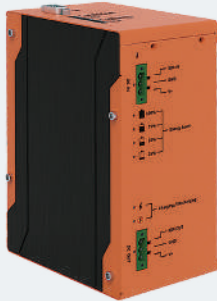


# PB-4600J Series

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
- 4600 watt-second energy capacity
- Maximum 180W output power for the connected back-end system
- Over 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. I598820

## Introduction

PB-4600J-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 over 10 years.

PB-4600J-SA is composed of four 370F/ 3.0V supercapacitors, which offers much longer lifespan than its 2.7V counterpart, and stores 4600 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-4600J-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-4600J-SA can work with most off-the-shelf box-PCs. And with properties such as maintenance-free energy storage and uninterruptible power supply, PB-4600J-SA can prevent data loss for the connected back-end system during power outage in harsh industrial environments!



## Specifications

### Supercapacitor Configuration

Composition 4x 370F, 3.0V supercapacitors

Capacity 4600 watt-second

Expected lifespan >10 years\*

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)  
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  
- PWR\_BTN# output  
- SYS\_STAT input

### Mechanical

Dimension 82.5mm(W) x 175.2mm(H) x 128.2mm(D)

Weight 1.68 kg

Mounting DIN-rail mounting and wall-mounting

### Environmental

Operating Temperature -25°C ~ 65°C

-40°C ~ 85°C with reduced energy capacity

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 Compliant with EN50155:2007, CE/FCC Class A, according to EN 55032 & EN 55035

\* To achieve > 10 years lifespan under 24/7 at 65°C operation, please charge PB-4600J-SA to 3245J 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.

## Ordering Information

Model No.	Product Description
PB-4600J-SA	Standalone intelligent supercapacitor-base power backup module with 4600 W-s energy capacity