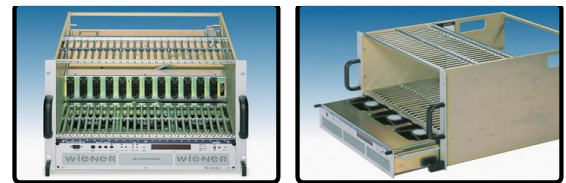


NIM CERN-CE 1920W with fan tray

[Request Quote](#)



NIM CERN-CE 1920W with fan tray



This CERN spec./CE NIM crate series represents modular designed NIM bins combined with high power /low noise, microprocessor controlled, switching mode power supplies in excellent and proven W-IE-NE-R quality, conforming to EUR4100 and CERN specifications. For ultimate requirements the NIM crate provides up to 1920W DC power and is outfitted with a fan tray for cooling, monitoring and control.

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
- PS/CS236: micro-processor controlled, high precision, low-noise switching power supply with programmable voltage and current limits, 1920W DC output, all 6 DC voltages +/-6V, +/-12V,
- +/-24V provided 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 / CEN 03 NIM Bins

- 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
- UEN 01 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

PS/CS336 NIM CERN/CE 1920W Power Supply

- micro-processor controlled, high precision, low-noise switching power supply with programmable voltage and current limits, 1900W DC output, all 6 DC voltages +/-6V, +/-12V, +/-24V provided , (no 115VAC!)
- 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)
- CS236 dimensions: 429mm x 133mm x 220mm [whd], weight: 12.9kg
- CE conform versions provide improved AC wiring.

Standard Crate configurations (other possible on request)

Type	Height	Fan	P.S.	+6V/-6V	+12V/-12V	+24V/-24V	115VAC	Power
NIM1920LCE_x	7U	CEL03M	CS 236	80A/80A	20A/20A	10A/10A	-	1920W
NIM1920L_x	7U	UEL03M	PS 236	80A/80A	20A/20A	10A/10A	-	1920W

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)

For discontinued items please see the support section!

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.

PS/CS 336 Low noise switching CAMAC Power Supply

High density ultra high power CAMAC power supply in WIENER low-noise-cavity technology, considering both: CERN-

CAMAC-Note 46-04 and EP 82-01. The PS236 power supplies use the status signal to superpose additional digital monitoring information to the fan tray. This enlarged the monitoring and control features. Wide range mains input 92-265VDC, 47-63Hz.

DC Outputs: +/-6V, +/-12V, +/-24V. Current limits can be adjusted via UEL/CEL03 fan tray or remotely, when the fan tray has corresponding remote interface installed.

Power supply	+6V	-6V	+12V	-12V	24	-24V	max. power (*: 92-265VAC)	regulation	application
PS236VH12	80A	80A	20A	20A	10A	10A	1100-1900W*	switched	CAMAC

PS/CS 336

Input voltage, 47-63Hz	92V-265V, <16A sinusoidal
Soft start	yes
Output: Noise and Ripple: Full load / 80% rated output (0-20Mhz Bandwidth)	<10mVpp / <10mVpp, <2mVRMS
Regulation static: Change of output voltage versus load change 10-100%	<0,1% or <15mV
Regulation static: Change of output voltage versus line change +/-10%	<0,02%
Regulation dynamic: Change of output voltage versus load change +/-25%	<0,7% or 100mV.
Recovery time versus load change 10-100% Recovery time versus load change +/-25%	<0,2ms for <1% deviation
Output impedance: Static / Dynamic(at 100kHz, 6V output)	0,2mOhm / 50mOhm
Temperature Error	<0,02%/K
Thermal Protection (No. of thermal switches)	(5x)
Output- Current Characteristics, reverse bias diodes!	Constant current and trip off
Dual tracking for complementary outputs	Voltage rise time 50ms, Off with crow bar discharge
Calibration ranges Voltage / Currents	Programmable +15%-50% / 0-100%
Sense compensation ranges, all DC voltages	0,5V
Status Control for all voltages (Over- Under-Voltage Comparator, defaults +/-0.3%)	Status control, LED-signal, trip off circuit
Overvoltage Protection, trip off thresholds (defaults)	Crow bars 7,3V, 14,5V, 24,5V
Derating, max. operating temperature	no derating up to 50°C, 50°C max.

Product Data Sheet

NIM CERN-CE 1920W with fan tray: [Print Product Data Sheet](#)

Documentation

Manual: [Manual NIM-CAMAC](#)

Introduction: [WIENER NIM CAMAC introduction](#)

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