

ZM-R modular power supplies unit (PSU) for parallel cooperation are designed to supply DC power to electrical devices requiring a stable voltage source. The power supplies are equipped with a CONTROL connector and a special controller enabling the connection of several power supplies for parallel operation with even current distribution. The controller also allows you to adjust the output voltage level from the outside, e.g. by a microprocessor controller or a potentiometer. Voltage control can apply to several power supplies connected for parallel operation as well as a single power supply of this type.



APPLICATION

- electronics and industrial automation
- electrical engineering,
- telecommunications
- telemetry, surveillance and monitoring systems



CHARACTERISTICS

- the ability to cooperate up to 15 units without the use of additional external elements to increase power or reliability (redundancy)
- equal distribution of load current between connected power supplies
- modular construction - fastened with screws (optional mounting on TS35 rail)
- main supply with alternating or direct voltage
- power factor correction (PFC) (not applicable to ZM 151)
- relay and optical signaling of the correct operation of the PSU
- optical signaling of incorrect and correct parallel operation
- control socket
- option to choose the type of connection on the front panel (screw terminals or socket / plug assembly)
- output voltage adjustment
- option to connect an external voltage control system (e.g. potentiometer or active temperature probe)

BASIC OUTPUT VOLTAGES AND CURRENTS

		Nominal output current / variants (without designation of installation version)		
Nominal output voltage	12V	10A <i>ZM12V10A-151R</i>	16A <i>ZM12V16A-300R</i>	32A <i>ZM12V32A-600R</i>
	24V	6A <i>ZM24V6A-151R</i>	12A <i>ZM24V12A-300R</i>	24A <i>ZM24V24A-600R</i>
	48V	3A <i>ZM48V3A-151R</i>	6A <i>ZM48V6A-300R</i>	12A <i>ZM48V12A-600R</i>
External dimensions [mm]		66 x 111 x 203+17 (connectors)		66 x 111 x 262+17 (connectors)
Weight [kg]		1,2	1,3	1,7
Cooling		convective	convective and forced by an internal fan	
Power correction system (PFC)		no	yes	yes

POWER SUPPLY FUNCTIONS

- the green ON LED is lit when the power supply is present and the inverter is working properly
- the yellow OCP LED is lit when the PSU unit (ZM-R) has been overloaded (current or power limiter system is working)
- ON relay is energized with the presence of power supply and properly operated converter
- the green OK LED is lit when the PSU unit (ZM-R) correctly distributing current during parallel operation and the external control were started



- the red FLT LED is on when the PSU unit (ZM-R) is failed or when the + 5V auxiliary voltage output is overloaded
- setting the output voltage by arranging the output voltage level switch accordingly
- hot swappable

CREATING A POWER SUPPLY INDEX - HOW TO ORDER

ZM	designation of the power supply family
12V, 24V, 48V	nominal output voltage
10A	nominal output current: current value related to the construction and output voltage
151, 300, 600	design differentiator due to the output power
R	parallel cooperation
-100	designation of the detailed code of the installation and assembly version:
	- first position: 0 - screw terminals; 1- connectors
	- second position: 0 - standard version; E - for mounting in a EURO cassette
	- third position: 0 - basic version; 1, 2, 3 etc. - subsequent individual performances

Examples: **ZM12V10A-151R-000**, **ZM24V12A-300R-1E0**

BASIC PARAMETERS OF THE POWER SUPPLY

Input Parameters		General	
Frequency	47...53Hz	Efficiency	to 87%
Power factor	0,98 ¹	Operating temperature range	-25 ÷ 55°C
Input voltage	184... <u>230</u> ...253Vac 165 (187 ²)... <u>220</u> ...297Vdc	Ingress Protection	IP20 acc. PN-EN 60529
Output parameters		Compliance with standards	
Characteristic	UPI	Functionality	PN-EN 61204 + A1
Voltage stabilization output	0,5%	Electrical safety	PN-EN 60950-1 + A11 + A1 + A12 + A2 cl. I
The output voltage range of the power supply	11,5...14,3V	EMC emission	PN-EN 61000-6-3 + A1
	23,0...28,4V	EMC immunity	PN-EN IEC 61000-6-1
	46,0...57,4V		

¹ 0,65 for ZM151 power supplies

² 187V for a model without PFC, i.e. with a 151 differentiator.

MANUFACTURER

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The manufacturer reserves the right to make changes without notice

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