

# HPSBOC series power supply unit

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

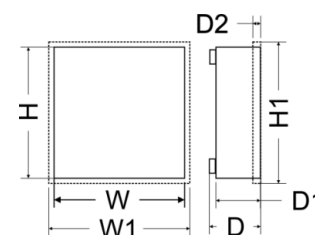


CODE: **HPSBOC 5524C** v.1.1/VIII

EN

TYPE: **HPSBOC 27,6V/5A/2x17Ah/OC** Buffer, switch mode power supply unit with technical outputs.

**GREEN POWER plus**



## Features:

- DC 27,6V/5A uninterruptible power supply\*
- fitting battery: 2x17Ah/12V
- wide range of mains supply: 176÷264V
- high efficiency 83%
- battery charging and maintenance control
- excessive discharging (UVP) protection
- jumper selectable battery charge current 0,5A/2A
- battery output full protection against short-circuit and reverse polarity connection
- LED indication
- EPS technical output indicating AC power loss – OC and relay type
- PSU technical output indicating PSU failure – OC and relay type
- LoB 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 – 2 year from the production date

## DESCRIPTION

A buffer PSU is intended for an uninterrupted supply to devices requiring stabilised voltage of **24V DC (+/-15%)**. The PSU provides voltage of **U=27,6V 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).

\* See chart 1

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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÷27,6V DC – battery-assisted operation
<b>Output current <math>t_{AMB}&lt;30^{\circ}\text{C}</math></b>	<b>5A + 0,5A battery charge - see chart 1</b> <b>3,5A + 2A battery charge - see chart 1</b>
<b>Output current <math>t_{AMB}=40^{\circ}\text{C}</math></b>	<b>3,3A + 0,5A battery charge - see chart 1</b> <b>1,8A + 2A battery charge - see chart 1</b>
Voltage adjustment range	24÷28V DC
Ripple	150mV p-p max.
Battery charge current	0,5A or 2A max. @ 2x17Ah ( $\pm 5\%$ )– 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:	$U < 19\text{V}$ ( $\pm 5\%$ ) – 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: - EPS; output indicating AC power failure  - PSU; output indicating DC absence/PSU failure  - LoB 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: ( $U_{BAT} > 23\text{V}$ ): L (0V) level, failure: ( $U_{BAT} < 23\text{V}$ ): hi-Z level The power supply unit does not feature a battery detection function.
LED indication	Yes
Operating conditions	2nd environmental class, $-10^{\circ}\text{C}$ ÷ $40^{\circ}\text{C}$
Enclosure	Steel plate, DC01 0,7mm colour: RAL 9003
Enclosure dimensions	405 x 355 x 90+8 [mm] (WxHxD)
Net/gross weight	3,70kg / 4,00kg
Fitting battery	2x17Ah/12V (SLA) max. 370x170x80mm (WxHxD) max
Closing	Cheese head screw x 2 (at the front), (lock assembly possible)
Deklarations, warranty	CE, RoHS, 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: $\Phi 0,63$ -2,50 (AWG 22-10) Battery output BAT: 6,3F-2,5



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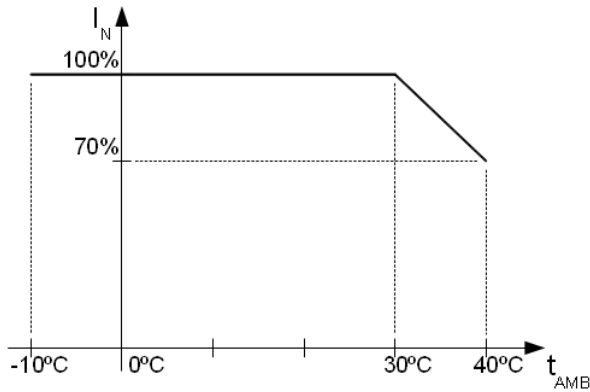
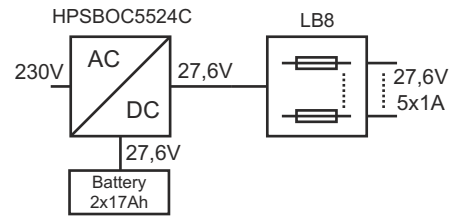


CHART 1. Acceptable output current from the PSU depending on ambient temperature.

## Optional configurations:

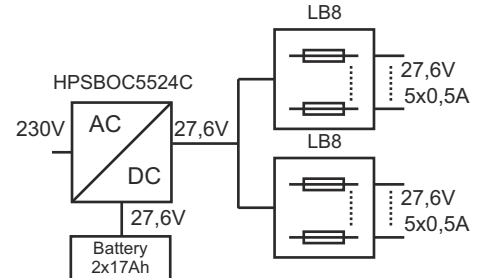
### Buffer power supply unit HPSBOC 27,6V/5x1A/2x17Ah.

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



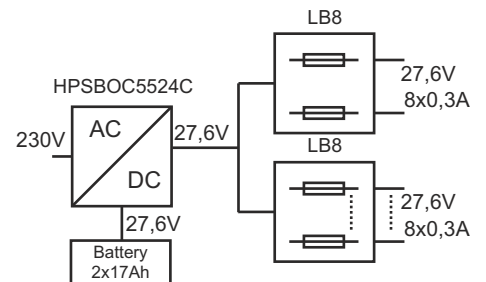
### Buffer power supply unit HPSBOC 27,6V/10x0,5A/2x17Ah.

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



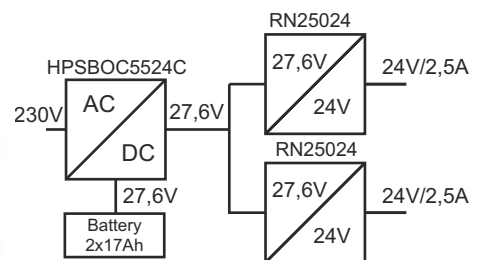
### Buffer power supply unit HPSBOC 27,6V/16x0,3A/2x17Ah.

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



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

- HPSBOC5524C + 2 x RN25024(27,6V/24V) + 2x17Ah



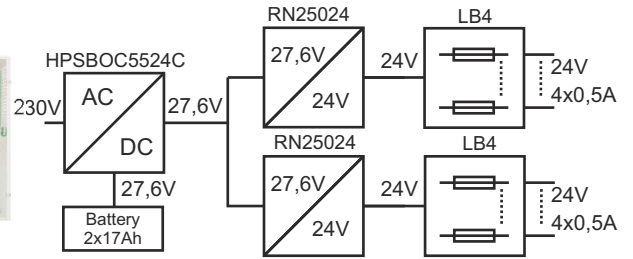
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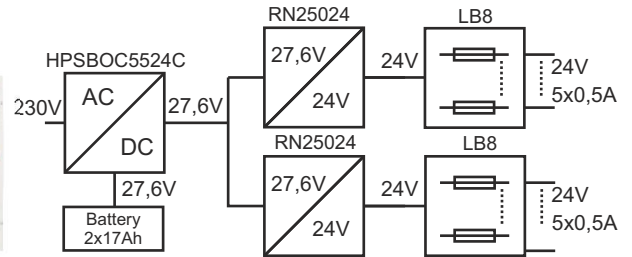
## Buffer power supply unit HPSBOC 27,6V/2x24V/8x0,5A/2x17Ah.

- HPSBOC5524C + 2 x RN25024(27,6V/24V)
- + 2xLB4 8x0,5A (AWZ574 or AWZ576) + 2x17Ah



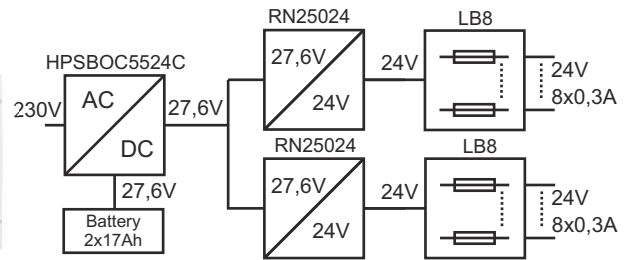
## Buffer power supply unit HPSBOC 27,6V/2x24V/10x0,5A/2x17Ah.

- HPSBOC5524C + 2 x RN25024(27,6V/24V)
- + 2xLB8 10x0,5A (AWZ578 or AWZ580) + 2x17Ah



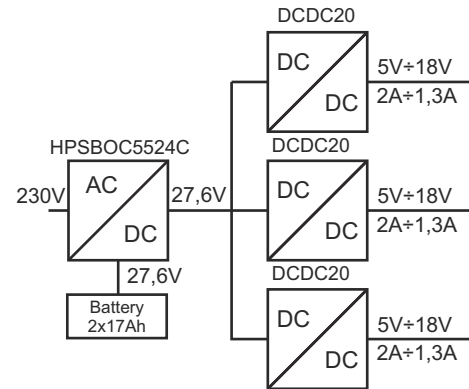
## Buffer power supply unit HPSBOC 27,6V/2x24V/16x0,3A/2x17Ah.

- HPSBOC5524C + 2 x RN25024(27,6V/24V)
- + 2xLB8 16x0,3A (AWZ577 or AWZ580) + 2x17Ah



## 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 or AWZ576) + 2x17Ah

