NCORE®

Active Modular Energy System 2400W

Active Power and Control
The processors on board the NCore constantly monitor the operating status and all the voltage, absorption, temperature and battery charge status parameters. The software operates proactively by analyzing the applied loads and intervening to guarantee the maximum operating life for the priority devices.
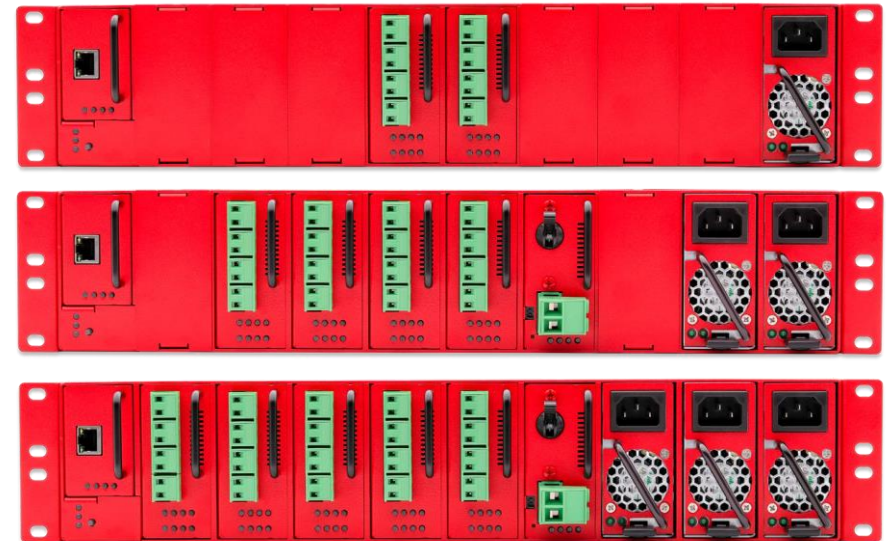
Hot Swap Modularity
Each module can be added and removed when hot, allowing it to operate continuously while ensuring maximum reliability and safety

Hi Speed Switch
All the actuators and protection diodes have been replaced with low resistance mosfets, guaranteeing instant switching times, efficiency and minimum heat dissipation.

Dual Processor
NCore is equipped with 2 processors. One is dedicated to monitoring and functioning of the hardware part, the other is used for front-end management. This division makes the system immune from attacks from outside.

20 Output ports

2400 Watt max load

10 Ampere charger

OUT Voltage selection

HA Priority system

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Smart solutions for new energy systems

module **ACDC Input**

Hi Efficiency

The ACDC Input module is a 800W high efficiency rectifier with 54V output voltage. Specially designed for Datacom and Telcom applications, it is characterized by an insulation factor of 1500V.

Always on

In the event of an overload, the module does not interrupt its operation by gradually reducing the output voltage and allowing the battery module to take over without causing interruption of service.

Electrical Specifications

Operating Voltage	90 - 264 V AC
Max Power	800 W
Power Connector	VDE
Indicators	AC good / DC good
Active Protection	Short Circuit Protection, Overvoltage control, Overload control
I/O Isolation	1500 V
Output	54 V DC
Efficiency	88% Typ

Environmental

Operating Temperature	-10°C to +70°C
Humidity	0 - 95% non condensing

Mechanical Specifications

Dimensions (LxWxD)	227 x 86 x 40 mm
Weight	1.1 Kg
Enclosure Material	Varnished Iron

module **Battery Charger**

Advanced Battery Charger

The charger module is compatible with 48V lead or lithium strings. The charging current can be selected via software. In the event of a power failure or insufficient input, the system intervenes to ensure the operation of the connected devices by reducing the charging speed.

Proactive Mode

The system performs programmable loading and unloading cycles during which it verifies the effective efficiency of the batteries and calculates the real autonomy in relation to the loads applied.

Electrical Specifications

Operating Voltage	48 - 60 V DC
Charge Current	3 / 5 / 10 A (software selectable)
Power Connector	3 mm² wires terminal blocks
Indicators	Battery Status / On Charge / Charge Current
Efficiency	92% Typ

Environmental

Operating Temperature	-10°C to +70°C
Humidity	0 - 95% non condensing

Mechanical Specifications

Dimensions (LxWxD)	227 x 86 x 40 mm
Weight	0.4 Kg
Enclosure Material	Varnished Iron
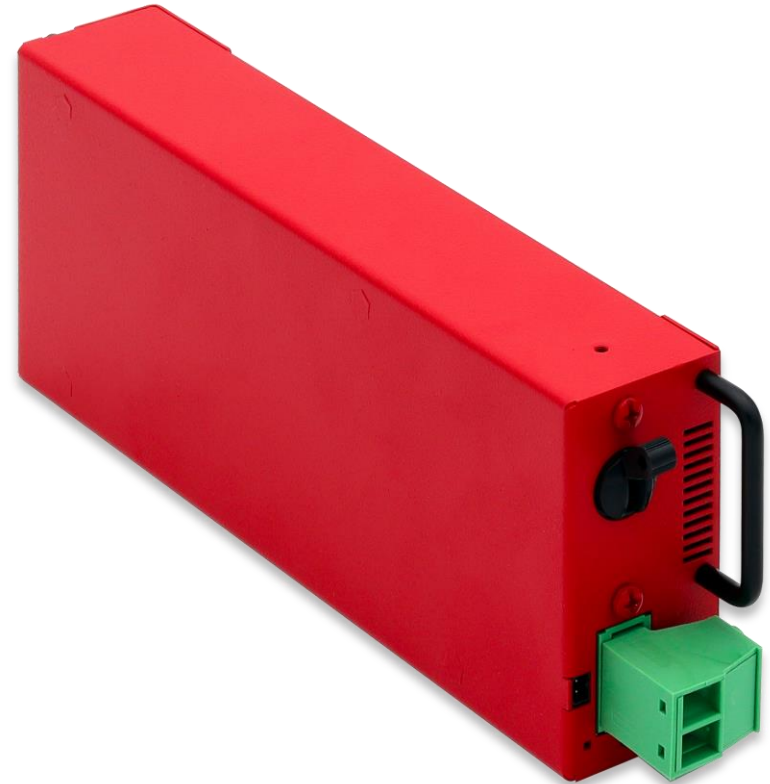
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module **DC Output**

Full Managed
Each of the 4 doors is protected against short circuit with timed automatic reset, it is possible to enable and disable each door independently and perform power cycles. Each port is equipped with a current sensor.

Voltage selection
There are 3 models of this module: without conversion, it draws directly from the voltage present on the main Rail (from the battery if discharging), fixed at 12V or with variable voltage 29/48 / 54V selectable by software.

Electrical Specifications

Operating Voltage	Rail or Battery Voltage / 36 - 72 V DC
Max Power	450 W (cumulative and/or per port)
Power Connector	1.4 mm² wires terminal blocks, 4 connectors
Indicators	Voltage / Load percentage
Active Protection	Short Circuit Protection, Overvoltage control, Overload control
I/O Isolation	1500 V
Output	Rail or Battery Voltage / 12 V DC / 29 - 48 - 54 V DC software selectable
Efficiency	94% Typ

Environmental

Operating Temperature	-10°C to +70°C
Humidity	0 - 95% non condensing

Mechanical Specifications

Dimensions (LxWxD)	227 x 86 x 40 mm
Weight	1.7 Kg
Enclosure Material	Varnished Iron

module **Controller**

Indipendent CPU

The NCoreOS operating system performs all the interfacing functions with the user through the dashboard accessible via the web interface. It is also possible to interrogate and configure the system using SNMP and API protocols.

On The Fly Update

During software updates, the system maintains the set functionality status without interrupting the voltage supplied to the connected devices. This module is also interchangeable in hot swaps.

Electrical Specifications

Operating Voltage	5 V DC
Ethernet Connector	Shelded RJ45 Jack
Indicators	Main Status / On Alert / On Warning
Transmission Speeds	10BaseT; 100BaseT; 1000BaseT

Environmental

Operating Temperature	-10°C to +70°C
Humidity	0 - 95% non condensing

Mechanical Specifications

Dimensions (LxWxD)	227 x 56 x 40 mm
Weight	0.3 Kg
Enclosure Material	Varnished Iron