

PB-2500J Series

Industrial-Grade Intelligent Ultracapacitor-based Power Backup Module



CE FC

Key Features

- Ultracapacitor-based, -25 to 65°C wide temperature operation
- 2500 watt-second energy capacity
- Up to 10 years lifetime and 500,000 charging/ discharging cycles
- Patented CAP Sensing technology that
 - Maximizes back-up time in an event of unforeseen power outage
 - Monitors energy consumed and estimates the time required for system shutdown
- Available in two form factors
 - A PCIe card for Neosys Nuvo-5000 and Nuvo-6000 series
 - A standalone module for other embedded computers

*R.O.C Patent No. 1598820

Introduction

Neosys' PB-2500J series is an innovative power backup solution for demanding industrial applications. Utilizing ultracapacitor technology, it features -25 to 65°C operating temperature range and extremely high durability. Compared to traditional battery-based UPS systems, PB-2500J series sustains superb reliability in extreme temperature environments and eliminates the drawback of battery performance degradation over time.

PB-2500J series is composed of eight 100F ultracapacitors to provide 2500 watt-second stored energy to sustain your computer during power outage and depending on your system's power consumption, it could be from seconds to minutes. But what makes PB-2500J novel is its patented CAP Sensing technology, an on-board processor that constantly monitors power consumption and evolves with the system. During a power outage, it maximizes the system operation time by estimating the perfect time to initiate system shutdown to prevent data loss.

PB-2500J series is available in two form-factors. PB-2500J-PCIe is a plug-and-play PCIe card specifically designed for Neosys' Nuvo-5000 and Nuvo-6000 series; and PB-2500J-CSM is a standalone module similar to UPS, it can be used for any embedded controllers with a DC input.

When it comes to industrial embedded controllers, stability and data loss prevention during power outages are just as important. Neosys' PB-2500J series aims to do the latter by redefining reliability and taking it to another level. With PB-2500J series, unexpected power loss and unstable power lines are a thing in the past!

Specifications

| | PB-2500J-PCIe | PB-2500J-CSM |
|------------------------------|--|--------------------------------------|
| Ultracapacitor configuration | 8x 100F, 2.7V ultracapacitors | |
| Capacity | 2500 watt-second | |
| Lifetime | 10 years @ 25°C at rated voltage* 1000 hours @ 65°C at rated voltage* | |
| Cycle life | 500,000 charging/ discharging cycles* | |
| DC In | N/A | 12 ~ 24 VDC via 3-pin terminal block |
| DC Out | N/A | 12 VDC via 3-pin terminal block |
| Communication Interface | 3-wire RS-232 | |
| Dimension | Half-length PCIe card 167 mm (W) x 111 mm (H) | - |
| Mounting | N/A | DIN-rail mounting or wall-mounting |
| Operating Temperature | -25 ~ 65°C | |
| Storage Temperature | -40 ~ 70°C | |
| EMC | CE/FCC Class A, according to EN 55022 & EN 55024 | |

*Once the rated lifetime or cycle life has been reached, the capacity of ultracapacitor may decrease up to 30% and ESR may increase up to 100% from initial values.

Ordering Information

| Model No. | Product Description |
|---------------|---|
| PB-2500J-PCIe | Intelligent ultracapacitor-based power backup PCIe card with 2500 watt-second energy capacity |
| PB-2500J-CSM | Intelligent ultracapacitor-based power backup standalone module with 2500 watt-second energy capacity |