



75W Power over Ethernet Adapter Ultra Power over Ethernet Single Port Injector



InterOperability Laboratory
Part of the University of New Hampshire Research Computing Center



Shown here in basic on the left and with NIC option on the right

Features

- Fully Compliant Detection, Disconnect and Voltage Control IEEE802.3af
- Diagnostic LEDs
- Gigabit Compatible
- 1 Year Warranty
- SNMP Management Option
- Proprietary Detection, Disconnect and Overload Protection
- Full Protection OCP, OVP
- Single Source 4 Pair Power Current Sharing
- Broken Wire Detection
- Limited Power Source

Applications

- Satellite Receiver
- Wireless Network Access Points
- LCD Displays
- Security Cameras
- Kiosks
- Computer Workstations

Safety Approvals

- cUL/UL
- CE

Mechanical Characteristics

- Length: 166mm (6.53in)
- Width: 80mm (3.15in)
- Height: 44mm (1.73in)
- Weight: 0.5Kg

Output Specifications

Model	DC Output Voltage*	Load		Regulation	
		Min.	Max.	Line	Load
POE75U-1UP(x)	+56V	0A	0.67A	54-57V DC under all conditions	

Options: (x) = N for SNMP Management Option

Note (*) = 4-pair powering for 2 outputs at 56V, 0.67A

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INPUT:**AC Input Voltage Range**

90 to 264VAC

AC Input Voltage Rating

100 to 240VAC, 47-63Hz

AC Input Current

2.0A (RMS) maximum for 90VAC

1.2A (RMS) maximum for 240VAC

Leakage Current

3.5mA maximum @ 254VAC 60Hz

AC Inrush Current

30A (RMS) maximum for 115VAC

60A (RMS) maximum for 230VAC

OUTPUT:**Total Output Power**

75W

Ripple and Regulation

250mV maximum

DC Offset

No data degradation with DC imbalance 18mA per min.

Efficiency

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

Hold-up Time

10mS min. 120VAC and maximum load

Transient O/P Voltage Protection

60V maximum

ENVIRONMENTAL:**Temperature**

Operation -20 to +40°C

Non-operation -25 to +65°C

Humidity

Operation 5 to 90%

EMC

FCC Part 15 Class B

EN55022 Class B

Isolation Test

Primary to Secondary: 4242VDC for 1 minute 10mA

Primary to Field Ground: 2121VDC for 1 minute

Output to Field Ground: 2121VDC

Immunity

ESD: EN61000-4-2. Level 3

RS: EN61000-4-3. Level 3

EFT: EN61000-4-4. Level 2

Surge: EN61000-4-5. Level 3

CS: EN61000-4-6. Level 2

Voltage Dips EN61000-4-11

Harmonic: EN61000-3-2 Class A

Insulation Resistance

Primary to Secondary: >10M OHM 500VDC

Primary to Field Ground: >10M OHM 500VDC

IEEE 802.3af/at Interoperability

If 25kohm is detected the unit operates in "IEEE802.3at mode" 33.6W 2 pair powering. 12.5k detection

resistance required for full power

UNH Interoperability report available upon request

FEATURE:**Cisco Legacy detection**

No extern parts required for Legacy devices:

VoIP Phones:

7910,7912,7940,7960

Access Points:

350,1100,1200

Over Voltage/Current, Short Circuit Protection

Outputs equipped with short circuit protection and overload protection as per 802.3af specifications except max average current is 1.34A

The output can be shorted permanently without damage

Indicators

Green LED 1: DC Power "OK"

Red LED: Fault detected

Solid Green LED 2: Power detected "CONNECT" at 75W

Flashing Green LED 2: IEEE802.3at detected

"CONNECT" at 30W

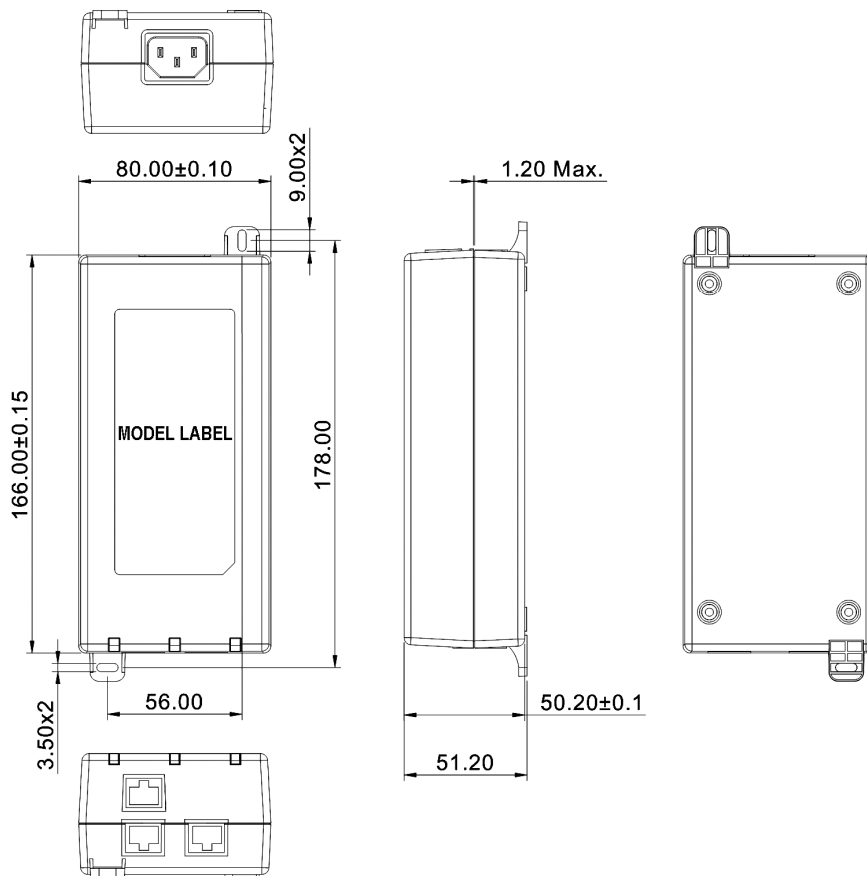
Input Connector

IEC320 inlet 3 pin

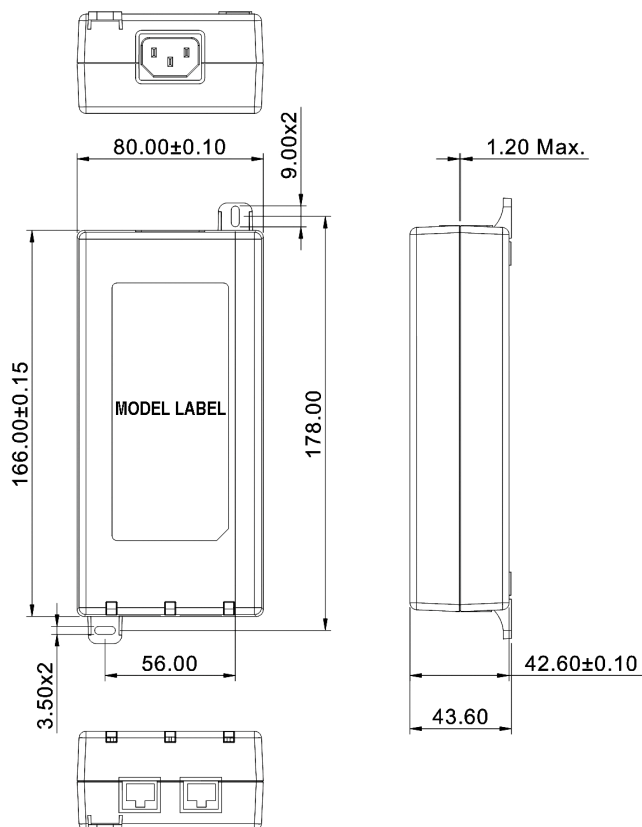
Warranty

1 Year

Case as featured with the SNMP Management option



Case without the SNMP Management Option





Description of LED Functions for Gigabit Power Injector

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 2 seconds period, the "ON" LED will illuminate green. The DC output voltage is now 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 specific to 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 Power Injector will continue to try to detect a valid load. 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 Power Injector 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 detecting the load, the LED will indicate a possible fault as per the codes in the section above.