



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



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

### Features

- Gigabit Compatible
- Diagnostic LEDs
- Limited Power Source
- Full Power Cisco AP1250 Support
- SNMP Management Option
- 1 Year Warranty
- Full Protection OCP, OVP
- Single Source 4 Pair Power Current Sharing
- Not IEEE BT Compliant
- Broken Wire Detection  
12.5k or 25k on Datapairs 3, 6, 1, 2 for Detection(Latest Revision)

### Applications

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

### Safety Approvals

- cUL/UL
- CE

### Mechanical Characteristics (Standard Model)

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

### Output Specifications

Model	DC Output Voltage*	Load x2 4-pair powering*		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

Reference files:

1. [SNMPv2c\\_User\\_Manual-Rev1.7.pdf](#)
2. [SNMPv2c\\_Firmware-Rev1.7.zip](#)
3. [SNMPv2c\\_MIB\\_10\\_30\\_2009.zip](#)

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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) max for 90VAC

1.2A (RMS) max for 240VAC

**Leakage Current**

3.5mA max @ 254VAC 60Hz

**AC Inrush Current**

30A (RMS) max for 115VAC

60A (RMS) max for 230VAC

**OUTPUT:****Total Output Power**

75W

**Ripple and Regulation**

250mV max

**DC Offset**

No data degradation with DC imbalance

18mA per min.

**Efficiency**

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

**Hold-up Time**

10mS min. 120VAC and max load

**Transient O/P Voltage Protection**

60V max

**ENVIRONMENTAL:****Temperature**

Operation -20 to +40°C

Non-operation -25 to +65°C

Humidity 5 to 90%

**EMC**

FCC Part 15 Class B

EN55022 Class B

**Isolation Test**Primary to Secondary: 4242VDC for 1 minute  
10mAPrimary 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  
500VDCPrimary to Field Ground: >10M OHM  
500VDC**IEEE 802.3af/at Interoperability**If 25kohm or 12.5Kohm is detected the unit  
operates in 4-pair powering mode delivering  
75W.**FEATURES:****Cisco Legacy detection**No external parts required for Legacy  
devices:

VoIP Phones: 7910,7912,7940,7960

Access Points: 350,1100,1200,1250

**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: 12.5kohm detected  
 “CONNECT” at 75W power.  
 Flashing Green LED 2: 25kohm detected  
 “CONNECT” at 75W power

**Input Connector**

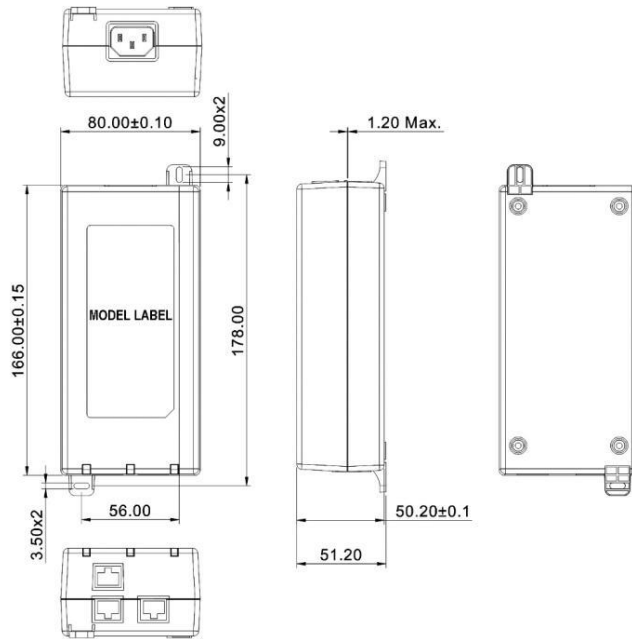
IEC320 inlet 3 pin

**Output Connection**

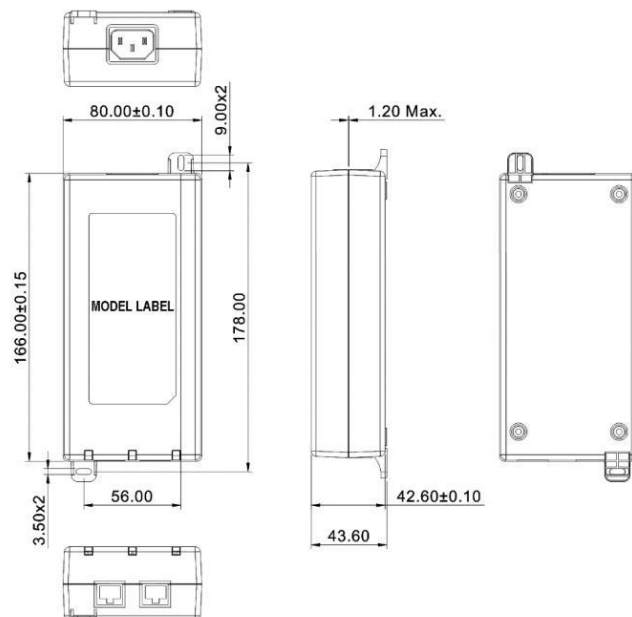
4-pair powering for full power  
 Pins 3,6, 4,5(+) Pins 1,2, 7,8 (-)

**Dimension Diagram Unit:mm**

**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.

### **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.