

TECHNICAL DATASHEET

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



Applications

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

Features

- IEEE802.3bt Compliant
- Diagnostic LEDs
- Compliant with Pihong 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

Safety Standards



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

Dimensions

166 x 80 x 43.6 mm
(6.53 x 3.15 x 1.72 inch)

Weight

0.5 kg
(2.2 lbs)

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-N6-R ⁵	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

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Characteristics¹

POE90U-1BT-X

INPUT	
AC Input Voltage Rating	100-240VAC, 47-63Hz
AC Input Voltage Range	90 to 264VAC
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
Efficiency ²	DOE Level VI
Hold-up Time	10mS min. 120VAC 60Hz max load
ENVIRONMENTAL	
Temperature	Operating -20°C to +40°C Non-operating -20°C to +65°C Relative Humidity 5 to 90%
EMC	Complies with FCC Class B Complies with EN55032 Class B
Isolation (HI-POT)	Primary to secondary: 1500VAC for 1 minute, 10mA
Insulation Resistance	Primary to Secondary: 4242VDC for 1 minute 10mA Primary to Field Ground: 2121VDC for 1 minute

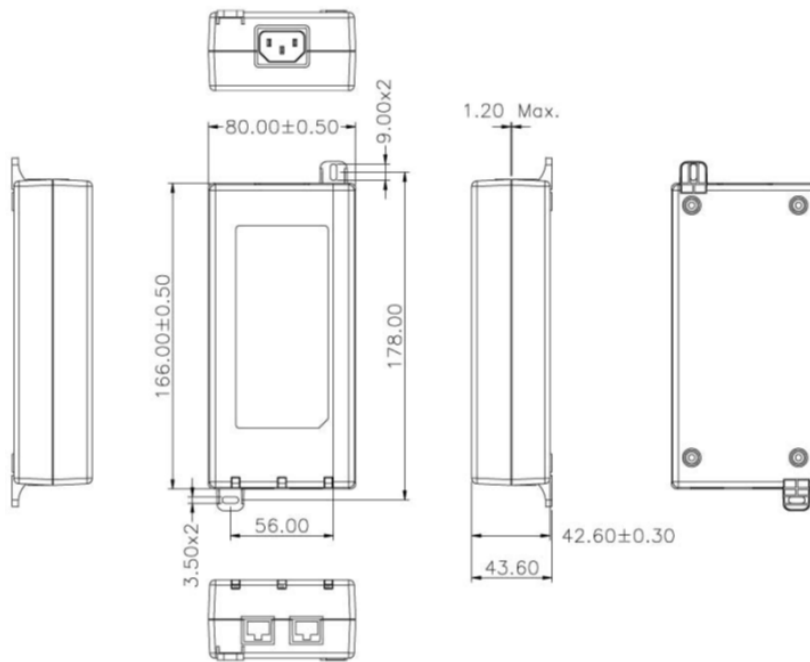
Immunity	EN 55035 IEC61000-3-2 (Harmonic) Class A IEC61000-3-3 IEC61000-4-2 (ESD) 6KV Contact/8KV Air IEC61000-4-3 (RS) 3V/m IEC61000-4-4(EFT) 1KV Input 0.5KV Output IEC61000-4-5 (Surge) 1KV L-L, 2KV L-PE IEC61000-4-6 (CS) 3V IEC 61000-4-8 1A/m IEC61000-4-11 (Dips) Class 3
Insulation Resistance	Primary to Secondary: >10M OHM 500VDC Primary to Field Ground: >10M OHM 500VDC
MTBF ³	>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

POE90U-1BT-X Characteristics- LED Indicators

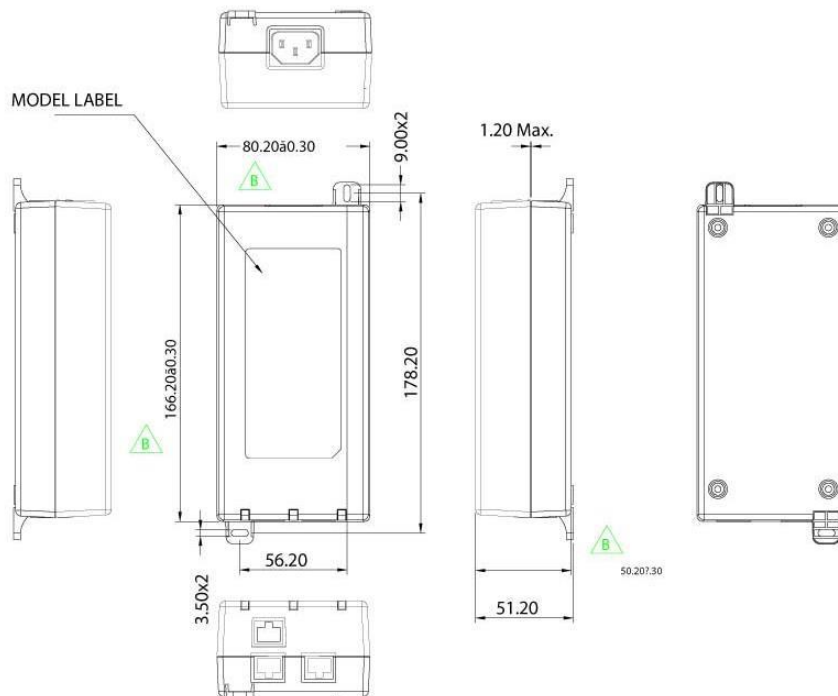
POE90U-1BT6-R, POE90U-1BT-N6-R	POE90U-1BT-2-R, POE90U-1BT-5-R, POE90U-1BT-X-R
No LED - Power failure	No LED - Power failure
Blue LED On – Power ON	Blue LED On – Power ON
Red LED short/slow Blinking - POE power ready but no connection	Amber LED short/slow Blinking - POE power ready but no connection
Green LED solid - POE output power good	Green LED solid - POE output power good
Red/Green LED alternate short blinking – POE detection failure	Amber/Green LED alternate short blinking – POE detection failure
Red LED long/fast blinking – POE output over power or short	Amber LED long/fast blinking - POE output over power or short
Green LED Blink – Invalid load condition	Green LED Blink – Invalid load condition
	Input Connector
	IEC320 inlet 3 pin
	Output Connection
	+pins 3,6,4,5 / -pins 1,2,7,8

Dimensional Diagram Unit: mm

POE90U-1BT6-R



POE90U-1BT-N6-R



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