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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: 44mm (1.73in)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 | >15mA | 1.6A | 54-57V | |
| POE90U-1BT-N6-R ⁵ | 1G | 56V | >15mA | 1.6A | 54-57V | |
| POE90U-1BT-2-R | 2.5G | 56V | >15mA | 1.6A | 54-57V | |
| POE90U-1BT-5-R | 5G | 56V | >15mA | 1.6A | 54-57V | |
| POE90U-1BT-X-R | 10G | 56V | >15mA | 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

POE90U-1BT-X Characteristics¹

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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

250mV max @25C, 100-240VAC

Efficiency²

DOE Level VI CoC V5 Tier 2

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

ESD: IEC61000-4-2 Level 3
RS: IEC61000-4-3 Level 3
EFT: IEC61000-4-4 Level 2
Surge: IEC61000-4-5 Level 3
CS: IEC61000-4-6 Level 2

Voltage Dips IEC61000-4-11

Harmonic: IEC61000-3-2 Class A

Insulation Resistance

Primary to Secondary: >10M OHM 500VDC Primary to Field Ground: >10M OHM 500VDC

FEATURES:

Over Current Protection

Output #1(OUT) <1000mA Output #2(OUT) <1000mA

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

Over Voltage Protection

Meets UL requirements

Short Circuit Protection

The output can be shorted permanently without damage

LED Indicators

POE90U-1BT-R, POE90U-1BT6-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

 $Amber\ LED\ long/slow\ blinking-POE\ output$

over power or short

Green LED Blink – Invalid load condition

Notes:

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

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/slow blinking - POE
output over power or short
Green LED Blink – Invalid load condition

Input Connector

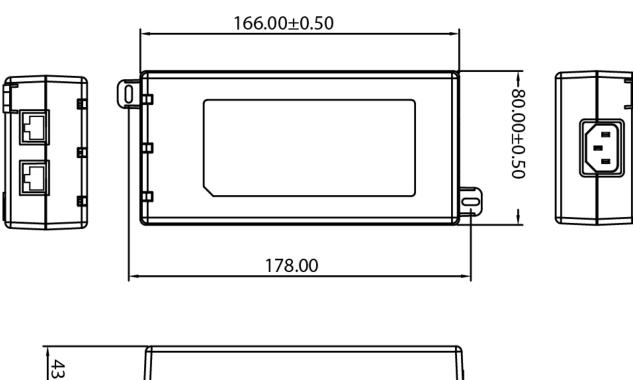
IEC320 inlet 3 pin

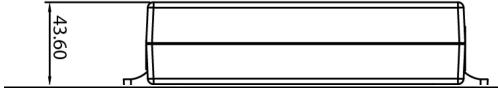
Output Connection

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

Outline Diagram (mm)

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

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

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NOTE: This model has/The models in this products series have been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- —Reorient or relocate the receiving antenna.
- —Increase the separation between the equipment and receiver.
- —Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- —Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to equipment not expressly approved by PHIHONG could void the user's authority to operate the equipment.