

# EPC

## Power Backup Systems



# **OPERATION AND INSTRUCTION MANUAL**

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This manual covers the following rack-mount EPC power backup systems:

- 3.5 kW MegaWall
- 7.0 kW MegaWall
- 14.0 kW MegaWall
- 28.0 kW MegaWall
- Most Custom Units

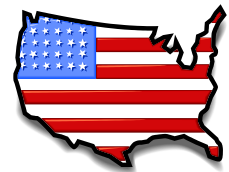
## INTRODUCTION

EPC power backup systems are designed to provide continuous power when grid and/or solar power is lost.

The MegaWall is available in various output capacities up to 15 kW. The Megawall can be sized to backup a single appliance, single room, critical load panel, or even the entire home.

Currently only available for the U.S. market, 120-volt, 240-volt, and split-phase output units are available.

All **EPC** Products are  
Manufactured in the  
United States of America



## **Features**

- True plug-and-play design
- Full over/undervoltage, general fault, and thermal protection
- No programming required
- Air-cooled design allows offers a very small footprint
- Efficient heatsink design eliminates the need for liquid cooling
- Wide input voltage range available
- All stainless steel / brass hardware
- Energy-saving design operates at over 94% conversion efficiency
- Optional contactors allow for immediate isolation

# Operation

## Standard Configuration

When connected to a power source (grid and/or solar), power normally flows through your battery backup system to your load. In this mode, the battery will charge until it is full. Under normal conditions, once the battery is full, the unit operates at nearly 100% efficiency.

When input power is lost, your unit will go into backup mode. In this mode, output power will be supplied from the battery, until the input power is restored (or until the battery is depleted).

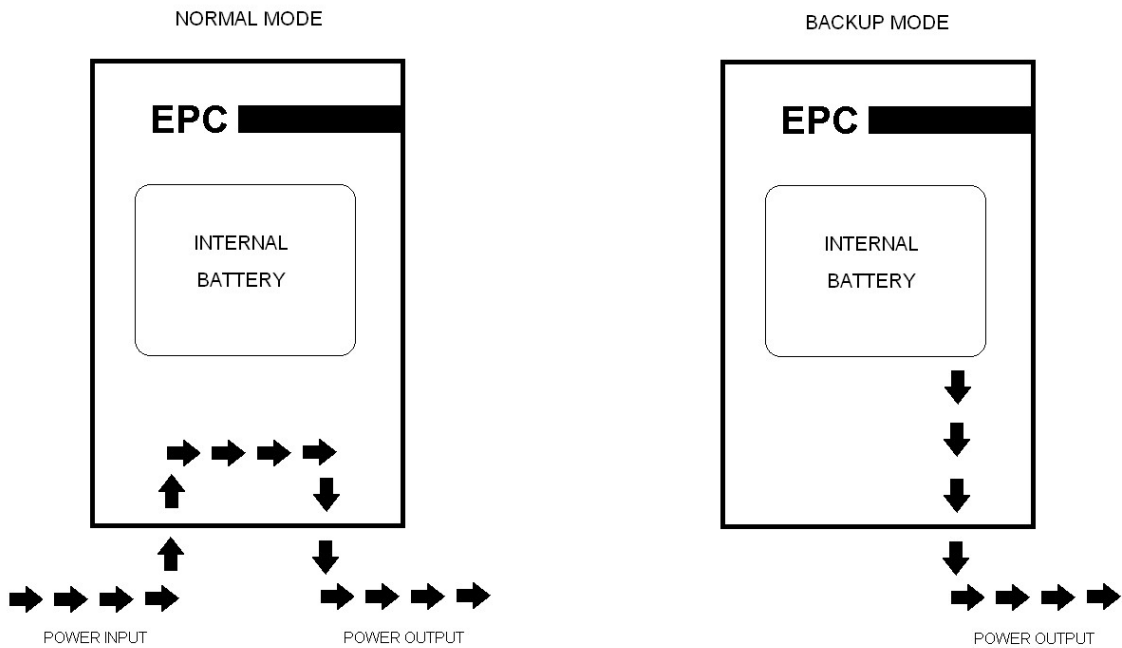


Figure 1

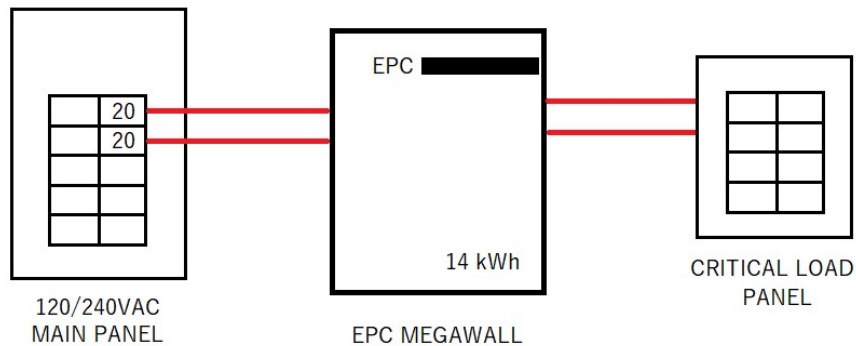
## Installation Instructions

Cable size will depend on your specific application, however, we recommend a minimum wire size of 10-gauge, regardless of load size. The terminals allow for up to 4 gauge connection.

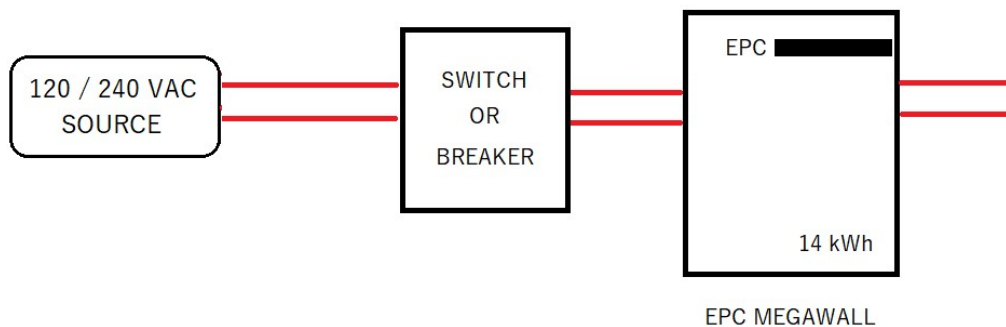
Backup units may be wired to operate in parallel on the INPUT SIDE ONLY. DO NOT combine the inverter outputs.

For units with split-phase output, L1 and L2 load balancing is recommended for best performance.

Standard Backup Installation



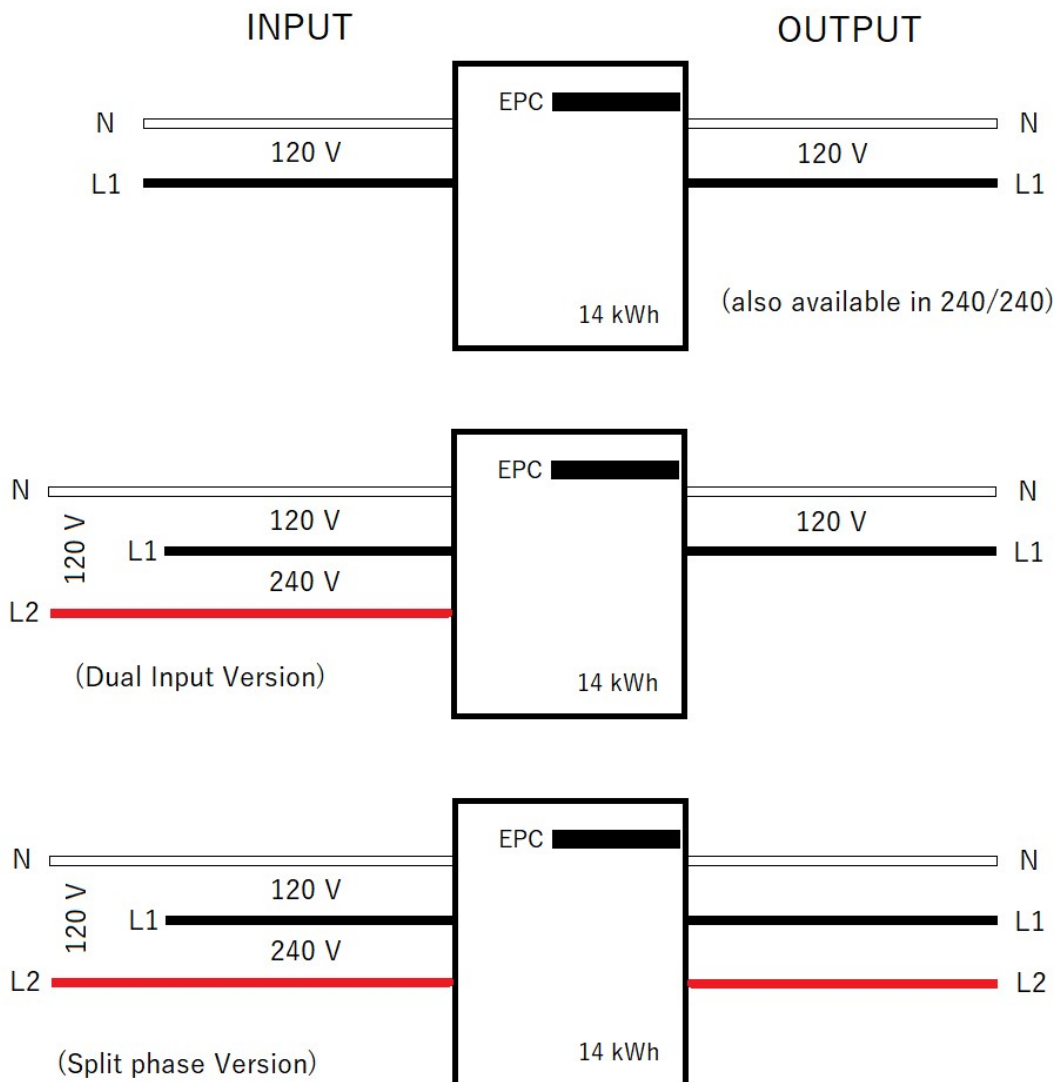
For Storage Applications



## Wiring Instructions

Several different input and output voltage options are available with most models.

Please note that for 120-volt output units that have a 240-volt input, only L1 normally feeds through when running on non-backup mode. L2 is only used to charge the onboard battery when power is available.





## **INVERTER PROTECTION**

### **FUSE PROTECTION**

Although not required by the manufacturer, protection via fuse or breaker may be required for your specific application.

Please install breakers as required by local codes.

### **PRECHARGING**

Precharging is not required for units with AC input.

GENERAL SPECIFICATIONS  
(Varies by Model)

INPUT

100-240 Volts AC (Nominal)  
96 to 300 Volts DC (Nominal)

OUTPUT

120 or 240 AC, single phase  
120 / 240 AC, split-phase  
60 or 50 Hz / Pure Sine Wave

ENCLOSURE

5 kW to 15 kW  
3U Rack Chassis, IP54  
or  
Nema 4X Enclosure

DUTY CYCLE

Continuous

MAX. EFFICIENCY

93% (on battery)  
Greater than 99% (pass-through)  
Greater than 97% (pass-through while charging)

AMBIENT OPERATIONAL TEMP

+15 F to +129 F

HUMIDITY

5% - 91%, Non-condensing

COOLING

Convection or power vent

WEIGHT

122 to 377 lbs.

**EPC** 

25 Wareham Street  
Middleborough MA 02346

(508) 923-9503  
[www.EPC-Corporation.com](http://www.EPC-Corporation.com)