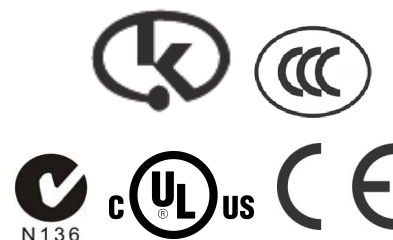




33.6W Power over Ethernet Adapter High Power Single Port Injector



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



Features

- Compliant with the IEEE802.3at Standard
- Diagnostic LEDs
- Gigabit Compatible
- UNH IOL Tested
- Non-Vented Case
- Full Protection OCP, OVP

Applications

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

Safety Approvals

- CE
- Korea (PHC)
- SSA
- C-Tick
- cUL/US
- CCC
- SABS

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:**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

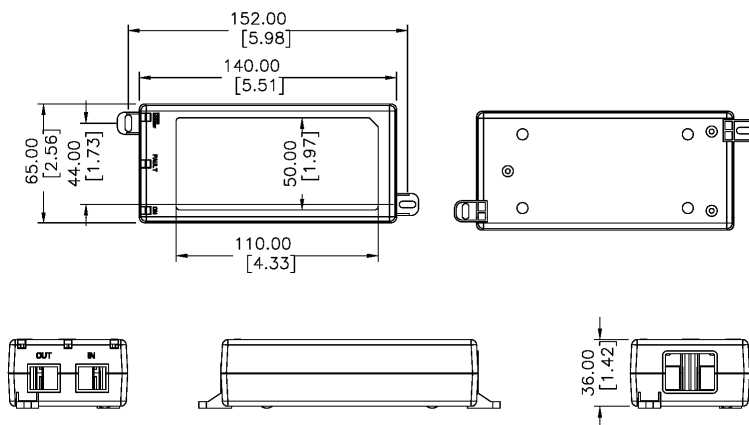
Green LED 1: Input power “ON”
 Red LED: Fault detected
 Green LED 2: Valid IEEE802.3at load detected and connected

Input Connector

IEC320 3 pin

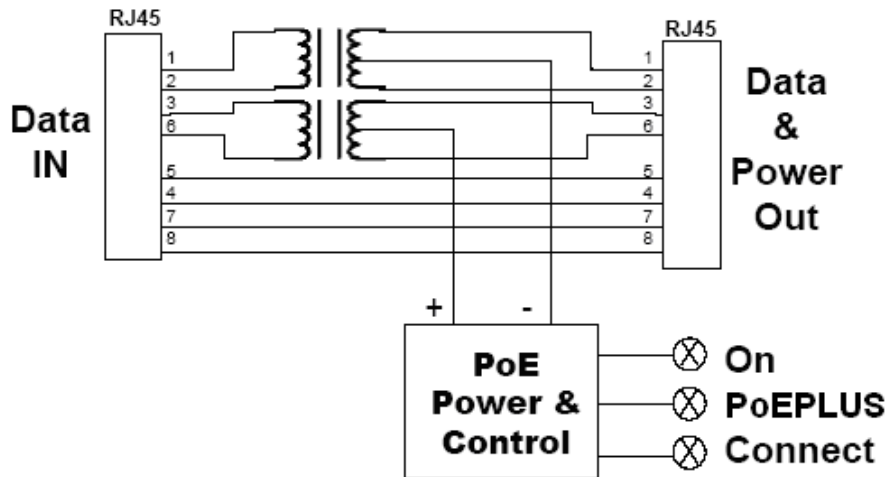
Output Connection

+pins 3, 6
 -pins 1, 2

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.