



33.6W Power over Ethernet Adapter High Power Single Port Injector



Features

- Compliant with the IEEE802.3at Standard
- Diagnostic LEDs
- Gigabit Compatible
- Cisco AP1250 Full Power Support
- Non-Vented Case
- Full Protection OCP, OVP
- 1 Year Warranty

Applications

- IP Telephones
- Wireless Network Access Points
- Blue Tooth Access Point
- Security Cameras with Pan/Tilt/Zoom
- IP Print Servers

Safety Approvals

- CE
- C-Tick
- cUL/US
- SAA

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	
		Min.	Max.	Line	Load
POE36U-1AT-R ¹	56V	0A	0.60A	54-57Vdc under all conditions	

Notes: (1) Consult factory for availability

Phihong is not responsible for any error, and reserves the right to make changes without notice. Please visit our website at www.phihong.com for the most up-to-date specifications and contact information.

INPUT:**AC Input Voltage Range**

90 to 264VAC

AC Input Voltage Rating

100 to 240VAC

AC Input Current

1.0A (RMS) and 90VAC at maximum load
 .55A (RMS) and 240VAC at maximum load

AC Input Frequency

47 to 63Hz

OUTPUT:**Total Output Power**

33.6W

DC Offset

No Data degradation with DC imbalance
 18mA

Ripple and Regulation

100mV maximum

Efficiency

78% at max load, and 120VAC 60Hz

Transient O/P Voltage Protection

60V max at switch on/off at AC line phase

ENVIRONMENTAL:**Temperature**

Operation	-20 to +50°C
Non-operation	-20 to +65°C
Humidity	5 to 90%

EMC

Complies with FCC Class B
 Complies with EN55032 Class B

Isolation Test

Primary to Secondary: 4242 VDC 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 2
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

Insulation Resistance

Primary to Secondary: >10M OHM 500VDC
 Primary to Field Ground: >10M OHM
 500VDC

FEATURE:

CiscoNo extern parts required for Legacy
 devices: VoIP Phones:7910, 7912, 7940, 7960
 Access Points:1040, 1140, 1250, 1260, 3500

Over Voltage/Current, Short Circuit Protection

Outputs equipped with short circuit protection
 and overload protection as per 802.3at
 specification.The output can be shorted
 permanently without damage

Indicators

Green LED 1: Input power “ON”
 Green LED 2: Valid IEEE802.3at load
 detected and connected “PoE PLUS”
 Green LED 3: Valid IEEE802.3af load
 detected and connected

Input Connector

IEC320 3 pin

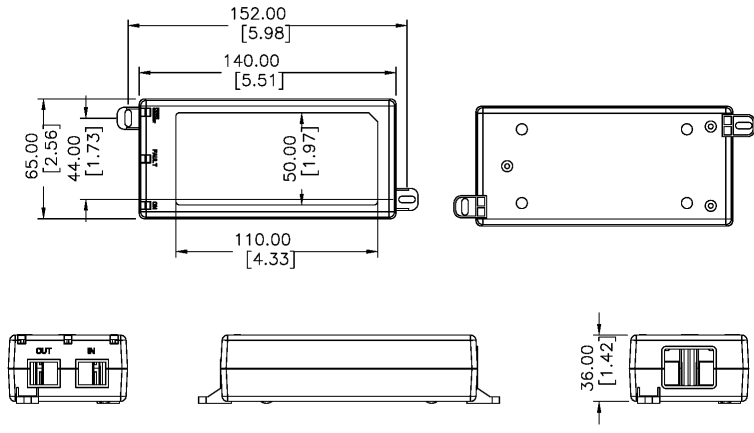
Output Connection

+pins 3, 6
 -pins 1, 2

Warranty

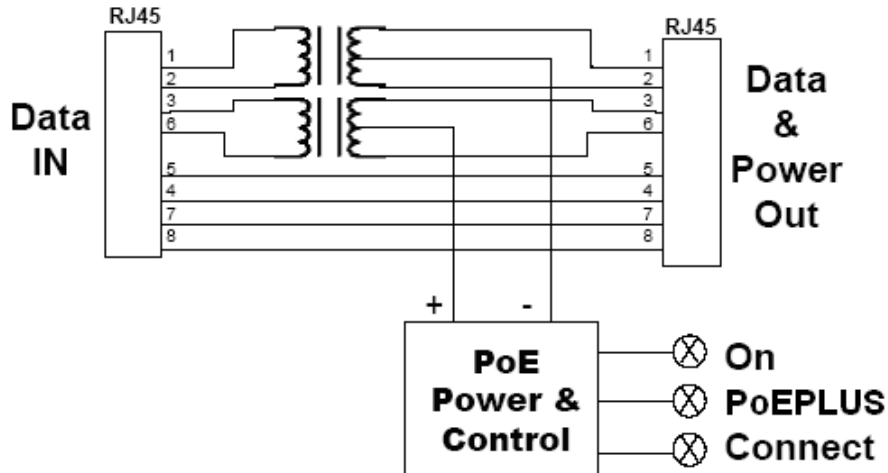
1 Year

Dimension Diagram Unit: mm (inch)





Gigabit Power Injector Block Diagram



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 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 802.3at PoE standards).

Detection Sequence:

Once a compliant load is attached to the output RJ45 connector, the green "CONNECT" LED will illuminate. Should the load is classified as Class 4 PD, the green "PoEPLUS" LED will illuminate. Otherwise, "PoEPLUS" LED will stay off. 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 green "PoEPLUS" 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 "CONNECT" LED will blink 3 times
5. Low voltage sensed during detection (overload) – The green "PoE PLUS" LED will blink 3 times

After the LEDs blink 3 times the PSE 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 PSE will continue to try to detect a valid load.

Fault Sequence:

Should there be a fault such as an overload or short circuit then all the three LEDs will blink 5 times in 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.

**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.