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The PFC-20 is designed to charge any battery pack from 12 volts to 360 volts nominal (14.4 to 450 peak.) It is power factor corrected and designed to either put out 20 amps (if the battery voltage is lower than the input voltage) or draw 20 amps from the line (if the line voltage is lower than the battery voltage.) The buck enhancement option on the PFC-20 will enhance the output to 30 amps.

The PFC-30 follows the same design goals but is designed for as much as 30 line amps and 40 output amps.

Either charger will operate from any voltage from 60 to 240 volts AC at either 40 to 80 Hz. The chargers have a throttle knob to allow the user to turn the current down when using shared or undersized circuits. These chargers are designed to operate at full capacity from a 30 Amp circuit.

The chart below shows the amps delivered by a unit using three common line voltages.

Efficiency is 88% to 96% percent on the early units depending on input and output voltage. The later units operate quieter with a loss of efficiency when bucking.

Power factor is .92 to .9997 and depends on input and output voltage. Low output voltage from high input voltage is the former. High output voltage from low input voltage for the latter.

Safety circuits:

The charger is protected from reverse polarity installation by an internal fuse.

Over temperature conditions cause the current to ramp back to prevent the internal temperature from going over 170F (more air makes more power.)

The charger is programmed to be a constant current source and will survive a short circuit indefinitely.

There is a programmable timer to shut off the charger after a user selectable period.

The charger is BatReg aware (turns down or off if a BatReg gets hot.)

This charger is non-isolated. The negative terminal of the battery is connected to the negative terminal of a rectifier bridge with the AC terminals connected to the incoming line.

For Installation and Setup Instructions please view the Download section of our website.

PFC-30 output amperes.

Note: The PFC-30 is buck enhanced.

