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60W Single Port Multi-Gig Power over Ethernet Midspan IEEE802.3bt Compliant Power Injector

Features
- Compliant with IEEE802.3bt Standard
- Compliant with Phihong Proprietary 12.5K Detection
- Non-Vented Case
- 4 Pair Powering +3,6,4,5 / - 1,2,7,8
- Full Protection OVP, OCP
- Limited Power Source
- Single Source 4 Pair Power Current Sharing
- Broken Wire Detection
- Gigabit Compatible
- 1 Year Warranty

Applications
- IP Telephones
- Wireless Access Points
- Bluetooth® Access Points
- Security Cameras
- IP Print Servers
- WiMAX® Access Points

Safety Approvals
- UL/cUL 60950-1
- UL/cUL 62368-1
- IEC60950-1
- IEC62368-1
- CE

Mechanical Characteristics
- Length: 163.25mm (6.43in.)
- Width: 65mm (2.56in.)
- Height: 36mm (1.42in.)
- Weight: 500g (17.64oz)

Output Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>AC Input</th>
<th>Data Speed</th>
<th>DC Output Voltage</th>
<th>Load</th>
<th>Regulation¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>POE60U-1BTE-R</td>
<td>3 Wire C14</td>
<td>1G</td>
<td>56V</td>
<td>10mA</td>
<td>1.07A +56VDC +1V/-3V (57-53VDC)</td>
</tr>
<tr>
<td>POE60U-1BT6-R³</td>
<td>3 Wire C14</td>
<td>1G</td>
<td>56V</td>
<td>10mA</td>
<td>1.07A +56VDC +1V/-3V (57-53VDC)</td>
</tr>
<tr>
<td>POE60U-1BT-2-R</td>
<td>3 Wire C14</td>
<td>2.5G</td>
<td>56V</td>
<td>10mA</td>
<td>1.07A +56VDC +1V/-3V (57-53VDC)</td>
</tr>
<tr>
<td>POE60U-1BT-5-R</td>
<td>3 Wire C14</td>
<td>5G</td>
<td>56V</td>
<td>10mA</td>
<td>1.07A +56VDC +1V/-3V (57-53VDC)</td>
</tr>
<tr>
<td>POE60U-1BT-X-R</td>
<td>3 Wire C14</td>
<td>10G</td>
<td>56V</td>
<td>10mA</td>
<td>1.07A +56VDC +1V/-3V (57-53VDC)</td>
</tr>
</tbody>
</table>

Notes:
1. Voltage measured within 2” of the output RJ45 connector on data pairs 3,6(+) and 1,2(-)
2. Combined output on data pairs and spare pairs. Otherwise 535mA on data pairs 3,6(+) 1, 2(-) and spare pairs 4,5(+) 7,8(-)
3. No shielded RJ45 connector

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### POE60U-1BT Characteristics

#### INPUT:

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Input Voltage Range</td>
<td>90VAC to 264VAC</td>
</tr>
<tr>
<td>AC Input Voltage Rating</td>
<td>100 to 240VAC</td>
</tr>
<tr>
<td>AC Input Current</td>
<td>2.0A (RMS) max for 90VAC</td>
</tr>
<tr>
<td></td>
<td>1.2A (RMS) max for 240VAC</td>
</tr>
<tr>
<td>Leakage Current</td>
<td>3.5mA max @ 264VAC/50Hz</td>
</tr>
<tr>
<td>AC Inrush Current</td>
<td>40A (RMS) max for 115VAC</td>
</tr>
<tr>
<td></td>
<td>80A (RMS) max for 230VAC</td>
</tr>
</tbody>
</table>

#### AC Input Voltage Range

- AC Input Voltage Range: 90VAC to 264VAC
- AC Input Voltage Rating: 100 to 240VAC
- AC Input Current: 2.0A (RMS) max for 90VAC; 1.2A (RMS) max for 240VAC
- Leakage Current: 3.5mA max @ 264VAC/50Hz
- AC Inrush Current: 40A (RMS) max for 115VAC; 80A (RMS) max for 230VAC

#### OUTPUT:

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Output Power</td>
<td>60W @40°C</td>
</tr>
<tr>
<td></td>
<td>30W @50°C</td>
</tr>
<tr>
<td>Output Ripple</td>
<td>100mV max @25°C, 100-240VAC</td>
</tr>
<tr>
<td>Efficiency</td>
<td>DOE Level VI</td>
</tr>
<tr>
<td>Hold-up Time</td>
<td>10mS min. 120VAC/60Hz max load</td>
</tr>
<tr>
<td>ENVIRONMENTAL:</td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td></td>
</tr>
<tr>
<td>Operation</td>
<td>-10°C to +40°C for 60W</td>
</tr>
<tr>
<td></td>
<td>&gt;40°C to +50°C for 30W</td>
</tr>
<tr>
<td>Non-operation</td>
<td>-20°C to +65°C</td>
</tr>
<tr>
<td>Humidity</td>
<td>5 to 90%</td>
</tr>
<tr>
<td>EMC</td>
<td></td>
</tr>
<tr>
<td>Complies with FCC Class B</td>
<td></td>
</tr>
<tr>
<td>Complies with EN55032 Class B</td>
<td></td>
</tr>
</tbody>
</table>

#### Isolation Test

- Primary to Secondary: 4242VDC for 1min, 10mA
- Primary to Field Ground: 2121VDC for 1min, 10mA

#### Immunity

- ESD: IEC61000-4-2. Level 3
- RS: IEC61000-4-3. Level 3
- EFT: IEC61000-4-4. Level 2
- Surge: IEC61000-4-5. Level 4
- 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) <650mA
  - Output #2(OUT) <650mA
  - Output #1 and #2 Combined(OUT) <1300mA

- **Over Voltage Protection**
  - Meets UL requirements

- **Short Circuit Protection**
  - Output can be shorted permanently without damage

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

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**Notes:**

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

Revision 11/29/2021
POE60U-1BT Characteristics

Input Connector
IEC320 inlet 3 pin

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

Dimension Diagram Unit: mm  
POE60U-1BTE-R, POE60U-1BT6-R
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.