

Single Port 15.4W Power Over Ethernet Adapter POE-SOURCE IEEE 802.3af compliant





Features

- Fully Compliant with IEEE802.3af
- Diagnostic LEDs
- Non-Vented Case
- Legacy Detection (Optional)

- IOL Test Report
- Full Protection OTP, OCP, OVP
- Data and Power carried over one Ethernet Cable
- AC Disconnect (Optional)

Applications

- IP Telephones
- Wireless Network Access Points
- Blue Tooth Access Point

- Security Camera
- IP Print Servers

Safety Approvals

- cUL/UL
- CE
- CCC

- TUV
- FCC

Mechanical Characteristics

Length: 140mm (5.51in)Width: 65mm (2.55in)

Height: 36mm (1.42in)Weight: 0.2Kg (0.44lb.)

Output Specifications

Model	DC Output Voltage	Load		Regulation	
POE-SOURCE	56Vdc	Min.	Max.	Line	Load
		10mA	350mA	±5%	

Ripple And Noise*	Vp-p*	
<500Hz	0.5	
500Hz-150KHz	0.15	
150KHz-500KHz	0.15	
500KHz-1MHz	0.1	

^{*}As per IEEE802.3af Table 33-5. For Legacy detection or AC disconnect please contact the factory.

PSA16U Characteristics

INPUT:

AC Input Voltage

Range 90 to 264VAC

AC Input Voltage Rating

100 to 240VAC

AC Input Current

0.8A(RMS) max. for 120VAC 0.55A(RMS) max. for 240VAC

Leakage Current

0.25mA max. @ 254VAC 60Hz

AC Input Frequency

47-63Hz

Max In-rush Current

60A max. for 240VAC and max load (Cold Start at ambient 25°C)

OUTPUT:

Total Output Power

19.6W

Efficiency

80% (typical) at Max. load, and 120VAC 60Hz

Hold-up Time

10mS min at max load at 120VAC, 60Hz

Transient O/P Voltage Protection

60V max. at switch on and off at any AC line Phase

ENVIRONMENTAL:

Temperature

Operation $0 \text{ to } +40^{\circ}\text{C}$ Non-operation $-25 \text{ to } +65^{\circ}\text{C}$

Humidity

5 to 90% Operation

Dimension Diagram Unit: mm (inch)

EMI

FCC Part 15 Class B EN55022 Class B

Isolation Test

Primary to Secondary: 1500VAC for 1 minute 10mA

Immunity EN50082-1

ESD: EN61000-4-2. Level 3 RS: EN61000-4-3. Level 3 EFT/Burst: EN61000-4-4. Level 2 EN61000-4-5. Level 3 Surge: EN61000-4-6. Level 3 CS: Voltage Dips EN61000-4-11

Harmonic: EN61000-3-2 ClassA

Insulation Resistance

Primary to secondary: >10M OHM 500VDC

FEATURE:

Over Voltage/Current, Short Circuit Protection

Outputs equipped with short circuit protection and overload protection as per 802.3af specification

The output can be shorted permanently without damage

Indicators

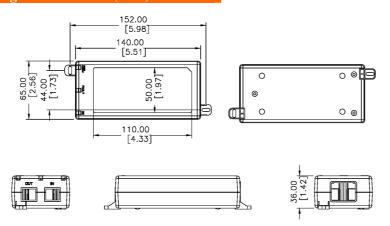
Led #1 indicator for input power "on" GREEN

Led #2 Indicator for fault-RED

Led #3 Indicator that Detected and Connected to valid IEEE802.3af load-GREEN

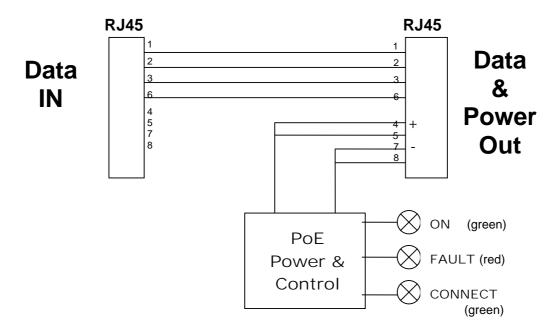
Input Connector

IEC320 inlet 3 pin C14





(POE-SOURCE) Schematic Block Diagram



Description of LED Functions for (POE-SOURCE)

Power-up Sequence:

Upon power-up, all 3 LEDs will light for 2 seconds, as part of the self-test for the internal microprocessor software. After the end of the 2 seconds, the "ON" LED will illuminate green, signifying that the DC output voltage is available for powering a compliant load (to the 802.3af PoE standards).

Detection Sequence:

Once a compliant load is attached to the output RJ45 connector, the green "CONNECT" LED will illuminate.

Should the load be non-compliant then the LEDs will blink a code signifying the cause for non-detection.

Detection Failure Codes:

- 1. Incorrect resistive signature The green "CONNECT" and red "FAULT" LEDs will blink 3 times.
- 2. Incorrect capacitive signature The green "ON" LED will blink 3 times.
- 3. Incorrect Voffset The green "CONNECT" and green "ON" LEDs will blink 3 times.
- 4. Unstable current measurement The green "ON" LED will blink 3 times
- 5. Low voltage sensed during detection (overload) The red "FAULT" LED will blink 3 times

After the LEDs blink 3 times the PSA16U-480 (POE) will continue to try to detect a valid load. Therefore, until the correct load is applied, the LEDs will continue to blink. If there is an open circuit connected to the output RJ45 then the LEDs will not blink but the POE-SOURCE will continue to try to detect a valid load.

Fault Sequence:

Should there be a fault such as an overload or short circuit then the red "FAULT" LED will illuminate. The red "FAULT" LED will illuminate for 2 seconds and then go off as the power supply tries to re-detect a valid load. If there is a problem in detecting, the LED will indicate what is wrong with the load as per the codes in the section above.



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