Neuron Battery Backup

The Neuron Ethernet Gateway Battery Backup is a power solution designed specifically for use with the Neuron Ethernet Gateway in an industrial environment. It contains a LiFePO4 cell that provides an uninterruptable power supply for the gateway in the case of a mains power loss or otherwise unreliable power.

Features

- Custom made uninterruptable power supply for the Neuron Ethernet Gateway
- Long service life: more than 2000 cycles at 100% depth of discharge
- Provides at least 3 hours* of battery life for the Ethernet gateway
- DIN-rail mountable: easy installation in industrial control panels
- Plug-and-play: LiFePO4 cell included and installed in product

Essentials

Operation time (typical):	3 hours*
Internal battery	LiFePO4

Depends on number of sensors, amount of critical data transmission and ambient temperature. Tested on a system with ~140 sensors.

Neuron System Benefits

Sensor - Gateway - Cloud - App

- **Robust sensors**
  Suitable for rough environments
- **Wireless**
  Wireless sensor with integrated battery
- **Long lifetime**
  Typical 10 years battery life
- **Quick installation**
  Wireless, installed and operational in minutes
- **Collect and deliver data**
  Data delivery through API and app
- **Broad offering**
  More than 50 different sensor types available

General Description

The Neuron Ethernet Gateway Battery Backup is a reliable and robust power solution designed for use in industrial environments. The system is specifically tailored for use with the Neuron Ethernet gateways and is ideal for providing backup power in situations where the main power source is lost or unreliable.

The LiFePO4 battery chemistry offers several advantages over traditional lead-acid batteries, including a longer service life and a lower self-discharge rate. The battery backup system contains several safety features shutting down power if an overcurrent, undervoltage or overtemperature event occurs.

The system is DIN-rail mountable, making it easy to install in industrial control panels. It also features a communication interface*, allowing the Ethernet Gateway to manage and monitor the battery backup.

Feature may not yet be available. Contact El-Watch Support for information on availability.

Principle of Operation

When the main power source is present, the LiFePO4 battery is charged by an on-board charger. In the event of a power loss, the Ethernet Gateway will automatically switch over to the battery backup. The onboard charger monitors the battery's state of charge*, temperature and current, and will prevent overcharging, overdischarging and short-circuiting.

Feature may not yet be available. Contact El-Watch Support for information on availability.

The symbol ⚠ on the product label refers to this data sheet for important information regarding intended use, requirements for the operating environment etc. If the equipment is used in a manner not specified by El-Watch, the protection provided by the equipment may be impaired.

Technical Specification

Operational Specification

Operating time (typical)	3 hours*
Internal battery	LiFePO4
IP Grade	IP 20
Operating Environment	Temperature: 0 – 45°C Relative Humidity: 80% (non-condensing) Altitude: < 2000m above sea level Pollution Degree 3 Indoor use, not for wet locations

* Depends on number of sensors, amount of critical data transmission and ambient temperature. Tested on a system with ~140 sensors.

Physical Specification

Materials	Polyamid
Mounting	DIN rail
Dimensions LxWxH	110x25x100mm
Cleaning	Wipe clean with a damp cloth

Ordering Information

	Europe/The Middle East/Africa Part number
Neuron Battery Backup	422306

Regulatory

Certifications	Directives/Standard
CE UK CA	ECD 2014/30/EU Electromagnetic Compatibility Regulations 2016

Installation

Before installing make sure the power to the Neuron Ethernet Gateway is turned off.

The device has a DIN-mounting capability which means it can be easily installed in a control panel or enclosure by sliding it onto a 35mm standard DIN rail and connecting it to the Neuron Ethernet Gateway's back bus connector.

You can now apply power to the Neuron Ethernet Gateway and press the button on the front side to enable the battery backup.

The Battery Backup can be connected to the Ethernet Gateway on both left and right side.

Dimensions

// PRODUCT SHEET // TECHNICAL SPECIFICATION

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Additional information about Neuron sensors, installation, userguides, and more at our support website: support.el-watch.com

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