



**75W IEEE802.3bt Power over Ethernet  
Single Port Injector.  
IP67 Rated for Outdoor Applications**



**Features**

- Compliant with the IEEE802.3bt Standard
- Gigabit Compatible
- IP67 Rating(waterproof)
- -40°C to +65°C Temperature Range
- Up to 90W with Derated Temperature
- Non-Vented Case with Mounting Bracket
- Full Protection OCP, OVP
- 1-Year Warranty
- Cable Glands and AC connector included for Waterproof Operation

**Applications**

- Outdoor Security Cameras
- Outdoor Wireless Access Points
- Outdoor Emergency Lighting

**Safety Approvals**

- cUL/UL 62368-1
- CE (IEC 62368-1)

**Mechanical Characteristics (with Mounting Bracket)**

- Length: 246mm (9.69in)
- Width: 170mm (6.69in)
- Height: 58.5mm (2.30)
- Weight: 2.2kg

**Output Specifications**

Model	Data Speed	DC Output Voltage	Load		Ripple <sup>1</sup> P-P (max.)	Regulation Line & Load
			Min.	Max.		
POEO75U-1BT-R	1G	56V	≤10mA	1.6A	200mV	+1/-2V
POEO75U-1BT-X-R	10G	56V	≤10mA	1.6A	200mV	+1/-2V

Notes:

1. Measured with by-pass capacitors 0.1uf/10uf at output connector terminal and oscilloscope set at 20Mhz (tested by oscilloscope). 20 minutes warm-up required when operating at negative temperature

**INPUT:**

**AC Input Voltage Range**  
90 to 264VAC

**AC Input Voltage Rating**  
100 to 240VAC

**AC Input Current**  
2.5A (RMS) and 90VAC at maximum load  
1.2A (RMS) and 240VAC at maximum load

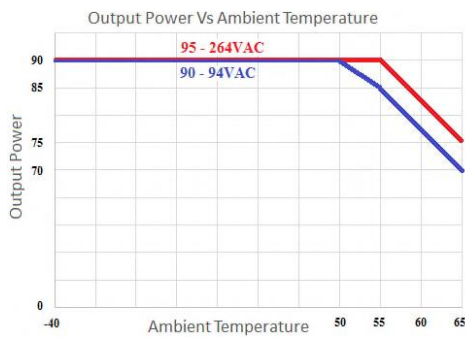
**AC Input Frequency**  
47 to 63Hz

**Leakage Current**  
3.5mA max @254VAC, 50Hz

**Max Inrush Current**  
50A for 115VAC at maximum load  
75A for 240VAC at maximum load

**OUTPUT:**

**Total Output Power**  
95-264VAC; 75W at 65C or 90W at 55C  
90-94VAC; 70W at 65C or 90W at 50C



**Efficiency<sup>2</sup>**  
85% (typical) at full load, 120VAC 60Hz

**ENVIRONMENTAL:**

**Temperature**

Operation -40 to +65°C  
Non-operation -40 to +65°C  
Humidity 5 to 90%

**EMI**

Complies with FCC Class B  
Complies with EN55032 Class B

**HI-POT Test**

Primary to Secondary: 4242 VDC for 1 minute, 10mA  
Primary to Field Ground: 2121VDC for 1 minute, 10mA  
Output to Field Ground: 2121VDC for 1 minute, 10mA

**Immunity**

ESD: IEC61000-4-2 Level 3  
RS: IEC61000-4-3 Level 3  
EFT: IEC61000-4-4 Level 2  
Surge: IEC61000-4-5 6KV  
CS: IEC61000-4-6 Level 3  
Voltage Dips IEC61000-4-11  
Harmonic: EN61000-3-2 Class A

**Insulation Resistance**

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

**FEATURES:**

**Over Voltage Protection:**  
Conforms to UL60950-1

**Over-Current Protection:**  
≤2000mA max

**Short Circuit Protection**

Non-latching auto recovery, output can be shorted permanently without damage.

**Input Connector**

Twist lock 3 pin provided

**Output PoE Connector**

RJ45 with cable glands

**Output PoE Connection**

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

Notes:

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

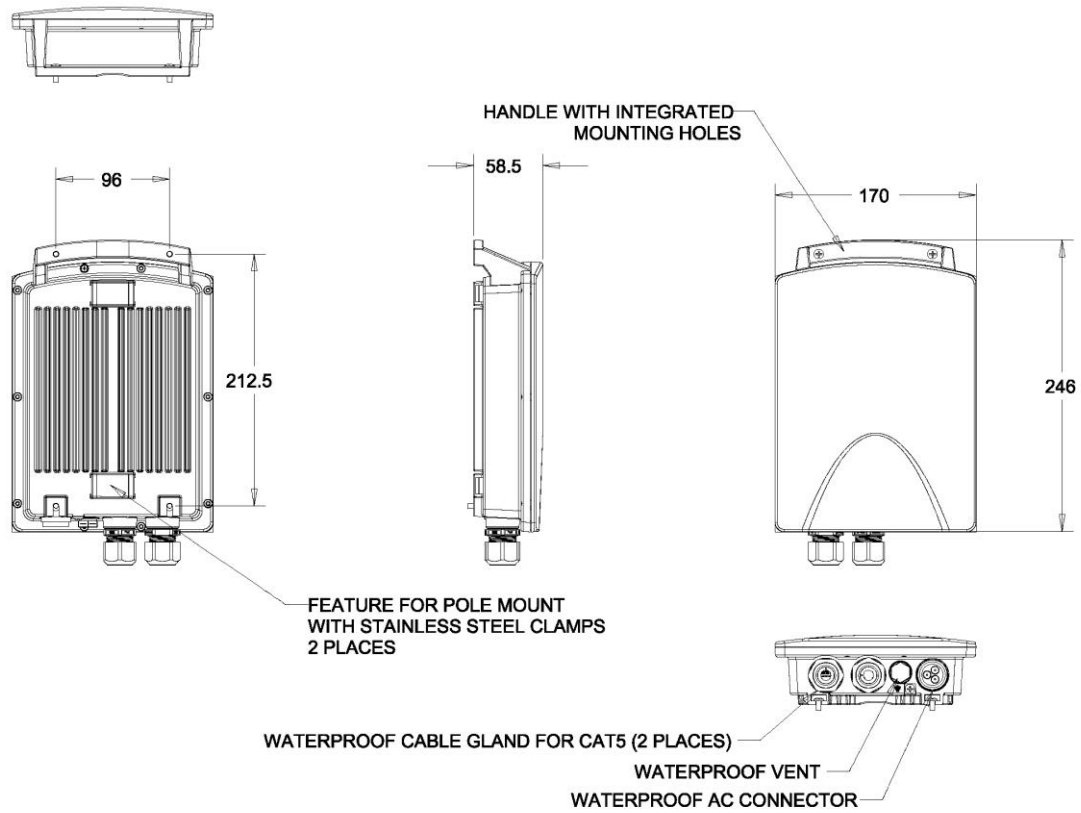
**Input/Output Case Ports**

Data only - RJ45 + cable gland  
Data + Power – RJ45 + cable gland  
AC input – Exceedcon EP030-2224-00 EP series

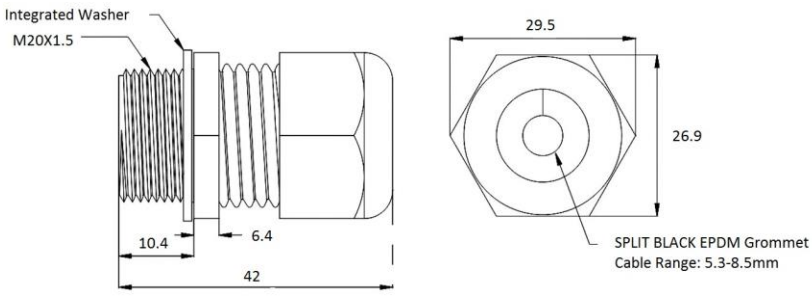
**Network Switch**

Network Switch should be Environment Rated B as per paragraph 33.4.1.1 of the IEEE802.3at standard.

**Dimension Diagram unit: mm**



**Single Cable Gland – similar to below. \* Dimension Diagram unit:mm**



Note \*: Cable Glands are included



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](http://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.*

## POEO30U/POEO75U Installation Manual

**General** - Please read the following precautions carefully before installing and connecting the system to a power source.

**Note** - Only qualified and trained service personnel (in accordance with IEC62368 and AS/NZS 3260) should install, replace, or service the equipment. Install the system in accordance with Country, National or to the U.S. National Electric Code if you are in the United States.

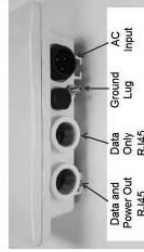
### Precautions:

- The building facilities in which the product will be used must provide isolation to the main AC input connector. This connection requires a fuse or circuit breaker no larger than 20A for 120 VAC (U.S.A.) or 16A, 230 VAC (international). The building facilities must protect the POEO30U/POEO75U Power injector from over current or short-circuits.
- The POEO30U/POEO75U power injector enclosure is IP67 tested which provides degrees of protection against access to hazardous parts, dust and against ingress of water. Only qualified service personnel should install, replace or service this equipment. Before connecting, visit "www.phihong.com" for the latest up to date specification and contact information.
- The POEO30U/POEO75U power injector enclosure must be mounted vertically handle up position for wall mounting option.
- The POEO30U/POEO75U power injector enclosure has 2 threaded (¼" NPT) openings to accommodate Liquid Tight Cord Grip LITCG (provided) and one watertight AC input socket.
- The POEO30U/POEO75U power injector come with AC input plug for connecting AC power cord. The AC power cord 3 wire/cable must be SJT00 type or better cord 3\*14AWG, 5-15P plug and EP030-2224-01 coupler or in accordance with Country, National Electric Code.
- The POEO30U/POEO75U Power injector consists of "Data & Power" ports. The ports are providing TNY-1 outputs. The ports use RJ-45 data sockets. Do not connect telephone cables into these ports. Only RJ-45 data cables with waterproof/watertight connections may be connected to these sockets.
- To prevent the POEO30U/POEO75U Power injector from overheating, do not operate the product in an area that exceeds the maximum recommended ambient temperature of -40 °C to +65 °C.
- Do not work on the POEO30U/POEO75U Power injector or connect or disconnect cables, during periods of lightning activity.
- The AC connector wire combination must be accessible at all times, as it serves as the main disconnect device to the product.
- Before servicing the product, always disconnect the product from its AC source.
- Equipment is for Pollution degree 2 Environment.
- Disposal of this product should abide by all appropriate National laws and regulations.

## Installation Instructions



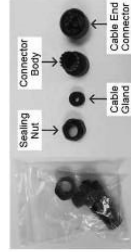
1) The POEO30U/POEO75U Power Injector is packaged fully closed with two Liquid Tight Cord Grips (LITCG) for RJ45 ports and one AC power plug for AC power cord assembly.



2) The ports and AC outlet arrangement.



3) AC power cord assembly.



4) Locate Bag with 3pin Female Cable End



5) Prepare Line cord or AC Mains Hardware



6) Slide Sealing nut 1st and cable Gland 2nd over Cable



7) If there is an outer jacket of cord, strip approximately 25mm (+/- 1mm) from the end



8) Install Connector Body and Strip each wire approximately 8mm (+/- 1mm) from the end

9) It is recommended (if possible) to prevent fraying of wires to tin each wire with solder

10) Insert wires to the proper location to Cable End

11) Screw Cable End into Connector Body and push cable gland into Connector Body

12) Screw Sealing Nut into Connector Body

13) Assembled AC Cord

14) Apply Liquid Tight Cord Grips (LITCG) to RJ45 Cable. LITCG consist of Sealing Nut, Split Gland and Body

Pass the cable termination through the Sealing Nut, apply Split Gland to the cable, and insert it into the LITCG body:

15) Optional: to better enable waterproof operation, it is recommended that installers use Teflon tape to cover threads before installation. Users may also wish to use silicon sealant to further protect from ingress of liquid.

16) Connecting the RJ45 Cable to the Power Injector

A - Insert RJ45 Cable into RJ45 socket at the Power Injector



B - Screw the LTGC Body onto the POE030U/POE075U Power Injector and tighten the LTGC Body with torque 75 – 80 in. lbs.



C - Push Split Gland into the LTGC Body



D - Tighten the Sealing Nut with torque 100 – 110 in. lbs.



17) Using the same RJ45 Cable connection procedure for other port connection.



18) Insert the AC cable assembly into the AC Input socket of the POE030U/POE075U Power Injector and tighten the mount ring

