DATA SHEET

3Amp SMART Power Supply

The 3Amp 13.75V DC SMART power supply is a universal power supply which can be used wherever battery backed 12V supplies are required.

When used with an Inner Range system, the 3Amp SMART power supply offers Quick-Connect status monitoring of critical power-related events 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 self-resetting, processor controlled Smart Fuses. It also features general purpose AC Fail & Battery Fail alarm outputs and a separate Battery Charger output with Deep Discharge Protection.

The 3Amp power supply boasts a highly reliable design that delivers exceptional stability when used with the recommended battery type and is also suitable for providing power to card readers including Proximity type reader heads.



General Purpose Use

The 3Amp power supply can also be used as a general purpose, battery-backed, 13.75V DC supply to power legacy or 3rd party equipment via the plug-on screw terminals. It is extensively used to power Inner Range modules, detectors, readers and auxiliary devices such as strobes, sounders and locks.

Features

- High-level monitoring of PSU status (with Inner Range modules)
- Quick-Connect PSU interface (for Inner Range modules)
- Separate battery charger output
- Deep Discharge Battery protection
- Battery reverse polarity protection
- Smart Fuse protection
- Universal low-level status outputs - AC Fail and Battery Fail
- Low-level Trigger Battery Test input
- Separate LAN+ & DET+ DC output connections (screw terminals)
- 16V AC input (a 4Amp transformer is required)

SMART Features

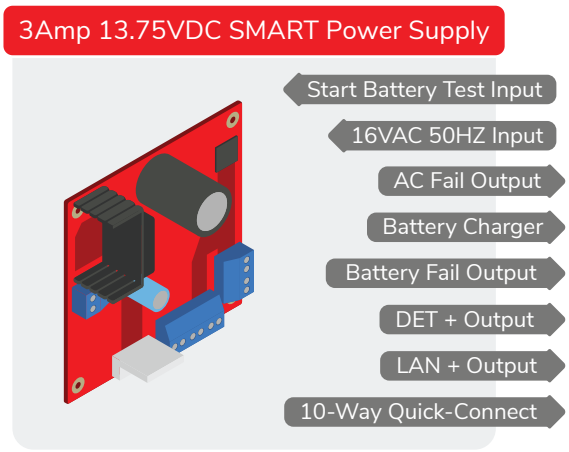
The 3Amp SMART power supply is designed primarily for use as a battery backed supply for Inner Range modules supporting the 10-way Quick-Connect “External Power” bus connection, these modules include:

- The Standard LAN Access Module (SLAM)
- The Intelligent LAN Access Module (ILAM)
- The 8 Zone LAN Expander
- The Integriti Access Controller (IAC)

When used with these modules the 3Amp PSU offers Plug&Play Quick-Connect high-level status monitoring of critical power-related events such as:

- Battery Fault
- Low Battery
- Battery Not Present
- Battery Failed Test
- AC Supply Failure
- Supply Low Volts
- Power Supply Failure
- Status monitoring of self-resetting, processor controlled Smart Fuses

Connectivity



Datasheet - Copyright © Inner Range Pty Ltd October 2024
The specifications and descriptions of products and services contained in this document were correct at the time of release of this document. Inner Range Pty Ltd reserves the right to change specifications or withdraw products without notice.
This document cannot be re-published or re-hosted without the prior written consent of Inner Range. For the latest version of this document, please visit the Inner Range website.

DATA SHEET

3Amp SMART Power Supply

Specifications

Physical

Size:	95(L) x 95(W) x 45(D) (mm)
Mounting:	4 x M3 screws to Inner Range chassis clips
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

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

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

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
	1 x DET +/- 13.75V DC & 1 x LAN +/- 13.75V DC
	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)

LED Indicators

Status Indicators:	AC OK
	Battery Charging
Fault Indicators:	Battery Fault
	Fault on DET+ Connection
	Fault on LAN + Connection

Power Specifications

Input Voltage:	16V AC, 50hz
Input Current:	3Amp with 4Amp transformer fitted and LK1 jumper fitted
	1.5Amp with 1.5Amp plug-pack fitted and LK1 jumper removed
Output Voltage:	13.75V DC +/-5%, up to 3Amp. (battery fully charged)
Max Output Current:	3Amp with LK1 fitted
	1Amp with LK1 removed
Switching Frequency:	370 kHz. approx.
Load Regulation:	+0 / -500mV @ I out = 0.1A to 3.0A
Conversion Efficiency:	85%. approx
Output Ripple:	< 100mVRMS @ full load

Battery Types

Recommended Battery:	1 x 7Ah, 9Ah or 18Ah 12V Sealed Lead Acid Only

Compliance

Electrical	
Environmental	RoHS

Ordering Options



996091PCB&K

3Amp 13.75V DC SMART Power Supply PCB & accessories



995200PE3

Small Enclosure fitted with 3Amp 13.75V DC SMART Power Supply and 4Amp mains transformer



995201PE3

Medium Enclosure fitted with 3Amp 13.75V DC SMART Power Supply and 4Amp mains transformer



995203PE3

Extra large Enclosure fitted with 3Amp 13.75V DC SMART Power Supply and 4Amp mains transformer

995204PE3

WideBody Enclosure fitted with 3Amp 13.75V DC SMART Power Supply and 4Amp mains transformer

995220PE3

Rack Drawer fitted with 3Amp 13.75V DC SMART Power Supply and 4Amp mains transformer

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)

Datasheet - Copyright © Inner Range Pty Ltd October 2024
The specifications and descriptions of products and services contained in this document were correct at the time of release of this document. Inner Range Pty Ltd reserves the right to change specifications or withdraw products without notice.
This document cannot be re-published or re-hosted without the prior written consent of Inner Range. For the latest version of this document, please visit the Inner Range website.