

HPSBOC series power supply unit



Buffer, switch mode power supply unit 27,6V/DC, with automatic operation control

CODE: HPSBOC 5524C v.1.0

EN

TYPE: HPSBOC 27,6V/5A/2x17Ah/OC Buffer, switch mode power supply unit with automatic operation control.



Features:

- DC 27,6V/5A uninterruptible power supply
- fitting battery: 2x 17Ah/12V
- wide range of mains supply: 176÷264V
- high efficiency 83%
- battery charging and maintenance control
- excessive discharging (UVP) protection
- battery charge current 0,5A/2A
- battery output full protection against short-circuit and reverse polarity connection
- LED indication
- FAC technical output indicating AC power loss
- FPS technical output indicating PSU failure
- FLB technical output indicating battery low voltage
- 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 24 V DC (+/-15%). The PSU provides voltage of $U=27,6$ V DC. Current efficiency:

1. Output current 5A + 0,5A battery charge
 2. Output current 3,5A + 2A battery charge
- Total device current + battery: 5,5A max.**

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 two 17Ah/12V batteries. A micro switch indicates door opening (front cover).

HPSB series power supply unit



Buffer, switch mode power supply unit 27,6V/DC, with automatic operation control

SPECIFICATIONS	
PSU type	A (EPS - External Power Source)
Mains supply	176÷264V AC
Current up to	1,4A@230VAC
Supply power	155W max.
Efficiency	83%
Output voltage	22V± 27,6V DC – buffer operation 19V±27,0V DC – battery-assisted operation
Output current	5 A + 0,5A battery charge 3,5 A + 2A battery charge
Output current $t_{AMB}<30^{\circ}C$	5,0 A + 0,5A battery charge - refer to chart 1 3,5 A + 2A battery charge - refer to chart 1
Output current $t_{AMB}=40^{\circ}C$	3,3 A + 0,5A battery charge - refer to chart 1 1,8 A + 2A battery charge - refer to chart 1
Voltage adjustment range	24÷28V DC
Ripple	150mV p-p max.
Battery charge current	0,5A or 2A max. @ 2x17Ah (± 5%)– jumper selectable
Short-circuit protection SCP	electronic, automatic recovery
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	>32V (automatic recovery)
Excessive discharge protection UVP:	$U < 19 V (\pm 5\%)$ – disconnection of battery terminal
Tampering protection system: - TAMPER – indicating unwanted opening of the PSU's enclosure	- a 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. CAUTION! In Fig.2. the contact set in the potential-free status corresponds to a state with no AC power (AC power failure). - OC type, 50mA max., normal status: L (0V) level, failure: hi-Z level, time lag: 10s. - OC type, 50mA max., normal status: L (0V) level, failure: hi-Z level - OC type, 50mA max., normal status: ($U_{BAT} > 23V$): L (0V) level, failure: ($U_{BAT} < 23V$): hi-Z level
LED indication	Yes
Operating conditions	2nd environmental class, $-10^{\circ}C \div +40^{\circ}C$
Enclosure	Steel plate, DC01 0,7mm colour: RAL 9003
Enclosure dimensions	405 x 355 x 90+8 (400 x 350 x 90) (WxHxD)
Net/gross weight	3,70kg / 4,0kg
Fitting battery	2x 17Ah/12V (SLA) max.
Closing	Cheese head screw x 2 (at the front), (lock assembly possible)
Sabotage protection	1x microswitch: opening the enclosure 0.5 A@50 V/DC max. NC
Notes	Space between the device and the wall (ground) 8 mm PSU cooling: convection, Connectors: Power-supply: $\Phi 0,63 \div 2,5$ I/O PCB : $\Phi 0,41 \div 1,63$, Battery output BAT: 6,3F-2,5

HPSBOC series power supply unit



Buffer, switch mode power supply unit 27,6V/DC, with automatic operation control

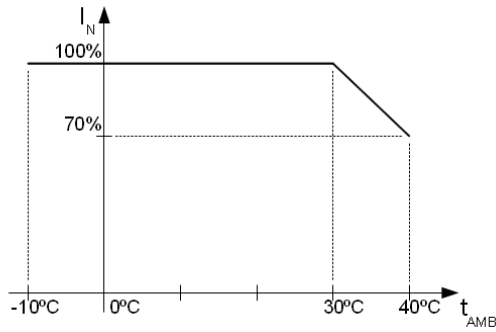


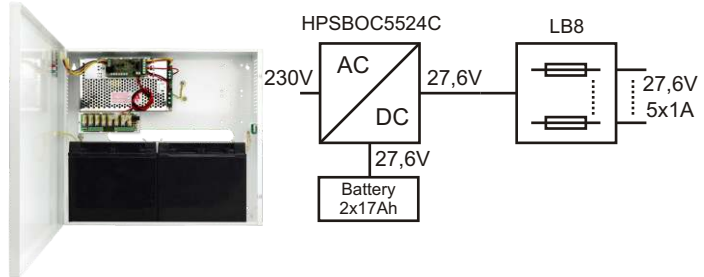
CHART 1. Acceptable output current from the PSU depending on ambient temperature.

Optional configurations:

Battery 2x17Ah:

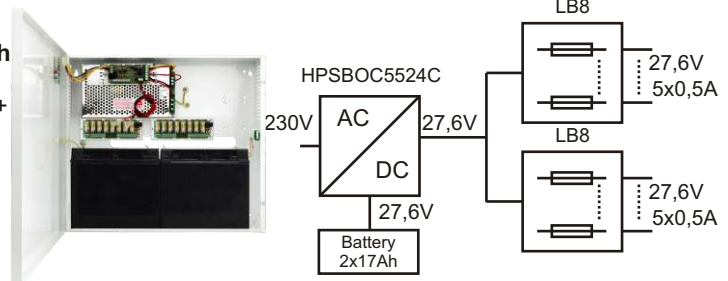
Buffer power supply unit HPSBOC 27,6V/5x1A/2x17Ah.

- HPSBOC5524C + LB8 5x1A (AWZ579 lub AWZ580) + 2x17Ah



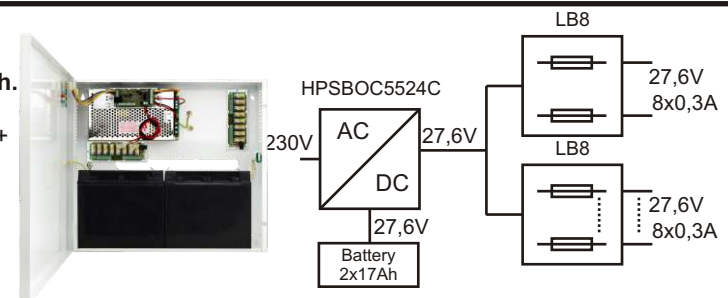
Buffer power supply unit HPSBOC 27,6V/10x0,5A/2x17Ah

- HPSBOC5524C + 2xLB8 10x0,5A (AWZ578 lub AWZ580) + 2x17Ah



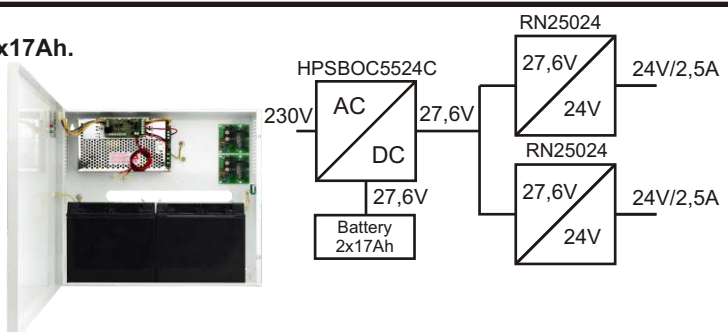
Buffer power supply unit HPSBOC 27,6V/16x0,3A/2x17Ah.

- HPSBOC5524C + 2xLB8 16x0,3A (AWZ577 lub AWZ580) + 2x17Ah



Buffer power supply unit HPSBOC 27,6V/2x24V/2x2,5A/2x17Ah.

- HPSBOC5524C + 2 x RN25024(27,6V/24V) + 2x17 Ah



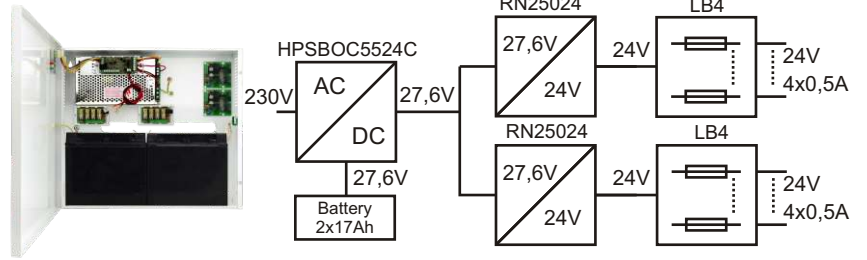
HPSB series power supply unit



Buffer, switch mode power supply unit 27,6V/DC, with automatic operation control

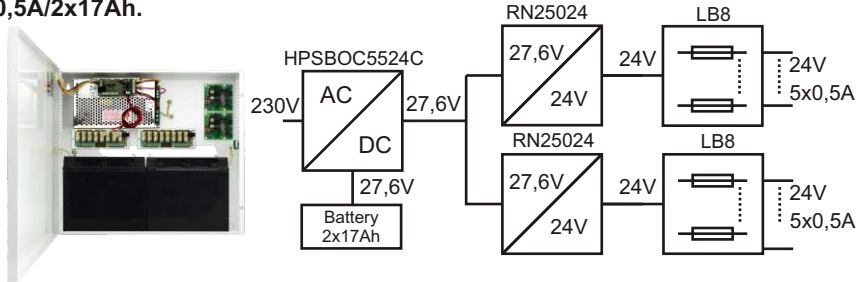
Buffer power supply unit HPSBOC 27,6V/2x24V/8x0,5A/2x17Ah.

- HPSBOC5524C + 2 x RN25024(27,6V/24V) + 2xLB4 8x0,5A (AWZ574 lub AWZ576) + 2x17 Ah



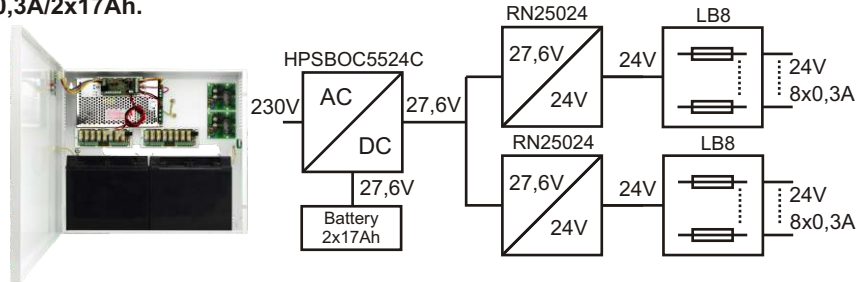
Buffer power supply unit HPSBOC 27,6V/2x24V/10x0,5A/2x17Ah.

- HPSBOC5524C + 2 x RN25024(27,6V/24V) + 2xLB8 10x0,5A (AWZ578 lub AWZ580) + 2x17 Ah



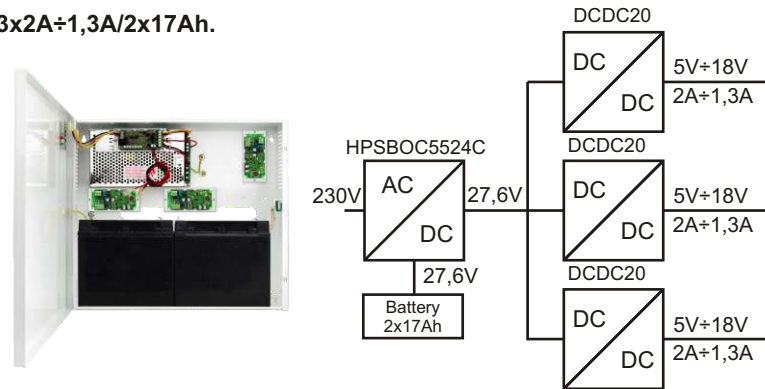
Buffer power supply unit HPSBOC 27,6V/2x24V/16x0,3A/2x17Ah.

- HPSBOC5524C + 2 x RN25024(27,6V/24V) + 2xLB8 16x0,3A (AWZ577 lub AWZ580) + 2x17 Ah



Buffer power supply unit HPSBOC 27,6V/3x5V±18V/3x2A±1,3A/2x17Ah.

- HPSBOC5524C + 3xDCDC20 (3x5V±18V) + 2x17Ah



Buffer power supply unit HPSBOC 27,6V/3x5V±18V/3x2A±1,3A/12x0,5A/2x17Ah.

- HPSBOC5524C + 3xDCDC20 (3x5V±18V) + 3xLB4 12x0,5A (AWZ574 lub AWZ576) + 2x17Ah

