DATA SHEET

10A PFC SMART Power Supply

The 10 Amp 13.75VDC Power Factor Corrected (PFC) Smart Power Supply Unit (PSU) is a highly efficient power supply solution designed to meet the modern high spec requirements unique to access control and intruder systems. Monitoring of the power supply status is pivotal to the operation and performance of any security system, and the Inner Range 10 Amp smart PSU delivers this very effectively.

The 10 Amp smart PSU is designed primarily for use as a battery-backed supply for Inner Range modules supporting the Quick-Connect “External Power” bus connection. This includes the Standard LAN Access Module (SLAM), the Intelligent LAN Access Module (ILAM), the 8 Zone LAN Expander and the Integriti Access Controller (IAC). When connected to Inner Range modules the 10 Amp smart PSU offers Quick-

Connect status monitoring of critical power-related aspects such as Battery Fault, Low Battery, Battery Not Present, Battery Failed Test, AC Supply Failure, Supply Low Volts, Power Supply Failure and status monitoring of all Smart Fuses. It also features general purpose AC Fail & Battery Fail alarm outputs and a separate Battery Charger output with Deep Discharge Protection.

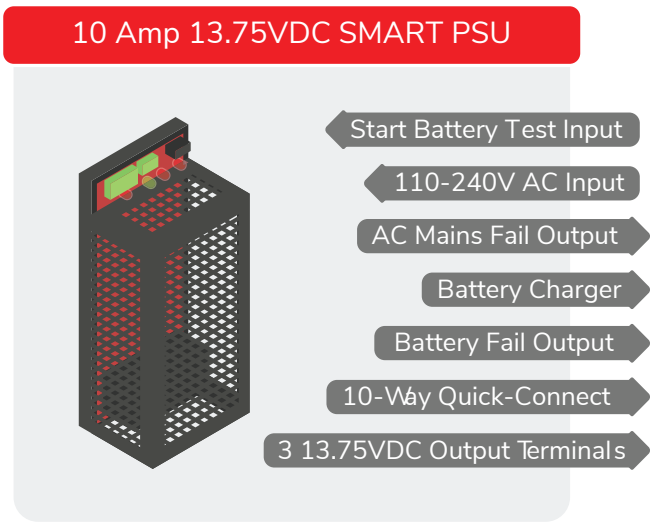
Featuring a highly reliable design that offers exceptional stability when used with the recommended battery type the 10 Amp smart PSU is also suitable for providing power to card readers including Proximity type reader heads and can be used as a general purpose, battery-backed supply to power legacy or 3rd party equipment via the plug-on screw terminals.



SMART Features

- High-level monitoring of PSU status (with the above modules):
  - Battery Fault, Low Battery and Battery Not Present
  - Battery Failed Test
  - AC Supply Failure
  - Supply Low Volts
  - Power Supply Failure
  - LAN+ Smart Fuse Tripped
  - Detector+ Smart Fuse Tripped
- Dynamic battery testing
- Deep Discharge Battery protection
- Battery reverse polarity protection
- Quick-Connect PSU interface for Inner Range modules
- Fully overload protected
- Smart Fuse protection
- Intelligent load sharing
- LED status indicators
- Universal low-level status outputs - AC Fail & Battery Fail
- Separate battery charger output
- Constant current limiting on battery charger output
- 3 x heavy duty DC output connections
- 110-240V AC IEC mains cable input

Connectivity



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Specifications

Physical

Size:	274(L) x 100W) x 64(D) (mm)
Weight:	1.1 kg (PSU Only)
Mounting:	4 x M4 screws to chassis
Installation Environment:	0°C - 50°C @15% - 90% relative humidity (non-condensing)
Working Temperature Range:	-25°C to +50°C ambient unforced ventilation

High-Level PSU Status Monitoring

Status Alarms:	AC Failure, Power Supply Low Volts, Battery Fault, Battery Low, Battery Not Present, Power Supply Failure, LAN+ Smart Fuse Tripped, Detector+ Smart Fuse Tripped, Battery Failed Test, Trigger Battery Test

(Available when connected to Inner Range LAN modules via 10-way Quick-Connect cable)

Battery Alarm Thresholds

Low Battery Alarm:	11.0V DC
Deep Discharge Protection:	10.4V DC
Recovery From Deep Discharge:	12.2V DC

Connections

Outputs:	10-way Quick-Connect socket for Integriti modules
	3 x common 13.75V DC +/- Smart Fused heavy duty outputs, suits up to 14 gauge cable
	Battery charger connection (for 12V lead acid battery)
	Low-level AC Failure output (open collector output)
	Low-level Battery Fail output (open collector output)
	External Earth terminal for connection to enclosure
Inputs:	Start Battery Test Input Trigger (zero volt dry contact input)
	IEC type mains power input socket

LED Indicators

Status Indicators:	AC OK
	Battery Charging
Fault Indicators:	Battery Fault
	Fault on V+ Connection
	Fault on Quick-Connect PSU Connection

Power Specifications

Input:	110-240V AC, 50Hz, 1.1Amp
Mains Fuse:	2.0A (T)
Output Voltage:	13.75V DC
Max Output Current:	8 Amp constant + 2 Amp charger
	12 Amp short term with battery support
Load Regulation:	+0.75% (100mV) / -1.5% (200mV) @ Iout = 0.1A to 10A
Output Ripple:	50mV RMS max. @ Iout = 8.0A
Battery Charging:	CC/CV

Battery Types

Recommended Battery:	1 or 2, 18Ah 12V Sealed Lead Acid Only

Safety Standards

AS/NZS 3820, Essential Safety Requirements for Electrical Equipment AS/NZS 60950.1:2011 Information Technology Equipment Safety AS/NZS CISPR 22:2009 Information Technology Equipment Radio Disturbance Characteristic Limits and methods of measurement. Class A, Class B with snap-on ferrite placed on the mains cable (Wurth 742 717 33)

Compliance

Electrical	
Environmental	RoHS

Ordering Options



996095

10 Amp 13.75V DC SMART Power Supply Module, PSU only

Power Supply Cables



996792

PSU patch lead, 430mm 10way to 10way header (Supports SMART PSU status monitoring with Inner Range modules and 3 & 8Amp SMART PSU's)



996794

PSU patch lead, 500mm 10way to Red&Black flying leads
(Does not support SMART PSU status monitoring with Inner Range modules)

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