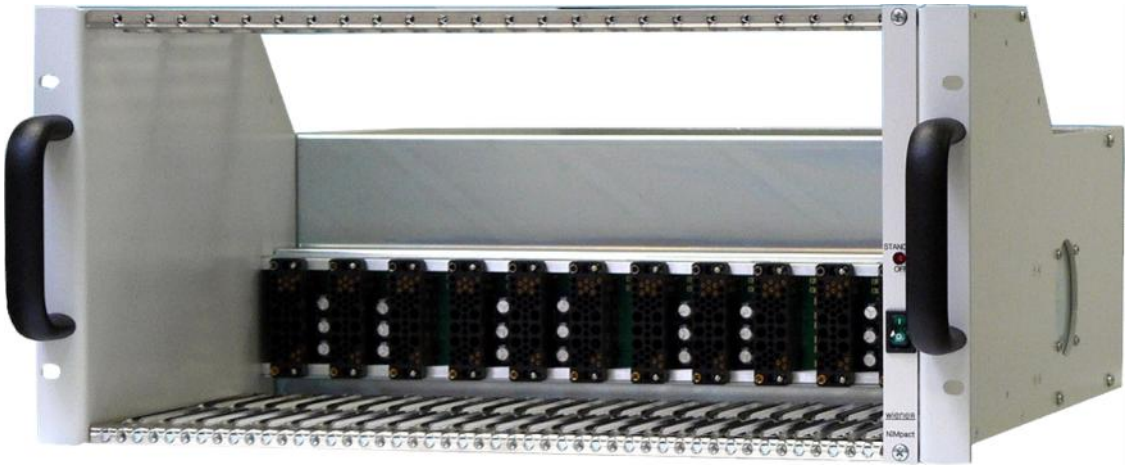

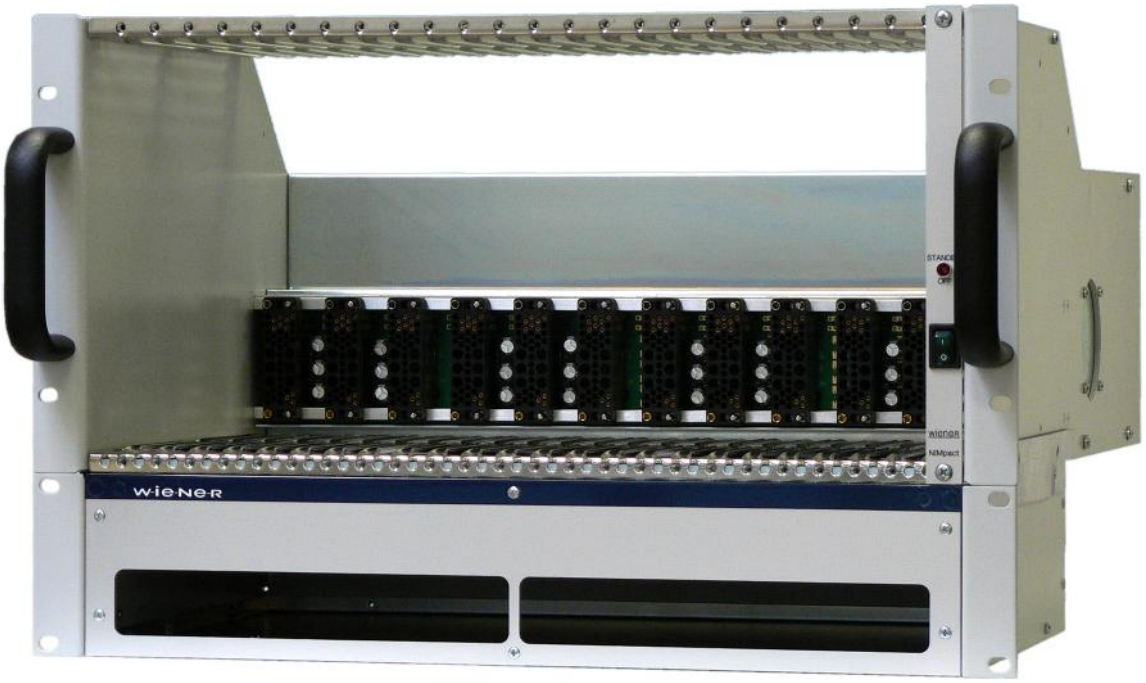

NIMPACT

User’s Manual

General Remarks

The only purpose of this manual is a description of the product. It must not be interpreted as a declaration of conformity for this product including the product and software.

W-IE-NE-R revises this product and manual without notice. Differences of the description in manual and product are possible.

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Table of contents:

1 General Information

Wiener NIMpact Crates consist of a bin and a power supply, mounted fix together. The power supply is linear regulated. Separation of bin and power supply is possible by detaching the mounting-screws, situated in each bin side-panel. Power supplies are available with simplified monitoring and control circuit (doesn't operate the "STATUS" LED) and with Cern Spec. full monitoring and control (suffix "M").

1.1 NIM- bin UEN 05

The ***UEN 05*** is a 5U NIM-bin for hosting of 12 standard NIM-modules. The front panel is equipped with main switch and control LED's. The power supply, UEP 24, mounted fix at rear side bears the 12 high-quality long-life NIM-connectors which pins are made of highest quality massive brass, gold plated. The ventilated Version has an additional 2U fix mounted fan tray with 3 DC fans for cooling with front or bottom air inlet.

The bin front panel

Switches:

POWER ON/OFF	main switch for power supply, illuminated when "ON"

Indicators:

AC POWER	main switch integrated
STATUS	green LED lights if all voltages are within the limits*****
TEMP	yellow LED lights if overheat in the power supply occurs

*** Operated in combination with M monitoring only**

2 Operation, Function and Control

2.1 Supply UEP 24

The total regulator circuit comprises 3 integrating control loops for:

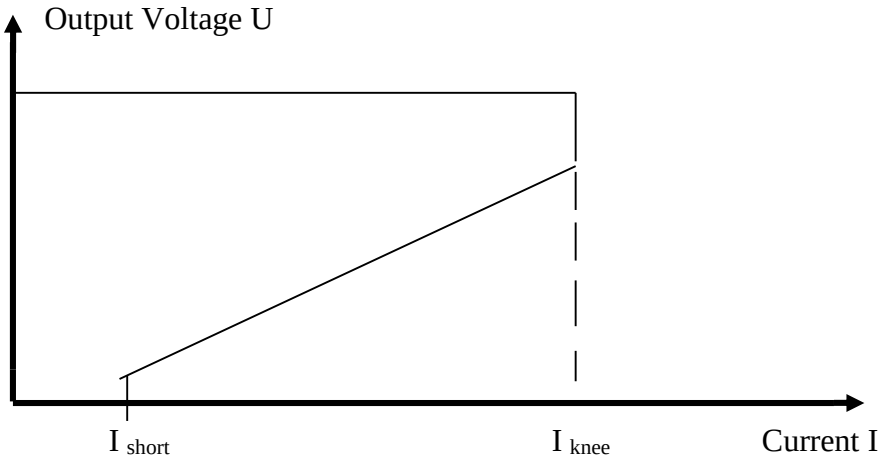
output voltage

fold back characteristic

dual tracking

Dual tracking:

For some applications of the power supply it is important that during turn on or turn off transients opposite voltages have the same absolute value. This feature is achieved by an additional internal regulation circuit. Any nonsymmetrical output voltage shifts a bias to nonsymmetrical levels, one transistor becomes conductive and acts on the voltage control loop until both outputs are nearly symmetrical to the ground.



Foldback Characteristic

2.1.1 Monitoring and alarming signals

In case of

over temperature a yellow LED lights and mains interruption relay acts
over load mains interruption relay acts,
over voltage (OVP) mains interruption relay acts (due to over current),

and the power supply trips off.

2.1.2 Temperature sensors

All linear regulated power supplies are controlled with different independent temperature sensors, placed at the heat sink, inside the power-transformer and on the control board. If one of this sensors exceed the maximum temperature-level, the temp. off function will interrupt the AC mains circuit.

2.1.3 Adjustment

All DC outputs can be easily recalibrated, if necessary.

Voltages can be set by using the trim-pots on the top of the power supply

APPENDIX A: Technical details UEP 24

Linear regulated data 300W

Input:	230V/115V/100V +10%-10%, 48-63Hz, inrush current limited to < 15/30A
Derating:	full power at 50°C, derating 2%/K up to 60°C
Noise and ripple:	full load < 0.6mV eff, < 3mVpp, 1mV at 80% rated power
Regulation:	load 10 to 100% U_{out} < 0,05%, line ±10% Uout < 0,02%
Recovery time:	load change 10 % to 100%: < 0,15ms within 0,05%, <0,1ms within 0,1%
Output impedance:	static < 0.2mOhm, dynamic at 100kHz < 0.3 Ohm
Temperature error:	$<5*10^{-5}$/K
Thermal protection:	overheating protection by thermal sensors (3 fold),
Current limit:	adjusted to 115% of rated current, adjusting range ±20%
Characteristics:	short circuit protected by fold back characteristic, short circuit current < 3A, reverse bias diodes.
Voltage:	calibration range ±5% rated voltage, dual tracking for all ±DC outputs over voltage protection (crow bar), ±6V, ±12V, ±24V calibrated at ±7.3V, ±14.5V, ±28.5V
Options for power supplies type M:	status-signal and status relay, rearming and inhibit input, power-fail-signal, remote monitoring acc. to CERN-CAMAC-note 46-04

Output voltages, currents and total power

Outputs	**+6V**	**-6V**	**+12V**	**-12V**	**+24V**	**-24V**	**115 VAC**
UEP 24 (I23)	11,5A	11,5A	3,4A	3,4A	3,4A	3,4A	0.5A
(I24)	15A	15A	3,4A	3,4A	3,4A	3,4A	0.5A
(I26)	7A	7A	15A	15A	---	---	0.5A
(I27)	8,6A	8,6A	3,4A	3,4A	6,9A	6,9A	0.5A