



30W Power Over Ethernet Adapter  
**High Power, high temperature single port injector.**



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



**Features**

- Fully Compliant detection, disconnect and voltage control IEEE802.3af
- Diagnostic LEDs
- Non-Vented Case
- Wide temperature range -20 to +55°C
- UNH IOL Tested
- Full Protection OCP, OVP
- Gigabit Compatible

**Applications**

- IP Telephones
- Wireless Network Access Points
- Blue Tooth Access Point
- Security Camera
- IP Print Servers

**Safety Approvals**

- cUL/UL
- CE
- Korea K
- Argentina IRAM
- China CCC
- Australia SAA & C-Tick
- Japan

**Mechanical Characteristics**

- Length: 166mm (6.48in)
- Width: 80mm (3.15in)
- Height: 43.6mm (1.72in)
- Weight: 0.3Kg (0.5lb.)

**Output Specifications**

Model	DC Output Voltage	Load		Regulation	
		Min.	Max.	Line	Load
POE30U-560GHT	56V	0A	0.55A	54-57Vdc under all conditions	

Ripple And Noise*	Vp-p*
<500Hz	0.5
500Hz-150KHz	0.15
150KHz-500KHz	0.15
500KHz-1MHz	0.1

\*As per IEEE802.3af Table 33-5.

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## POE30U-560GHT Characteristics

WWW.PHIHONG.COM

### INPUT:

**AC Input Voltage Range**  
90 to 264VAC

**AC Input Voltage Rating**  
100 to 240VAC, 47-63Hz

**AC Input Current**  
0.5A(RMS) max. for 90VAC  
0.35A(RMS) max. for 240VAC

**Leakage Current**  
1.0 mA max. @ 254VAC 60Hz

**AC Inrush Current**  
15A(RMS) max. for 115VAC  
20A(RMS) max. for 230VAC

### OUTPUT:

**Total Output Power**  
30W

**DC Offset**  
No Data degradation with DC imbalance 18mA

**Efficiency**  
65% (typical) at Max. load, and 120VAC 60Hz

**Hold-up Time**  
16mS min. 120VAC and max. load

**Transient O/P Voltage Protection**  
60V max.

### ENVIRONMENTAL:

**Temperature**  
Operation -20 to +55°C  
Non-operation -40 to +71°C

**Humidity**  
Operation 5 to 90%

### EMC

FCC Part 15 Class B  
EN55022 Class B

### Isolation Test

Primary to Secondary: 3000VAC for 1 minute 10mA  
Primary to F.G.: 1500VAC for 1 minute  
Output to F.G.: 1500VAC

### 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 FC: >10M OHM 500VDC

### FEATURE:

#### Over Voltage/Current, Short Circuit Protection

Outputs equipped with short circuit protection and overload protection as per 802.3af specification except max average current is 0.55A, Peak 0.6A

The output can be shorted permanently without damage

#### Indicators

Led #1 indicator for input power "on" GREEN  
Led #2 Indicator for fault-RED  
Led #3 Indicator that Detected and Connected to valid IEEE802.3af load-GREEN

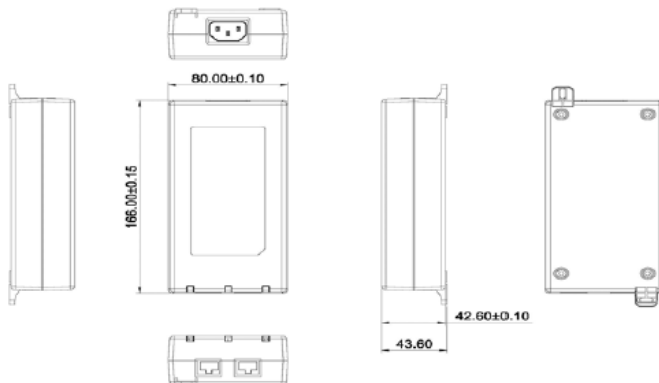
#### Input Connector

IEC320 inlet 3 pin

#### Output Connection

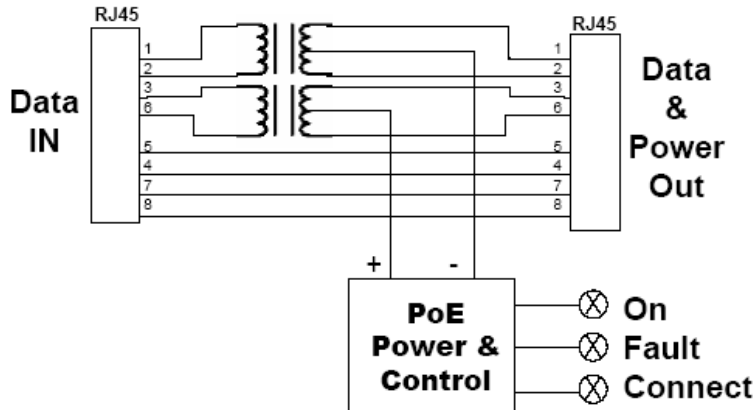
+pins 3,6  
- pins 1,2

### 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 802.3af PoE standards).

##### 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 signifying 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 "CONNECT" 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 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 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 in detecting, the LED will indicate what is wrong with the load as per the codes in the section above.

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