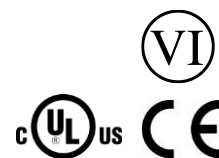




90W Single Port Multi-Gig Power over Ethernet Midspan IEEE802.3bt Compliant Power Injector



Features

- IEEE802.3bt Compliant
- Diagnostic LEDs
- Compliant with Phihong Proprietary 12.5K Detection
- 1 Year Warranty
- Gigabit Compatible
- Shielded DC Jacks
- 4 Pair Powering +3,6,4,5 / - 1,2,7,8
- Full Protection OCP, OVP
- Single Source 4 Pair Power Current Sharing
- Broken Wire Detection
- Limited Power Source
- DoE Level VI Compliant¹

Applications

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

Safety Approvals

- UL/cUL 60950-1
- UL/cUL 62368-1
- AS/NZ 62368²
- IEC60950-1
- IEC62368-1
- CE

Mechanical Characteristics (Standard Model)

- Length: 166mm (6.53in)
- Width: 80mm (3.15in)
- Height: 43.6mm (1.72in)
- Weight: 500g(1.1lbs)

Output Specifications

Model	Data Speed	DC Output Voltage	Load		Regulation ³	
			Min.	Max. ⁴	Line	Load
POE90U-1BT6-R	1G	56V	>10mA	1.6A	54-57V	
POE90U-1BT-N6-R ⁵	1G	56V	>10mA	1.6A	54-57V	
POE90U-1BT-2-R ⁶	2.5G	56V	>10mA	1.6A	54-57V	
POE90U-1BT-5-R	5G	56V	>10mA	1.6A	54-57V	
POE90U-1BT-X-R ⁶	10G	56V	>10mA	1.6A	54-57V	

Notes:

1. Except POE90U-1BT-N6-R
2. POE90U-1BT-2-R model only
3. Voltage measured within 2" of the output RJ45 connector on data pairs 3,6(+) and 1,2(-)
4. Combined output on data pairs and spare pairs. Otherwise 800mA on data pairs 3,6(+) 1, 2(-) and spare pairs 4,5(+) 7,8(-)
5. SNMP option. Special order MOQ
6. Special order MOQ

INPUT:**AC Input Voltage Range**

90 to 264VAC

AC Input Voltage Rating

100 to 240VAC, 47-63Hz

AC Input Current

2.5A (RMS) maximum for 90VAC

1.2A (RMS) maximum for 240VAC

Leakage Current

3.5mA maximum @ 264VAC 50Hz

AC Inrush Current

50A (RMS) maximum for 115VAC

75A (RMS) maximum for 230VAC

OUTPUT:**Total Output Power**

90W

Ripple and Regulation

200mV max @25C, 100-240VAC

Efficiency²

DOE Level VI

Hold-up Time

10mS min. 120VAC 60Hz max load

ENVIRONMENTAL:**Temperature**

Operation -20°C to +40°C

Non-operation -20°C to +65°C

Humidity 5 to 90%

EMC

Complies with FCC Class B

Complies with EN55032 Class B

Isolation Test

Primary to Secondary:

4242VDC for 1 minute 10mA

Primary to Field Ground:

2121VDC for 1 minute

Immunity

EN55024

IEC61000-3-2 (Harmonic) Class A

IEC61000-3-3

IEC61000-4-2 (ESD) 6KV Contact/8KV Air

IEC61000-4-3 (RS) 3V/m

IEC61000-4-4(EFT) 1KV Input 0.5KV Output

IEC61000-4-5 (Surge) 1KV L-L, 2KV L-PE

IEC61000-4-6 (CS) 3V

IEC 61000-4-8 1A/m

IEC61000-4-11 (Dips) Class 3

Insulation Resistance

Primary to Secondary: >10M OHM 500VDC

Primary to Field Ground: >10M OHM

500VDC

MTBF³

>150,000 Hours Min, Full Load, 115VAC

25°C

FEATURES:**Over Current Protection**

Output #1(OUT) <1000mA

Output #2(OUT) <1000mA

Output #1 and #2 combined(OUT) <2000mA

Over Voltage Protection

Voltage between 2 SELV conductors shall not

exceed 42.4Vpk or 60VDC for longer than

0.2seconds. Moreover a limit of 71Vpk or

120VDC shall not be exceeded. – Latching.

Short Circuit Protection

The output can be shorted permanently without damage

Notes:

1. The characteristics defined are at ambient temperature of 25°C unless otherwise specified
2. Efficiency is measured after 30 minutes burn-in
- 3.

LED Indicators

POE90U-1BT6-R, POE90U-1BT-N6-R :

No LED - Power failure
Blue LED On – Power ON
Red LED short/slow Blinking - POE power ready but no connection
Green LED solid - POE output power good
Red/Green LED alternate short blinking – POE detection failure
Red LED long/fast blinking – POE output over power or short
Green LED Blink – Invalid load condition

LED Indicators

POE90U-1BT-2-R, POE90U-1BT-5-R, POE90U-1BT-X-R:

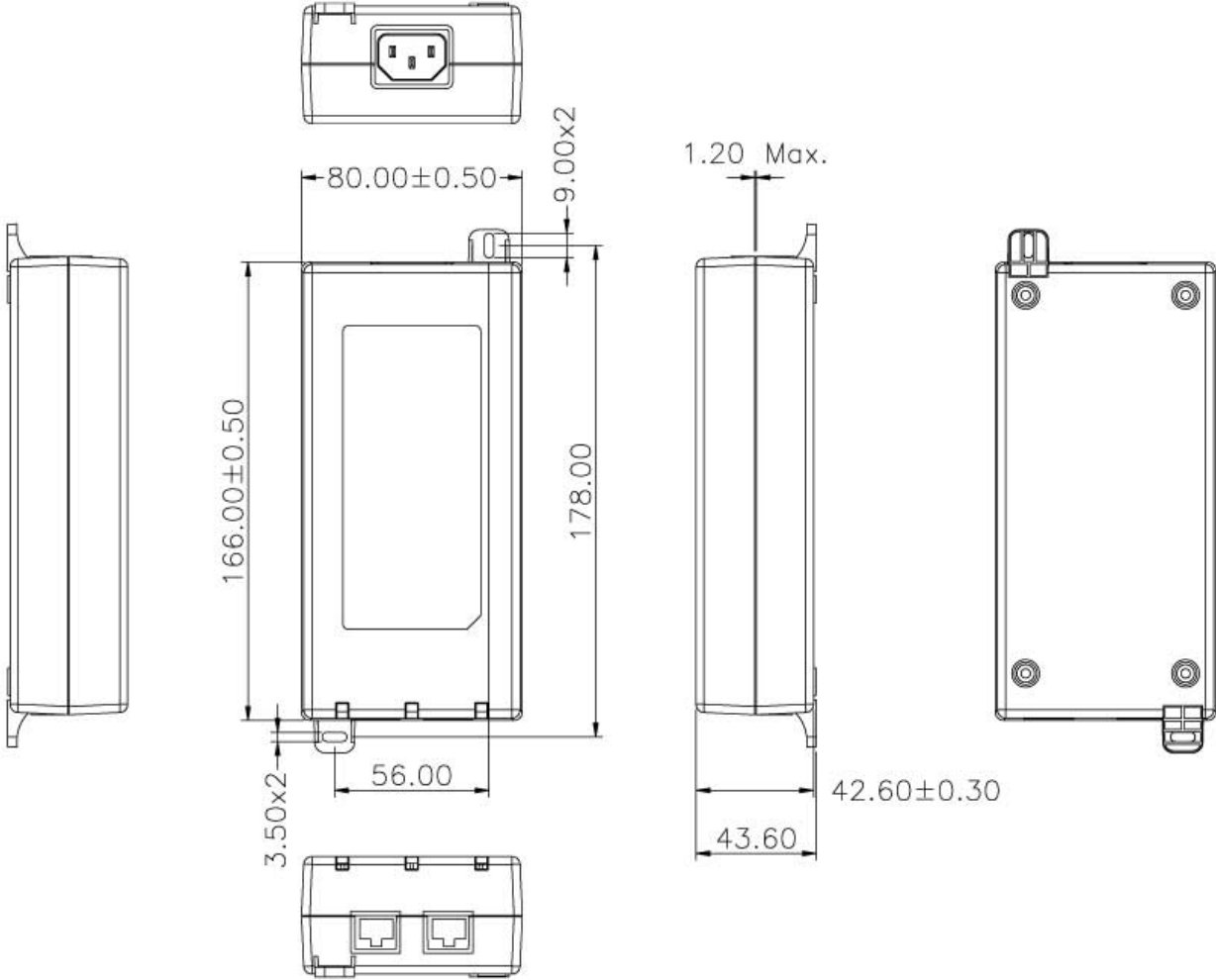
No LED - Power failure
Blue LED On – Power ON
Amber LED short/slow Blinking - POE power ready but no connection
Green LED solid - POE output power good
Amber/Green LED alternate short blinking – POE detection failure
Amber LED long/fast blinking - POE output over power or short
Green LED Blink – Invalid load condition

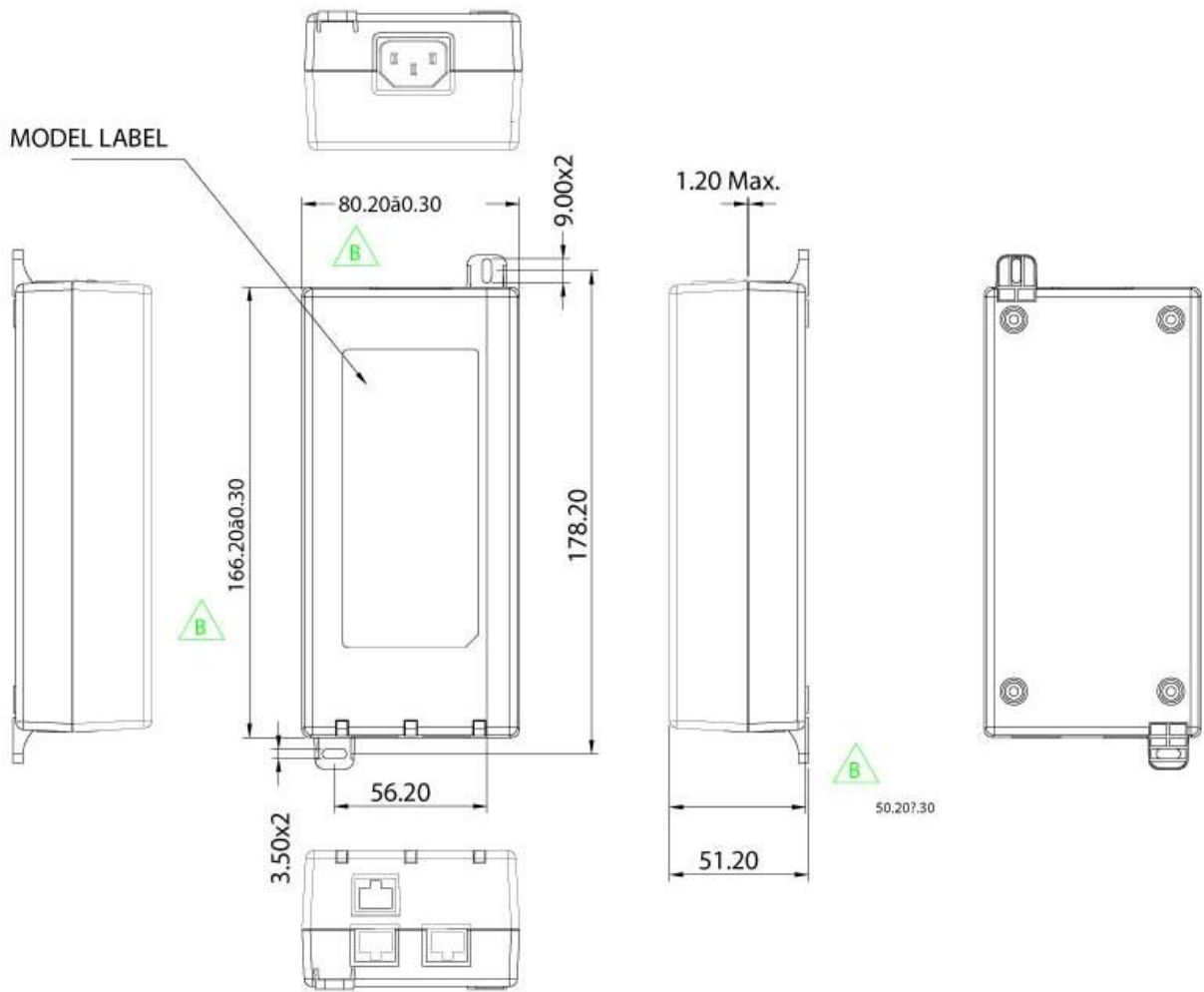
Input Connector

IEC320 inlet 3 pin

Output Connection

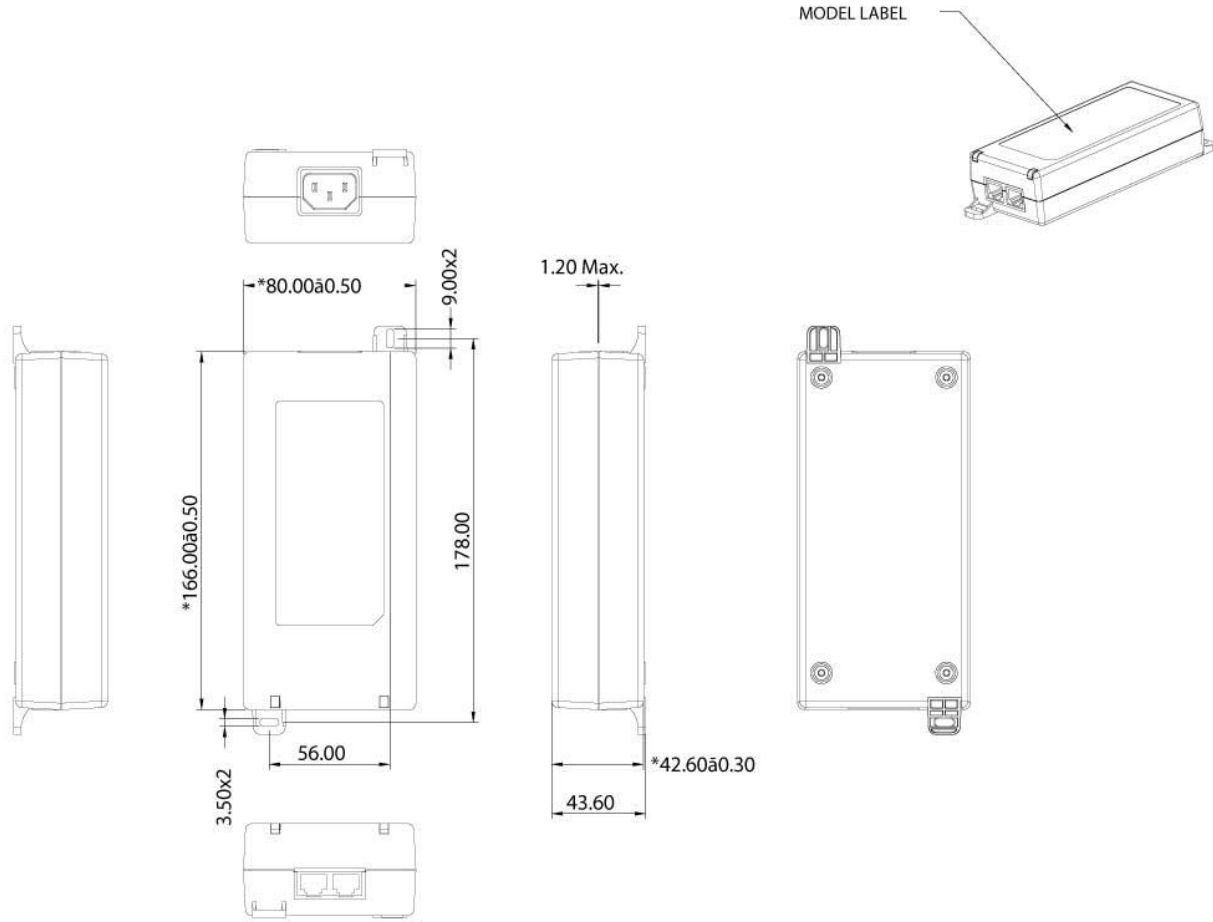
+pins 3,6,4,5 / -pins 1,2,7,8





Outline Diagram (mm)

POE90U-1BT-2-R, POE90U-1BT-5-R, POE90U-1BT-X-R





**Supplier's Declaration of Conformity
47 CFR § 2.1077 Compliance Information**

Phihong USA Corporation
47800 Fremont Boulevard
Fremont, CA 94538
Telephone: (510) 445-0100
www.phihong.com

This device complies with/The devices in this product series comply with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

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[POE90U-1BT-2](#) [POE90U-1BT-5](#) [POE90U-1BT-X](#) [POE90U-1BT6-R](#)