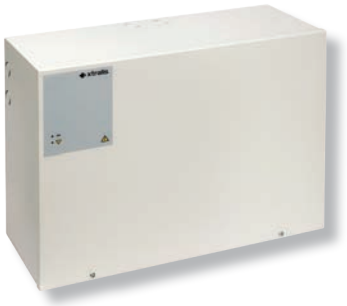
XTRALIS POWER SUPPLIES

VPS-250-E5

Xtralis Power Supply Units are uniquely designed to complement the style and appearance of Xtralis' aspirating smoke detectors (ASDs) and are technically matched to provide sufficient current and battery charging capacity to meet the requirements of EN 54-4.



The VPS-250-E5 variant is VdS certified and CE marked to the EN54-4 so is particularly suitable for use in territories where these approvals are required. It may also be suitable in territories where ISO 7240-4 is required.

VPS-250-E5: 3A load / 38Ah batteries (max)

This power supply is capable of powering larger ASD units including the VESDA-E VEU (at all fan speeds) and the VESDA-E VEA detectors. It may also be used for installations with multiple detectors and/or remote displays. The internal charger is EN54-4 certified to power loads up to 3A and there is space and charging capacity for batteries up to 38 Ah batteries. Uniquely, the unit is supplied with the provision to deliver 4 separately fused outputs – recommended when it is used to power multiple detectors or disparate loads. This is a very versatile unit which can deliver to a combined, 24Vdc, load of up to 3A.

The front cover supports 2 LEDs to provide visual indication of Healthy status (OK) or fault condition and various knockouts exist to provide convenient cabling access to detectors, remote displays or subracks. The unit also provides a non-certified setting which enables it to power loads up to 3.4A while recharging batteries up to 38Ah in accordance with EN 54-4.

Technical Highlights

Not all Power Supplies are equal:

- Style E power supplies can be operated on batteries alone, which is very useful for initial commissioning of Xtralis detectors because mains power is often unavailable at this time.
  (simpler alternatives may require mains power to be detected before they will start to power a detector – even if healthy batteries are connected).
- Style E power supplies perform regular impedance checking of the batteries to ensure that the batteries are in good condition.
  (simpler alternatives may tolerate weaker batteries which are unlikely to be capable of providing the required hold up time in the event of a mains failure).
- Style E units disconnect the load (i.e. power down the Xtralis detector) after a prolonged period of mains failure to prevent permanent damage to the batteries.
  (simpler alternatives may disconnect the load when the battery voltage fails but then reconnect it almost immediately because the battery voltage tends to recover when the load is removed. Such units then switch on and off until the battery is permanently below the minimum voltage, putting undue stress on the load and draining the batteries unnecessarily).
- Style E units use a tiny current (< 8mA) to monitor for restoration of mains power after disconnecting the load to protect the batteries (see point above) – thus ensuring that the batteries are unlikely to suffer a damaging deep discharge as long as the fault is attended to within a week.
  (simpler alternatives draw larger currents to monitor for restoration of mains when in load-shed so are more likely to damage batteries by a deep discharge).
- Style E units provide an Internal status LED to aid fault diagnostics.
  (simpler alternatives only provide the mandatory fault LED and provide no insight as to the cause of the fault).

Features

- Supports a 3A load and up to 38Ah batteries
- Temperature compensated charging to maximize battery life
- Designed to blend in with Xtralis detectors
- External LED indication "OK" and Fault
- Relay outputs for connection to the general-purpose input for fault monitoring
- 230Vac only

Listings / Approvals

- VdS:
  G220018
- CE:
  0832-CPR-F2658
- EN54-4:
  1997+A1:2002+A2:2006

XTRALIS POWER SUPPLIES
TECHNICAL SPECIFICATIONS

Specifications

	VPS-250-E5
Nominal AC Supply Voltage	230Vac (tested +10%—15%)
Power Output	19.5 - 30Vdc
Load	3 / 3.4A (3.4A non-certified to EN 54-4)
Dimensions (H x W x D)	352mm x 455mm x 182mm
Weight	7kg (without batteries) 35kg (with max batteries)
Temperature	-10º to 40ºC ambient
Humidity	95% RH non-condensing
IP Rating	IP 30
Batteries (not supplied by Xtralis)	2 x 12 V, 24Ah 2 x 12 V, 38Ah
Recommended Battery	Yuasa NP (or equivalent)
Indications	Output OK: green LED Fault: yellow LED External only
Fault Relay	Change-over NO-COM-NC 1A @ 30Vdc
Fuse Rating	Battery: 7.5A MINI Automotive Fuse AC supply - T2A HRC 20mm (both 20mm) Output: 4x2A
Cable Entries	7 off 20/25mm knockouts Various positions
Color / Finish	Light grey RAL 9018 texture powdercoat
Mounting	4 x 5mm holes on 360mm x 280mm centres

Configuration Information

All Style E units are configurable using DIP switches:

- **Battery monitoring** may be disabled in non EN 54-4 installations so that the unit can be operated on mains only without signalling a battery fault
- **Charge current** may be reduced in non EN 54-4 installations - limiting the current allocated to the charger and thus make it available for the load – as indicated in the specifications given above
- **Battery resistance** fault threshold can be altered for maintenance purposes
- **Mains failure** can be simulated to simplify testing

Ordering Information

Ordering Code	Description
VPS-250-E5	Xtralis 3A 38Ah PSU - Style E

Note: Batteries are NOT included.