

PP600H AC PowerPack Manual

AC/DC converter to power PS 200/PS 600/PS 1200HR pump systems from a generator or utility power

for PS1200C (with centrifugal pumps)/PS1800:
see end of manual

Application

The Problem

Some solar pumps may not provide sufficient flow under all conditions, especially in unusually cloudy weather or when sufficient storage cannot be provided.

The Solution

LORENTZ AC PowerPack allows the pump to be powered by an AC generator or commercial utility power. The solar array remains connected. If the sun comes out again, less power is drawn from the AC source.

A common application is for a portable genset (gasoline generator) to run a well pump. When the generator is stopped (or runs out of fuel) the pump automatically returns to solar power when the sunshine is sufficient. No manual switching is required.

The PowerPack will power the pump to its full capacity. With some systems, it will produce a greater flow rate than you will see with solar power.

Specifications

- AC input: 115V or 230V ($\pm 15\%$), selectable, 47 to 63 Hz
- AC input current: 6.4A (115V) or 3.2A (230V)
- PV input voltage: V_{mp} : 55-130VDC, depending on pump controller max. voltages
- U_{max} : 200VDC
- DC output: 75V or 110V, selectable, 700W
- overload protection: internal fuse, 10A
- enclosure: steel, gasket-sealed, outdoor-rated, hinged front cover with key-lock
- must be protected from direct mid-day sun
- IP42

Dimensions

- 400mm \times 300mm \times 140mm
15.7 in \times 11.8 in \times 5.5 in
- weight: 16 kg/35 lbs.

Warranty

Warranted to be free from defects in material and workmanship for TWO YEARS from date of purchase.



INSTRUCTIONS

Installation



WARNING This device is to be installed, connected and serviced by qualified personnel only. Ensure all power sources are disconnected when making connections to this unit. Follow all appropriate electrical codes. There are no user-serviceable parts inside.

Mounting

Mount the AC PowerPack close to the pump controller, in a vertical position. Cover the unit from direct rainfall. You will find four mounting brackets in a plastic bag inside the enclosure.



WARNING PowerPack must be protected from solar heat, especially direct mid-day sun. Mount it in the shade. If there is no shady location, make a shade from sheet metal. Allow free air circulation around the cooling fins on the back of the enclosure. For wall mounting, use spacers to stand it out, so the cooling fins do not touch the wall.



WARNING Power Pack must be OFF while it is being wired to the solar pump controller, or controller damage may result. Never connect it while it is "hot".

Wire Sizes

All wires must be #14 AWG (2.5 mm²) or larger.

AC Input Voltage Selection

Selection must be made by connecting a wire from terminal 1 to either 2 or 3, as indicated on the terminal label. For 115VAC, connect 1-2. For 230VAC, connect 1-3.

Grounding

Bond the metal enclosure to the ground connections of the AC power source and the solar power system. See your pump's instruction manual.

AC Power Source

Install a 15A circuit breaker at the power source or distribution box.

