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PB-2500J Series

Industrial-Grade Intelligent Ultracapacitor-based Power Backup Module

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 Neousys Nuvo-5000 and Nuvo-6000 series
  - A standalone module for other embedded computers

R.O.C Patent No. I598820

Introduction

Neousys' 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 Neousys' 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. Neousys' 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

NEOUSYS TECHNOLOGY

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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