

CODE: **HPSG3** v.1.0/I **EN**  
TYPE: **Switch mode power supply units with battery backup Grade 3**



**Features:**

- compliance with norm EN 50131-6:2017 in grade 1, 2, 3 and II environmental class
- compliance with norm EN60839-11-2:2015+AC:2015 and I environmental class
- supply voltage ~200 - 240 V
- DC 13,8 V or 27,6 V uninterruptible power supply
- powered by 17Ah - 65Ah batteries
- high efficiency (up to 86%)
- available versions with current efficiencies  
13,8V: 3A, 5A, 10A  
27,6V 2A, 5A
- low ripple voltage
- microprocessor-based automation system
- measurement of resistance of battery circuit
- automatic temperature-compensated charging
- automatic battery test
- output voltage control
- battery circuit continuity control
- battery voltage control
- battery charging and maintenance control
- deep discharge battery protection (UVP)
- battery overcharge protection
- battery output protection against short circuit and reverse connection
- function START allows running PSU from battery power
- optical indication
- technical outputs OC type (open collector)
- collective failure input EXT IN
- EPS technical output indicating AC power loss
- PSU technical output indicating PSU failure
- APS technical output indicating battery failure
- protections:
  - SCP short circuit protection
  - OLP overload protection
  - OVP overvoltage protection
  - surge protection
  - antisabotage protection: unwanted enclosure opening – TAMPER
- convectional cooling
- warranty - 3 years from production date
- optional equipment (AWZ642)

**DESCRIPTION**

Buffer power supplies have been designed in accordance with requirements of the (I&HAS) EN50131-6:2017 grade 1-3 and II environmental class and (KD) EN60839-11-2:2015+AC:2015 standard and I environmental class. Power supplies units are intended for an uninterrupted supply of alarm system devices requiring stabilized voltage of 12 or 24 V DC ( $\pm 15\%$ ).

Depending on a required protection level of the alarm system in the installation place, the PSU efficiency and the battery charging current should be set as follows:

| Power supply model | Battery / charging current | Output current [A] depending on application PSU (according to EN50131-6) |                             |                              |
|--------------------|----------------------------|--|-----------------------------|------------------------------|
|                    |                            | Grade 1, 2 - standby time 12 h   | * Grade 3 standby time 30 h | ** Grade 3 standby time 60 h |
| HPSG3-12V3A-C      | 17Ah / 0,8 A               | 1,39 A   | 0,54 A                      | 0,25 A                       |
| HPSG3-12V5A-C      | 17Ah / 0,8 A               | 1,39 A   | 0,54 A                      | 0,25 A                       |
| HPSG3-12V5A-D      | 40Ah / 1,8 A               | 3,3 A  | 1,30 A                      | 0,64 A                       |
| HPSG3-12V10A-E     | 65Ah / 2,6 A               | 5,4 A  | 2,1 A                       | 1,0 A                        |
| HPSG3-24V2A-C      | 17Ah(x2) / 0,8 A           | 1,4 A  | 0,5 A                       | 0,24 A                       |
| HPSG3-24V5A-D      | 40Ah(x2) / 1,8 A           | 3,3 A  | 1,3 A                       | 0,63 A                       |

\* if faults of primary source are reported to the ARC alarm receiving centre (in accordance with 9.2 EN50131-6)

\*\* if faults of primary source are not reported to the ARC alarm receiving centre (in accordance with 9.2 EN50131-6)



| TECHNICAL DATA   | HPSG3-12V  | HPSG3-24V  |
|--|--|--|
| PSU type EN 50131-6  | A, degree of protection 1 – 3, II environmental class  |  |
| Supply voltage   | ~200 – 240 V   |  |
| Output voltage (TA= 20°C)  | 11 V-13,8 V DC – buffer operation<br>10 V-13,8 V DC – battery-assisted operation               | 22 V-27,6 V DC – buffer operation<br>20 V-27,6 V DC – battery-assisted operation |
| Current consumption by PSU during battery-assisted operation   | 35 mA  | 45 mA  |
| Coefficient of temperature compensation of battery voltage   | -18 mV/ °C (-5°C -40°C)  | -36 mV/ °C (-5°C- 40°C)  |
| Low battery voltage indication   | U <sub>bat</sub> < 11,5 V, during battery operation  | U <sub>bat</sub> < 23 V, during battery operation                                |
| Over voltage protection OVP  | U > 16 V ± 1 V, automatic recovery   | U > 32 V ± 2 V, automatic recovery   |
| Short-circuit protection SCP   | Glass fuse F <sub>BAT</sub> (in case of a failure, fuse-element replacement required)          |  |
| Overload protection OLP  | 105-150% power, automatically recovered  |  |
| Battery circuit protection SCP and reverse polarity connection   | Glass fuse F <sub>BAT</sub> (in case of a failure, fuse-element replacement required)          |  |
| Deep discharge protection UVP  | 10 V +/- 0,3 V   | 20 V +/- 0,6 V   |
| Technical outputs:<br>- EPS; output indicating AC power failure  | - OC type: 50 mA max.<br>normal status: L (0 V) level,<br>failure: hi-Z level, time lag: 11 s. |  |
| Technical outputs:<br>- APS; output indicating battery failure<br>- PSU; output indicating PSU failure | - OC type: 50 mA max.<br>normal status: L (0 V) level,<br>failure: hi-Z level.                 |  |
| Technical outputs:<br>- EXTi; input of external failure  | Closed input – no indication<br>Open input – alarm   |  |
| Protection class EN 62368-1  | I (first)  |  |
| Protection grade EN 60529  | IP44   |  |
| Closing  | Screw x 2 (at front)   |  |
| Declarations, warranty   | CE, 3 years from production date   |  |
| Notes  | Convictional cooling   |  |

