XTRALIS POWER SUPPLIES
VPS-100US, VPS-300US

The Xtralis Power Supply is capable of providing operating power including battery backup for the entire VESDA Laser Smoke Detector product line and VESDA-E detectors. The Xtralis Power Supply has been designed to power a single unit to multiple units depending on application needs. It provides 24 volt operating power to the VESDA or VESDA-E system as well as a battery charger function which supervises and maintains the standby batteries.

Installation

The Xtralis Power Supply models VPS-100US and VPS300US are power-limited power supplies. They convert 120 VAC/60 Hz input into 24 VDC power-limited outputs. The VPS units are intended for use in applications requiring UL, ULC and CSFM listing for fire protection signalling.

The VPS-100US or VPS-300US shall be installed in accordance with the National Electric Code (NFPA 70) and in accordance with any local regulations. See the wiring diagram on the second page for proper assembly.

Fault Reporting

A Power Supply Fault indicator is provided via a dry relay contact (Form C), which changes state due to the following conditions:

- AC input loss
- Low AC input voltage (Brown-out)
- Loss of battery voltage
- A short circuit of the battery leads
- A short circuit of any of the DC power outputs

Components

The VPS-100US consists of three main components: the mounting enclosure, the transformer and the main circuit board. It uses two backup batteries (supplied separately).

The VPS300US consists of one VPS-100US Power Supply and one VBC-001 Battery Cabinet. Together the two units can hold up to 6 batteries (supplied separately).

Note: The Xtralis Power Supply uses sealed acid, 12VDC, 12 Amp/hour batteries. To order, use part number VBT-012 (minimum 2).

Features

- Input 120 VAC/60 Hz
- 1.5 amp continuous supply current at 27.6 VDC
- Filtered and electronically regulated output
- AC fail supervision
- Low AC (brown-out) supervision
- Battery supervision
- Built-in charger for sealed lead acid or gel-type batteries
- Automatic switch over to standby battery when AC fails
- AC input LED indicator

Listings / Approvals

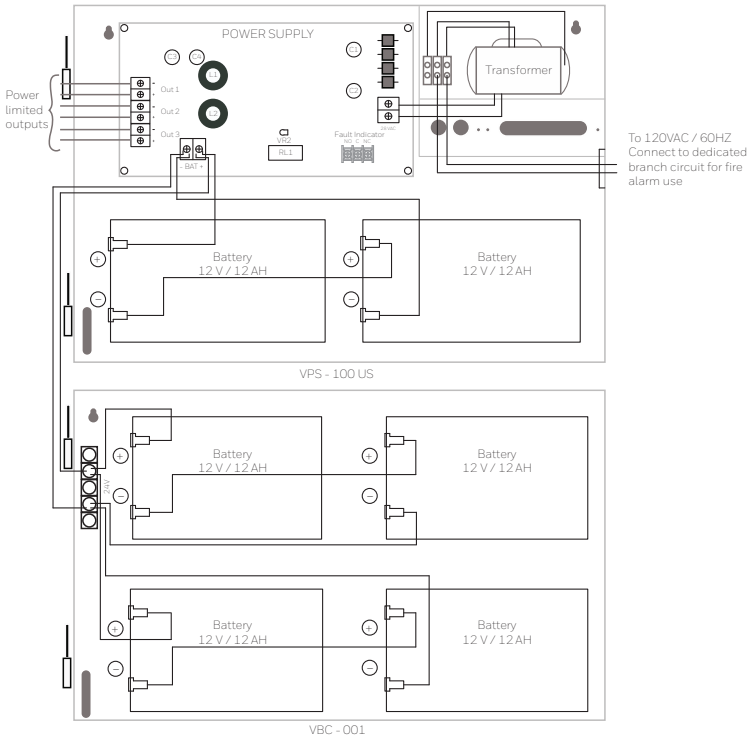
- UL 1481 listed
- ULC
- FM (for VPS-100US)
- CSFM

XTRALIS POWER SUPPLIES
TECHNICAL SPECIFICATIONS

Battery Calculations

To facilitate the calculation of the back up battery size, refer to the Battery Calculator (Doc. No. 21062), available on Xtralis website (www.xtralis.com).

The battery calculation has to be confirmed to the compliance requirements with local fire protection codes and standards.



Specifications

Input	120 VAC (+10% / -15%), 60Hz, 1.4 amp max.
Output Voltage	27.6 VDC (Nominal) 1.5 Amps (Max.)
Max. Output Current	• When a single 24 VDC output is used: 1.2 amps • When the three 24 VDC outputs are used: 0.500 amps per output
Dimensions (WHD)	13.9 in. x 9 in. x 4.5 in.
Weight	• VPS-100 US 10 lbs. without batteries • VBC-001 6 lbs. without batteries
Operating Conditions	Ambient: 32 ° to 120 °F Humidity: 10 - 95%RH, non-condensing
Trouble Relay	Rated 2A @ 30VDC (Form C: NO/NC) During normal operation, the power supply Fault Reporting Relay is energized.
Cable Access	3/4" knockouts in various positions
Cable Termination	Screw Terminal blocks (30–12 AWG)

Ordering Information

Ordering Code	Description	Requirements
VPS-100US-XXX	Power Supply	Use XXX field to specify input voltage: 120 or 220 VAC
VPS-300US-XXX	Power Supply Model VPS-100US-XXX plus Battery Cabinet model VBC-001	Use XXX field to specify input voltage: 120 or 220 VAC
VBT-012	Battery, sealed lead acid, 12 VDC, 12 Amp/hr	Minimum 2 batteries are required