



## 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	56V	0A	0.60A	54-57Vdc under all conditions	

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

**Transient O/P Voltage Protection**  
60V maximum at switch on and off at any AC line phase

**ENVIRONMENTAL:**

**Temperature**  
Operation -20 to +50°C  
Non-operation -20 to +65°C

**Humidity**  
Operation 5 to 90%

**EMC**  
FCC Part 15 Class B  
EN55022 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:**

**Cisco**

No 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

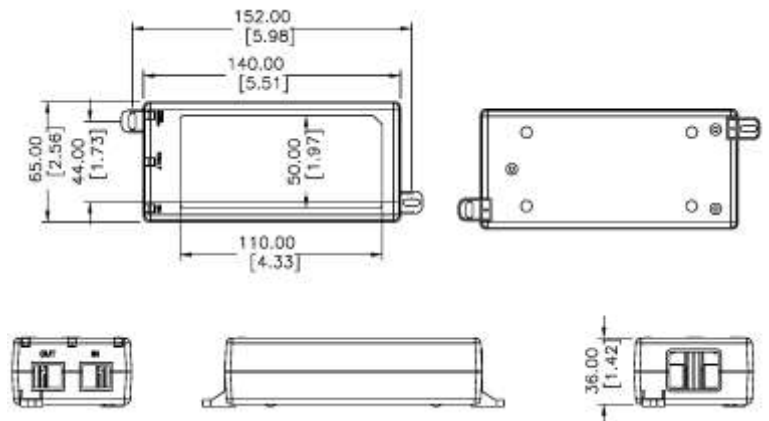
**Output Connection**

+pins 3, 6  
-pins 1, 2

**Warranty**

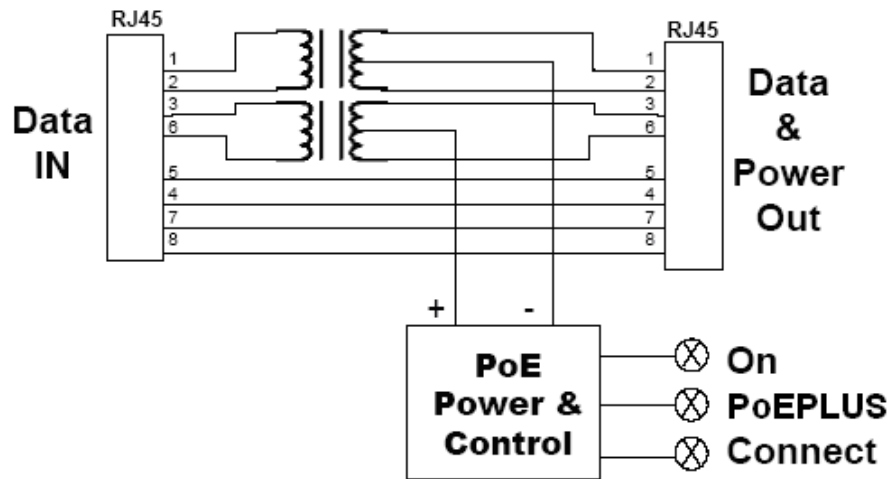
1 Year

**Dimension Diagram Unit: mm (inch)**





## Gigabit Power Injector Block Diagram



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### 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.