



Buffer power supply units

compliant with EN 50131-6
are intended to alarm
system devices



5 YEAR
WARRANTY



The MTP Gold Medal
Securex 2014

Buffer power supply PSBEN series

5 YEAR WARRANTY

Additional functions of the LCD series

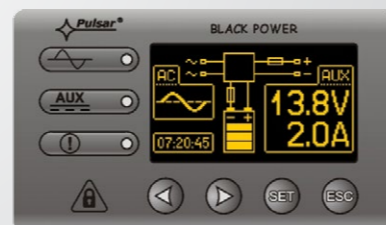
BLACK POWER



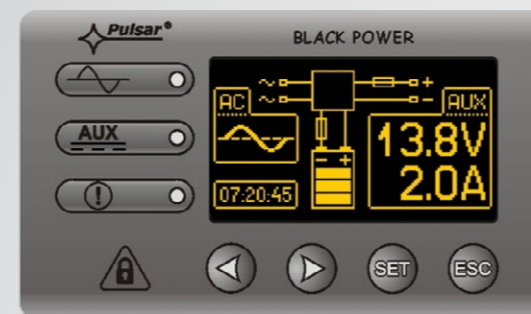
**The MTP Gold Medal
Securex 2014**



LED display

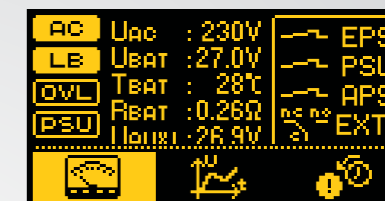


graphic LCD display

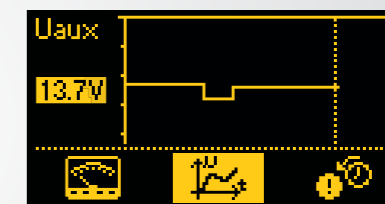


Additional functions of the LCD series

- failure indication
- PSU settings adjusted from the panel's level
- 3 levels of access, password-protected
- operation memory of the PSU
- real-time clock, battery-backed
- an extensive range of information on the LCD
- simple handling of the power supply in the LCD version



current parameters of the PSU



current failures of the PSU



failure memory

Features of the power supplies

- EN50131-6 compliance, grades 1+3 and II environmental class
- available models - 13,8VDC / 2A; 3A; 5A; 10A - 27,6VDC / 2A; 3A; 5A
- power supply 230VAC
- fitting battery: 7Ah; 17Ah; 40Ah; 65Ah
- high efficiency
- low level of voltage ripple
- microprocessor-based automation system
- intelligent management of PSU power's output stage
- "SERIAL" communication port with implemented MODBUS RTU protocol
- remote monitoring (option: WiFi, Ethernet, RS485, USB)
- free program - "PowerSecurity" for monitoring the PSU operation parameters
- load current control
- output voltage control
- output fuse status control
- dynamic battery test
- battery circuit continuity control
- battery voltages control
- battery fuse status control
- battery charging and maintenance control
- deep discharge battery protection (UVP)
- battery overcharge protection
- battery output protection against short circuit and reverse connection
- jumper selectable battery charging current
- remote battery test (additional module required)
- START button for battery activation
- STOP button for disconnecting during battery-assisted operation
- optical indication of PSU overload OVL
- acoustic indication of failure
- electrical parameters' readings, e.g. voltage, current
- failure memory
- adjustable times indicating AC power failure
- technical inputs/outputs with galvanic isolation
- collective failure input EXT IN
- EPS technical output indicating AC power loss
- PSU technical output indicating PSU failure
- APS technical output indicating battery failure
- internal memory of PSU operating status
- protections:
 - SCP short-circuit protection
 - OLP overload protection
 - OVP over voltage protection
 - OVP over voltage protection
 - antisabotage protection: tamper anti door opening and detachment from the mounting surface
- convectional cooling
- warranty: 5 year from the production date

Model	Output voltage	Fitting battery	Display types	Output current for general purpose application *
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Available models for 13,8VDC version

PSBEN2012B	13,8VDC	7Ah	LED	2A
PSBEN3012C	13,8VDC	17Ah	LED	3A
PSBEN3012C/LCD	13,8VDC	17Ah	LCD	3A
PSBEN5012C	13,8VDC	17Ah	LED	5A
PSBEN5012C/LCD	13,8VDC	17Ah	LCD	5A
PSBEN5012D	13,8VDC	40Ah	LED	5A
PSBEN5012D/LCD	13,8VDC	40Ah	LCD	5A
PSBEN5012E	13,8VDC	65Ah	LED	5A
PSBEN10A12D	13,8VDC	40Ah	LED	10A
PSBEN10A12D/LCD	13,8VDC	40Ah	LCD	10A
PSBEN10A12E	13,8VDC	65Ah	LED	10A
PSBEN10A12E/LCD	13,8VDC	65Ah	LCD	10A

Available models for 27,6VDC version

PSBEN2024B	27,6VDC	2×7Ah	LED	2A
PSBEN3024C/LCD	27,6VDC	2×17Ah	LCD	3A
PSBEN5024C	27,6VDC	2×17Ah	LED	5A
PSBEN5024C/LCD	27,6VDC	2×17Ah	LCD	5A

* accurate current efficiencies taking into account the battery charging currents for individual degrees of protection can be found in the data sheets

Features

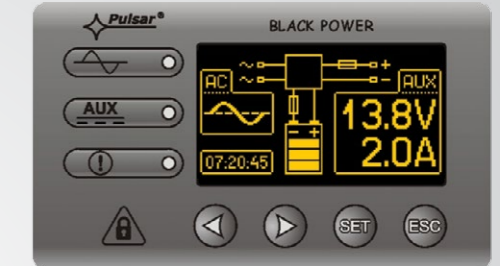


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LED operation indication for PSBEN

- LEDs on the PSU's PCB,
- LED panel:
 - output current readings
 - output voltage readings
 - failure codes with history



LCD operation indication for PSBEN

- LEDs on the PSU's PCB,
- LCD panel:
 - readings of electrical parameters
 - failure indication
 - configuration of the PSU settings from the control panel
 - 3 levels of password protected access
 - operation memory of the PSU - 6144 values
 - failure memo - 2048 events
 - real time clock with battery backup

	PSBEN2012B —	PSBEN3012C PSBEN3012C/LCD	PSBEN5012C PSBEN5012C/LCD	PSBEN5012D PSBEN5012D/LCD	PSBEN5012E —	PSBEN10A12D PSBEN10A12D/LCD	PSBEN10A12E PSBEN10A12E/LCD	PSBEN2024B —	— PSBEN3024C/LCD	PSBEN5024C PSBEN5024C/LCD
PSU type	A, protection class 1÷3, II environmental class									
Mains supply	230VAC (-15%/+10%), 50Hz									
Output voltage	13,8VDC					27,6VDC				
Output current + battery charging:										
• for general use	2,0A + 0,2A	3,0A + 0,2A	5,0A + 0,6A	5,0A + 0,6A	5,0A + 0,6A	10A + 0,6A	10A + 0,6A	2,0A + 0,2A	3,0A + 0,2A	5,0A + 0,6A
• for grades 1, 2	0,58A + 1,5A	1,4A + 1,5A	1,4A + 3A	3,33A + 2,2A	4,1A + 1,5A	3,33A + 3A	5,41A + 3A	0,58A + 1,5A	1,4A + 1,5A	1,4A + 3A
• for grades 3	0,23A + 1,5A	0,56A + 1,5A	0,56A + 3A	1,33A + 3A	2,16A + 3A	1,33A + 3A	2,16A + 3A	0,23A + 1,5A	0,56A + 1,5A	0,56A + 3A
Total current	2,2A	3,2A	5,6A	5,6A	5,6A	10,6A	10,6A	2,2A	3,2A	5,6A
Fitting battery	7Ah	17Ah	17Ah	40Ah	65Ah	40Ah	65Ah	2 × 7Ah	2 × 17Ah	2 × 17Ah
Over voltage protection OVP	U>15,5V, disconnection of the output voltage (AUX+ disconnection), automatic return					U>31V, disconnection of the output voltage (AUX+ disconnection), automatic return				
Short circuit protection SCP	Electronic - current limitation and / or F _{BAT} fuse failure in the battery circuit (requires fuse replacement) Automatic return									
Overload protection OLP	Program - equipment									
Deep discharge battery protection UVP	U<10,0 V (± 2%) - disconnection (-BAT) of the battery					U<20,0 V (± 2%) - disconnection (-BAT) of the battery				
Indication of opening the cover of the power supply or detachment from the ground	Micro switch TAMPER									
EXT IN technical input	Voltage 'on' - 10÷30VDC Voltage 'off' - 0÷2VDC Level of galvanic isolation: 1500V _{RMS}									
Acoustic indication	piezoelectric indicator ~75dB /0,3m, switchable via jumper									
Enclosure	Steel plate DC01, 1mm, color RAL 9005 (black)									
Dimensions (W×H×D) [mm]	270 × 250 × 88	300 × 300 × 98	330 × 350 × 108	330 × 350 × 178	400 × 370 × 178	330 × 350 × 178	400 × 370 × 178	330 × 350 × 108	400 × 350 × 98	400 × 350 × 98
Closing	Cheese head screw × 2 (at the front), lock assembly possible									
Warranty	5 year from the production date									

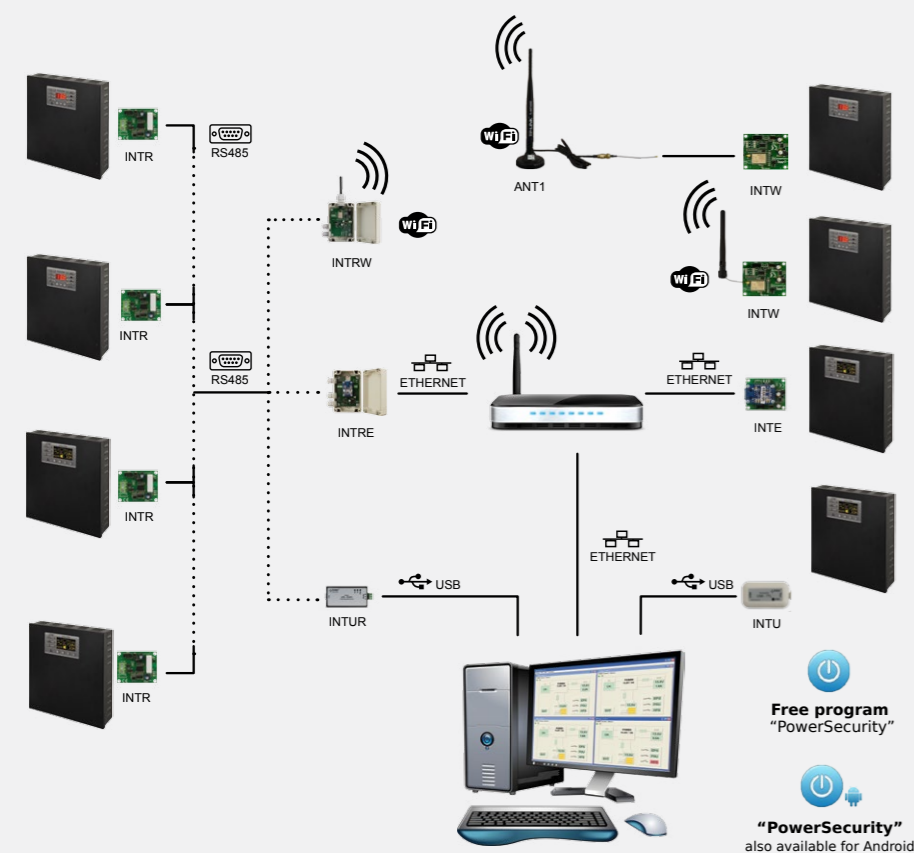
Technical outputs

- EPS FLT;** output indicating AC power failure
- type - electronic, max 50mA/30VDC, galvanic isolation 1500V_{RMS} - time lag, approx. 5s/140s/17m/2h 20m (+/-5%)
- APS FLT;** output indicating battery failure
- type - electronic, max 50mA/30VDC, galvanic isolation 1500V_{RMS}
- PSU FLT;** output indicating PSU failure
- type - electronic, max 50mA/30VDC, galvanic isolation 1500V_{RMS}

“PowerSecurity” application

Interfaces

5 YEAR WARRANTY



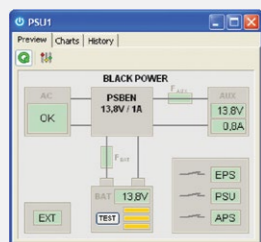
“PowerSecurity” application

PowerSecurity is a program allowing remote monitoring of parameters of power supply units of the PSBEN or EN54 series equipped with a communication interface. The application allows to configure connections, analyze current parameters and the management of groups of power supply units. In case of power supply units of the PSBEN series, the remote desktop window allows monitoring of the following parameters:

1. Voltage and current at the AUX output of the power supply
2. 230V mains supply status
3. Voltage and battery charging level (optional remote battery test)
4. Status of technical outputs (EPS, PSU, APS)
5. Status of input of collective failure - EXTI

Additionally, it is possible to read the history of events and in case of the power supplies fitted with LCD display to read, the history of parameters.

For power supplies with LED display

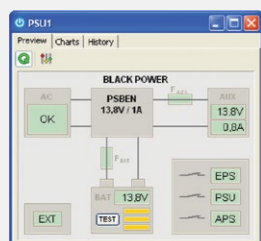


Remote desktop window of PSU

Time from event	Failure description	Uaux	Iaux
12h 30m	P01 - AC power fail	13,1	0,8
4h 56m	P01 - AC power fail	13,1	0,8
4h 56m	P01 - AC power fail	13,1	0,8
4h 56m	P01 - AC power fail	13,1	0,8
4h 56m	P01 - AC power fail	13,1	0,8
4h 56m	P01 - AC power fail	13,1	0,8
4h 40m	F10 - Low battery voltage	11,3	0,7
4h 37m	F11 - Low battery volk - off	9,8	0,7
3h 44m	P01 - AC power fail	13,1	0,8
3h 44m	P01 - AC power fail	13,1	0,8
3h 32m	P01 - AC power fail	13,1	0,8
3h 32m	P01 - AC power fail	13,1	0,8

Event log

For power supplies with LCD display



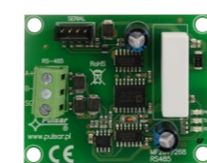
Remote desktop window of PSU

Date and Time	Failure description	AC	LB	EXTI	EPS	PSU	APS	Uaux (AV)	Iaux (AV)	Ubat
2013-07-18 07:42:58	P01 - AC power fail	off	off	off	close	close	close	13,5	0,8	13,1
2013-09-05 08:47:21	P01 - AC power fail	off	off	off	close	close	close	13,4	0,8	13,1
2013-09-05 09:14:28	P01 - AC power fail	off	off	off	close	close	close	12,5	0,8	13,0
2013-09-22 06:26:25	P01 - AC power fail	off	off	off	close	close	close	13,5	0,8	13,1
2013-09-28 04:08:39	P01 - AC power fail	off	off	off	close	close	close	13,5	0,8	13,1
2013-09-25 16:46:25	P01 - AC power fail	off	off	off	close	close	close	13,4	0,8	13,1
2013-09-26 09:30:51	P01 - AC power fail	off	off	off	close	close	close	13,5	0,8	13,1
2013-09-27 11:11:40	P01 - AC power fail	off	off	off	close	close	close	13,5	0,8	13,1
2013-09-27 11:53:30	P01 - AC power fail	off	off	off	close	close	close	13,5	0,8	13,1
2013-11-07 12:17:14	P01 - AC power fail	off	off	off	close	close	close	13,4	0,8	13,0
2013-11-10 08:48:07	P01 - AC power fail	off	off	off	close	close	close	13,5	0,8	13,1

Event log



History of parameters



INTR – Interface RS485-TTL

- Destination: Power supplies of the PSBEN or EN54 series are connected with ETHERNET network
- Power supply: 5VDC/max.0,95W from “SERIAL” socket of the power supply unit
- Assigning a static or dynamic IP address (DHCP server)



INTE – Interfejs ETHERNET

- Destination: Power supplies of the PSBEN or EN54 series are connected with ETHERNET network
- Power supply: 5VDC/max.0,95W from “SERIAL” socket of the power supply unit
- Assigning a static or dynamic IP address (DHCP server)



INTW – Interface Wi-Fi

- Destination: Connecting power supply unit of the PSBEN or EN54 series with the Wi-Fi network
- Power supply: 5VDC/max.210mA from “SERIAL” socket of the power supply unit
- Assigning a static or dynamic IP address (DHCP server)



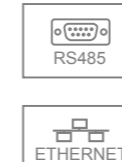
INTU – Interface USB-TTL

- Destination: Power supplies of the PSBEN or EN54 series are locally connected to a computer via USB
- Power supply: 5VDC/max.25mA from the computer’s USB port
- Compliance of the USB interface: USB1.1 / USB 2.0 (Full Speed)
- Transmission’s speed: max. 115200 bauds, with parity check



INTC – Programmer

- Destination: WiFi interface configuration: INTW, INTRW
- Power supply: 5VDC/max.25mA from the computer’s USB port
- Compliance of the USB interface: USB1.1 / USB 2.0 (Full Speed)
- Transmission’s speed: max. 115200 bauds, with parity check



INTRE – Interface RS485- ETHERNET

- Destination: A device to convert signals between the RS485 bus and the ETHERNET network
- Power supply: 10÷30VDC/max.0,95W
- Assigning a static or dynamic IP address (DHCP server)



INTRW – Interface RS485-Wi-Fi

- Destination: A device to convert signals between the RS485 bus and the Wi-Fi network
- Power supply: 10÷30VDC/80÷20mA
- Assigning a static or dynamic IP address (DHCP server)



INTUR – Interface USB-RS485

- Destination: Data conversion from the RS485 bus to a PC via a USB port
- Power supply: 5VDC/max.25mA z portu USB komputera
- Compliance of the USB interface: USB1.1 / USB 2.0 (Full Speed)
- Transmission’s speed: max. 115200 bauds, with parity check



ANT1 – 2.4GHz WiFi Antenna with Magnetic Base

- Destination: The omnidirectional antenna is designed for operation in the 2.4GHz WiFi band.
- Frequency / Impedance: 2,4GHz / 50 Ohm
- VSWR / Energy gain: <2,0 / 5dBi
- Polarization: Vertical
- Cable: length 1,5m / SMA-RP/U.FL plug

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