

CODE: **HPSG3-LCD** v.1.1/II
TYPE: **Buffer switched mode power supply Grade 3**

EN



Features:

- compliance with norm EN50131-6:2017 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 indicationa
- 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
- optional equipment (AWZ642)
- optical indication – LCD panel
 - electrical parameters' readings, e.g. voltage, current
 - failure indication
 - PSU settings adjusted from panel's level
 - 3 levels of access, password-protected
 - operation memory of PS
 - failure memory
 - real-time clock, battery-backed
 - internal memory of PSU operating status
- remote monitoring
 - ethernet or RS485 communication (options)
 - embedded PowerSecurity web application
 - preview of the operating parameters: voltages, currents, temperature and resistance of the battery circuit
 - PSU work history chart from a period of more than 100 days: voltages, currents and resistance of the battery circuit
 - battery operating temperature readings from period up to 5 years
 - event log of up to 2048 power supply failures
 - remote battery test
 - „SERIAL” communication port with implemented MODBUS RTU protocol
 - remote monitoring (options: Ethernet, RS485)
 - remote battery test (additional modules required)
 - convectonal cooling
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- warranty - 3 years from production date



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 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-LCD	17Ah / 0,8 A	1,39 A	0,54 A	0,25 A
HPSG3-12V5A-C-LCD	17Ah / 0,8 A	1,39 A	0,54 A	0,25 A
HPSG3-12V5A-D-LCD	40Ah / 1,8 A	3,3 A	1,30 A	0,64 A
HPSG3-12V10A-E-LCD	65Ah / 2,6 A	5,4 A	2,1 A	1,0 A
HPSG3-24V2A-C-LCD	17Ah(x2) / 0,8 A	1,4 A	0,5 A	0,24 A
HPSG3-24V5A-D-LCD	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-LCD	HPSG3-24V-LCD
PSU type EN 50131-6	A, degree of protection 1 – 3, II environmental class	
Supply voltage	~200 – 240 V	
Output voltage at 20°C	11 V-13,8 V DC – buffer operation 10 V-13,8 V DC – battery-assisted operation	22 V-27,6 V DC – buffer operation 20 V-27,6 V DC – battery-assisted operation
Current consumption by PSU during battery-assisted operation	45 mA	55 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 _{bat} < 11,5 V, during battery operation	U _{bat} < 23 V, during battery operation
Over voltage protection OVP	U > 16 V \pm 1 V, automatic recovery	U > 32 V \pm 2 V, automatic recovery
Short-circuit protection SCP	Glass fuse F _{BAT} (in case of a failure, fuse-element replacement required)	
Overload protection OLP	105-150% PSU power, automatically recovered	
Battery circuit protection SCP and reverse polarity connection	Glass fuse F _{BAT} (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: - EPS; output indicating AC power failure	- OC type: 50 mA max. normal status: L (0 V) level, failure: hi-Z level, time lag: 11 s.	
Technical outputs: - APS; output indicating battery failure - PSU; output indicating PSU failure	- OC type: 50 mA max. normal status: L (0 V) level, failure: hi-Z level.	
Technical outputs: - EXTi; input of external failure	Closed input – no indication Open input – alarm	
LCD screen battery	3V, lithium, CR2032	
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	