

# Industrial IEEE 802.3at Gigabit High Power over Ethernet Injector (Mid-span)



Planet IPOE-162 **Single-Port, Mid-span Industrial IEEE 802.3at Power over Ethernet Plus Injector** provides a maximum of up to 30 watts of power output over Ethernet cables. It is specifically designed to fulfill the growing demand of higher power network equipment such as **PTZ (Pan, Tilt & Zoom)** 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 higher power to work stably.

## *Quick and Easy High Power PoE Network Deployment*

The IPOE-162 can deliver 30-watt 56V DC power over Cat.5/5e/6 Ethernet cables which allow data and power to transmit simultaneously through the cable between the Injector (IPOE-162) and PoE PD (powered device) or PoE Splitter (IPOE-162S/POE-162S). The maximum distance between the Injector and Splitter is 100 meters. The IPOE-162 is also compatible with IEEE 802.3af PoE PD or PoE Splitter and provides a maximum of up to 15.4-watt power output. With Industrial IEEE 802.3at Power over Ethernet Plus devices installed, the system administrator only has to use one single RJ45 Ethernet cable to carry both power and data to each device. It would make the network deployment easier and more reliable.

## Interface

- 2 RJ45 interfaces
  - 1-port **Data + Power** output
  - 1-port **Data** input
- One terminal block for master and slave power input.  
(Power Range: 12 ~ 48V DC / 24V AC redundant power.)

## PoE

- Gigabit Power over Ethernet Plus mid-span PSE
- IEEE 802.3at/802.3af PoE compliant
- IEEE 802.3at/802.3af splitter devices compatible
- Supports PoE Power up to 30 watts for the PoE port
- Provides DC 56V power over RJ45 Ethernet cable to device with Ethernet port
- Auto-detection of PoE IEEE 802.3at/802.3af devices
- Remote power feeding up to 100m

## Hardware

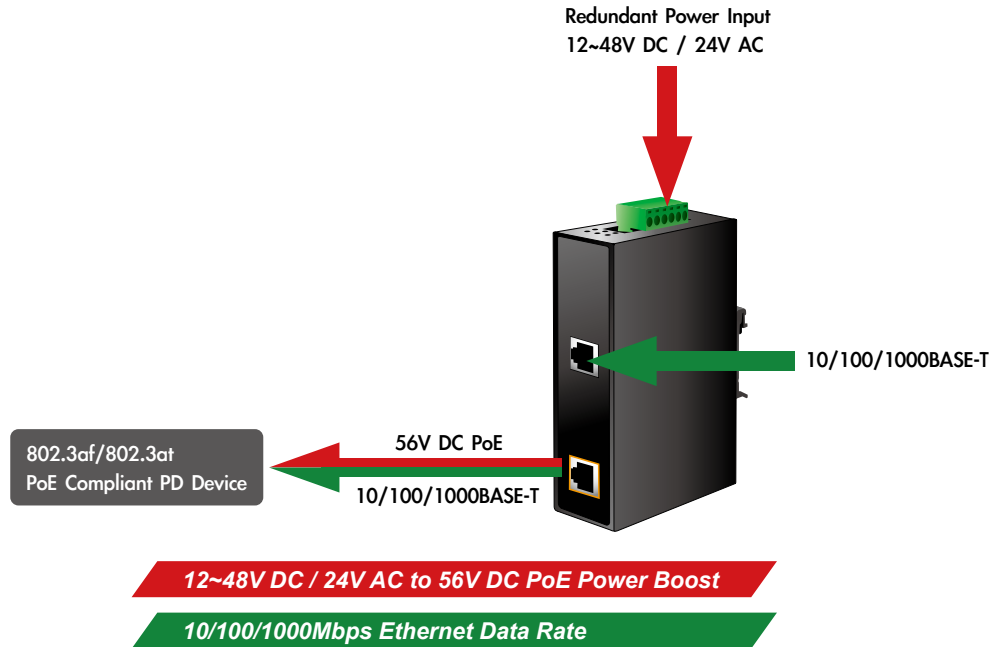
- IP30 slim metal case
- LED indicators for power LED and PoE-in-use

## Industrial Case and Installation

- DIN-rail and wall-mount design
- Supports 6000 VDC Ethernet ESD protection
- -40 to 75 degrees C operating temperature

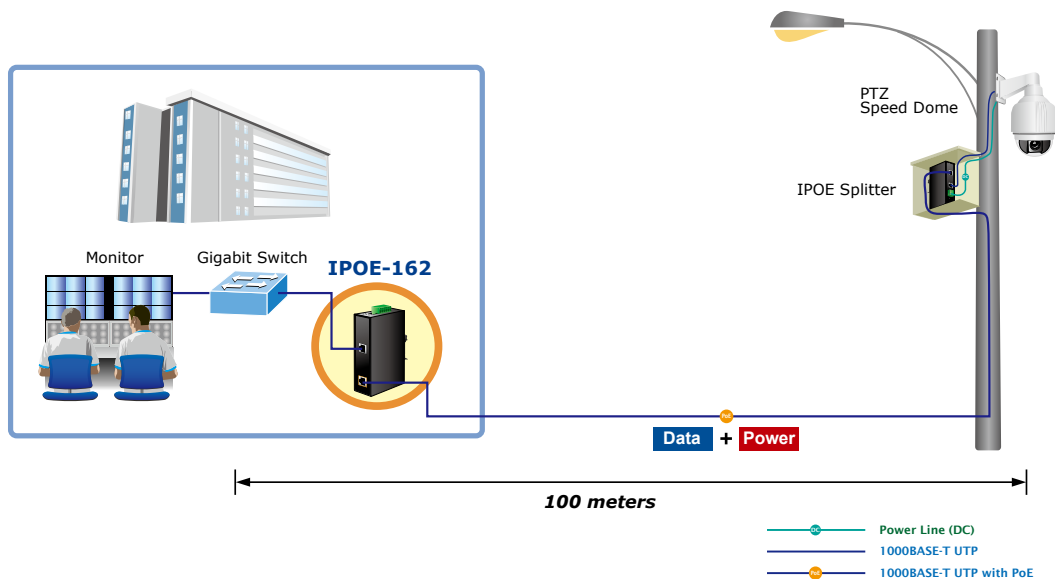
*Convenient and Reliable Power System*

To facilitate the 802.3at PoE usage with commonly used **12~48V DC** power input or **24V AC** power input for transportation and industrial-level applications, the IPOE-162 adopts 12~48V DC to 56V **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.



*Stable Operating Performance under Difficult Environments*

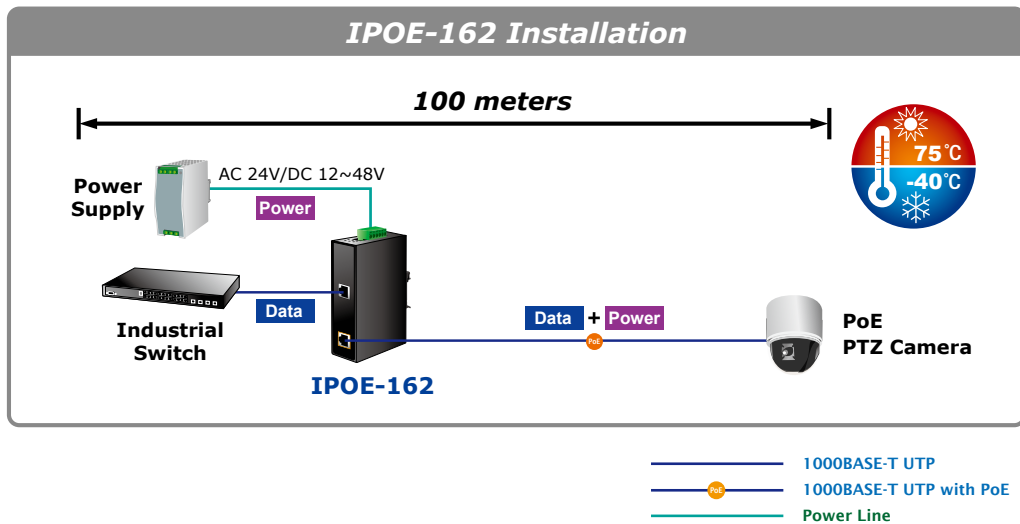
Today, the PoE demand expands from commercial applications to many critical networks in the harsh environment. The IPOE-162 will be one of the ideal solutions that provide a high level of immunity against electromagnetic interference and heavy electrical surges typical of environments found on plant floors or in curb-side traffic control cabinets. The IPOE-162 can operate stably under temperature range from **-40 to 75 degrees C** which enables the users to conveniently apply the device in almost any location of the network. The IPOE-162 is also equipped with a compact IP30 standard metal case that allows either DIN rail or wall mounting for efficient use of cabinet space.



## Applications

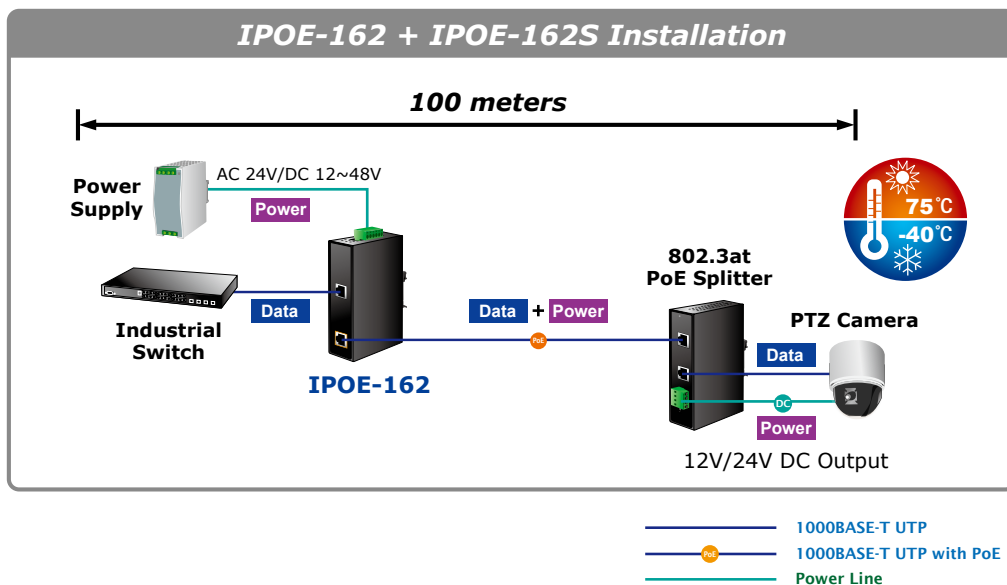
### Connecting to IEEE 802.3at Compliant Devices

Having the capability of IEEE 802.3at Power over Ethernet standard, the IPOE-162 can directly connect and inject power via RJ45 Ethernet cable to any IEEE 802.3at end-nodes like PTZ (Pan, Tilt & Zoom) network cameras, PTZ speed dome cameras, color touch-screen voice over IP (VoIP) telephones, multi-channel wireless LAN access points and other network devices.



### IEEE 802.3at Injector and Splitter Installation

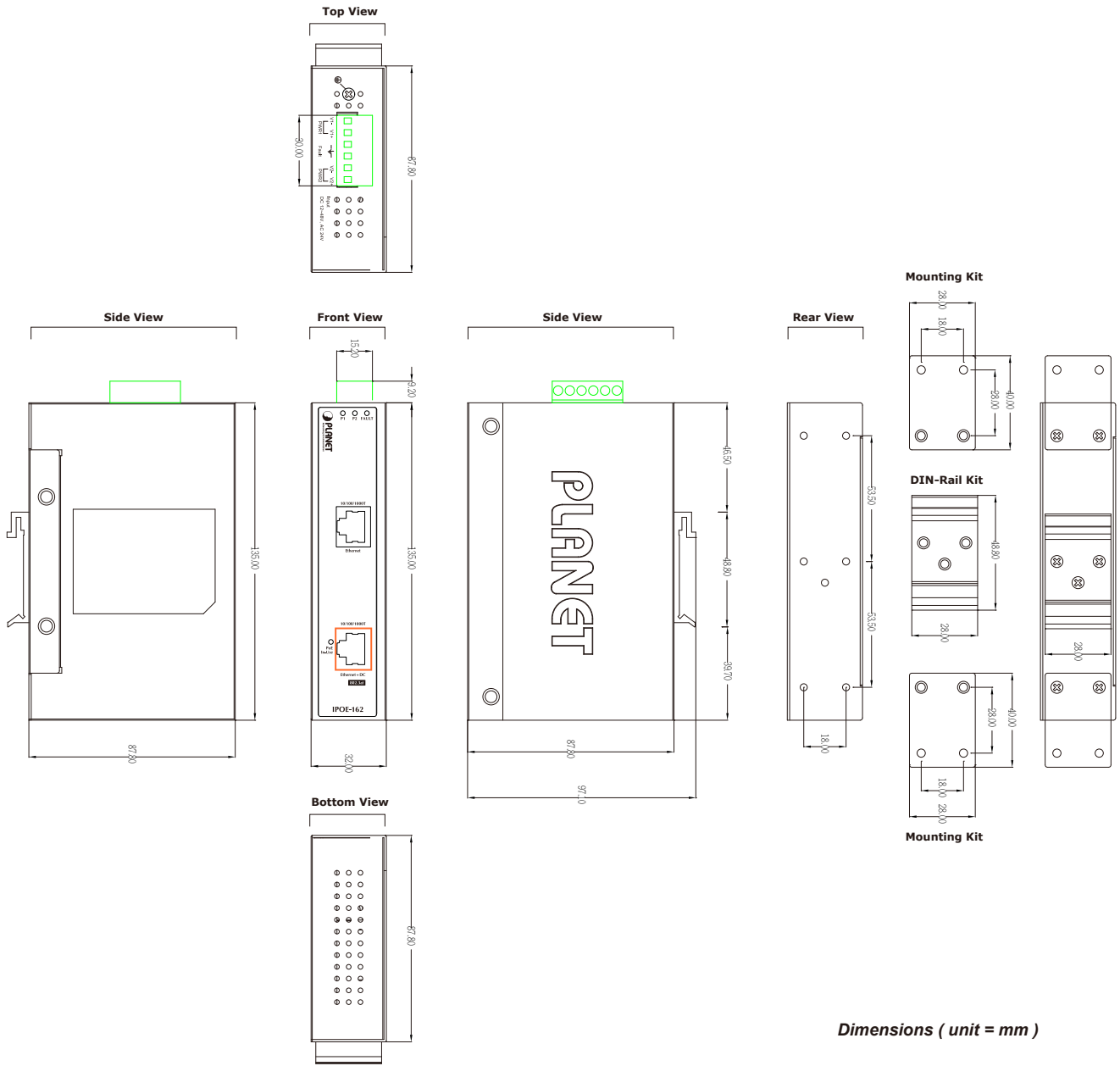
For a place which is hard to find the power inlet, the IPOE-162 and IPOE-162S can operate as a pair to provide the easiest way to power your Ethernet devices which need high power input, such as PTZ (Pan, Tilt & Zoom) network cameras, PTZ speed dome cameras, color touch-screen voice over IP (VoIP) telephones, and multi-channel wireless LAN access points installed on the top of the building or in enterprise office or home.



## Specifications

Product		IPOE-162
<b>Camera</b>		
Hardware Version		2
Interface	Input Port	1 x RJ45 STP (Data In)
	Output Port	1 x RJ45 STP (Data + Power Out)
	Input Power Terminal Block	1
LED Indicator		System: Power 1 (Green), Power 2 (Green), Fault (Red) PoE Port: PoE-in-use x 1 (Orange)
Network Cable		10BASE-T: UTP Cat. 3, 4, 5, up to 100m (328ft) 100BASE-TX: UTP Cat. 3, 4, 5, up to 100m (328ft) 1000BASE-T: UTP Cat. 5, 5e, 6 up to 100m (328ft) EIA/TIA- 568 100-ohm STP (100m)
Data Rate		10/100/1000Mbps
Dimensions (W x D x H)		135 x 97 x 32 mm
Weight		473g
Unit Input Voltage		12 ~ 48V DC 24V AC
Power Consumption		30 watts max.
Number of devices can be powered		1
Installation		DIN-rail kit and wall-mount ear
Alarm		Provides one relay output for power failure; alarm relay current carry ability: 3A @ DC 24V
Enclosure		IP30 slim metal case
<b>Power over Ethernet</b>		
PoE Standard		IEEE 802.3at Power over Ethernet Plus / mid-span PSE
PoE Power Output	DC 24~48V Input	30 watts
	DC 12V Input	25 watts
PoE Power Supply Type		Mid-span
Power Pin Assignment		4/5(+), 7/8(-)
<b>Standards Conformances</b>		
Standards Compliance		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
CE	EMI	EN 55022 EN 61000-3-2 EN 61000-3-3
	EMS	EN 61000-4-2 (ESD) EN 61000-4-3 (RS) EN 61000-4-4 (EFT) EN 61000-4-5 (Surge) EN 61000-4-6 (CS) EN 61000-4-8 (PFMF)
Stability Testing		IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)
<b>Environment</b>		
Operating Temperature		-40 ~ 75 degrees C
Storage Temperature		-40 ~ 85 degrees C
Humidity		5 ~ 95% (non-condensing)

## Dimensions



## Ordering Information

IPOE-162	Industrial IEEE 802.3at Gigabit Power over Ethernet Plus Injector (Mid-span, 30 watts)
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## Related Products

IPOE-162S	Industrial IEEE 802.3at Gigabit Power over Ethernet Plus Splitter
POE-E201	IEEE 802.3at Power over Gigabit Ethernet Extender
POE-E202	1-Port 802.3at PoE+ to 2-Port 802.3af/at Gigabit PoE Extender