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Draka

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PoE EMERGENCY LIGHTING

PoE EMERGENCY LIGHTING

We encounter independent power sourced or mains-independent emergency lighting every day in ceilings, on walls or above doors in all kinds of places in public buildings, factories or company complexes. Emergency lighting is a vital and effective life safety tool, providing reassurance and guidance to people at critical times. In emergency situations, when the power fails, it provides sufficient orientation for quick and safe building evacuation. Escape routes are thus reliably marked. If the regular, mains-dependent lighting switches off, it can otherwise become dark quickly creating a hazardous and dangerous exit route.

Emergency lighting must allow sufficient visual conditions so that people can leave the buildings quickly and safely. Emergency lighting today mostly works with LED and rechargeable battery.

BENEFITS OF PoE EMERGENCY LIGHTING

An emergency lighting system via PoE offers many advantages over a conventional mains voltage supply. Energy efficiency is a major advantage: the luminaire shines longer because the battery is used efficiently. In addition, LED requires less maintenance. As with all other PoE applications, no electrician is required for installation.

Emergency lighting components such as signs with illuminated walkers or spotlights for corridors and open areas are easy to implement via plug-and-play with synergies resulting from the use of already installed Ethernet devices and associated data.

Installation costs to be reduced by 80 percent. Regulation requirements of three-hour runtime is easily achieved with 3Ah LiFePO4 batteries. The support of software for self-display and self-testing enables remote monitoring and simplified maintenance.

Using open architecture software MQTT, full testing, reporting and preventive maintenance will allow a fully functional stand alone or integrated system. As an easy retrofit solution, the emergency lighting products will deliver an effective, fully compliant system reducing costs of installation, maintenance and operation.

KEY ELEMENTS OF PoE EMERGENCY LIGHTING SYSTEMS

- Escape route signalization and lighting
- Self-contained battery lighting
- Automated Monitoring, testing and connectivity

PoE EMERGENCY LIGHTING STANDARDS

To be independent of the mains in an emergency situation, emergency lighting is provided by rechargeable batteries or a power generator.

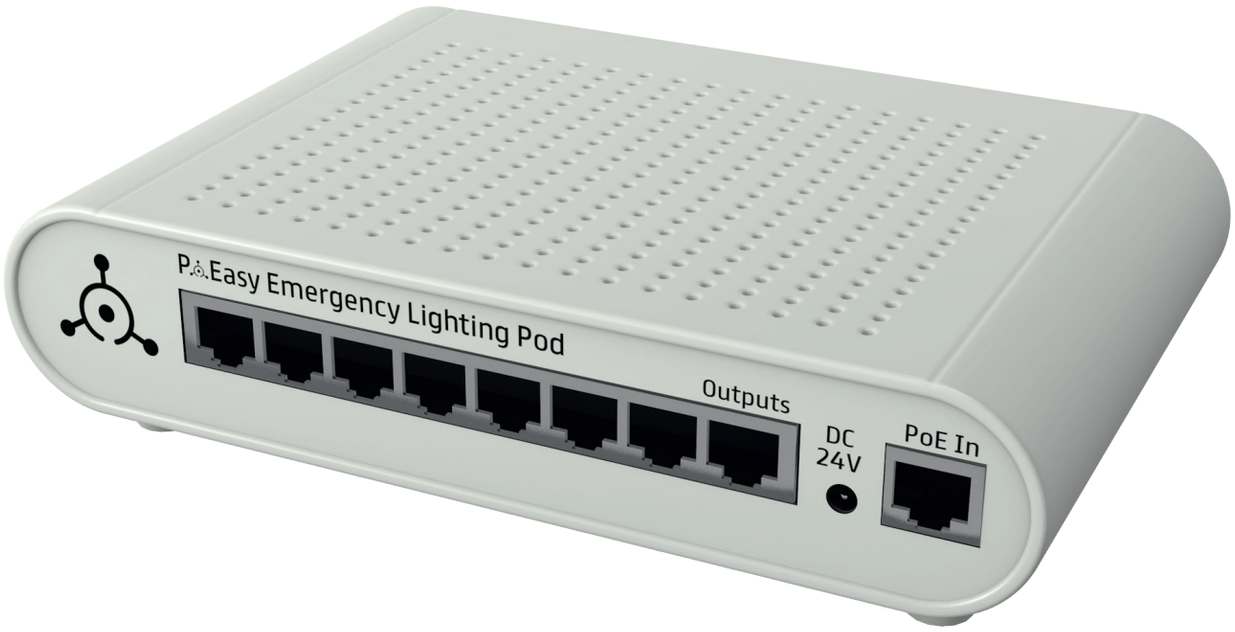
A variety of codes regulate emergency lighting. The two most prominent codes are NFPA 70, the National Electrical Code (NEC); and NFPA 101, the Life Safety Code. Other codes and standards may apply, including UL 924 (emergency lighting and power equipment), UL 1008 (transfer switches), the International Building Code, the International Fire Code, and NFPA 110 and 111 (standby power systems).

From the time of the power failure, it must be possible to supply the emergency lighting independently of the mains for at least three hours according to BS 5266 or 90 minutes according to UL 924. It is also important that the lighting is switched on immediately at an average level of 1.0 fc and minimum level of 0.1 fc. The maximum to minimum illumination level ratio must be 40:1 or less according to NFPA 101. Emergency lighting components such as signs with illuminated pedestrians or spotlights for corridors and open spaces are easy to implement via plug-and-play data cable networks.

It is recommended to consult the authority having jurisdiction to determine the codes and standards that apply to a given project and how they are interpreted.

P.Easy EMERGENCY LIGHTING POD

Part Number – YSBSC03661



The PoEasy® Emergency lighting POD is used to connect up to 8 emergency luminaires / exit signs. The PoEasy® Emergency Lighting POD offers the ability to reduce costs on maintanence and testing. Using open architecture software MQTT, full testing, reporting and preventative maintenence will allow a fully functional stand alone or integrated system.

The emergency lighting solution is connected using Catagory cables CCA CPR rated for full compliance using SELV technology eliminating the need for costly electrical engineers.

A single PoE port can control and power 8 emergency luminaires / exit signs allowing full flexibility of placement. As an easy to retrofit solution, the emergency lighting products will deliver an effective, fully compliant system reducing costs on installation, maintenance and operation.

Main Features

- Up to 8 emergency luminaires / exit signs per POD
- 802.3at type 2 Power Over Ethernet communication to the lighting control system
- Mount in the ceiling space with only 1 x Category cable CPR CCA rated cable back to the centralised control location
- Full self-test capability allowing for automated reporting and fault diagnosis
- Multiple luminaire options within the ecosystem
- Use Category cables CPR CCA rated patchcables to connect the luminaires
- Use with emergency luminaires
- Supports the application of BS 5266-1:2016 - Emergency lighting. Code of practice for the emergency lighting of premises.
- System designed according to BS EN 61347-2-7:2012 and BS EN 62034:2012

Specification

Input

- Input Voltage: 802.3at type 2 PoE standard
- Connection: 1 x RJ45

Output

- Output Charge Voltage: 5V (nominal)
- Output Charge Current: 220mA (max.)
- Output Power Total: 9W (max. across all outlets)
- Max emergency units per RJ45: 1
- Connection: 8 x RJ45 Mechanical
- Construction: ABS / PC mix - IP20
- Dimensions: 210mm x 139mm x 43mm

Environmental

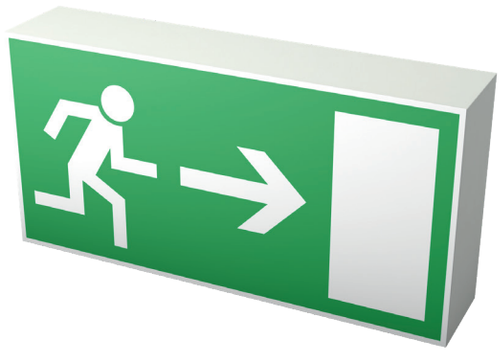
- Operating Ambient Temperature: 5°C to +40°C

Packaging Information

- Eco Friendly
- Plastic free
- 100% Recycled material
- Water based printed inks on packaging
- Packing demension mm 242 (w) x 158 (h) x 52 (d)

P.Easy EMERGENCY EXIT SIGN

Part Number – YSBSC03664



Wall Mounted

Ceiling Mounted

Main Features

- Incorporates integrated RJ45, electronics and battery
- Low Voltage DC for easy Maintenance
- Use Category cables CPR Cca rated patch cables.
- Supports the application of BS 5266-1:2016 - Emergency lighting.
  Code of practice for the emergency lighting of premises.
- System designed according to
  BS EN 61347-2-7:2012 and BS EN 62034:2012
- Save up to 80% on Emergency Lighting Installations
- 3Ah 3.2V LiFePO4 battery
- Power 1.3W (nominal)
- 3 Hour duration
- Charge/Power LED
- Dimensions: 317 (w) x 188 (h) x 52 (d)

PoEasy EMERGENCY LUMINAIRE AND DRIVER

Part Number – YSBSC03662

Emergency light and driver

The PoEasy® Emergency Luminaire and driver enables quick and easy installation for this PoE based emergency lighting solution. Offering a minimum 3 hours running time for any emergencies and trickle charging helps extend the performance of the LiFePO4 battery. Fully integrated self-testing capabilities on the batteries and the luminaire allow for preventative maintenance measures to be set, all the information is sent back to the PoEasy POD. There are two lenses for the luminaire, narrow beam lenses for routes in busy rooms and a wide beam lenses for corridors and stairwells.

Main Features

- Incorporates integrated RJ45, electronics and battery
- Low Voltage DC for easy Maintenance
- Use Category cable CPR Cca rated patch cables.
- Supports the application of BS 5266-1:2016 - Emergency lighting. Code of practice for the emergency lighting of premises.
- System designed according to BS EN 61347-2-7:2012 and BS EN 62034:2012
- Save up to 80% on Emergency Lighting Installations
- 3Ah 3.2V LiFePO4 battery
- Power 1.3W (nominal)
- 3 Hour duration
- Charge/Power LED
- Dimensions:
  - Driver/Battery 63 (w) x 24 (h) x 103 (d)
  - Luminaire 83 (w) x 24 (d)

Packaging Information

- Eco Friendly
- Plastic free
- 100% Recycled material
- Water based printed inks on packaging
- Packing demension 220 (w) x 103 (h) x 52 (d)

ANNEXURE - FAQs

Annual and Functionality tests, manual vs Automated Test System (ATS), what are the advantages?

Normal annual/functionality tests for traditional emergency lighting systems are 100% manual operations, this means there needs to be a minimum of one person present at the premise checking all the emergency system physically, if you have several sites this can be very time consuming and costly. Prysmian's ATS PoE emergency lighting offers a fully integrated intelligent solution from the POD to the lights and exit signs. This allows testing to be set up in the lighting controls system setting parameters to test the LED and battery ensuring compliance. Thus saving costs for transport and labour.

Flexibility of the system, can be a retro-fit, can be de-installed and re-installed

Prysmian's ATS PoE emergency lighting is totally flexible, with an open architecture (MQTT) language used for control and results, you can easily program the solution to report, work and test as you require under the standards. The frequency of testing criteria as set out within the standards, BS5266. The system can be used in new build, refurb and retro-fit solutions, with just one input requirement from the PoE switch allowing 8 EL/EE solutions connecting to the singe emergency lighting POD, this creates a cost effective economy of scale resulting in reduced Installation costs, reduced labour costs and full flexibility to move and recommission lights in a quick cost neutral way.

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