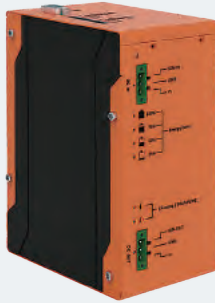


# PB-9250J Series

Standalone Intelligent Supercapacitor-based Uninterruptible Power Backup Module



CE FC

## Key Features

- Universal standalone power backup module compatible with all box-PCs
- Supercapacitor-based, -25 to 65°C wide temperature operation
- 9250 watt-second energy capacity
- Maximum 180W output power for the connected back-end system
- Up to 10 years lifespan, and 500,000 charging/ discharging cycles
- Patented CAP energy management technology\*
  - Extends back-up time in the event of an unforeseen power outage
  - Monitors energy and power consumption to extend operation time for safe system shutdown
- Versatile operating mode
  - Normal backup mode
  - Ignition control mode for standard box-PC and in-vehicle controller
  - UltraCAP energy/ lifespan configuration

\*R.O.C Patent No. 1598820

## Introduction

PB-9250J-SA is a standalone power backup module that can protect your box-PC against power outages. Utilizing state-of-the-art supercapacitor technology, it can operate in harsh environments from -25 to 65°C, and have extremely high durability lasting up to 10 years.

PB-9250J-SA is composed of eight 370F/ 3.0V supercapacitors, which offers 3.3 times longer lifespan than its 2.7V counterpart, and stores 9250 watt-second energy to offer extra extended operation time to backup your system. Thanks to Neosys' patented CAP energy management technology, it can reliably supply 180W power to the back-end system and automatically manage boot and shutdown without installing additional drivers/ software. In addition to UPS-like power backup mode, it also offers two advanced ignition control modes for in-vehicle usage. PB-9250J-SA can work with either standard box-PC or in-vehicle controller to provide stable power supply and execute user-configurable power-on/ power-off delay according to IGN signal input.

Featuring various modes, automatic shutdown control and up to 180W output power, PB-9250J-SA can work with most off-the-shelf box-PCs. And with properties such as maintenance-free energy storage and uninterruptible power supply, PB-9250J-SA can prevent data loss for the connected back-end system during power outage in harsh industrial environments!



## Specifications

### Supercapacitor Configuration

|                   |   |
|-------------------|---|
| Composition       | 8x 370F, 3.0V supercapacitors   |
| Capacity          | 9250 watt-second  |
| Expected lifespan | >10 years @ 25°C with 9250 ws capacity*   |
|                   | 76,000 hours @ 35°C with 9250 w-s capacity*   |
|                   | 34,000 hours @ 45°C with 9250 w-s capacity*   |
|                   | 15,000 hours @ 55°C with 9250 w-s capacity*   |
|                   | 7,200 hours @ 65°C with 9250 w-s capacity*  |
|                   | 7,200 hours @ 85°C with reduced 6525 w-s capacity*  |
|                   | Expected lifespan is 2.2x when configured as 7820 watt-second energy capacity, or 4.8x when configured as 6525 watt-second energy capacity. |
| Lifecycle         | 500,000 charging/ discharging cycles*   |

### Power Specification

|                  |   |
|------------------|---|
| Input Voltage    | 12~35 VDC   |
| Input Connector  | 1x 3-pin pluggable terminal block (V+, GND, IGN_IN)   |
| Output Voltage   | Charge mode: DC_IN bypass (DC_OUT = DC_IN)<br>Discharge mode: 12 or 24V software-configurable |
| Output Power     | Maximum 180W output**   |
| Output Connector | 1x 3-pin pluggable terminal block (V+, GND, IGN_OUT)  |

### I/O Interface

|          |   |
|----------|---|
| COM Port | 1x DB9 for 3-wire RS-232  |
| Iso. DIO | 1x 10-pin pluggable terminal block for<br>- PWR_BTN# output<br>- SYS_STAT input |

### Mechanical

|           |                                     |
|-----------|-------------------------------------|
| Dimension | 80 mm (W) x 128 mm (D) x 175 mm (H) |
| Weight    | 2.2 kg                              |
| Mounting  | DIN-rail mounting and wall-mounting |

### Environmental

|                       |  |
|-----------------------|--|
| Operating Temperature | -25°C ~ 65°C   |
| Storage Temperature   | -40°C ~ 85°C with reduced energy capacity                          |
| Vibration             | Operating, MIL-STD-810G, Method 514.6, Category 4                  |
| Shock                 | Operating, MIL-STD-810G, Method 516.6, Procedure I, Table 516.6 II |
| EMC                   | CE/FCC Class A, according to EN 55032 & EN 55035                   |

\* 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.

## Ordering Information

| Model No.   | Product Description  |
|-------------|--|
| PB-9250J-SA | Standalone intelligent supercapacitor-base power backup module with 9250 W-s energy capacity |