

## PU-A0004-1

### 125W, 24 VDC Battery Charger

This is an uninterrupted power supply (UPS) unit, which can control and charge two 12V, 65Ah batteries.

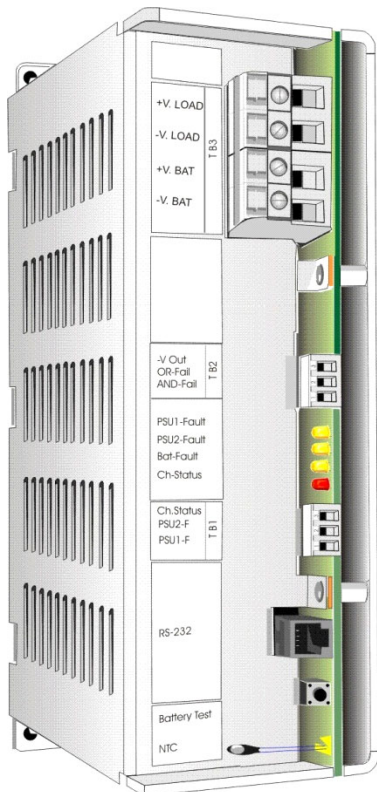
The batteries are charged separately from the load and, in case of main supply fault or failure (PU-A005 or equivalent), they are switched on to the load immediately, which ensures no interruption.

When main supply is restored, the battery charger disconnects the batteries and recharges them, adjusting current depending on temperature.

In normal conditions, the batteries are subject to trickle charging and are checked every 30 seconds for their presence. A complete test is carried out every hour to verify battery efficiency and connections.

#### Main Characteristics

- Uninterrupted power supply (UPS)
- Suitable to build up power supply groups certified to EN 54-4
- Certified to EN 54-4:1997/A2:2006
- Check for battery presence and connections every 30 seconds
- Check for battery efficiency every hour
- Input voltage variable between 22 and 28 VDC
- Maximum current supplied to batteries 4A
- Can control up to four PU-A0005 in parallel
- Protection from battery short-circuits and polarity reversal
- LED for indication of battery charge status
- LED for indication of battery fault
- LED for indication of fault of feeder and battery charger section
- Button for manual battery testing
- RS 232 serial communication port for programming and control
- Efficiency 83%
- Ripple < 100mV pk/pk at maximum current
- Dimensions 200 mm x 60 mm x 110 mm (excluding terminals)
- Operating temperature -5 to +50 °C (in open air)
- Mounting on panel back plate



#### WIRING OF OPEN COLLECTOR STATUS OUTPUTS

Terminal block	Terminal	Name	Function
TB1	M1	PSU1 Fault	Open collector output for feeder fault
	M2	PSU2 Fault	Open collector output for battery charger fault
	M3	Charge Status	Open collector output for battery status (active during deep charging)

#### WIRING FOR FEEDER STATUS INDICATION

Terminal block	Terminal	Name	Function
TB2	M1	AND-Fail	Input for failure of all power units
	M2	OR-Fail	Input for failure of one power unit
	M3	-Vout	M1 and M2 input common

#### WIRING TO BATTERIES AND LOAD

Terminal block	Terminal	Name	Function
TB3	M1	-VBat	Battery negative
	M2	+VBat	Battery positive
	M3	-VLoad	Negative of supply to load
	M4	+VLoad	Positive of supply to load

## General Characteristics

Input voltage	22-28 VDC
Maximum current	5 A
Operating temperature	-5 to +50 °C (open air)
Relative humidity	93% (non-condensing)
Efficiency	> 83%
Protection	IP20
Dimensions	200mm x 110mm x 60mm
Self-extinguishing	UL94V2
VBAT voltage	26.2 to 28.7 VDC (automatically compensated)
VBAT current	1/2/4 A (selectable through dip switches)
VBAT ripple	< 100mV pK-pK at maximum current
Hold-up time on main supply failure	20 ms at maximum current (with PU-A0005)
Maximum battery circuit resistance	1.5 ohms
Maximum battery current	65 Ah

## Protection

Current to batteries	automatically limited
Current to load	20A fuse
Other	over-voltage, short-circuit, battery polarity reversal

## Reference Standards

Product	EN 54-4:1997
CPD Directive	EN 54-4/A2:2006
CE marking	EN50081-2 & EN50082-2 (industrial environment)

**CERTIFIED IN ACCORDANCE WITH EN54-4  
A2:2006  
(C.P.D. requirements)**

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This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice.

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