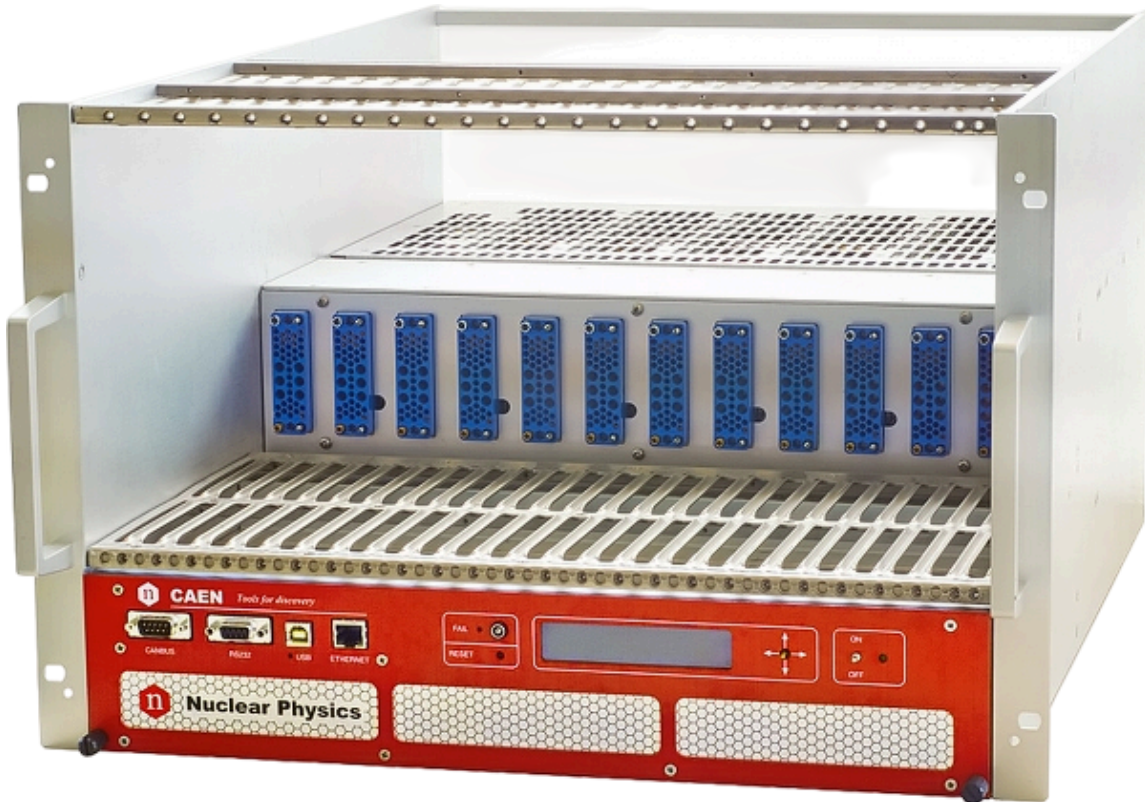


NIM8304

7U 12 slot smart fan unit Switching 2000 W Crate



Features



- 19" x 7U (5+2) enclosure
- 12 NIM slot
- Pluggable Switching Power Supply up to 2000W
- 92 ÷ 264 Vac, 50 ÷ 60 Hz input
- Equipped with long-life NIM connectors
- Pluggable 2U Fan Unit
- Short circuit protection
- Over / Undervoltage protection
- Over temperature protection
- CAN bus, Ethernet, USB and RS232 interface for remote monitoring and control
- SBC controlled with graphic OLED colour display
- Ergonomic pointer
- Easy firmware upgrading
- Libraries, Demos (C and LabView) and Software tools for Windows and Linux

Description

The **CAEN Mod. NIM8304** is a 7U (5+2) full size NIM crate (19"-12 slot) with pluggable low noise switching power supply. The output power is up to 2000W (2000 W @ 220 Vac, 1000 W @ 100 Vac). The units are ventilated with pluggable 2U fan unit. Safety features include: Short circuit protection, Over / Under voltage protection, Over temperature protection.

Remote monitoring and control take place through CAN bus, Ethernet, USB and RS232 interfaces. The crate is SBC controlled via graphic OLED display. User friendly control software completes the NIM 83XX features. The Unit is powered by 92 ÷ 264 Vac, 50 ÷ 60 Hz, power factor 0.98% (230VAC).

Technical Specifications

Mechanics

19" x 7U (5+2) bin, 12 slot, 2U space for fan tray

Mains input

- 92 ÷ 264 Vac, 50 ÷ 60 Hz,
- power. fact. > 0.98 % (230 VAC)

Maximum Total Output Power

- 1100 W @ 100 Vac
- 2200 W @ 211 Vac

Interface

- RS 232, USB (2.0), CAN bus, Ethernet

Fuse

External 16 A, type B/C

Output power

EU

- 90 A @ ±6 V
- 23 A @ ±12 V
- 11 A @ ±24 V

US

- 45 A @ ±6 V
- 11.5 A @ ±12 V
- 5.5 A @ ±24 V

Isolation

- CE acc. to EN 61010

Power requirements

- 1450 W @ 100 Vac ; 2850 W @ 211 Vac

Noise and ripple

- ±6 V < 10 mVpp, < 2 mVrms Typ: 6.0 mVpp, 1.5 mVrms
- ±12 V < 15 mVpp, < 2 mVrms Typ: 10 mVpp, 1.0 mVrms
- ±24 V < 15 mVpp, < 2 mVrms Typ: 10 mVpp, 1.0 mVrms

Output Impedance

- 0.3 mΩ static

Output Current Characteristic

- Foldback ($I_{sc} < 3 A$ $I_{max} = I_{nominal} + 15%$) and Trip Off

Status control

- Alarm signalled by FAIL LED, FAIL signal and buzzer
- Alarm reason displayed on FAN unit OLED display and managed by remote control

Temperature sensors

- Power Supply: nr. 4 (3 thermal switches, 1 thermal sensor)
- FAN Unit: nr. 2
- Backplane: nr. 6 (optional)

Output Voltage Characteristic

- dual tracking for all \pm DC outputs
- Soft start
- DC output calibration (manually)

Over Voltage Protection

- Trip Off when the output voltage $> 103\% \div 120\%$ (programmable) of set voltage

Under Voltage Protection

- Trip Off when the output voltage $< 80\% \div 97\%$ (programmable) of set voltage

Over Current Protection

- Trip Off when the current $>$ programmable Iset value

Over Temperature Protection

Trip Off when temperature of a single Power Supply block $> 90^{\circ}$ C Signaled:

- temperature FAN Unit $> 50^{\circ}$ C
- temperature Power Supply Control $> 65^{\circ}$ C

Cooling Airflow

540 m³/h (at maximum fan speed)

Operation

0 \div 40°C without derating

Firmware

NIM8304 firmware can be upgraded via Ethernet

Ordering Options

Code	Description
WNIM8304XAAA	NIM8304 - NIM 7U crate, 12 slot, smart fan unit, 1000W US - 2000W EU ($\pm 6V$ 90A, $\pm 12V$ 20A, $\pm 24V$ 10A) RoHS

Related Software

OPC Server



OPC Server for CAEN Power Supplies

Related Software Libraries

CAEN HV Wrapper Library



Library for CAEN Power Supply Control



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