



## 60W Power over Ethernet Adapter High Power Single Port Injector



### Features

- Fully Compliant Detection, Disconnect and Voltage Control IEEE802.3af
- Diagnostic LEDs
- Gigabit Compatible
- 1 Year Warranty
- Single Source 4 Pair Power Current Sharing
- Broken Wire Detection
- Full Protection OCP, OVP
- 12.5K or 25K Detection Models Available

### Applications

- Satellite Receiver
- Wireless Network Access Points
- LCD Displays
- Security Cameras
- Kiosks
- Computer Workstations

### Safety Approvals

- cUL/UL
- CE
- SAA
- C-Tick

### Mechanical Characteristics

- Length: 166mm (6.53in)
- Width: 80mm (3.15in)
- Height: 44mm (1.73in)
- Weight: 0.4Kg

### Output Specifications

Model	DC Output Voltage	Load		Regulation	
		Min.	Max.	Line	Load
POE60U-560G-XX-R*	+56V +56V	0.0A	.55A	54-57Vdc under all conditions	

\*note – XX refer to VC model that is available with 25K detection. Standard model offers 12.5K detection.

**INPUT:****AC Input Voltage Range**

90 to 264VAC

**AC Input Voltage Rating**

100 to 240VAC, 47-63Hz

**AC Input Current**

2A (RMS) maximum for 90VAC

1.2A (RMS) maximum for 240VAC

**Leakage Current**

3.5mA maximum @ 254VAC 60Hz

**AC Inrush Current**

30A (RMS) maximum for 115VAC

40A (RMS) maximum for 230VAC

**OUTPUT:****Total Output Power**

60W

**DC Offset**

No data degradation with DC imbalance 18mA per min.

**Efficiency**

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

**Hold-up Time**

10mS minimum 120VAC and maximum load

**Transient O/P Voltage Protection**

60V maximum

**ENVIRONMENTAL:****Temperature**

Operation 0 to +40°C

Non-operation -25 to +65°C

**Humidity**

Operation 5 to 90%

**EMC**

FCC Part 15 Class B

EN55022 Class B

**Isolation Test**

Primary to Secondary: 4242VDC 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 Class A

**Insulation Resistance**

Primary to secondary: &gt;10M OHM 500VDC

Primary to FC: &gt;10M OHM 500VDC

**IEEE 802.3af/at Interoperability**

UNH Interoperability report available upon request

**FEATURE:****Detection**

12.5kohm detection resistor value required to turn on full power 4 pair power. VC Model has 25Kohm detection resistor value requirement to turn on full 4 pair power.

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

Outputs equipped with short circuit protection and overload protection as per 802.3af specifications except max average current is 0.55A, Peak 0.6A per pair. The output can be shorted permanently without damage

**Indicators**

Green LED 1: DC Power "OK"

Red LED: Fault detected

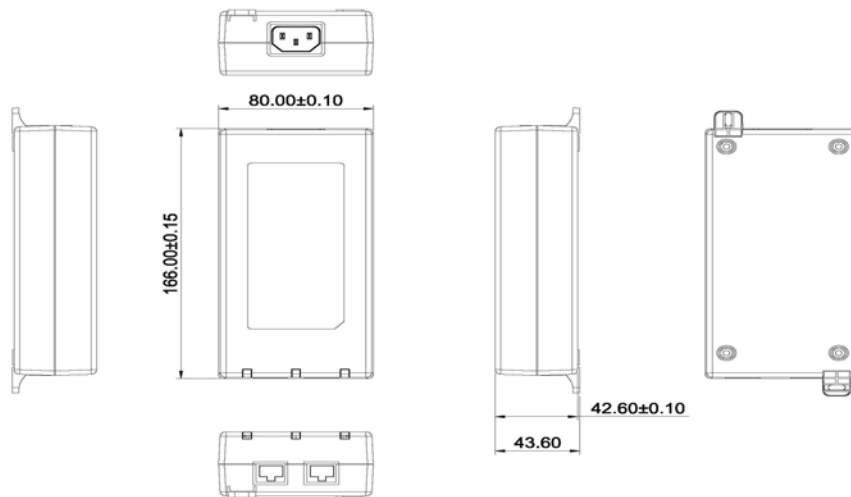
Solid Green LED 2: Power detected "CONNECT" at 60W

**Input Connector**

IEC320 inlet 3 pin

**Warranty**

1 Year



### **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 second period, the "ON" LED will illuminate green. 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 specific to 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 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 detecting the load, the LED will indicate the possible fault as per the codes in the section above.