The VESDA Power Supply is capable of providing power with battery backup for the entire VESDA Laser Smoke Detector product line. The VESDA Power Supply can power from a single detector to multiple units, depending on the configuration. It provides 24 volt power to the VESDA system and has the added ability to convert (ac) power to charge batteries. Consult “Power Supply Capabilities” for details.

Installation of the VESDA Power Supply

The VESDA Power Supply models VPS-100US and VPS-300US are power-limited power supplies. They convert 120VAC/60Hz input into 24 VDC power-limited outputs. These units are intended for use in applications requiring UL listing for fire protection signaling.

The VPS-100US or VPS-300US should be installed in accordance with the national electric code, NFPA 72 and in accordance with any local regulations. See wiring diagrams for proper hookup.

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
- Loss of battery voltage
- A short circuit of the battery leads
- A short circuit of any of the DC power outputs

Power Supply Capabilities

LaserPLUS or LaserSCANNER

VPS-100US-XXX provides power for: 1 LaserPLUS or LaserScanner, or up to 5 Remote (Single Box) Units, or 1 Subrack assembly. Battery requirements: (2) 12 volt/12 Amp-hour batteries.

VPS-300US-XXX provides power for: up to 3 LaserPLUS or LaserScanner detectors, or up to 15 Remote (Single Box) Units, or up to 3 Subrack assemblies. Battery requirements:
- 4 detectors or 2 subracks or 10 remotes require (4) 12volt/12 Amp-hour batteries
- 6 detectors or 3 subracks or 15 remotes require (6) 12volt/12 Amp-hour batteries

LaserCOMPACT

VPS-100US-XXX provides power for: up to 2 LaserCOMPACT detectors, or up to 5 Remote (Single Box) Units, or 1 Subrack assembly. Battery requirements: (2) 12volt/12 Amp-hour batteries.

VPS-300US-XXX provides power for: up to 6 LaserCOMPACT detectors, or up to 15 Remote (Single Box) Units, or up to 3 Subrack assemblies. Battery requirements:
- 4 detectors or 2 subracks or 10 remotes require (4) 12volt/12 Amp-hour batteries
- 6 detectors or 3 subracks or 15 remotes require (6) 12volt/12 Amp-hour batteries
POWER SUPPLY Specifications

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 VPS-300US consists of one VPS-100US Power Supply and one VBC-001 Battery Cabinet. Together it holds up to 6 batteries (supplied separately).

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

Input:
120 VAC/60 Hz; 1.4 amp max.

Output:
27.6 VDC (normal)
Max. Total Available Output Current: 1.5 amps
Max Output Current when only single circuit is used: 1.2 amps
Max Output Current when all 3 outputs are used: 500mA/circuit

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 Temperature:
Power Supply Ambient: 32° to 120°F
Humidity: 10 - 95% RH, non-condensing

Trouble Relay:
Common trouble relay rated 2A @ 30VDC
(Form C: NO/NC)
During normal operation, the power supply Fault Reporting Relay is energized

Cable Access:
1 inch knock outs in various positions

Cable Termination:
Screw terminal blocks
30-12 AWG

Ordering Information:

<table>
<thead>
<tr>
<th>P/N</th>
<th>DESCRIPTION</th>
<th>REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VPS-100US</td>
<td>Power Supply</td>
<td>Specify Voltage 120 or 220 VAC</td>
</tr>
<tr>
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<td>Power Supply</td>
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<tr>
<td></td>
<td>and Battery Cabinet</td>
<td>model VBC-001</td>
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<tr>
<td>VBT-012</td>
<td>Battery, sealed lead acid, 12 VDC</td>
<td>Minimum of 2 required</td>
</tr>
</tbody>
</table>

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