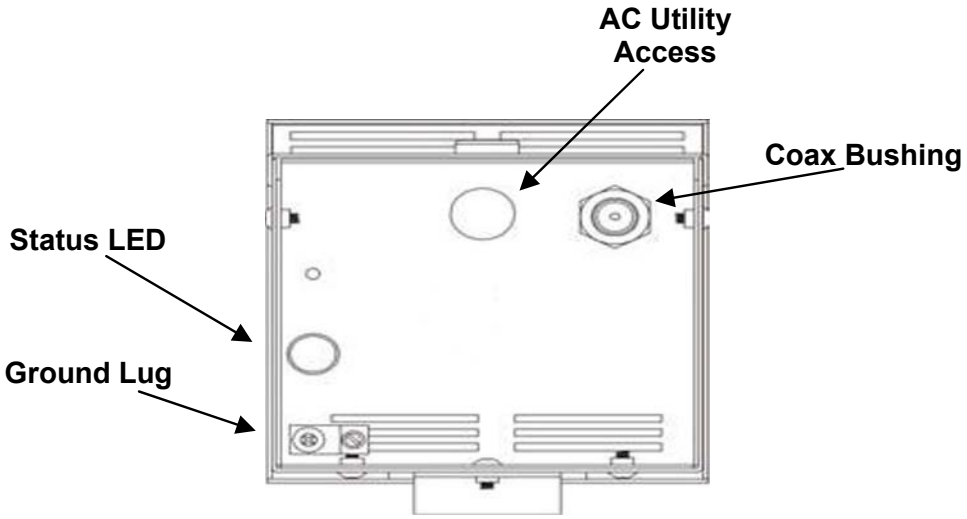
When positioning the CTFRP ensure adequate space for proper airflow. Myers EPS recommends that there be at least 3 inches of clearance on all sides and above the module.

Failure to adhere to this warning may result in equipment damage.

Do not operate this unit where the temperature and humidity are outside the specified limits. See *Specifications* in this manual.

Front View **Side View**





Installing the Power Supply

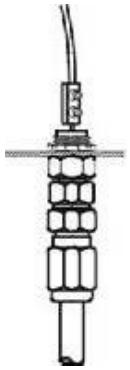
If already present, the AC utility circuit breaker must be OFF prior to battery installation.

1. Remove the screw holding the key to the chassis.
2. Remove the 10-32 Phillips mounting screw that secures the pole/wall bracket to the housing.
3. Remove the mounting bracket from the housing by pulling down.
4. Set the Power Supply and the key aside.
5. Refer to *Specifications* in this manual for Power Supply dimensions.
6. Locate the position on the pole where the Power Supply is to be located.
7. Drill two 3/4” holes vertically spaced 6” (15.2 cm) apart.
8. Attach the top of the mounting bracket to the pole using a 5/8” pole bolt and washer. Repeat this procedure for the bottom of the bracket.
9. Ensure that the power supply enclosure is closed and locked.
10. Holding the Power Supply above the bracket, slide the unit down the bracket. The lip of the bracket must slide under the lip at the top of the Power Supply cabinet.
11. Replace the 10-32 Philips screw (removed in step 2 above).

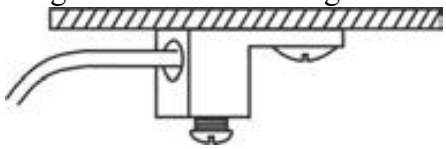
Wiring

1. Unlock the CTFRP enclosure. Lift up the front cover from the bottom and flip open the top.
2. With the top flipped open, place the cover back into place and remove one of the two screws acting as the cover hinge. The cover can now be removed.
3. Check the external AC breaker/feed to ensure that it is OFF.

4. Install a pin type connector (not furnished) to the hardline coax bushing located on the bottom of the power supply.
5. Attach the yellow wire with the Euroblock clamp to the stinger of the pin connector. Tighten the set-screw.



6. At the other end of that yellow wire, select the desired output voltage by moving the yellow wire end to one of the three voltages on the terminal strip 60VAC, 75VAC or 87VAC. Tighten all set-screws on the output voltage terminal block.
7. Secure a #6 copper ground wire into the ground lug located on the bottom of the cabinet.Route and attach the ground wire according to local electrical codes.



8. Install an approved 20 amp high magnetic circuit breaker on the input power side of the power supply.
9. Install conduit into the AC utility opening on the bottom and attach line power in accordance with local electrical codes. The barrier strip is wired with the hot leg at the top. The bottom connector is chassis ground.

Initial Start-up

1. Turn the utility breaker to the ON position.
2. Immediately check to see if the Status LED located at the bottom of the unit is illuminated. If the LED is not lit, turn off the utility breaker and troubleshoot the problem.
3. With the Status LED illuminated, check for the correct voltage at the stinger lug by using a true RMS voltmeter. The unit is now operational.
4. With the top flipped up, replace the cover and cover screw.
5. Fully open the cover and drop down the top. The top of the cover will hook to the top when the cover is closed.

6. Close and lock the cover.

To shut down the Power Supply

Move the utility circuit breaker to the OFF position. The Status LED will go out.

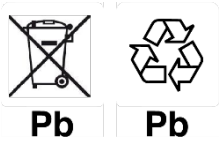
Chapter 3 Service, Contact and Warranty Information

Service

Myers Emergency Power Systems makes every effort to ensure parts and equipment arrives in working condition. Occasionally, it may be necessary to return parts or equipment that is not in working condition.

If the unit requires service do not return it to the dealer. Follow these steps:

1. Contact Myers EPS Customer Service by telephone at (610) 868-3500 Monday - Friday 8AM to 5PM U.S. Eastern time.
   - Note the product model number, the serial number, and the date purchased. If you call Myers EPS Customer Service, a technician may ask you to describe the problem and try to solve it over the phone. If this is not possible the technician may issue a Returned Material Authorization Number (RMA#).
   - If the product is under warranty, repairs are free. If not, there is a repair charge.
   - Procedures for servicing or returning products may vary internationally. Contact Myers EPS for country specific instructions.
2. Pack the product well, preferably in its original packaging.
   - Pack the unit properly to avoid damage in transit. Never use Styrofoam beads for packaging as the static electricity that is generated may damage electronics. Damage sustained in transit is not covered under warranty.
3. Mark the RMA# on the outside of the package.
4. Return the unit by insured, prepaid carrier to the address given to you by Customer Service.



Be sure to deliver spent batteries to a recycling facility or ship to the manufacturer in the replacement battery packing material.

Myers Emergency Power Systems contact information:

For Customer Service…	Mailing/Shipping Address…
Telephone: (610) 868-3500 Monday – Friday 8AM to 5PM US Eastern	Myers Emergency Power Systems 44 S Commerce Way Bethlehem, PA 18017

Limited Warranty

Myers Emergency Power Systems, LLC (Myers EPS) warrants this product to be free from defects in materials and workmanship for a period of five years from the date of purchase. Its obligation under this warranty is limited to repairing or replacing, at its own sole option, any such defective products. To obtain service under warranty you must obtain a Returned Material Authorization (RMA) number from customer support. Products must be returned with transportation charges prepaid and should be accompanied by a brief description of the problem encountered and proof of date of purchase. This warranty does not apply to equipment that has been damaged by accident, negligence, or misapplication or has been altered or modified in any way. This warranty applies only to the original purchaser.

EXCEPT AS PROVIDED HEREIN, MYERS EPS MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

EXCEPT AS PROVIDED ABOVE, IN NO EVENT WILL MYERS EPS BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF THIS PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. Specifically, Myers EPS is not liable for any costs, such as lost profits or revenue, loss of equipment, loss of use of equipment, loss of software, loss of data, costs of substitutes, claims by third parties, or otherwise.