ORIUX
Experts in Mobility

PB-2000

Traffic control Battery Backup from a traffic control company – the logical choice for reliable intersection operation.

The PB2000-ITS automatically provides emergency back-up power to traffic signals and controls whenever normal electric power is lost. It increases or decreases voltage to maintain normal operation during brownouts and power spikes, reducing the chance of dangerous intersection collisions due to "dark" signals, thus reducing the need for law enforcement and emergency personnel resources.
Minimizes component damage and signal tech callouts due to power failures.

Using the new web-card, it is easier than ever to connect to the Oriux PB2000 via Ethernet. We now have the ability to setup multiple users and check current status from anywhere using most web browsers. The new Firmware will also send email notifications.

COMMUNICATIONS

RS-232 / USB / Ethernet ports	Monitors, controls with terminal emulation software
RS-232	DB-9, Female, Opto-Isolated, straight-thru cable
USB	B-Ty recepeptacle 10/100 Mbps
SNMP (optional)	Ethernet, autodetected
Ethernet (optional)	10/100 Mbps Ethernet, autodetected
Display Panel	2-line LCD

Specifications

ENVIRONMENTAL

Operating Temp°C	-37 to +74°C (See Notes 1& 2)
Storage Temp°C	-50 to +75°C
Humidity	<95%non-condensing
Altitude, ft(m)	10,000 (3000) (See Note 2)

NOTES:
1. Between 55° and 74°C, the unit is de-rated to a maximum rectified-capacitive load of 1500VA / 1,200W
2. De-rate operating temperature above 4,900 ft (1,500 mts 2°C per each additional1,000 ft (300m).

CERTIFICATION AND APPROVALS

Electrical Safety	UL-1778, CSA-107.1, UL-1950
EMI	FCC Class A
Surge Immunity	Tested to: IEC 1000-4-5, IEEE C62.41

PERFORMANCE

Transfer Time	
Controller	4 to 10 ms
PTS	<30 ms
TOTAL	<65 ms
Efficiency, Line Mode (Resistive Load)	>95%
Efficiency, Inverter Mode (Resistive Load)	>80%

The evolution of **PEEK**

INPUT

Voltage Range, VAC	90 to 150 programmable Default 100 to 130 +/- 2VAC
Frequency, Hz	60 +/- 3Hz
Maximum Input Current A,	A 30 A (resistive)
Inrush Current	Load Dependent
Over Current Protection	Double pole single throw circuit breaker rated 30 A for input and output, DC bus 60 A breaker
Transient Suppression	MOV Transient suppression elements (>150V)
Step Load Response (50% Load Change)	1/2 Cycle Full Recovery (Full resistive load)
Short Circuit Protection	15 A Circuit Breaker
Battery String Voltage, VDC	48 (Four 12VDC Batteries)

OUTPUT

Apparent Power, VA	2000VA (inverter mode) 2000VA (line mode)
Active Power, W	1500 (Inverter Mode) 1500 (Line mode)
Power Factor	.075
Output Voltage, VAC Line and Buck/Boost Mode	120 nominal 100-130 +/-2 VAC (follows input voltage)
Inverter Mode	120 VAC +/-5%
Frequency, Hz	60 +/- 0.4 Hz
Transformer	Linear (nonisolated)
Output Waveform	Sine Wave
Output Waveform THD	<3% (Resistive Load)
Load Crest Factor	3:1 (Max)
Overload Capacity	110% for 3 min.

CONTROL TERMINAL BLOCK

A. Provides 6 sets of programmable contacts at pin 1 thru pin 18 for intersection flash control, Remote Alarms, Pagers or other user interface.
   1. "Low Batt": batteries have reached approximately
   40% capacity remaining
   2. "On Batt": unit is in inverter mode
   3. "Timer": unit has been in inverter mode for 2 hours (programmable)
   4. "Alarm": any of the following conditions occur: Line Frequency error, low Output voltage, no Temperature Probe, overload, no battery connected, high temperature, low temperature
   5. "Fault": any of the following conditions occur: temperature, low temperature. short circuit, Batt low voltage, Batt high voltage, high temperature, overload.

B. Provides 48 VDC signal to PTS on pins 21 & 22 C. Triggers self-test by momentarily shorting pin 19 & 20 with less than 100 ohm.
Form C. Dry contacts rated 1 Amp at 240V Uses 14-26 AWG

FUNCTIONS

Brownout Protection	Unit boosts output voltage (or transfers to battery) during brownout or low input line conditions and returns to normal when input power stabilizes over user-selected time period. Set points for Transfer /Retransfer, To / From Battery / Boost are users programmable
Generator Compatibility	Generator mode allows wider variation in input voltage and frequency for use with an AC generator
Battery Charger 10 A	PFC switch-mode, two-stage charger, temperature compensated (-2.5 to -5 mV/°C/cell, auto shutoff above 50°C
Inverter Mode	Capable of running continuously in inverter mode
Inverter Mode Current Limit	Continuous electronic current limit is provided
Remote monitoring	- Input and output voltages - Input line frequency - Output power - Battery voltage - Battery temperature

MECHANICAL

PB2000 Dimensions (WxDxH) inch/mm	w: 17.5 / 444 19 / 483 w/flange D: 10.5 / 267 H: 5.25 / 133
PB2000 Weight (lb/kg)	46.2 /21
PB2000 Mounting	19" (483mm) rack or shelf mount
PB2000 Input Connection	3 Position Terminal Blocks
PB2000 Output Connection to Loads	Two 3 Position Terminal Blocks
PB2000 Cooling	Microprocessor controlled, 12 VDC, 3.6" (92mm) fan
PB2000 Audible Noise Level, dBA	<40
MBS/PTS Dimensions (WxDxH) inch/mm for standard rack mount	W: 17.5 / 444 19 / 483 w/flange D: 8 .5 / 216 H: 3.5 / 89
MBS/PTS Mounting	
MBS/PTS Weight (lb/kg)	7.0/3.2
MBS/PTS Input Connection	Shelf or 19" rack mount Terminal block
MBS/PTS Output Connection to Loads	Terminal block
MBS/PTS Output	6 foot cable ready for hard wire to connection to UPS UPS terminal block
MBS/PTS cooling dissipation)	Convection (approx. 7 W contactor coil