



## 30W Power over Ethernet Adapter High Power, High Temperature Single Port Injector



### Features

- Fully Compliant 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 Points
- Security Cameras
- IP Print Servers

### Safety Approvals

- cUL/UL
- CE
- Korea K
- C-Tick
- CCC
- SAA
- S-Jet
- IRAM

### Mechanical Characteristics

- Length: 166mm (6.48in)
- Width: 80mm (3.15in)
- Height: 44mm (1.73in)
- Weight: 0.3Kg (0.51lb)

### Output Specifications

Model	DC Output Voltage	Load		Regulation	
		Min.	Max.	Line	Load
POE30U-560(G)-HT	56V	0A	0.55A	54-57V DC under all conditions	

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**INPUT:**

**AC Input Voltage Range**

85 to 264VAC

**AC Input Voltage Rating**

100 to 240VAC

**AC Input Frequency**

47-63Hz

**AC Input Current**

15A (RMS) maximum for 115VAC

20A (RMS) maximum for 230VAC

**Leakage Current**

0.25mA maximum for 264VAC 50Hz for input to PE

3.5mA maximum for 264VAC 50Hz for input to output

**AC Inrush Current**

15A (RMS) maximum for 115VAC

20A (RMS) maximum for 230VAC

**OUTPUT:**

**Total Output Power**

30W at 56V DC

**DC Offset**

No data degradation with DC imbalance 18mA per min.

**Efficiency**

75% (typical) at maximum load, and 120VAC 60Hz

**Hold-up Time**

16mS min. and 120VAC at maximum load

**Transient O/P Voltage Protection**

60V maximum zener clamp

**ENVIRONMENTAL:**

**Temperature**

Operation -20 to +55°C

Non-operation -40 to +85°C

Humidity 10 to 90%

**EMC**

FCC Part 15 Class B

EN55022 Class B

**Isolation Test**

Primary to Secondary: 4242VDC for 1 minute 10mA

Primary to F.G.: 2121VDC for 1 minute

Output to F.G.: 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

**IEEE 802.3at Interoperability**

UNH Interoperability report available upon request

**FEATURE:**

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

The output can be shorted permanently without damage

**Indicators**

Green LED 1: Power detected “ON”

Green LED 2: Valid “PoE Plus” load detected and connected

Green LED 3: Valid IEEE802.3af load detected and connected

**Input Connector**

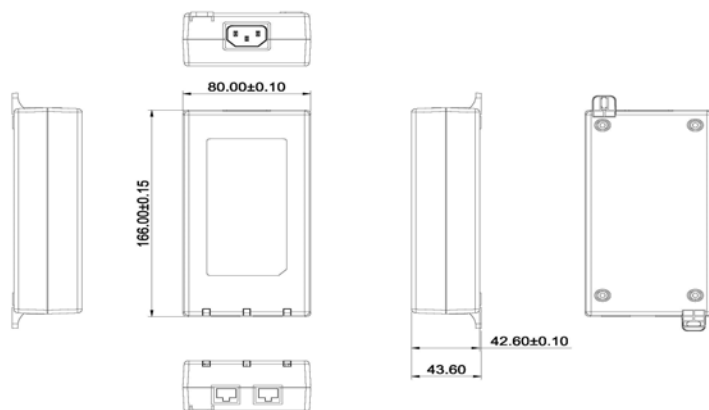
IEC320 inlet 3 pin

**Output Connection**

+pins 3, 6

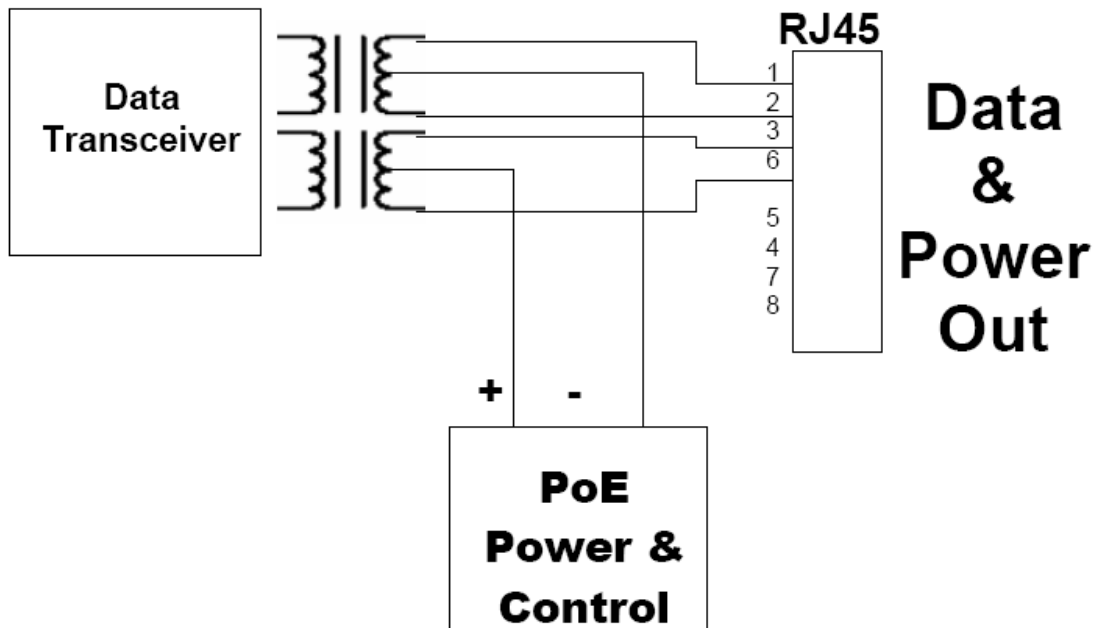
-pins 1, 2

**Dimension Diagram Unit: mm**





## POE30U-560(G) –HT-R Schematic 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 2 seconds, the "ON" LED will illuminate green. The DC output voltage is now 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 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 "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 a fault occur 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 the possible fault as per the codes in the section above.