



## 19.6W Power over Ethernet Adapter POE20U High Power Single Port Injector



### Features

- Fully Compliant Detection, Disconnect, Overload and Voltage Control IEEE802.3af
- Diagnostic LEDs
- Non-Vented Case
- UNH IOL Test Report
- 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
- SABS
- Korea (PHC)
- SAA
- CCC
- S-Jet
- C-Tick

### 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
POE20U-560(G)	56V	0A	0.35A	±4%	

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**INPUT:**

**AC Input Voltage Range**

90 to 264V AC

**AC Input Voltage Rating**

100 to 240V AC

**AC Input Current**

0.75A (RMS) maximum for 90V AC

0.45A (RMS) maximum for 240V AC

**Leakage Current**

1.0mA maximum at 254V AC, 50Hz

**AC Input Frequency**

47 to 63Hz

**AC Inrush Current**

15A (RMS) maximum for 115V AC

20A (RMS) maximum for 230V AC

**OUTPUT:**

**Total Output Power**

19.6W at 56V DC

**Efficiency**

65% at maximum load, and 120V AC 60Hz

**Hold-up Time**

16mS minimum at 120V AC and maximum load

**Transient O/P Voltage Protection**

60V maximum at switch on/off at any AC line phase

**ENVIRONMENTAL:**

**Temperature**

Operation 0 to +40°C

Non-Operation -25 to +65°C

Humidity 10 to 90%

**EMC**

FCC Part 15 Class B

EN55022 Class B

**Isolation Test**

Primary to Secondary: 4242V DC for 1 minute  
10mA

Primary to Field Ground: 2121V DC for 1 minute

Output to Field Ground: 2121V DC

**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: >10M OHM 500V DC

Primary to Field Ground: >10M OHM 500V DC

**FEATURE:**

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

Outputs equipped with short circuit protection and overload protection as per 802.3af specifications

The output can be shorted permanently without damage.

**Indicators**

Green LED 1: Input power “ON”

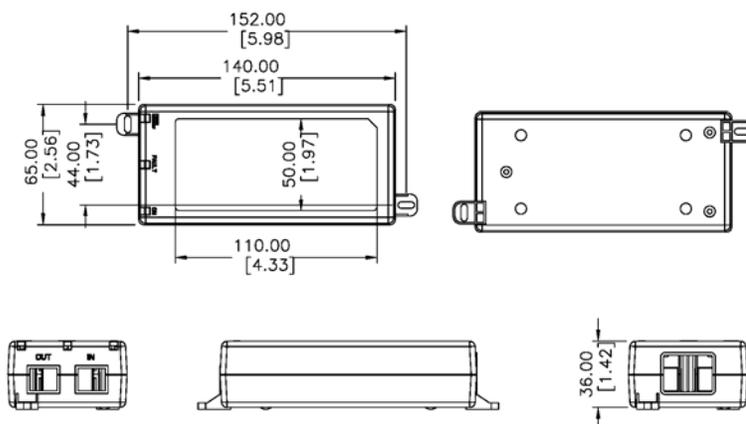
Red LED: Fault detected

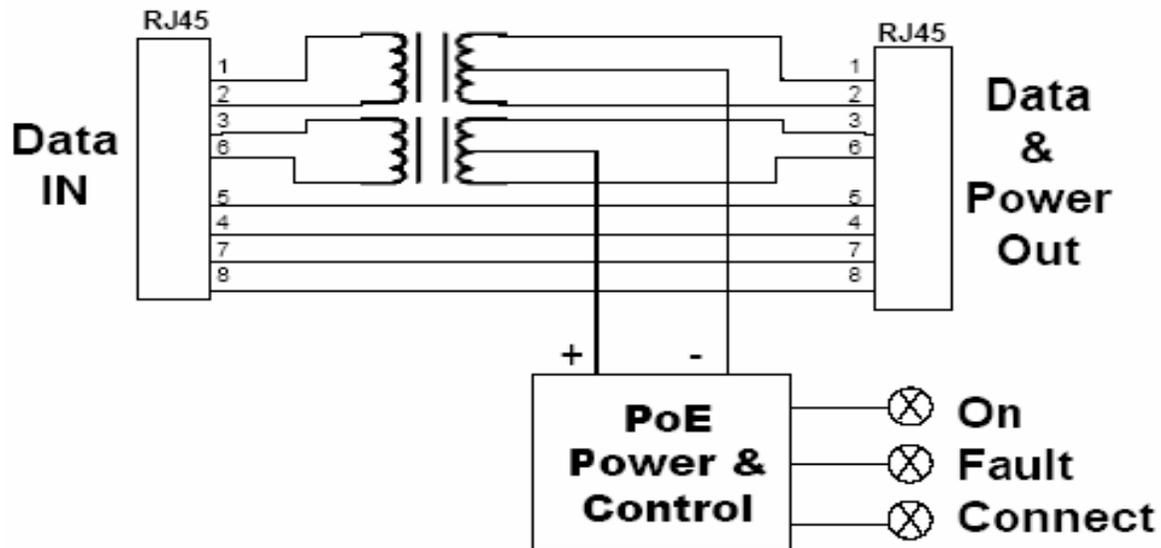
Green LED 2: Valid IEEE802.3af load detected and connected

**Input Connector**

IEC320 inlet 3 pin

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



**POE20U-560(G) Schematic Block Diagram****Description of LED Functions for POE20U-560(G)****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 "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. 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 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 redetect 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.