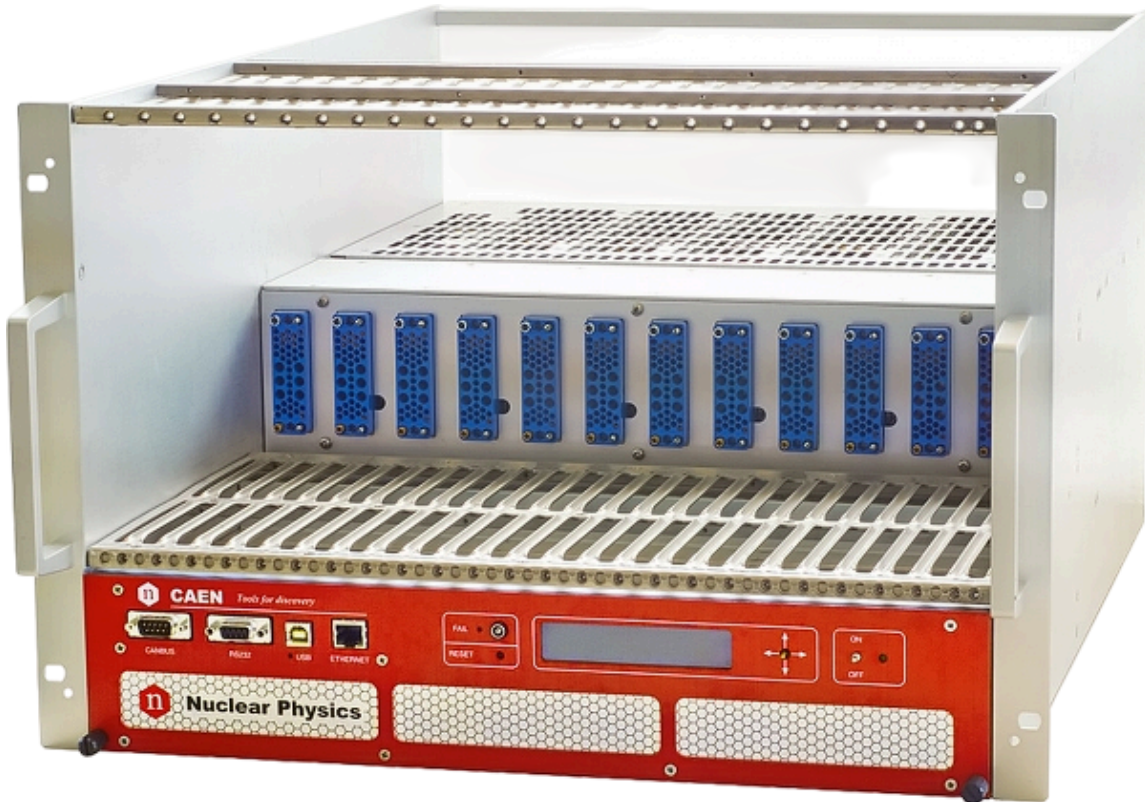


NIM8301

7U 12 slot smart fan
unit 300/600 W
Crate



Features



- 19" x 7U (5+2) enclosure
- 12 NIM slot
- Pluggable Linear Power Supply (300W and 600W available)
- 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. NIM8301** is a 7U (5+2) full size NIM crate (19"-12 slot) available with both pluggable 300W and 600W power supplies. The units are ventilated with pluggable 2U fan unit. Safety features include: short circuit protection, Over / Undervoltage protection, Over temperature protection. Remote monitoring and control take place through CAN bus, Ethernet, USB and RS232 interfaces. The crates are also SBC controlled via graphic OLED Display. User-friendly control software completes the NIM 8301 features. The Unit is powered by 110 or 220 Vac, 50 ÷ 60 Hz.

Technical Specifications

Mechanics

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

Mains input

- 230 VAC or 115 VAC, 50-60 Hz

Maximum Total Output Power

- 300/600 W

Interface

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

Fuse

- 4 A Class T @ 300W 220 Vac
- 8 A Class T @ 300W 115 Vac
- 6.3 A Class T @ 600W 220 Vac
- 15 A Class T @ 600W 115 Vac

Output power

300W

WNIM8301300W

17A @ ±6V
3.4A @ ±12V
3.4A @ ±24V

600W

WNIM8301600W

45A @ ±6V
8A @ ±12V
8A @ ±24V

600W

WNIM8301600Y

20A @ ±6V
15A @ ±12V
8A @ ±24V

600W

WNIM8301600Z

45A @ ±6V
18A @ ±12V
±24V not present

Isolation

- CE acc. to EN 61010

Power requirements

- 100W and 200W (for 300W and 600 W) at full load

Noise and ripple

-

Output Impedance

- 0.3 mΩ static

Output Current Characteristic

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

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

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

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 I_{set} value

Over Temperature Protection

Trip Off when temperature of heat sink $> 70^\circ \text{ C}$ or when transformer temperature $> 110^\circ \text{ C}$ Signaled:-
temperature FAN Unit $> 50^\circ \text{ C}$ - temperature Power Supply Control $> 65^\circ \text{ C}$

Cooling Airflow

540 m^3/h (at maximum fan speed)

Operation

0 \div 40° C without derating

Firmware

NIM8301 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



This document, or parts thereof, may not be reproduced in any form or by any means without written permission from Caen S.p.A. Although every effort has been made to ensure the accuracy of information presented in this catalog, Caen S.p.A reserves the right to modify its products specifications without giving any notice; for up to date information please visit www.caen.it © Caen S.p.A - 2024

CAEN S.p.A.

Via Vetraia 11
55049 - Viareggio
Italy

Phone +39.0584.388.398

Fax +39.0584.388.959

info@caen.it

www.caen.it

CAEN GmbH

Brunnenweg 9
64331 Weiterstadt, Germany

Phone +49 (0)212.254.4077

Mobile +49 (0)151.16.548.484

info@caen-de.com

www.caen-de.com

CAEN Technologies, Inc.

1 Edgewater Street - Suite 101
Staten Island, NY 10305
USA

Phone +1.718.981.0401

Fax +1.718.556.9185

info@caentechnologies.com

www.caentechnologies.com

CAENspa India Private Limited

B205, BLDG42, B Wing,
Azad Nagar Sangam CHS,
Mhada Layout, Azad Nagar, Andheri West
Mumbai, Maharashtra 400053, India

info@caen-india.in

www.caen-india.in

