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





Features	
IEEE802.3bt Compliant	• 4 Pair Powering +3,6,4,5 / - 1,2,7,8
Diagnostic LEDs	• Full Protection OCP, OVP
Compliant with Phihong Proprietary	• Single Source 4 Pair Power Current
12.5K Detection	Sharing
• 1 Year Warranty	Broken Wire Detection
Gigabit Compatible	Limited Power Source
Shielded DC Jacks	• DoE Level VI Compliant <sup>1</sup>
Applications	
Satellite Receiver	Security Cameras
<ul> <li>Wireless Network Access Points</li> </ul>	• Kiosks
LCD Displays	Computer Workstations
Safety Approvals	
• UL/cUL 60950-1	• IEC60950-1
• UL/cUL 62368-1	• IEC62368-1
• AS/NZ 62368 <sup>2</sup>	• CE
Mechanical Characteristics (Standard Model)	
• Length: 166mm (6.53in)	• Height: 44mm (1.73in)
• Width: 80mm (3.15in)	• Weight: 500g(1.11bs)
Output Specifications	

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Model	Data Speed	DC Output Voltage	Load		Regulation <sup>3</sup>	
			Min.	Max. <sup>4</sup>	Line	Load
POE90U-1BT6-R	1G	56V	>15mA	1.6A	54-57V	
POE90U-1BT-N6-R <sup>5</sup>	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:

Except POE90U-1BT-N6-R 1.

POE90U-1BT-2-R model only 2.

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

Phihong is not responsible for any error and reserves the right to make changes without notice. Please visit our website at www.phihong.com for the most up-to-date specifications and contact information. Revision 3/23/2020

#### POE90U-1BT-X Characteristics<sup>1</sup>

**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

#### Efficiency<sup>2</sup>

DOE Level VI CoC V5 Tier 2

#### **Hold-up** Time

10mS min. 120VAC 60Hz max load

#### **ENVIRONMENTAL:**

#### Temperature

Operation Non-operation Humidity



#### EMC

Complies with FCC Class B Complies with EN55032 Class B

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# 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.

2.

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

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#### POE90U-1BT-X Characteristics

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



#### Revision 3/23/2020

#### 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

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.