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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

- Fully Compliant Detection, Disconnect and Voltage Control IEEE802.3 PoE standards
- Diagnostic LEDs
- Gigabit Compatible
- SNMP Management Option
- 1 Year Warranty
- Full Power Cisco AP1250 Support
- Proprietary Detection, Disconnect and Overload Protection
- Full Protection OCP, OVP
- Limited Power Source
- Single Source 4 Pair Power Current Sharing
- Broken Wire Detection
- 12.5K and 25K Detection

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[1]		Regulation		SNMP
		Min.	Max.	Line	Load	
POE75U-1UP-R	+56V	0A	0.67A	54-57V DC under all conditions		No
		Min.	Max.	Line	Load	
POE75U-1UP-N-R[2]	+56V	0A	0.67A	54-57V DC under all conditions		Yes

Notes: 1. 4-pair powering for 2 outputs at 56V, 0.67A
2. Consult factory for availability

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
Complies with FCC Class B
Complies with EN55032 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 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.

POE75U Characteristics WWW.PHIHONG.COM

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

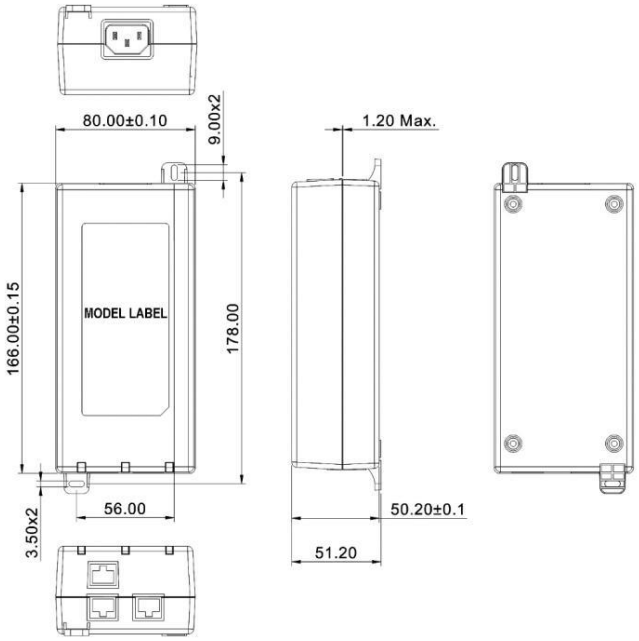
IEC320 inlet 3 pin

Output Connection

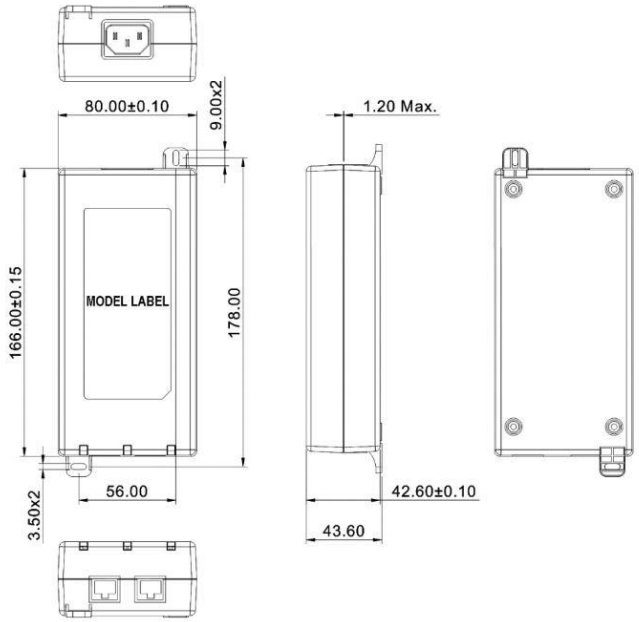
4-pair powering for full power
Pins 3,6, 4,5(+) Pins 1,2, 7,8 (-)

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.

Supplier's Declaration of Conformity
47 CFR § 2.1077 Compliance Information

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NOTE: This model has/The models in this products series have been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to equipment not expressly approved by PHIHONG could void the user's authority to operate the equipment.