

PB-2500J Series

Industrial-grade Intelligent Supercapacitor-based Uninterruptible Power Backup Module



Key Features

- Supercapacitor-based, -25 to 65°C wide temperature operation
- 2500 watt-second energy capacity
- Up to 10 years lifespan and 500,000 charging/ discharging cycles
- Patented CAP energy management technology*
 - Maximizes back-up time in an event of unforeseen power outage
 - Monitors energy consumed and estimates the time required for system shutdown
- User-configurable operating parameters
 - Auto/ manual shutdown control
 - High/ low voltage protection
 - UltraCAP energy/ lifespan configuration

*R.O.C Patent No. 1598820

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Introduction

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

PB-2500J series is composed of eight 100F supercapacitors 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 energy management 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-6000 (except Nuvo-6108GC/ IGN) while PB-2500J-CSM is designed for Nuvo-5000E/ P and Nuvo-7000E/ P series.

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 redefine reliability and take 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
Supercapacitor configuration	8x 100F, 3.0V ultracapacitors	
Capacity	2500 watt-second	
Expected lifespan	>10 years @ 25°C with 2500 w-s capacity* 76,000 hours @ 35°C with 2500 w-s capacity* 34,000 hours @ 45°C with 2500 w-s capacity* 15,000 hours @ 55°C with 2500 w-s capacity* 7,200 hours @ 65°C with 2500 w-s capacity* Expected lifespan is 2.2x when configured as 2100 watt-second energy capacity, or 4.8x when configured as 1750 watt-second energy capacity.	
Lifecycle	500,000 charging/ discharging cycles*	
Communication interface	3-wire RS-232	
Dimension	Half-length PCIe card 167 mm (W) x 111 mm (H)	-
Operating Temperature	-25°C ~ 65°C	
Storage Temperature	-40 °C ~ 70°C	
EMC	CE/FCC Class A, according to EN 55022 & EN 55024	

*Once the rated lifespan 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 supercapacitor-based power backup PCIe card with 2500 w-s energy capacity
PB-2500J-CSM5	Intelligent supercapacitor-based power backup Cassette module with 2500 w-s energy capacity, for Nuvo-5000 series
PB-2500J-CSM7	Intelligent supercapacitor-based power backup Cassette module with 2500 w-s energy capacity, for Nuvo-7000 series

*Note: NOT compatible with Nuvo-6108GC, Nuvo-6108GC-IGN and Nuvo-8208GC