

# Industrial IP67 1-Port 60W 802.3bt PoE++ Injector (-40~75 degrees C)



### Ideal for Powered Devices that Consume High Power

Planet IPOE-175 Industrial **IP67-rated** Single-port **802.3bt PoE ++** Injector provides a maximum of up to **60 watts** for PoE output port, transmitting both the Gigabit Ethernet data and 802.3bt PoE power over the UTP cable. It is specifically designed for such powered devices (PDs) as PTZ network cameras, PTZ speed dome cameras, color touch-screen voice over IP (VoIP) telephones, multi-channel (11a/b/g/n) wireless LAN access points and other network devices that need a higher power to work stably.



### Weather-proof RJ45 Ethernet Connector and Shielded Plug

The IPOE-175 is ideal for installing an extended range of outdoor PoE devices such as outdoor PoE wireless access points, outdoor PoE IP cameras, outdoor PoE IP intercoms and many more. The IPOE-175 is equipped with 3 waterproof cable glands for direct-attach applications. Assembled with waterproof cable gland, it can make the general RJ45 connector weather-proof and provides tight and strong connection. Moreover, it comes with the industrial protection rating of IP67 capable of withstanding humidity, dirt, dust, shock, vibrations, heat and cold.

### Environmentally-hardened Design

With industrial-level IP67-rated aluminum case, the IPOE-175 provides a high level of immunity against electromagnetic interference, and is able to protect itself from dust and water ingress and to operate under the temperature range from -40 to 75 degrees C. All these features ensure the highest level of reliability for mission-critical applications in any difficult environment.

### Physical Port

- **Two 10/100/1000BASE-T** Gigabit RJ45 ports
  - 1-port Data + Power output
  - 1-port Data input
- **One 2-pin terminal block** for power input. (Power Range: 24 ~ 56V DC)

### Power over Ethernet

- 1-port data + power output
  - Complies with IEEE 802.3bt Power over Ethernet plus plus PSE
  - Compatible with IEEE 802.3at PoE+ powered devices
  - Provides DC 55V power over RJ45 Ethernet cable to device with Ethernet port
  - Supports total PoE budget up to 60 watts for PoE output port
  - Auto detects powered device (PD)
  - Remote power feeding up to 100m

### Industrial Case and Installation

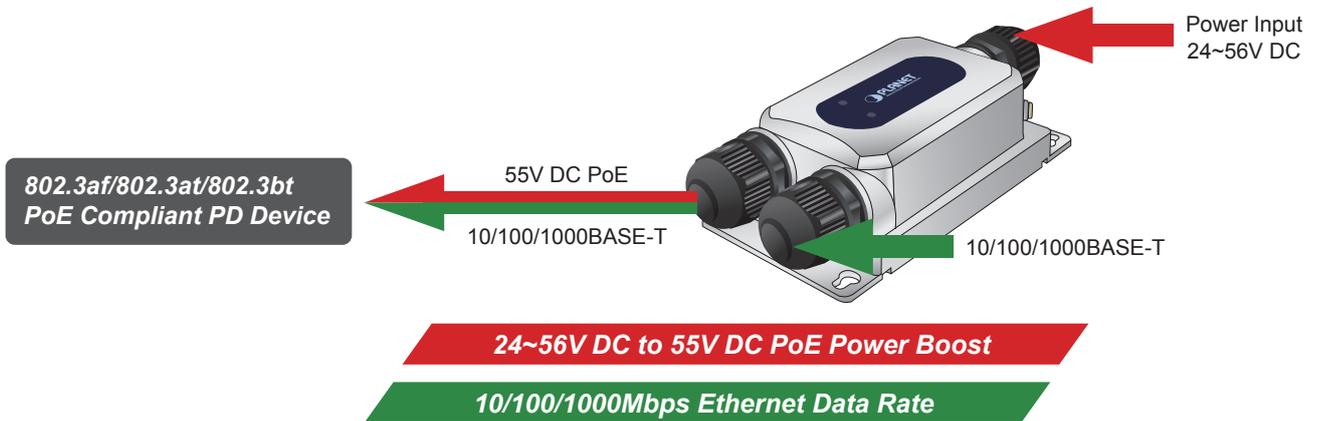
- IP67-rated aluminum case
- LED indicators for power LED and PoE-in-use
- Wall-mount design
- Supports 6KV DC Ethernet ESD protection
- -40 to 75 degrees C operating temperature
- Plug and Play installation



## Environmental Adaptations in Outdoor Area

### Convenient and Reliable Power System

To facilitate the 802.3bt PoE++ usage with commonly used **24~56V DC** power input for transportation and industrial-level applications, the IPOE-175 adopts 24~56V DC to 55V **power boost** technology to solve power source issue but does not require special power supplies. Its wide-ranging voltages design is suitable for worldwide operability with high availability applications requiring dual or backup power inputs.

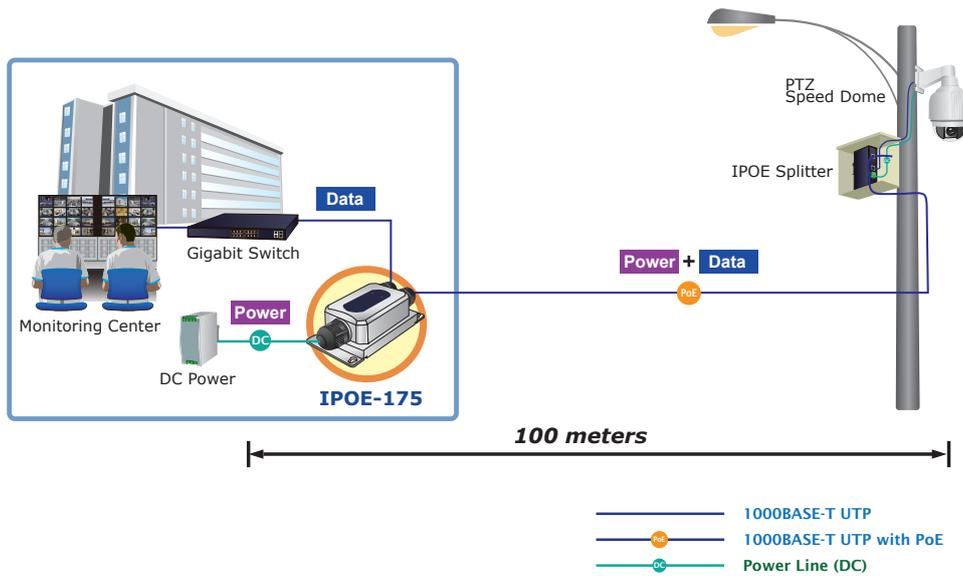


### Robust Protections

The IPOE-175 provides  $\pm 8\text{KV}$  DC for Ethernet ESD protection and  $\pm 6\text{KV}$  surge immunity to improve product stability and protects users' networks, making sure the flow of operation does not fluctuate.

### Making Network Easier and More Reliable

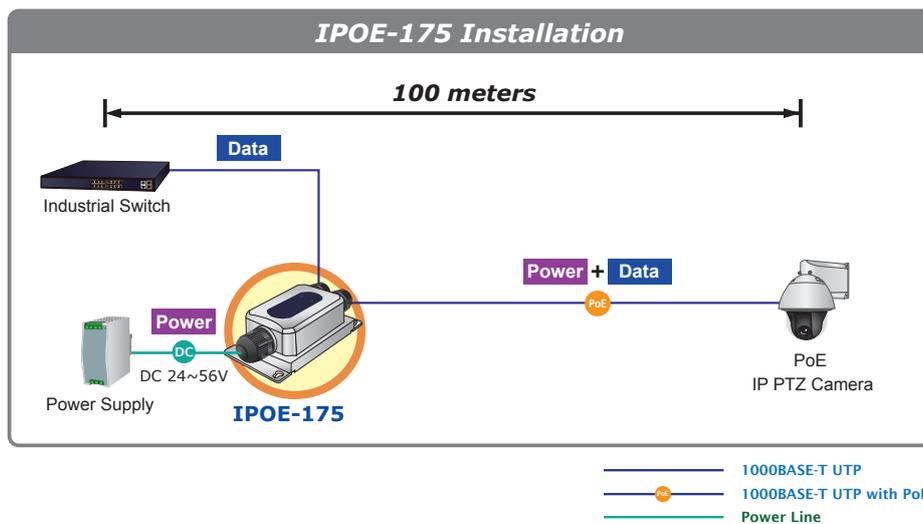
The IPOE-175 can deliver 60-watt 55V DC power over Cat.5/5e/6 Ethernet cables which allow data and power to transmit simultaneously through the cable between the Injector (IPOE-175) and PoE PD or PoE++ Splitter (IPOE-173S). The maximum distance between the Injector and Splitter is 100 meters. As the IPOE-175 is also backward compatible with IEEE 802.3at PoE+ PD or PoE Splitter, the system administrator only has to use one single RJ45 Ethernet cable to carry both power and data to another device. It would make the network deployment easier and more reliable.



## Applications

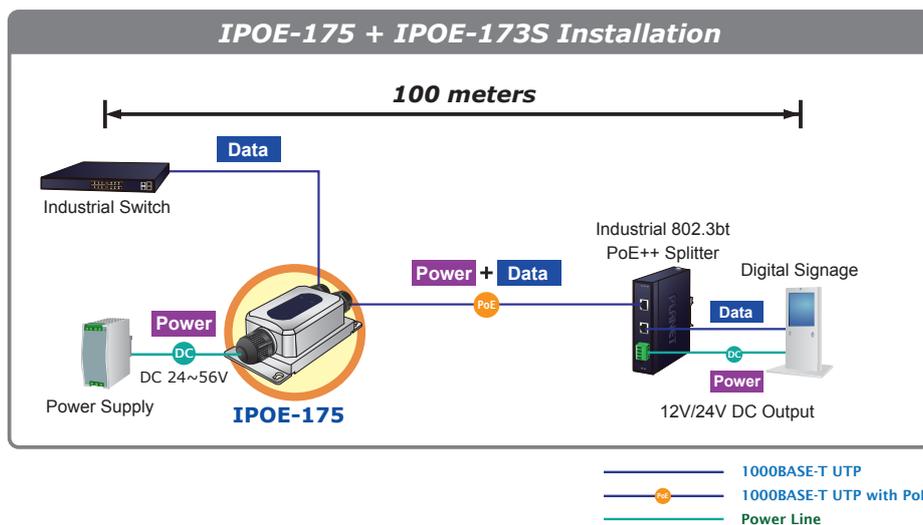
### Connecting to IEEE 802.3bt Compliant Powered Devices

Meeting the IEEE 802.3bt PoE++ standard, the IPOE-175 can directly connect and inject power via RJ45 Ethernet cable to any IEEE 802.3bt end-nodes like PTZ network cameras, PTZ speed dome cameras, color touch-screen VoIP telephones, multi-channel wireless LAN access points and other network devices.



### IEEE 802.3bt Injector and Splitter Installation

For a place which is hard to find the power inlet, the IPOE-175 and IPOE-173S can operate as a pair to provide the easiest way to power the above-mentioned Ethernet devices that need high power consumption for any applications designed for large industries, enterprises and communities.

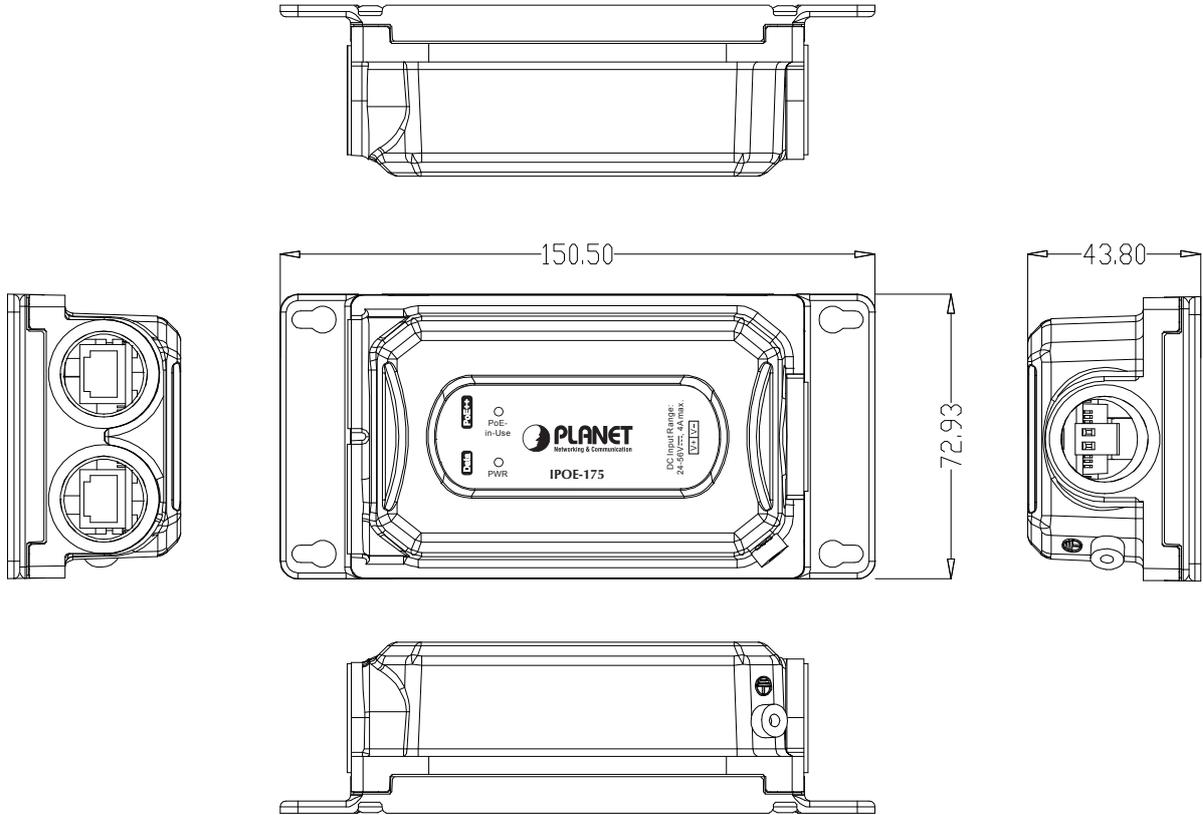


## Product Specifications

|                                |   |   |                  |
|--------------------------------|---|---|------------------|
| Product                        |   | IPOE-175  |                  |
| <b>Hardware Specifications</b> |   |   |                  |
| Interface                      | Input Port  | 1 x 10/100/1000BASE-T “Data” in RJ45 port                                       |                  |
|                                | Output Port   | 1 x 10/100/1000BASE-T Ethernet with IEEE 802.3bt PoE+ “Data + DC” out RJ45 port |                  |
|                                | Input Power Terminal Block  | 1 x 2-pin terminal block<br>- Pin 1/2 for Power (Pin 1: V+ / Pin 2: V-)         |                  |
| Data Rate                      | 10/100/1000Mbps   |   |                  |
| LED Indicators                 | PWR (Green)<br>PoE-in-use x 1 (Amber)   |   |                  |
| Input Voltage                  | 24~56V DC   |   |                  |
| PowConsumption                 | Voltage   | System on   | Full Load (Max.) |
|                                | DC 24V  | 1.2W  | 72W              |
|                                | DC 36V  | 1.44W   | 70.56W           |
|                                | DC 54V  | 1.71W   | 65.8W            |
|                                | DC 56V  | 2.24W   | 62.1W            |
| ESD Protection                 | Air 8KV DC<br>Contact 6KV DC  |   |                  |
| Surge Protection               | 6KV   |   |                  |
| Enclosure                      | IP67-rated and IK10 aluminum metal case   |   |                  |
| Installation                   | Wall-mount ear  |   |                  |
| Dimensions (W x D x H)         | 150 x 43.8 x 72.94 mm   |   |                  |
|                                | 169.85 x 43.8 x 72.94 mm, with cable gland  |   |                  |
| Weight                         | 339g  |   |                  |
|                                | 373g (with three waterproof cable glands)   |   |                  |
| MTBF                           | >100,000 hours  |   |                  |
| Network Cable                  | 10BASE-T: UTP category 3, 5 cable (≤100m)   |   |                  |
|                                | 100BASE-TX: UTP category 5,5e cable (≤100m)   |   |                  |
|                                | 1000BASE-T: UTP category 5e,6 cable(≤100m)  |   |                  |
| <b>Power over Ethernet</b>     |   |   |                  |
| PoE Standard                   | IEEE 802.3bt PoE++ type 3 PSE<br>Backward compatible with IEEE 802.3at PoE+         |   |                  |
| PoE Power Supply Type          | 802.3bt/PoH (Power over HDBaseT)<br>End-span/Mid-span                               |   |                  |
| PoE Power Output               | 55V DC  |   |                  |
|                                | Max. 60 watts to 802.3bt PoE++ PD   |   |                  |
|                                | Max. 60 watts to PoH PD<br>Max. 30 watts to 802.3at PoE+ PD                         |   |                  |
| Power Pin Assignment           | 802.3bt/PoH: 1/2 (-), 3/6 (+), 4/5 (+), 7/8 (-)                                     |   |                  |
|                                | End-span: 1/2 (-), 3/6 (+)  |   |                  |
|                                | Mid-span: 4/5 (+), 7/8 (-)  |   |                  |
| <b>Standards Conformance</b>   |   |   |                  |
| Regulatory Compliance          | FCC Part 15 Class A<br>CE   |   |                  |
| Stability Testing              | IEC 60068-2-32 (Free fall)  |   |                  |
|                                | IEC 60068-2-27 (Shock)  |   |                  |
|                                | IEC 60068-2-6 (Vibration)   |   |                  |
| Standards Conformances         | IEEE 802.3 10BASE-T Ethernet  |   |                  |
|                                | IEEE 802.3u 100BASE-TX Fast Ethernet  |   |                  |
|                                | IEEE 802.3ab 1000BASE-T Gigabit Ethernet  |   |                  |
|                                | IEEE 802.3af Power over Ethernet  |   |                  |
|                                | IEEE 802.3at Power over Ethernet Plus<br>IEEE 802.3bt Power over Ethernet Plus Plus |   |                  |
| <b>Environment</b>             |   |   |                  |
| Operating Temperature          | -40 ~ 75 degrees C  |   |                  |
| Storage Temperature            | -40 ~ 85 degrees C  |   |                  |
| Humidity                       | 5 ~ 95% (non-condensing)  |   |                  |

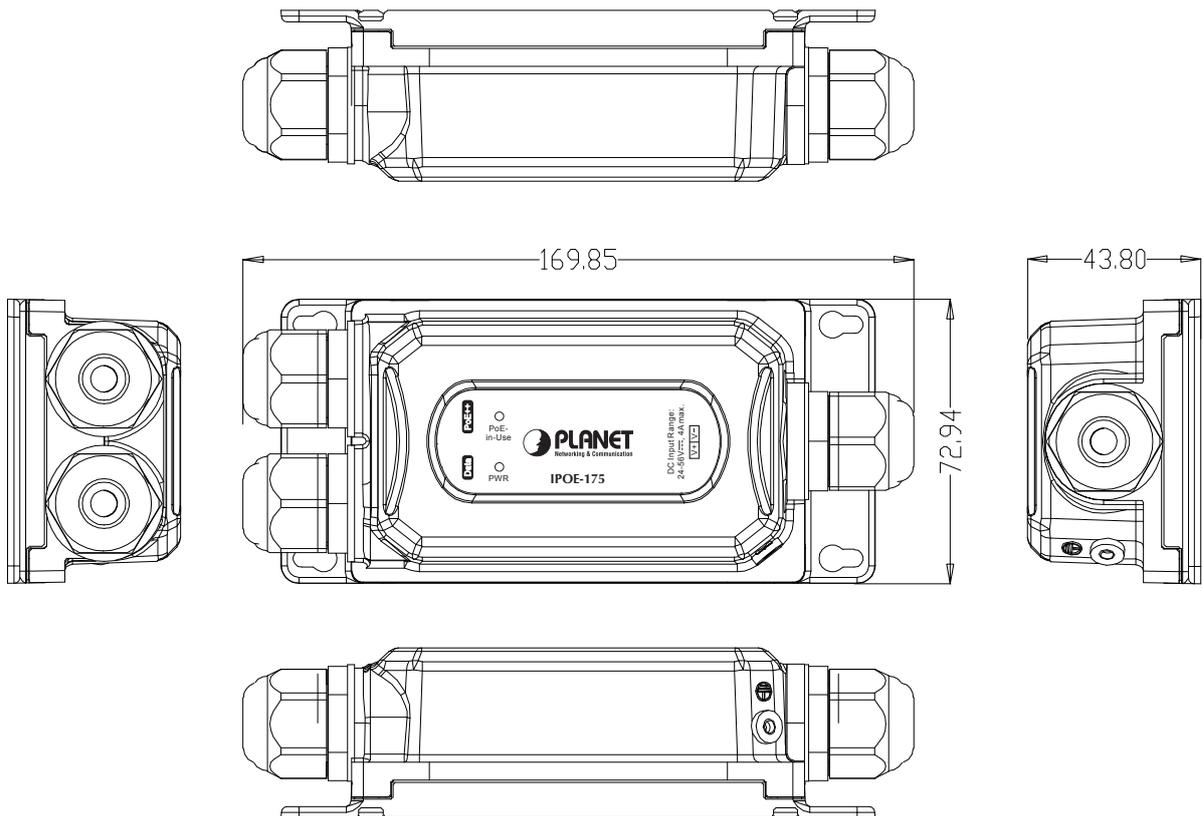
## Dimension

- IPOE-175 without waterproof cable glands



**Unit: mm**

- IPOE-175 with waterproof cable glands



**Unit: mm**

## Ordering Information

|          |  |
|----------|--|
| IPOE-175 | Industrial IP67 1-Port 60W 802.3bt PoE++ Injector (-40~75 degrees C) |
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## Related Products

|                        |   |
|------------------------|---|
| IPOE-E302              | Industrial IP67 802.3bt PoE++ Extender(-40~75 degrees C)  |
| IPOE-165               | Industrial IP67 1-Port 802.3at PoE+ Injector (-40~75 degrees C)                                       |
| IPOE-173S              | Industrial IEEE 802.3bt PoE++ Splitter  |
| IPOE-171-95W           | Industrial Single-Port 10/100/1000Mbps 802.3bt PoE++ Injector (95 Watts, -40~75 degrees C, 12~48V DC) |
| IPOE-171-60W           | Industrial Single-Port 10/100/1000Mbps 802.3bt PoE++ Injector (60 Watts, -40~75 degrees C)            |
| IPOE-270 /IPOE-270-12V | Industrial 2-port Multi-Gigabit 802.3bt PoE++ Injector Hub  |
| PWR-60-24              | 60W 24V DC Single Output Industrial DIN-rail Power Supply (-20 ~ 70 degrees C)                        |
| PWR-75-24              | 75W 24V DC Single Output Industrial DIN-rail Power Supply (-20 ~ 70 degrees C)                        |
| PWR-75-48              | 48V, 75W Din-rail Power Supply (NDR-75-48, adjustable 48-56V DC Output)                               |