

RACK series power supply unit

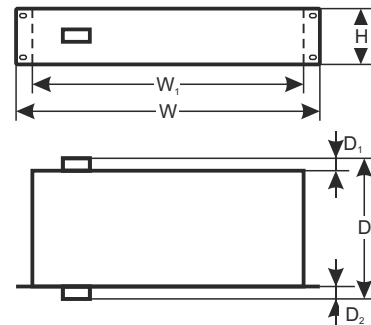
RACK mounted buffer power supply for up to 12 cameras IP and NVR



CODE: **RPUPS1248R** v.1.0/III

EN*

TYPE: **RUPS 54V/12A/5A RACK** mounted buffer power supply for up to 12 cameras IP and NVR.



Features:

- DC 54V/12x0,3A 48V uninterruptible power supply for powering 12 IP cameras (15,4W/ channel)
- DC 12V/4A uninterruptible power supply for powering of the recorder
- 12 outputs independently protected by 0,5A polymer fuses PTC
- the recorder output is protected with a 5A PCT polymer fuse
- wide range of mains supply AC: 176÷264V AC
- built-in power factor correction system (PFC)
- high efficiency 82%
- battery charging and maintenance control
- excessive discharging (UVP) protection
- battery output protection against short circuit and reverse connection
- designed for 10 Mbit/s and 100 Mbit/s network
- acoustic indication of failure
- battery charge current: 0,5A (batteries 4×7Ah / 4×17Ah)
- Approximate backup time: 8h 15min
- LED optical indication: AC, DC, LoB, TEMP, ALARM, NVR
- control of voltage presence at the PoE outputs
- power over pairs: 4/5(+), 7/8(-)
- the ALARM technical output of collective failure – relay type, activated by:
 - 230V AC power loss
 - low battery voltage (<46V)
 - activation of the output fuse in the camera power supply circuit
 - activation of the output fuse in the recorder
 - power supply circuit too high temperature of the PSU (>70°C)
 - the PSU failure
- protections:
 - SCP short-circuit protection
 - OVP overvoltage protection
 - overvoltage protection
 - overload protection OLP
- forced cooling (fan)
- warranty – 2 year from the production date

DESCRIPTION

The **RPUPS1248R** buffer power supply unit is designed for uninterrupted power supply of up to 12 cameras IP and recorder. The PSU has two circuits: first **12x0,3A / 54V DC** for both cameras and **1x4A / 12V DC** for supplying the recorder. Current efficiency of the PSU amounts to:

Output current 12x0,3A / 54V DC + 4A / 12V DC recorder + 0,5A battery charging

In case of 230V mains power loss, a battery back-up is activated immediately.

The approximate backup time is given assuming that all output ports are used (using typical devices and 17Ah batteries). The electricity consumption for own needs and the energy efficiency of the power intake track were taken into account. The exact description of how to perform the calculations can be found at: ["Approximate backup time - assumptions for calculations"](#).

The PSU is fitted with 12 outputs protected independently with melting fuse 0,5A of the first output for the recorder is protected with a 5A polymer fuse PTC. The power is carried over the spare pairs (4/5 & 7/8), which, according to the Ethernet network standard, are not used for data transmission (data transmission uses 1/2 and 3/6 data pairs). The power supply is fitted with the **ALARM** output of collective failure. In case of failure, relay contacts are switched automatically, which is accompanied by acoustic and optical indication (the corresponding led goes on). The power supply construction is based on the switch mode PSU with high energy efficiency and is located in an enclosure adapted for mounting in standard **RACK 19"** cabinets.

The PSU can not be used in Gigabit Ethernet networks, where all twisted pairs are involved in the transmission of data!

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SPECIFICATIONS	
PSU type:	A (EPS – External Power Source)
Mains supply	176÷264V AC
Current up to	1,5A@230V AC max.
Supply power	264V AC
Efficiency	82%
Power factor PF	>0,95@230V AC
Output voltage PoE for cameras	44V ÷ 54V DC – buffer operation 38V ÷ 54V DC – battery-assisted operation
Output voltage NVR – recorder	12V DC – maintained regardless of the state of battery charge
Output current for cameras	12 x 0,3A (Σ I = 3,5A max.)
Output current for recorder	4A
Battery charge current (batteries 4×7Ah / 4×17Ah, connect batteries in series)	0,5A max. (+/-5%)
Approximate backup time	8h 15min
Ripple voltage – cameras output	150 mV p-p max.
Ripple voltage – recorder output	100 mV p-p max.
PSU current consumption	150 mA
Short-circuit protection SCP	cameras: 16 x PTC 1A, polymer fuse recorder: 1 x PTC 5A, polymer fuse
Overload protection OLP	105% ÷ 150% of the PSU power, automatic return
Overvoltage protection OVP	>62V (activation requires disconnecting the load or supply for about 20 s.)
Battery circuit protection SCP and reverse polarity connection	glass fuse
Operating conditions	2nd environmental class, -10°C ÷ +45°C
Enclosure	Steel plate RAL 9005, black
Mounting dimensions	W=19", H=2U, D=267
Dimensions	W=482, W ₁ =442, H=88, D=267, D ₁ =32, D ₂ =10 [+/- 2mm]
Net / gross weight	6,0kg / 6,4kg
Fixation	four-point butt mounting to RACK profiles – the set include 4 M6 screws + cage nuts
Declarations, warranty	CE, 2 year from the production date
Notes	Forced cooling (fan). 230V AC input: the IEC C14 socket with a fuse, power cable 1,5m (included) Technical output ALARM : Φ0,5-2,1 (AWG 24-12) 0,5-1,5mm ² Power supply output of the NVR recorder: Φ0,5-2,1 (AWG 24-12) 0,5-1,5mm ² , power cable 2m (included) PoE cameras power supply output: socket RJ45 8P8C Battery output BAT : 6,3F-2,5