



NIM CERN-CE 600W

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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 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

- 5U high bin UEN 03 with 12 NIM slots
- CERN compatible bin mechanics and wiring, extreme solid / heavy construction, prepared for rear-side plug-in power supply
- 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
- CE conform versions provides improved AC wiring.

UEN/CEN 03 NIM Bins

- 5U high bin UEN 03 without fan tray space
- CERN compatible bin mechanics and wiring, extreme solid / heavy construction, prepared for rear-side plug-in power supply
- · 12 wired NIM connectors with long life high quality massive, gold plated contacts
- 1/2 NIM width control panel with mains switch, control LED's and LED's / test pins for all outputs
- CE conform versions provide improved AC wiring between power supply and bin.
- Dimensions: 19" (483mm) x 5U (222.3mm) x 530mm [whd], weight: ca. 5 6 Kg

UEP/CEP 10Mxx NIM 600W Power Supply

- 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 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)

Туре	Height	Fan	P.S.	+6V/-6V	+12V/-12V	+24V/-24V	115VAC	Power
NIM600CE_x	5U	-	CEP 10M88	45A/45A	8A/8A	8A/8A	0.5A	600W
NIM600SCE_x	5U	-	CEP 10M66	20A/20A	15A/15A	4A/4A	0.5A	600W
NIM600_x	5U	-	UEP 10M88	45A/45A	8A/8A	8A/8A	0.5A	600W
NIM600S_x	5U	-	UEP 10M66	20A/20A	15A/15A	4A/4A	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/CEN 03 NIM Bin 5U

Non-ventilated 525mm deep 5U NIM bin with 12 slots. Rugged heavy-duty construction with 6mm side panels depth 525mm. Power supply is plugged in and locked from rear side. 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 CEN 03 bin is free of mains voltage then.

Control panel with mains switch, mains lamp (yellow/red), LED's for status (green), overheat (yellow), overload (red), Alarm output (LEMO 00, open collector), test sockets and monitor LED's for all DC-Voltages according to CERN specifications.

Current maximum ratings:

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

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

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:

Print Product Data Sheet

Documentation

Manual and Tech-Notes :

Manual NIM-CAMAC

Introduction:

WIENER NIM CAMAC introduction