

CODE: **PSUPS 20A12E** v.1.2/V

EN**

TYPE: **PSUPS 13,8V/12V/20A/65Ah Buffer power supply for 16 HD cameras and recorder**



Features:

- DC 13,8V uninterruptible power supply of HD cameras
- DC 12V uninterruptible power supply of the recorder
- fitting battery 65Ah/12V
- wide range of mains supply AC 176÷264V
- built-in power factor correction system (PFC)
- high efficiency 85%
- 16 outputs protected by 1A glass fuses for powering cameras
- 12V/5A output dedicated to supply the recorder
- battery charge and maintenance control
- battery charging current 2A/4A/8A jumper selectable
- Approximate backup time: 4h 15min
- deep discharge battery protection (UVP)
- battery output protection against short circuit and reverse polarity connection
- LED indication
- protections:
 - SCP short-circuit protection
 - OLP overload protection
 - OVP over voltage protection
 - OHP overheat protection
 - surge protection
 - against sabotage
- warranty – 2 years from the production date

DESCRIPTION

A buffer PSU is intended for an uninterrupted supply to CCTV system devices requiring stabilized voltage of **12V DC (+/-15%)**. The PSU has two circuits: first **1x5A / 12V DC** for supplying the recorder and **16x0,8A / 13,8V DC** for both cameras. Current efficiency of the PSU amounts to:

1. **Output current 16x0,8A + 5A recorder + 2A battery charging ***
 2. **Output current 16x0,7A + 5A recorder + 4A battery charging ***
 3. **Output current 16x0,4A + 5A recorder + 8A battery charging ***
- Total current of the receivers + battery 20A* max.**

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

The approximate backup time is given assuming that all output ports are used (using typical devices and 65Ah 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 mounted in a metal enclosure (RAL 9003 colour) that accommodates a 65Ah/12V battery. The enclosure is equipped with a micro-switch indicating unwanted opening of the door (faceplate).

* See chart 1

SPECIFICATIONS	
PSU type	A (EPS - External Power Source)
Mains supply	176÷264V AC / 50Hz
Current consumption	1,5A@230V AC
PSU's power	264W
Efficiency	85%
Power factor PF	>0,95 @230V AC
Output voltage – strips fuse base 16x	11V ÷ 13,8V DC – buffer operation 9,5V ÷ 13,8V DC – battery-assisted operation
Output voltage – recorder	12V DC maintained regardless of the state of battery charge
Output current $t_{AMB}<30^{\circ}\text{C}$	16x0,8A + 5A recorder + 2A battery charging* 16x0,7A + 5A recorder + 4A battery charging* 16x0,4A + 5A recorder + 8A battery charging * Total current of the receivers + battery 20A* max. * see chart 1
Output current $t_{AMB}=40^{\circ}\text{C}$	16x0,4A + 5A recorder + 2A battery charging * Total current of the receivers + battery 14A* max. * see chart 1
Output voltage adjustment range	12÷14V DC
Ripple voltage	120mV p-p max.
PSU current consumption	0,3A
Battery charging current	2A, 4A, 8A jumper selectable
Approximate backup time	4h 15min
Short-circuit protection SCP	2x STRIP LB8: 16x F 1A glass fuse, STRIP LB1: 1xF 5A
Overload protection OLP	105% ÷ 150% of the PSU power, automatic recovery
Battery circuit protection SCP and reverse polarity connection	glass fuse 30A
Surge protection	varistors
Over voltage protection OVP	>16V (activation requires disconnecting the load or supply for about 20 s.)
Deep discharge protection UVP	$U<9,5\text{V} (\pm 5\%)$ – disconnection of battery terminal
Sabotage protection: - TAMPER output indicating enclosure opening	- micro-switches, NC contacts (enclosure closed), 0,5A@50V DC (max.)
Optical indication: front panel of the PSU - AC OK.; LED indicating the AC power status - AUX OK.; LED indicating the DC supply at the PSU output	- red, normal status – on, failure: off - green, normal status – on, failure: off
Operating conditions	2nd environmental class, $-10^{\circ}\text{C} + +40^{\circ}\text{C}$
Enclosure	Steel plate DC01 1,2mm, RAL 9003
Dimensions	$W=420, H=375, D+D_1=183+14$ [+/- 2mm] $W_1=425, H_1=378$ [+/- 2mm]
Fitting battery	360x175x165mm (WxHxD) max
Net/gross weight	7,7 / 8,4 kg
Closing	Cheese head screw x 2 (at the front), lock assembly possible
Deklarations, warranty	CE, 2 year from the production date
Notes	The enclosure does not adjoin the assembly surface so that cables can be led. Forced cooling - built-in fan.

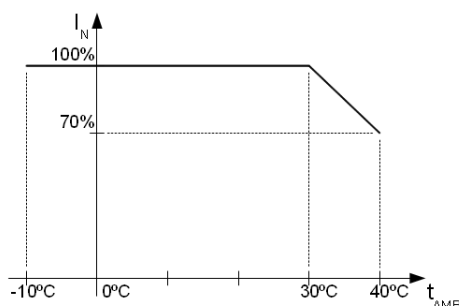


Chart 1. Acceptable output current from the PSU depending on ambient temperature.