

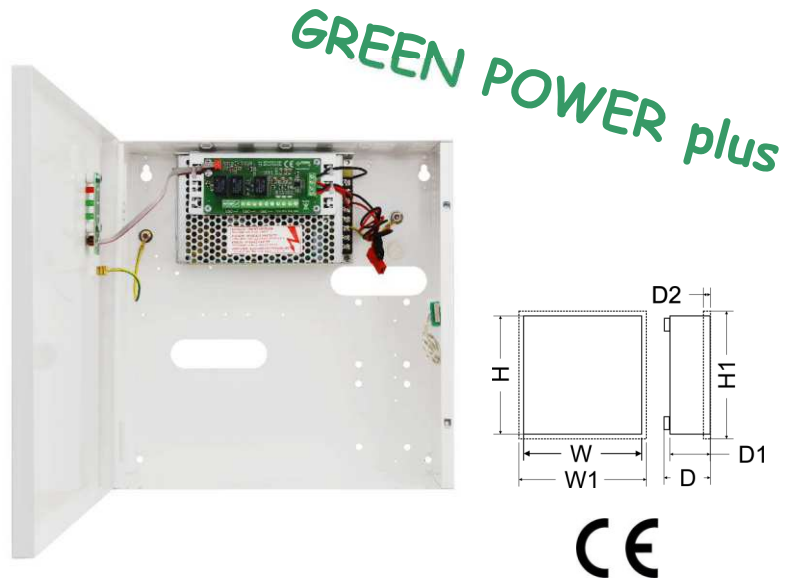
HADOC series power supply unit



Buffer, switch mode power supply unit 27,6V DC with technical outputs

EN

CODE: **HADOC1524B** v.1.0/III
TYPE: **HADOC 27,6V/1,5A/2x7Ah/OC** Buffer switch mode power supply unit with technical outputs



Features:

- DC 27,6V/1,5A uninterruptible power supply*
- fitting battery: 2x7Ah/12V
- wide range of mains supply: 176+264V
- high efficiency 74%
- battery charging and maintenance control
- excessive discharging (UVP) protection
- battery charge current 0,16A
- battery output full protection against short-circuit and reverse polarity connection
- LED indication
- FAC technical output indicating AC power loss – OC and relay type
- FPS technical output indicating PSU failure – OC and relay type
- FLB technical output indicating battery low voltage – OC and relay type
- protections:
 - SCP short-circuit protection
 - OVP overvoltage protection
 - overvoltage protection
 - against sabotage
 - overload protection (OLP)
- warranty – 4 year from the production date

DESCRIPTION

A buffer PSU intended for uninterrupted supply to devices that require stabilised voltage of **24V DC (+/-15%)**. The PSU provides voltage of **U=27,6V DC** with output current of **I=1,5A + 0,16A for battery charging***. In case of power decay, a battery back-up is activated immediately. 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 2x7Ah/12V battery. A micro switch indicates door opening (front cover).

During normal operation, the total current drawn by the equipment may not exceed **I = 1,5A***.

Maximum battery charging current: **0,16A***.

Total device current + battery: **1,66 A max***.

* Refer to chart 1

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SPECIFICATIONS	
PSU type	A (EPS - External Power Source)
Mains supply	176÷264V AC 50÷60Hz
Current up to	1A@230VAC
Supply power	46W max.
Efficiency	74%
Output voltage	22V÷27,6V DC – buffer operation 19V÷27,6V DC – battery-assisted operation
Output current $t_{AMB}<30^{\circ}C$	1,5A + 0,16A battery charge - refer to chart 1
Output current $t_{AMB}=40^{\circ}C$	1A + 0,16A battery charge - refer to chart 1
Voltage adjustment range	24÷29V DC
Ripple	150mV p-p max.
Battery charge current	0,16A max. @ 2x7Ah ($\pm 5\%$)
Short-circuit protection SCP	electronic, automatic recovery
Overload protection OLP	105% ÷ 150% of the output voltage (set), power cut off, automatic return
Battery circuit protection SCP and reverse polarity connection	polymer fuse
Surge protection	varistors
Overvoltage protection OVP	31,74-37,26V (automatic recovery)
Excessive discharge protection UVP	$U < 20V (\pm 5\%)$ – disconnection of battery terminal
Sabotage protection: - TAMPER output indicating enclosure opening	- microswitch, NC contacts (enclosure closed), 0,5A@50V DC (max.)
Technical outputs: - FAC; output indicating AC power failure - FPS; output indicating DC absence/PSU failure - FLB output indicating battery low voltage	- relay type: 1A@ 30VDC/50VAC, time lag: approx. 10s. - OC type, 50mA max., normal status: L (0V) level, failure: hi-Z level, time lag: 10s. - relay type: 1A@ 30VDC/50VAC, - OC type, 50mA max., normal status: L (0V) level, failure: hi-Z level - relay type: 1A@ 30VDC/50VAC, - OC type, 50mA max., normal status: ($U_{BAT} > 23V$): L (0V) level, failure: ($U_{BAT} < 23V$): hi-Z level
LED indication	Yes - LEDs
Operating conditions	2nd environmental class, $-10^{\circ}C \div 40^{\circ}C$
Enclosure	Steel plate DC01, thickness: 0,7mm, colour: RAL 9003
Enclosure dimensions	285 x 297 x 80+8 [mm] (WxHxD)
Net/gross weight	2,2 / 2,4 kg
Fitting battery	2x7Ah/12V (SLA) max. 180x155x75mm (WxHxD) max
Closing	Cheese head screw x 2 (at the front), (lock assembly possible)
Declarations, warranty	CE, RoHS, 4 year from the production date
Notes	The enclosure does not adjoin the assembly surface so that cables can be led. Convectional cooling. Power supply: $\Phi 0,63-2,50$ (AWG 22-10) Outputs: $\Phi 0,63-2,50$ (AWG 22-10), battery output BAT: 6,3F-2,5



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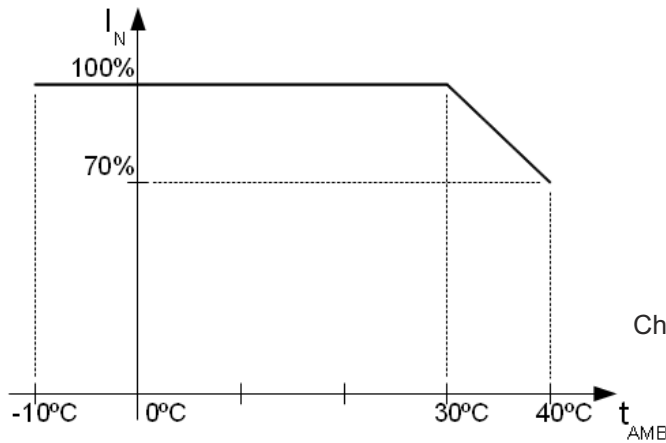


Chart 1. Acceptable output current from the PSU depending on ambient temperature.

OPTIONAL POWER SUPPLY CONFIGURATIONS:

- 1. Buffer power supply unit HADOC 27,6V/2x0,75A/2x7Ah.**
- HADOC1524B + LB2 2x0,75A (AWZ586, AWZ585) + 2x7Ah
- 2. Buffer power supply unit HADOC 27,6V/3x0,5A/2x7Ah.**
- HADOC1524B + LB4 3x0,5A (AWZ574 or AWZ576) + 2x7Ah
- 3. Buffer power supply unit HADOC 27,6V/24V/1,5A/2x7Ah.**
- HADOC1524B + RN25024 (27,6V/24V) + 2x7Ah
- 4. Buffer power supply unit HADOC 27,6V/24V/2x0,75A/2x7Ah.**
- HADOC1524B + RN25024 (27,6V/24V) + LB2 2x0,75A (AWZ586) + 2x7Ah
- 5. Buffer power supply unit HADOC 27,6V/24V/3x0,5A/2x7Ah.**
- HADOC1524B + RN25024 (27,6V/24V) + LB4 3x0,5A (AWZ574 or AWZ576) + 2x7Ah
- 6. Buffer power supply unit HADOC 27,6V/5V÷18V/5V÷18V/2A÷1,3A/2x7Ah.**
- HADOC1524B + DCDC20 (5V÷18V/2A÷1,3A) + 2x7Ah