PB-9250J-110V

9250 w·s Standalone Supercapacitor-based UPS Module with 110V DC Input for Railway Application

Key Features

- **Universal standalone power backup module compatible with all box-PCs**
- **Supports 43-160V wide-range DC input for railway application**
- **Supercapacitor-based, -40 to 70°C operation for EN 50155 OT4 class conformity**
- **9250 watt-second energy capacity**
- **Maximum 120W output power for the connected back-end system**
- **Over 10 years lifespan, or 500,000 charge/ discharge cycles**
- **Patented CAP energy management technology***
  - **Extending back-up time in the event of an unforeseen power outage**
  - **Monitoring energy and power consumption to extend operation time for safe system shutdown**
- **EN 50155 and EN 45545 certificate**

**R.O.C Patent No. I598820*

Introduction

Neousys' PB-9250J-110V is a newly designed SuperCAP UPS accepting 110V DC input for fast-growing railway applications. Composed with eight 370F supercapacitor, PB-9250J-110V provides 9250 watt-second stored energy to sustain back-end system from seconds to minutes during power loss. Different from traditional battery-based UPS systems, supercapacitor has a wide operating temperature range and long operating life up to 10 years. Neousys' PB-9250J-110V features -25 to 65°C operating temperature range and extremely high durability.

Thanks to Neousys' patented CAP energy management technology, PB-9250J-110V provides sophisticated features such as real-time energy/ power consumption monitoring, high/low voltage protection, and auto/ manual shutdown control. It automatically manages boot and shutdown to help your system thrive on trains with unstable power source. Additional digital output channels are incorporated for indicating system status such as charging/ discharging and power button control.

While computer systems are widely deployed in various railway applications, the rolling stock's electrical stability still remains a focal point and is crucial for system reliability. PB-9250J-110V can protect the computer or other equipment against power interruption when a train passes through a level crossing or a railroad switch. Furthermore, with its EN 50155 and EN 45545 certificate, PB-9250J-110V can be easily installed and implemented with existing computer/equipment or integrated with onboard power distribution system.

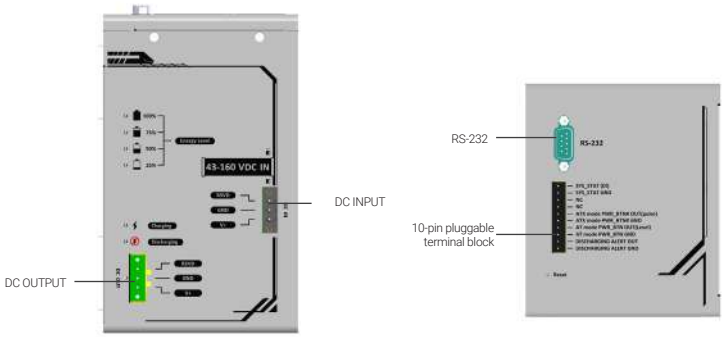
Specifications

Supercapacitor Configuration	
Composition	8x 370F, 3.0V supercapacitors
Capacity	9250 watt-second
Expected lifespan	>10 years*
Lifecycle	500,000 charging/ discharging cycles*
Power Specification	
Input Voltage	43-160 VDC
Input Connector	1x 3-pin pluggable terminal block (V+, GND)
Output Voltage	24 VDC
Output Power	Maximum 120W output
Output Connector	1x 3-pin pluggable terminal block (V+, GND)
I/O Interface	
COM Port	1x DB9 for 3-wire isolated RS-232
Isolated DIO	1x 10-pin pluggable terminal block for - ATX mode PWR_BTN# output (open-drain, pulse type) - AT mode PWR_BTN output (open-drain, level type) - DISCHARGING ALERT output (open-drain, level type) - SYS_STAT input

Mechanical	
Dimension	110(W) x 175.2mm(H) x 128.2mm(D)
Weight	2.33 kg
Mounting	DIN-rail mounting or optional wall-mounting
Environmental	
Operating Temperature	-40°C ~ 70°C EN50155 OT4 class
Storage Temperature	-40°C ~ 85°C
Vibration	Compliant with IEC61373:2010, Category 1, Class B Body mounted (part of EN50155)
Shock	Compliant with IEC61373:2010, Category 1, Class B Body mounted (part of EN50155)
EMC	EN 50155:2017, Clause 13.4.8 CE/FCC Class A, according to EN 55032 & EN 55035
EN50155	All mandatory sections of EN 50155:2017
EN45545	EN 45545-2 (Fire protection on railway vehicles)

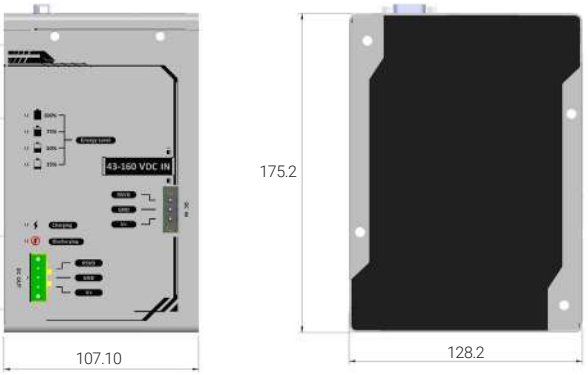
** To achieve > 10 years lifespan under 24/7 at 70°C operation, please charge PB-9250J-SA to 6525J energy level using the 4.8x SuperCAP Lifetime Extension setting (please refer to the user manual for details). Once the rated lifetime or cycle life has been reached, the capacity of supercapacitor may decrease up to 30% and ESR may increase up to 100% from initial values.*
*** Backup time for uninterruptible operation may be reduced when sustaining a back-end system with high power consumption. Please consult with Neousys Technology if your computer accepts only constant-voltage input.*
**** To ensure PB-9250J's power backup operation functions as intended, please contact Neousys Technology technical support if your connecting back-end system accepts only constant voltage input.*

Appearance



Dimensions

Unit : mm



Ordering Information

Model No.	Product Description
PB-9250J-110V	9250 w·s Standalone Supercapacitor-based UPS Module with 110V DC input for Railway Application

Optional Accessories

Wmkit-V-PB9250J-110V	Wall-mount assembly for PB-9250J-110V, vertical type