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USER MANUAL

DC power supply in the cassette EUROCARD 3U-220, type ZM-PS

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Warnings

- Before operation read this manual carefully
- Do not touch internal elements of the working device – danger of shock or burn
- Protect device against penetration of its interior by any object or liquid – danger of shock and damage of the device
- The device must be powered from the utility power grid with a protective earth circuit
- Check the quality of all done connections before switching the device on
- The device can interfere with sensitive radio or TV devices operating nearby

1. Technical description

The power supplies ZM-PS are made of modules of the CAMELEON (ZM) family dedicated to parallel operations. There are 2 to 5 ZM units assembled in a cassette EUROCARD 3U-220. They are connected in parallel with current sharing among units.

Type of the power supply	Output voltage	Maximal output current	Type of the power supply	Output voltage	Maximal output current
ZM-PS2-12V20A	12V	20A	ZM-PS4-12V40A	12V	40A
ZM-PS2-12V32A	12V	32A	ZM-PS4-12V64A	12V	64A
ZM-PS2-12V48A	12V	48A	ZM-PS4-12V96A	12V	96A
ZM-PS2-24V24A	24V	24A	ZM-PS4-24V48A	24V	48A
ZM-PS2-24V32A	24V	32A	ZM-PS4-24V64A	24V	64A
ZM-PS2-24V48A	24V	48A	ZM-PS4-24V96A	24V	96A
ZM-PS2-48V12A	48V	12A	ZM-PS4-48V24A	48V	24A
ZM-PS2-48V16A	48V	16A	ZM-PS4-48V32A	48V	32A
ZM-PS2-48V24A	48V	24A	ZM-PS4-48V48A	48V	48A
ZM-PS2-110V10A	110V	10A	ZM-PS4-110V20A	110V	20A
ZM-PS2-220V5A	220V	5A	ZM-PS4-220V10A	220V	10A
ZM-PS3-12V30A	12V	30A	ZM-PS5-12V50A	12V	50A
ZM-PS3-12V48A	12V	48A	ZM-PS5-12V80A	12V	80A
ZM-PS3-12V72A	12V	72A	ZM-PS5-12V120A	12V	120A
ZM-PS3-24V36A	24V	36A	ZM-PS5-24V60A	24V	60A
ZM-PS3-24V48A	24V	48A	ZM-PS5-24V80A	24V	80A
ZM-PS3-24V72A	24V	72A	ZM-PS5-24V120A	24V	120A
ZM-PS3-48V18A	48V	18A	ZM-PS5-48V30A	48V	30A
ZM-PS3-48V24A	48V	24A	ZM-PS5-48V40A	48V	40A
ZM-PS3-48V36A	48V	36A	ZM-PS5-48V60A	48V	60A
ZM-PS3-110V15A	110V	15A	ZM-PS5-110V25A	110V	25A
ZM-PS3-220V7.5A	220V	7.5A	ZM-PS5-220V12.5A	220V	12.5A

On the left side of the front panel there is a mains breaker to cut the power off all rectifiers the system consists of.

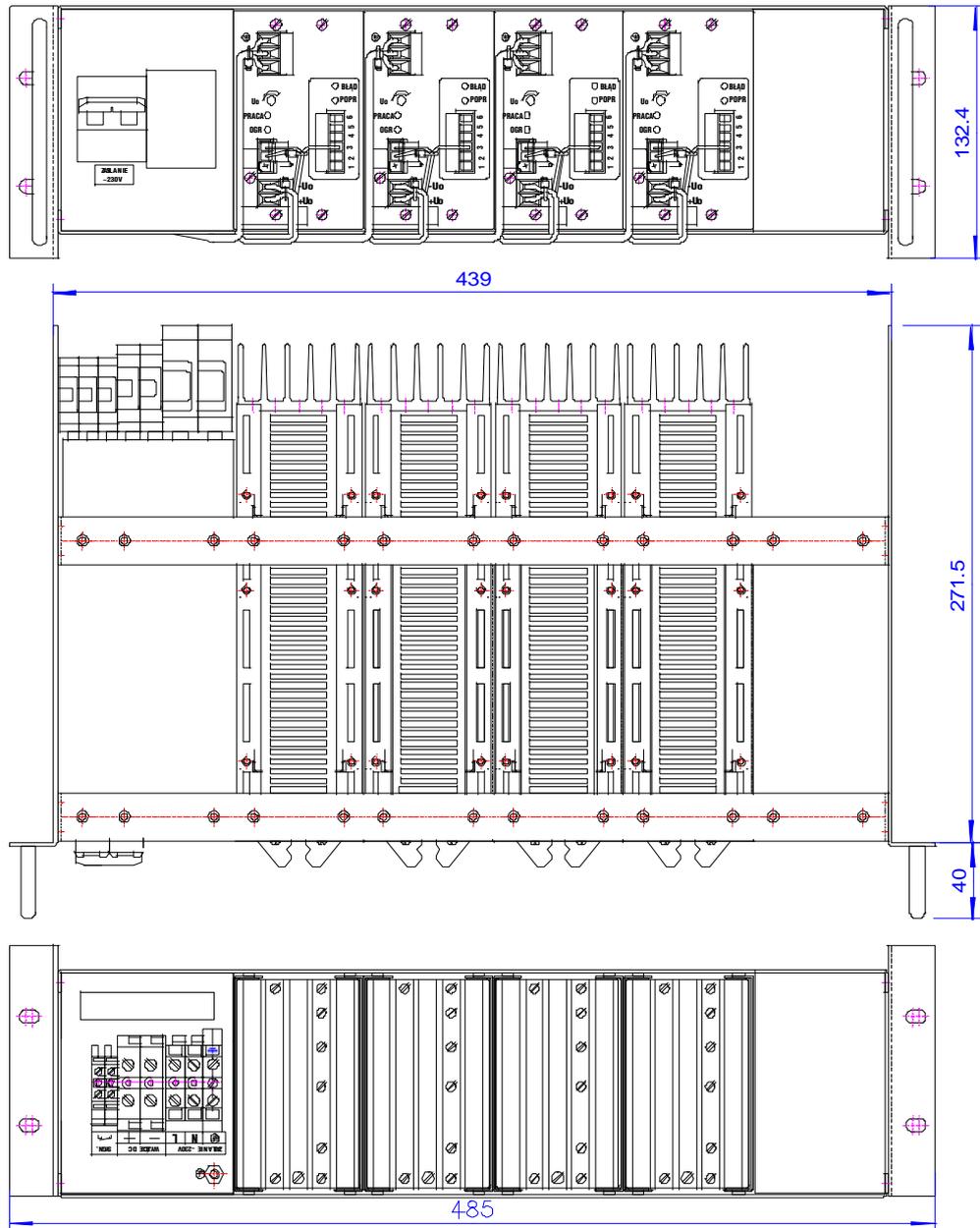
Front and rear view of the power supply

1.1. Technical data

General electrical and environmental parameters

Nominal input voltage	184...230V...253V 50Hz
Operational temperature	-25...+50°C
Ingress protection EN 60529	IP 20
Electric safety class EN 60950-1	I

The detailed data on electrical properties could be found in the user manual of the CAMELEON family of modular powers supplies, in the section devoted to units for parallel operation.



Dimensional drawing of a ZM-PS unit housing

2. Set-up and connections

2.1. Set-up

The power supply is designed to assembly into a rack cabinet compatible with the 19" cassette EUROCARD 3U/220. Because terminals are located on the rear face of the power supply, it is recommended to allow access to the rack cabinet at its rear side.

To mount the power system inside a cabinet one has to perform consecutively the following steps:

- attach rails (slides) to the 19" rack to enable sliding the cassette in,
- attach cage nuts in appropriate holes of the rack,
- slide the cassette over the prepared support,
- fasten the power system with four screws with washers,
- check the mounting of the power system
- connect earth terminals of the cassette and the rack.

2.2. Connections

One has to remember the device must be connected to the utility grid by the fixed installation with the protective earth wire. It is recommended to outfit the system with surge protection.

Because of substantial leakage current the casing of the power supply ZM-PS **should be connected to earth unconditionally.**

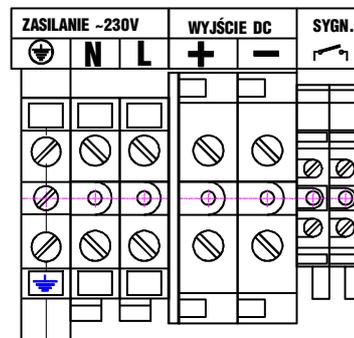
The cross section of the input wires has to be chosen according to the maximal input current sourced from the grid (the value of the current is stated on the data plate of the device), however the cross section should not be smaller than 1.5mm^2 .

The cross section of the output wires has to be chosen according to the maximal load current.

Single terminal blocks for input (ZASILANIE), output (WYJŚCIE) and indication (SYGN.) are mounted in a row on a TS-35 (DIN) rail at the back side of the power supply. The maximal cross sections of the wires are as follows:

- AC input – 10mm^2
- DC output – 16mm^2
- Indication – 2.5mm^2

The casing earth terminal is offered as a M5 screw.



View of the terminals

3. Maintenance

3.1. Basics

The output voltage of the power supply is factory preset. Once set up, the power supply needs supervision only in case of alarms which might be triggered during the operation.

3.2. State indication

The power supply indicates its state by dry contacts available as screw terminals.

Normally they are closed. In case of a mains failure or a failure of any power supply unit the system consists of the contacts get open.

Connecting the contacts into an indication circuit one has to mind the voltage and current strength of the contacts which is 30V/0.5A.

3.3. Regular maintenance

The device does not require special regular maintenance, except keeping the surroundings of the cabinet tidy.

4. Repairs

All guarantee and post-guarantee repairs shall be conducted by the service staff of the manufacturer or an authorized partner.

5. Handling of the package and waste



The package of the product is made of non-hazardous materials (wood, paper, corrugated fiberboard, plastics) which could be recycled.

Unused packages should be handed over to a dust collector, after having them segregated.



The used-out product constitutes non-hazardous waste, not to put into the general waste container. Instead, it should be handed over to the local collector of the waste electric and electronic equipment.

Professional handling of the waste electric and electronic equipment (WEEE) shall limit negative effects of improper storage and processing of this waste on human health and environment.