



Power Back Up Product Announcement



MNBE-C -250 Gen/Grid



MNBE-B-175 Gen/Grid



“C” enclosure configured for battery backed up grid tie using OutBack Power electronics



Transfer switches and circuit breakers are concealed under a hinged door

Power Back Up enclosures are based on the MidNite Solar MNBE-C and MNBE-B enclosures.

These new Power Back Up systems are result of many years of designing and building off-grid and power back up equipment. Only now have we actually combined all the features into a system that is not only cost effective and cosmetically pleasing, but flexible in all aspects.

The “C” enclosure has three shelves. The top shelf comes pre-wired similar to the following images. The standard enclosure is designed for two strings of batteries at 48 volts. The large tin plated copper bus bars shown below are options, however smaller busbars for battery plus and battery minus are supplied in order to accommodate two strings of batteries. The large bus bars shown in the image below are available at additional cost if required. (\$91.00 each)



Internal wiring showing the optional plus and minus busbars.



Magnum modified inverter installed in the “C” system enclosure.



This picture shows a 120mm x 25mm 12VDC fan mounted to the left side panel. Each cabinet comes with a stainless steel mesh and a spacer to mount the fan 5/8” away from the side to reduce noise. These fan spacers are on order from China and may not be available until June 07. Notice the fan wires running to the aux output of the GVFX inverter. The aux output powers this fan directly.



This picture shows a plate that covers a fan opening on the opposite right side panel. This plate can be purchased as a separate piece to cover the fan mesh if desired. MidNite Solar part number “Fan Cover Plate”. The cost for this part is \$18.00. MX60 mounting bracket is also \$18.00.

The AC wiring shown here is pre-installed and all field wiring terminals labeled. This particular system has a charge controller that has been added in the field. A DC-GFP and two charge control breakers have been added on the left of the factory breakers. Systems with the Gen/Grid option do not have space for these additional charge control and DC-GFP breakers inside the cabinet. MidNite offers the Baby Box to accommodate these four breaker spaces outside the enclosure.

Battery cables will not be furnished as standard so installers can configure for different batteries and voltages although the inverter cables are standard. The 2/0 inverter cables supplied will accommodate either the OutBack or Magnum Energy inverters. Battery cables can be made upon request at additional charge.

The “B” enclosure battery shelf holds four group 31 or T105 sized sealed batteries.

The “C” enclosure has two battery shelves that each can accommodate four group 31, T105 or the new taller and more powerful Concorde PVX-3050T AGM batteries.

Four group 31 batteries = 4000 useful watt hours of power while eight PVX 3050T’s have about 10,000 watt hours of useful 80% depth of discharge power. 1000WH will run a 500 watt load for 20 hours.

Features and components included:

- Gray texture powder coated enclosures
- GFCI outlet, wired with 15 amp breaker
- Nine CBI breakers: 15 amp AC for outlet, two 50 amp AC for bypass switch, 50 amp AC for AC input, three AC load breakers either 15 amp or 20 amp or any combination. Two more 50 amp breakers for the generator/utility transfer switch option. All breakers are hydraulic/magnetic and do not need to be derated for 80% of rating.
- 175 or 250 amp breaker mounted.
- AC ground bus bar
- AC input and output terminal blocks for field wiring connections
- AC breakers wired with 8AWG wire.
- Bus bar on battery disconnect breaker for connecting two parallel strings of batteries
- 500 amp/50mV shunt for connection of battery and inverter negatives with bat negative busbar.
- Long bolt on shunt to accommodate multiple lugs
- 2/0 inverter cables to fit Magnum or OutBack inverters
- AC inlet for portable generator Leviton #5278C recessed power inlet module
- Mounting hardware for Magnum or OutBack inverter
- keyed lock supplied for door keeps unauthorized people out
- Dual hinged doors with recessed handle on right hand door.
- Flip down panel to conceal circuit breakers from view
- 2" side knock outs to accommodate additional battery enclosures side by side
- Will accommodate OutBack or Magnum inverters
- B cabinet has one shelf for batteries and C cabinet has two

“C” Models: MNBE-C-175 Gen/Grid, MNBE-C-250 Gen/Grid,

“B” Models: MNBE-B-175 Gen/Grid, MNBE-B-250 Gen/Grid

List price for each “C” enclosure as identified is \$2349.00 USD, fob Arlington, WA. 98223

List price for each “B” enclosure as identified is \$2229.00 USD, fob Arlington, WA 98223

Magnum inverters can be installed by Midnite. The MS4024 4000 watt sine wave lists for \$2399.

The Magnum RD2824 modified sine inverter with power factor corrected charger lists for \$1529.

The cabinets can come minus the generator input and transfer switch. This allows for up to 4 additional DC or AC breakers. Drop the Gen/ from the model number and deduct \$180 off the list price.

The medium battery enclosure (MNBE-B) is configured and wired like the large “C” size enclosure.

Pictures of a very recent prototype Outback version cabinet below.



Wiring compartment shown with top removed.



Breakers with cover removed. Note the PV and DC-GFP breakers on this system.



MNBE-C enclosure with twelve Concorde PVX-3050T's installed



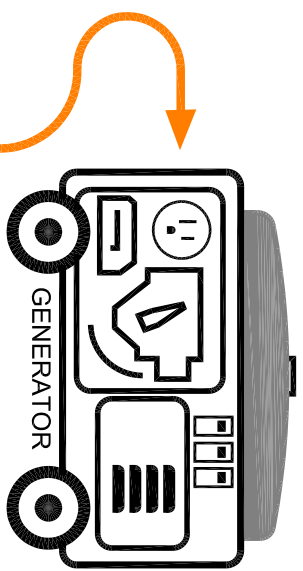
MNBE-B enclosure with eight Concorde PVX-2240T's installed

For additional run time, add another battery enclosure side by side. Two inch knock outs on the side panels facilitate running cables from one cabinet to the other. Use a 6 inch long 2" nipple to connect the cabinets together and act as the cable conduit.



MNBE-B-50 Grid as it comes from the factory

INTERFACE TO POWER BACK-UP SYSTEM



POWER BACK UP SYSTEM

