

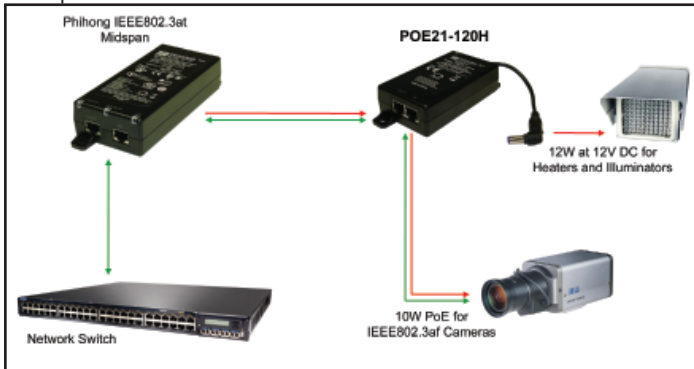


POE21-120H User Manual

PoE Splitter for Heaters, Illuminators and Cameras

As security applications become more complicated and PoE networks become larger the ability to power multiple devices from a single Ethernet cable becomes both practical and cost efficient. Pihong is meeting this challenge head on with a new array of active splitters that not only have a DC output but also continue the PoE output as well.

The POE21-120H is the latest in a series of 21W splitters from Pihong that addresses the issue of powering multiple devices in a given location from a single Ethernet cable. This unique device is able to power a fixed PoE camera at 10W maximum, as well as either an accessory illuminator or heater requiring up to 12W at 12V DC simultaneously. This allows for two essential security devices to be powered without expensive electrical re-wiring, to bring AC power to places that it may not already exist. The POE21-120H is powered by a Pihong IEEE802.3at PoE Plus midspan such as the POE36U-1AT, and has an output that is IEEE802.3af compliant.



Using standard Category 5 or above Ethernet cables, the POE21-120H will take its power from the Phihong PoE Plus midspan/power injector. Users should note that the unit will only operate with a Phihong power injector that is IEEE802.3at compliant, any other equivalent device will not be able to power this unit. The device will then split the 33.6W into a 12W DC current to power the accessory device, and continue the PoE at 10W over the output Ethernet cable. The POE21-120H comes in a standard output voltage of 12V DC so users must be aware of their powered device requirements before connecting to this unit. The diagram above

shows the basic set up of a POE21-120H splitter connected to a PoE camera and an intended accessory device. The POE21-120H is connected to the network switch through a Phihong PoE Plus power injector (33.6W), then splitting the power into the two outputs allowing for both devices to be powered from a single Ethernet cable. The end device may be placed up to 100 meters from the network switch in this set-up.



Installation Sequence:

1. Using the appropriate Category 5 or 6 Ethernet cable, connect the PoE In to the Phihong PoE Plus midspan.
2. Using the same category Ethernet cable, connect the PoE Out to the input RJ45 jack located on the device.
3. Insert the DC Power cable from the splitter to input power adapter on the device.
4. Allow a few moments for the Green LED to light up assuring that everything is connected.

Input Power	Phihong PoE Plus midspans only
Output Power	12W/ 12V DC 10W PoE
Ethernet	Categories 5, 5e or 6
Input/Output Connectors	PoE and Data - RJ45 DC Cable - Center Positive Barrel 12mm x 2.1mm x 5.5mm (tips may be changed)
Safety	CE Certified
Dimensions	100 x 56 x 28mm (3.9 x 2.2 x 1.01in)
Weight	0.142kg (0.313lb)
Operating Temperature	0 to +40°C 32 to +104°F



FAQ

What are the benefits to using PoE?

Power over Ethernet is best suited to users who want to expand and extend the capabilities of their existing network switches. PoE uses standard Category 3, 5 or 6 cables and uses them to transfer both data and power to remote locations. Since extensive wiring is not needed, these remote locations are able to be easily changed. PoE power standards are also universal. Unlike traditional power supplies which are only compatible with specific standards to their region, PoE is able to self regulate to work with a variety of international power standards. PoE also offers more flexibility in power events, such as a surge or brownout.

Why am I limited to 100 meters?

Power can be transmitted over an Ethernet cable to distances that exceed 100 meters depending on the amount of power being put out by the midspan and loss on the cable across the distance. If the port powering the Ethernet puts out 15.4W (IEEE802.3af standard) of power and the distance is 100 meters then the power could dissipate to 12.95W in the worst case scenario by the time it reaches the end device. PoE is possible over distances greater than 100 meters but is not IEEE802.3 standard and is not guaranteed or recommended. Should a distance exceed 100 meters or more then Phihong offers a selection of PoE extenders. Although power is possible at greater distances, users may experience severe data loss after traveling 100 meters or more.

What is the difference between IEEE802.3af and IEEE802.3at?

In 2003 IEEE created a standard for Power over Ethernet called IEEE802.3af which uses a voltage range of 44-57VDC and a maximum output of 15.4W. Then in 2009 IEEE ratified the IEEE802.3at standard which expanded the existing standard to include applications requiring up to 25.95W of power for use on higher power PoE devices such as WiMAX or Pan/Tilt/Zoom Security Cameras, and would be used on networks with Gigabit compatibility. To meet the new standard, the PoE output is increased at the output port to 33.6W per

port on a midspan. The POE21-120H is compliant with all parts of the IEEE802.3at standard.

I've plugged in the POE21-120H but it isn't powering my device?

For the POE21-120H to be fully functional your midspan or power injector must be powered by a Phihong PoE Plus midspan with an output of 33.6W. If the input power is anything else then the device will not work. If the unit is connected to an appropriate Phihong midspan, ensure all ethernet and power cables are in good condition. Otherwise disconnect and reconnect. If problems still persist then contact your local Phihong representative.

Do I need a special configuration for my network?

No, all Phihong PoE splitter technology is considered "plug and play" which means that there is no software or firmware installations required for the device to operate on the network. All that is needed is the correct output by the midspan and Ethernet cables (category 5 or above). Phihong recommends professional installation should any issues arise.

Where should I install my PoE Splitter?

Your new PoE Splitter may be installed to be wall or table mounted. The unit should be installed immediately adjacent to the device to allow for proper connection via the DC cable as this may not be extended to accommodate space requirements.

Can I use this device with equipment that is not PoE ready?

Yes, this splitter is compatible with non-PoE ready equipment. Ensure that you check the voltage requirements for your device to ensure that the splitter will not provide an output voltage higher or lower than your device requirements. There is a listing above of the available models with their output voltages. Check to see if your device can be covered by one of the available standard devices.

If your question is not listed here and need further information please contact Phihong Sales. For a full listing of available contact information please visit the Contact Us section of the Phihong website www.phihong.com.