

PSDCB series power supply unit

Buffer power supply 13,8V DC for up to 5 HD cameras

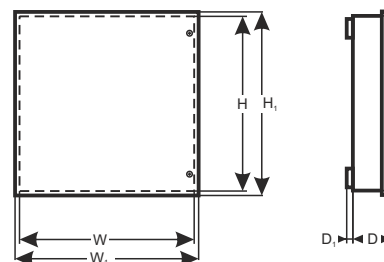


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CODE: **PSDCB 05125C** v.1.0/VII
TYPE: **PSDCB 13,8V/5A/5x1A/17Ah** buffer power supply for up to 5 HD cameras.



GREEN POWER CCTV



Features:

- DC 13,8V/5A* uninterruptible power supply
- 5 outputs, protected with 1A glass fuses
- fitting battery: 17Ah/12V
- wide range of mains supply: 176÷264V
- high efficiency 80%
- battery charging and maintenance control
- excessive discharging (UVP) protection
- battery charging current 1A/2A changed with jumper
- Approximate backup time: 4h 45min
- battery output full protection against short-circuit and reverse polarity connection
- LED indication
- protections:
 - SCP short-circuit protection
 - OVP overvoltage protection
 - overvoltage protection
 - against sabotage
 - overload protection (OLP)
- warranty – 2 year from the production date

DESCRIPTION

A buffer PSU is intended for an uninterrupted supply to devices requiring stabilised voltage of **12V DC (+/-15%)**. The PSU provides voltage of **U=13,8V DC**. Current efficiency:

- 1. Output current 5Ax1A + 1A battery charge**
 - 2. Output current 5Ax1A + 2A battery charge**
- Total device current + battery: 7A max*.**

In case of power decay, 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 constructed based on the switch mode PSU, with high energy efficiency. The PSU is housed in a metal enclosure (colour RAL 9003) which can accommodate a 17Ah/12V battery. A micro switch indicates door opening (front cover).

* Refer to chart 1

SPECIFICATIONS	
PSU type	A (EPS - External Power Source)
Mains supply	176÷264V
Current up to	0,95A@230V AC
Supply power	100W max.
Efficiency	80%
Output voltage	11V±13,8V DC – buffer operation 9,5V±13,8V DC – battery-assisted operation
Output current $t_{AMB}<30^{\circ}\text{C}$	5x1A + 1A battery charge - refer to chart 1 5x1A + 2A battery charge - refer to chart 1
Output current $t_{AMB}=40^{\circ}\text{C}$	5x0,8A + 1A battery charge - refer to chart 1 5x0,6A + 2A battery charge - refer to chart 1
Voltage adjustment range	12÷14V DC
Ripple	120mV p-p max.
Battery charge current	1A / 2A max. / 17Ah ($\pm 5\%$)
Approximate backup time	4h 45min
Short-circuit protection SCP	LB5 STRIP 5x F 1A glass fuse
Overload protection OLP	105 ÷ 150% of power supply, automatic recovery
Battery circuit protection SCP and reverse polarity connection	polymer fuse
Surge protection	varistors
Overvoltage protection OVP	>16V (automatic recovery)
Excessive discharge protection UVP	$U < 9,5\text{V}$ ($\pm 5\%$) – disconnect of connection battery
Tampering protection system: - TAMPER – indicating unwanted opening of the PSU's enclosure	- microswitch, NC contacts (enclosure closed), 0,5A@50V DC (max.)
LED indication	Yes
Operating conditions	2nd environmental class, $-10^{\circ}\text{C} \div +40^{\circ}\text{C}$ relative humidity 20%...90%, without condensation
Enclosure	Steel plate, DC01 0,7mm colour: RAL 9003
Dimensions	$W=280, H=292, D+D_1=82+8$ [+/- 2mm] $W_1=285, H_1=296$ [+/- 2mm]
The dimensions of the battery compartment	185x170x75mm (WxHxD) max
Net/gross weight	2,2 / 2,4kg
Closing	Cheese head screw x 2 (at the front), lock assembly possible
Declarations, warranty	CE, 2 year from the production date
Notes	The enclosure does not adjoin the assembly surface so that cables can be led. PSU cooling: convection. Power supply: $\Phi 0,63-2,50$ (AWG 22-10) Outputs: $\Phi 0,41\pm 1,63$ (AWG 26-14), Battery output BAT: 6,3F-2,5

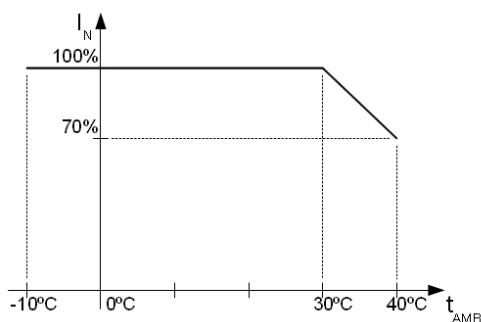


Chart 1. Acceptable output current from the PSU depending on ambient temperature.