Frequently Asked Questions

POWERHUBB™
PoE LIGHTING & CONTROL

About PowerHUBB

What is PowerHUBB?

- Hubbell Control Solutions' PowerHUBB™ platform provides building owners with a fully integrated, intelligent Power over Ethernet (PoE) network, leveraging the Internet of Things (IoT) to future-proof buildings through a highly scalable, digital ceiling platform.
- PowerHUBB's enterprise technology provides a clear path for cost-effective, smart building deployments, delivering the best ROI in the industry.

How does PowerHUBB compare to traditional line-voltage lighting controls?

- The overall cost of PoE lighting can be less that the total installed cost of tradition lighting, because the sytem uses safe, low-voltage (Class 2) network wiring. In many jurisdictions, network wiring can be installed without conduit, minimizing the labor and materials required for other systems.
- Since the power and communication are on the same connection cable, installation can be faster, and configuration can be completed quickly.

Technology

What is UPoE?

- UPoE consists of Cisco proprietary PoE switches that use all four pair of wires to deliver power, 30W per 2 pair delivering 60W per port.

Why is PoE used for lighting?

- PoE lighting enables a facility to integrate into the digital building infrastructure, while allowing the facility to expand network capabilities by working with other systems and collecting data based on user requirements.
- In many facilities, the Information Technology (IT) groups have taken on more of the management of building systems. Since PoE networks are well understood by the IT team, it may make sense to bring the lighting systems online with PowerHUBB.

Is there power loss on Cat5e/6 cable runs?

- Yes, there are recognized losses when using any PoE system. NEMA/ANSI standard C137.3-2017 defines minimum installation requirements for PoE lighting. There are several methods to reduce losses:
- PoE switches or midspan power injectors should be located as close to the spaces they will be providing power to, minimizing cable lengths where possible.
- Please review power loss chart on the HCS' Technical Guide to provide guidance to design engineers. This will maximize efficiency of communication between nodes and power for luminaires.

Does PowerHUBB support code-required plug-load control?

- Plug load control is supported using the PHM4PC-xxxx node version. These nodes are available upon request using the ETO process through the respective brand.
- The 4PC Node has 2 24V relays that can feed back to an activated receptacle capable of being controlled.

Does PowerHUBB support tunable white (CCT tuning)?

- Tunable white is achievable on a case by case basis. Reach out to your respective brands to validate.

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Which PoE switches are qualified for use with PowerHUBB?

- PowerHUBB is powered through an IEEE 802.3 Power over Ethernet switch. Some PoE switches that meet lighting parameters are available in the market. It is recommended that these switches meet the uPoE standard from Cisco.
- A PoE switch that conforms to the IEEE802.3 standard and is capable of outputting 60W per port.
- It is recommended when selecting a PoE switch that the power supplies are scaled to provide the full 60W per port.
- Please refer to our Approved PoE Switch list

Is Power over Ethernet the same as "DC Power Grid"?

- While both PoE systems and DC power grid systems use direct current (DC), and may be used to power lighting, they are not the same. Power over Ethernet would be considered as "inside the building" as a computer network which can also deliver power. A DC power grid could be anything from a local solar panel system to entire building, or even city blocks. The DC power grid only delivers power, and does not include data.

What cable can be used with PowerHUBB?

- Unshielded Category 5 (CAT5) or Category 6 (CAT6) cable is commonly available and is acceptable for use with PowerHUBB.
- Shielded CAT cable may also be used with PowerHUBB.
- All cables must be properly terminated with RJ45 connectors and properly grounded and installed.

Security

How secure is the PowerHUBB system?

- To access the PowerHUBB Gateway it is necessary to know the IP address to log on.

Are there additional security options for PowerHUBB?

- Provide a separate physical network or separate VLAN for the lighting control system and the facility business infrastructure; this minimizes exposure to sensitive data.
- Ensure the facility is managing and maintaining their network firewall.
- Cloud services provided by the PowerHUBB Gateway use the encrypted HTTPS protocol along with Windows Authentication for additional security.
- All API calls from the Gateway software require keys (JWT).
- The JWT is a JSON Web Token. The JWT is an open standard that securely transmits information between objects that can be verified and trusted using digital signatures.

Installation

Does PoE installation require a certified electrician?

- Not in all applications. A PoE network system is primarily made up of low voltage components; therefore, it does not require the use of a Licensed Electrician to install Ethernet equipment and category cabling. We recommend the use of a Licensed Low Voltage Network installer.
- Dependent on jurisdictional code, an electrician may be required to install the luminaire. Refer to local code.

Can PowerHUBB be used for life safety (emergency) lighting?

- To provide emergency UL924 override ON due to a loss of normal power, the use of an emergency battery backup will be needed.
- HCS has a UL924 Listed Emergency Node that is available on and ETO basis currently.

Can the PowerHUBB node be mounted in a return air plenum?

- Yes, all the PowerHUBB nodes are listed UL2043 for plenum spaces.

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Working with PowerHUBB

How do I get my PowerHUBB project quoted through Hubbell Control Solutions?

- Please send all requests to the HCS Quotations team, poeproject@hubbell.com to perform duties including but not limited to:
    - Sensor and switch placements based on Reflected Ceiling Plans provided to them
    - Luminaire and System design crosses
    - General PoE system infrastructure equipment
    - Diagrams
- Duties to be distributed across Hubbell teams participating in the project (HLI/HCS/HPW).

How is my PowerHUBB system project commissioned?

- HCS offers Certified Field Technician (CFT) field start-up which is required for every PowerHUBB project.
- Coordinate through our Technical Service team to schedule accordingly.

What is the warranty for PowerHUBB Lighting Controls?

- 5 year limited warranty on controls and LED luminaires.
- Network equipment warranty is based on the manufacturer's warranty.
- Hubbell Premise Wiring provides a 25 year warranty on certified.

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