

NIM CERN-CE 600W with fan tray

[Request Quote](#)



NIM CERN-CE 600W with fan tray



The CERN spec./CE NIM crate series represents modular designed NIM crates with linear regulated power supplies in excellent and proven W-IE-NE-R quality, conforming to EUR4100 and CERN specifications. These NIM crates are outfitted with 600W linear regulated, low noise plug-in power supplies and a fan tray for demanding applications.

The modular concept of the CERN NIM and CAMAC standard allows to easily insert / remove and exchange fan trays (if outfitted with) and power supplies. All CERN spec. parts as bins, fan trays and power supplies are interchangeable between different NIM and even CAMAC crates. All power supplies support the features defined by the CERN standard including the monitoring connector and provide protection against short circuit, over / under voltage and over temperature.

The "CE" versions provide improved AC wiring.

Main Features

- Extremely solid construction, prepared for rear-side plug-in power supply
- 7U bin UEN 01 for 12 NIM slots with 2 U fan tray space
- Intelligent fan tray with 3 controlled DC-fans (variable fan speed) for UEN 01 bin only
- 3 status LED's and high visibility alpha-numeric display / diagnostic system

- UEP/CEP10Mxx: CERN spec. high precision regulated NIM power supplies for 300W power output, all 6 DC voltages +/-6V, +/-12V +/-24V provided, lowest noise (<3mVpp) technology, special version with increased +/-12V current available
- Power supplies to be plugged-in to the rear of the NIM bin for easy exchange
- All CE power supplies have separated and improved AC to fan connection

UEN 01 NIM Bin

- 7U bin UEN 01 for 12 NIM slots with 2 U fan tray space
- Extremely solid construction, prepared for rear-side plug-in power supply
- 12 wired NIM connectors with long life - high quality massive, gold plated contacts
- CERN compatible bin mechanics and wiring
- Dimensions: 19" (483mm) x 7U (311.2mm) x 530mm [whd], weight: ca. 5 – 6 Kg

UEL/CEL 03M Fan Tray

- Intelligent fan tray with 3 controlled DC-fans (variable fan speed) for UEN 01 bin only
- 3 status LED's and high visibility alpha-numeric display / diagnostic system
- Optional CAN-bus, HS CAENET or GPIB interfaces for crate remote control
- CE version with separated AC wiring to power supply
- Dimensions: 19" (483mm) x 2U (86mm) x 260mm [whd], weight: ca. 5 Kg

UEP/CEP 10Mxx 600W Power Supply

- CERN spec. high precision regulated NIM power supplies for 600W power output, all 6 DC voltages +/-6V, +/-12V +/-24V provided, lowest noise (<3mVpp) technology, special versions with increased +/-12V current available
- Power supplies are plugged-in to the rear of the NIM bin for easy tool free exchange
- All power supplies are protected against short circuit, over / under voltage and over temperature
- Equipped with status control and CERN-spec. monitoring output (PG28)
- 100V, 110V, 220V or 240V 50Hz/60Hz AC input (to be selected / changeable)
- CE conform versions provide improved AC wiring.
- Dimensions: 429mm x 172mm x 215mm [whd], weight: 17.5kg

Standard Crate configurations (other possible on request)

Type	Height	Fan	P.S.	+6V/-6V	+12V/-12V	+24V/-24V	115VAC	Power
NIM 600LCE_x	5U	CEL03M	CEP 10M88	45A/45A	8A/8A	8A/8A	0.5A	600W
NIM 600LSCE_x	5U	CEL03M	CEP 10M66	20A/20A	15A/15A	4A/4A	0.5A	600W
NIM 600L_x	5U	UEL03M	UEP 10M88	45A/45A	8A/8A	8A/8A	0.5A	600W
NIM 600LS_x	5U	UEL03M	UEP 10M66	20A/20A	15A/15A	4A/\$A	0.5A	600W

Note: _x = defines the AC input voltage, factory default is 220V AC (without index)

x = B: 110V AC

x = J: 100V AC

x = E: 240V AC

(* usable slots)

UEN 01 NIM Bin 7U

7U NIM-Bin for 12 high powered NIM-Modules, rugged heavy-duty construction with 6mm side panels depth 525mm. Power supply is plugged in and locked from rear side. The bin provides 2U space for a fan tray unit. The power-bus-system is equipped with 12 high-quality long-life NIM connectors parallel wired. Connector pins made of massive brass, gold plated.

Current rail system for +/-6V and Ground. Spliced wiring and additional power-connector pins have been used to allow currents of 25A for +/-12V lines now. CERN specifications are fulfilled entirely. The wiring across the NIM connectors is achieved under a screening cover.

When used according to CERN specifications the bin wiring carries mains voltage. All this mains cable are arranged as screened lines to prevent effects of mains distortions to secondary circuits. Due to not fulfilling the restrictions of EN 60950, UL 1950, etc., power supply and fan tray are not CE-marked. When used in combination with CE conform power supplies (CEP) and fan tray (CEL) mains voltage will be conducted through a separated power cord to the fan tray. This power cord is fixed at fan tray side and has to be plugged to the power supply. The bin is free of mains voltage then.

Current maximum ratings:

Voltage Line	Current / slot	Current / bin	Comment
+/-6V	13A	65A	sensed
+/-12V	13A	26A	sensed
+/-24V	13A	13A	sensed
GND	13		
115V AC		0.5A	Secondary

All NIM bins have clean earth wired with 0,25mm²

Intelligent NIM / CAMAC Fan Tray UEL03 / CEL03

- CERN spec. conform fan tray unit equipped with alphanumeric monitoring and three long life DC axial fans, either with frontal or bottom air entry (400m³/h or >540m³/h airflow).
- Static pressure up to 8 mm H₂O column.
- Fan speed is variable from 1200 to 3000 rpm
- MFOT (Maintenance Free Operation Time) > 65 000h / 40°C.
- Display: voltages, currents, fan speed, air inlet temperature, total power dissipation by inserted modules, network address (if installed). In case of malfunction the type of error will be displayed.
- LED's for Status, Fan-Fail, Over-Heat
- The fan tray monitoring can be set to Programming Mode when used with PS/Cs236 or 336 power supply.
- Optionally available with CAN-bus interface for remote monitoring and control.

CE conform Crate versions / CE conform mains connection

CERN spec. wired bins allow to switch crates on and off via the mains switch at the fan tray. Current rules as CE60950 and UL1950 claim for primary to secondary isolations, which are not considered in the appropriate CERN specifications. Therefore WIENER formed a compromise to fulfill CE and UL safety restriction as well as CERN

specifications by separating the mains wiring.

NIM / CAMAC Power Supply UEP 10M88 and 10M66

Linear regulated low noise power supply with 600W DC output, cut-off-protection for “overload”, “over voltage”, and “over temperature”-failures. Power Supplies »M« are equipped with monitoring, status and all alarming facilities according to CERN-CAMAC-Note 46-04. Status output »good« if all DC- Voltages are within their tolerance.

UEP 10M88 has a built in long life fan to cool heat sink, transformer and other components. The volume to power relation of high density, high sophisticated power supplies like the UEP 10M88 is extremely low for a high precision linear regulated 600W. Experience and knowledge in energy management at WIENER resulted in a special designed filter and storage capacitor bank, the “Energy-Tank” of UEP 10M. A special capacitor development with very low internal resistance and non-inductive bonding shapes the UEP 10 as a reference for power und reliability.

Different versions for either 100VAC or 115VAC or 230VAC are available.

Power supply DC-Outputs:	+6V	-6V	+12V	-12V	+24
UEP10M88	45A	45A	8A	8A	8A
UEP10M66	20A	20A	15A	15A	4A

Power supply DC-Outputs:	-24V	115VAC	max. power	regulation	application
UEP10M88	8A	0.5A	600W	linear	NIM/CAMAC
UEP10M66	4A	0.5A	600W	linear	NIM

UEP/CEP 10M66 or 10M88

Input voltage, 47-63Hz	100V(+/-10%) , 115V or 230V
Soft start	yes
Output: Noise and Ripple: Full load / 80% rated output	<3mVpp / 1mVpp, <0,6mVRMS
Regulation static: Change of output voltage versus load change 10-100%	<0,05%
Regulation static: change of output voltage versus line change +/-10%	<0,02%
Recovery time versus load change 10-100%	<0,15ms
Output impedance: Static / Dynamic(at 100kHz)	0,2mOhm / 0,5 Ohm
Temperature Error	<0,005%/K
Thermal Protection (No. of thermal switches)	(3x)
Output Current Characteristics ($I_{short} < 3A$ in foldback regulators), reverse bias diodes!	Fold back and trip off
Dual tracking for complementary outputs	yes
Calibration ranges Voltage / Currents	+/-5% / 20%
Sense compensation ranges, all DC voltages	0,5V

Status Control for all voltages (Over- Under-Voltage Comparator, defaults +/-0,3%)	bad/good, Status LED-signal
--	-----------------------------

Overvoltage Protection, trip off thresholds (defaults)	Crow bars 7,3V, 14,5V, 24,5V
--	------------------------------

Derating	>40°C with 2% up to 60°C max.
----------	-------------------------------

Optional CAN-bus interface for DC voltage monitoring and remote on/off via rear 9 pin sub D connector

Product Data Sheet

NIM CERN-CE 600W with fan tray: [Print Product Data Sheet](#)

Documentation

Manual and Tech-Notes : [Manual NIM-CAMAC](#)

Introduction: [WIENER NIM CAMAC introduction](#)

©2013 W-IE-NE-R, Plein & Baus, GmbH. All Rights Reserved