

2.1.4 S81-PU002 Power Supply Set

This power supply set is able to supply a maximum current of 32 amperes, duplicated to the load, and to control and charge two 12 Volt batteries with maximum capacity of 120Ah. Battery maximum charge current is 6 amperes. Under normal operating conditions, a simplified test is carried out every 30 seconds in order to check the proper presence of the batteries. A full test, instead, is carried out every hour in order to check electrical connections and battery efficiency. During battery trickle charge, battery voltage is compensated automatically according to the temperature. In case of mains voltage failure, batteries are automatically switched to the load without any interruptions. Should the full charge stage exceed 24 hours, the power supply unit will signal a battery fault. In case of primary power supply failure, the system will shut batteries down when the on-load voltage is lower than 18VDC in order to avoid damaging the batteries. The set features seven open collector outputs for replicating the various types of faults to the alarm control panel, along with a RS232 port for the connection to the configuration program Test-PUA009. Hot-swapping is possible for both the 4 AC/DC converters and the battery charger (Hot Plug).



Figure 2.2 S81-PU002 Power Supply Set - Front View

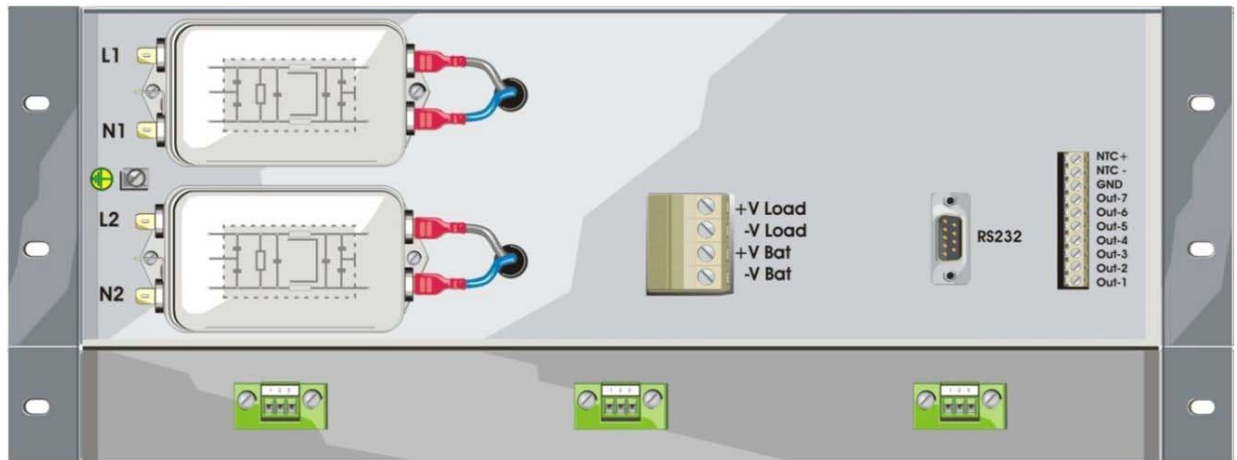


Figure 2.3 S81-PU002 Power Supply Set - Rear View

Technical Features

- Dimensions (H x W x D): 178 x 482 x 355mm
- Input voltage: 110-240V~ (-15% - 10%)
- Max. input current: See tab.1
- Free-air operating temperature: -5 °C - 50 °C
- Relative humidity: 93% non-condensing
- Input voltage frequency: 50-60 Hz
- Power factor (W/VA): 0.6 Typical
- Protection class: IP20
- Insulation between input and output: >2 M (500VDC)
- Insulation between input and ground: >2 M (500VDC)

Power Supply Unit Section

- VLOAD voltage: 25VDC \pm 2%
- VLOAD maximum current: 32A duplicated
- VLOAD ripple: < 110mV pK-pK at maximum current

Battery Charger Section

- Battery voltage: 26.2 - 28.7 VDC compensated automatically
- Resistance to mains voltage dips: \geq 20mS at maximum current
- Maximum battery current: 6A
- Maximum battery resistance: Internal resistance of the batteries and of the relevant circuits (Cables, terminals, fuses, etc.)

Cooling Unit

- Type of cooling: Forced ventilation (3 fans)
- Fan absorption: 100mA per fan
- Fan average life at 40° C: 80,000 hours

Protections

- Line Fuse: T10A H 250V (5x20)
- Protections: Over-voltage, short circuit and battery reverse polarity

Reference Standards

- EN54-4
- EN50081-2
- EN50082-2
- EN60950 (CEI-74-2)

Possible Configurations

Features	S81-PU002-2	S81-PU002-4
Number of PU-A0008-1 power supply units	2	4
Power supply voltage	110-240V~	110-240V~
Rated frequency	50-60Hz	50-60Hz
Max. input current at 110V~	6A	12A
Max. input current at 240V~	2.7A	5.25A
Nominal output voltage	25VDC \pm 2%	25VDC \pm 2%
Max. residual ripple	<115mV	<115mV
Minimum output voltage ¹	18.9VDC	18.9VDC
Min. output current ²	8A duplicated	20A duplicated
Max. output current ²	12A duplicated	32A duplicated
Maximum battery resistance ³	0.1	0.05
Max. battery current	6A	6A
Maximum battery capacity	2x12V 120Ah	2x12V 120Ah

- 1 Full load output voltage with low batteries in case of mains voltage failure
- 2 Current for the loads plus the current required by the control panel
- 3 Internal resistance of batteries and relevant circuits. (Cables, terminals, fuses, etc.)