Pulsar®
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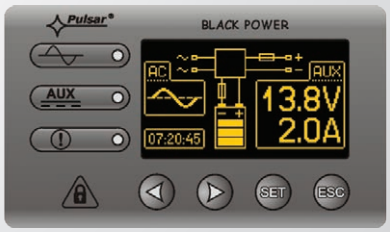
Products compatible with the PN-EN50131 GRADE 1, 2, and 3 standard for alarm systems

Buffer power supply PSBEN series

5 YEAR WARRANTY

The MTP Gold Medal Securex 2014

LED display



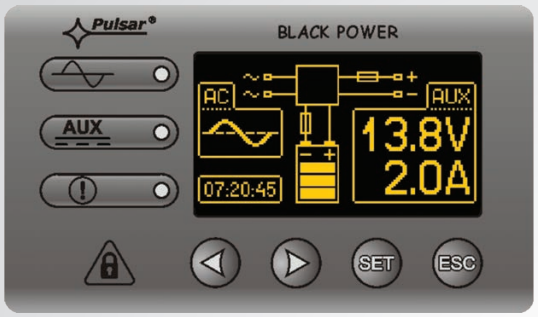
graphic LCD display

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
  - 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

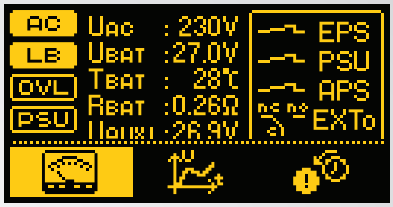
Additional functions of the LCD series

BLACK POWER

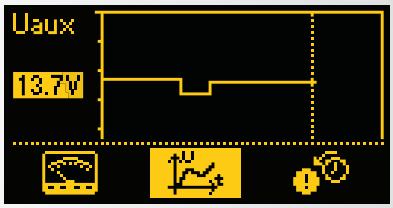


Additional functions of the LCD series

- 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

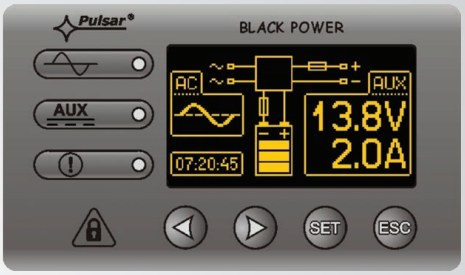
Model	Output voltage	Fitting battery	Display types	Output current for general purpose application *
Available models for 13,8VDC version				
PSBEN2012B	13,8VDC	7Ah	LED	2A
PSBEN3012C	13,8VDC	17Ah	LED	3A
PSBEN3012C/LCD	13,8VDC	17Ah	LCD	3A
PSBEN5012C	13,8VDC	17Ah	LED	5A
PSBEN5012C/LCD	13,8VDC	17Ah	LCD	5A
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

The MTP Gold Medal
Securex 2014

	PSBEN2012B —	PSBEN3012C PSBEN3012C/LCD	PSBEN5012C PSBEN5012C/LCD	PSBEN5012D PSBEN5012D/LCD	PSBEN5012E —
PSU type	A, protection class 1÷3, II				
Mains supply	230VAC (-15%/+				
Output voltage	13,8VDC				
Output current + battery charging: • **for general use** • **for grades 1, 2** • **for grades 3**	 2,0A + 0,2A 0,58A + 1,5A 0,23A + 1,5A	 3,0A + 0,2A 1,4A + 1,5A 0,56A + 1,5A	 5,0A + 0,6A 1,4A + 3A 0,56A + 3A	 5,0A + 0,6A 3,33A + 2,2A 1,33A + 3A	 5,0A + 0,6A 4,1A + 1,5A 2,16A + 3A
Total current	2,2A	3,2A	5,6A	5,6A	5,6A
Fitting battery	7Ah	17Ah	17Ah	40Ah	65Ah
Over voltage protection OVP	U>15,5V, disconnection of the output voltage (AUX+ disconnection), automatic return				
Short circuit protection SCP	Electronic – current limi fuse failure in the battery circuit Automatic				
Overload protection OLP	Program – eq				
Deep discharge battery protection UVP	U<10,0 V (± 2%) – disconnection (-BAT) of the battery				
Indication of opening the cover of the power supply or detachment from the ground	Micro switch				
EXT IN technical input	Voltage 'on' – 1 Voltage 'off' – Level of galvanic iso				
Acoustic indication	piezoelectric indicator ~75dB /0				
Enclosure	Steel plate DC01, 1mm, c				
Dimensions (W×H×D) [mm]	270 × 250 × 88	300 × 300 × 98	330 × 350 × 108	330 × 350 × 178	400 × 370 × 178
Closing	Cheese head screw × 2 (at the fr				
Warranty	5 year from th				



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

PSBEN10A12D PSBEN10A12D/LCD	PSBEN10A12E PSBEN10A12E/LCD	PSBEN2024B —	— PSBEN3024C/LCD	PSBEN5024C PSBEN5024C/LCD
environmental class				
10%), 50Hz				
		27,6VDC		
10A + 0,6A 3,33A + 3A 1,33A + 3A	10A + 0,6A 5,41A + 3A 2,16A + 3A	2,0A + 0,2A 0,58A + 1,5A 0,23A + 1,5A	3,0A + 0,2A 1,4A + 1,5A 0,56A + 1,5A	5,0A + 0,6A 1,4A + 3A 0,56A + 3A
10,6A	10,6A	2,2A	3,2A	5,6A
40Ah	65Ah	2 × 7Ah	2 × 17Ah	2 × 17Ah
		U>31V, disconnection of the output voltage (AUX+ disconnection), automatic return		
itation and / or F_{BAT} (requires fuse replacement) return				
uipment				
/		U<20,0 V (± 2%) – disconnection (-BAT) of the battery		
TAMPER				
10÷30VDC 0÷2VDC lation: 1500V_{RMS}				
),3m, switchable via jumper				
olor RAL 9005 (black)				
330 × 350 × 178	400 × 370 × 178	330 × 350 × 108	400 × 350 × 98	400 × 350 × 98
ront), lock assembly possible				
he production date				

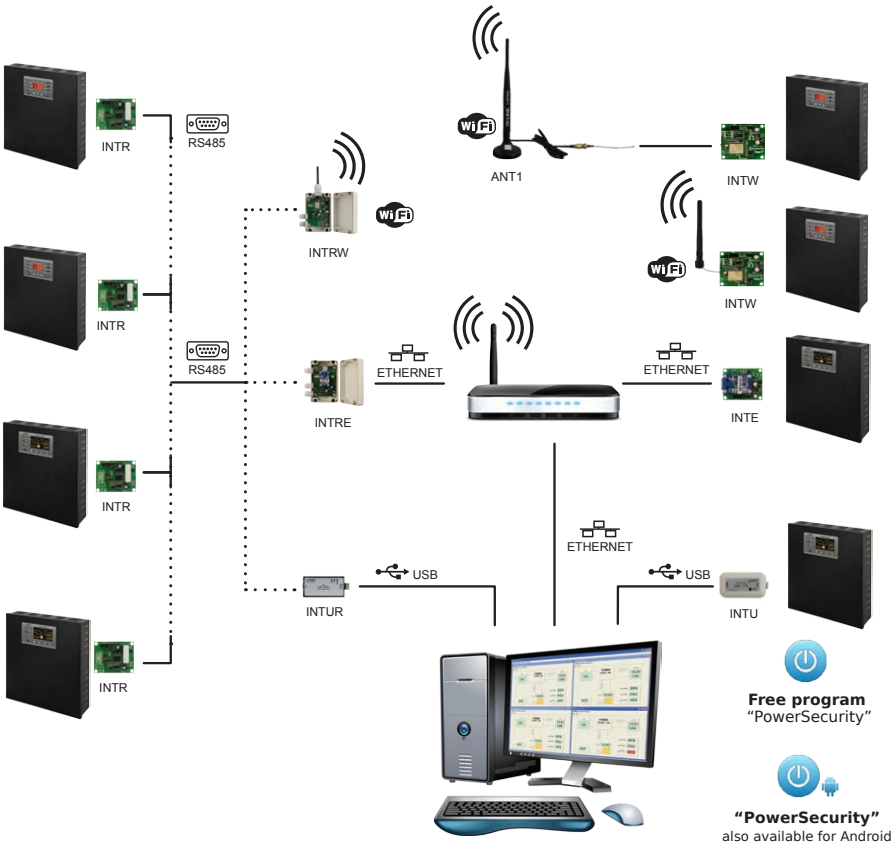
Technical outputs

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



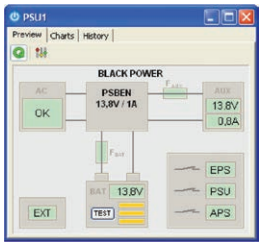
“PowerSecurity” application

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:

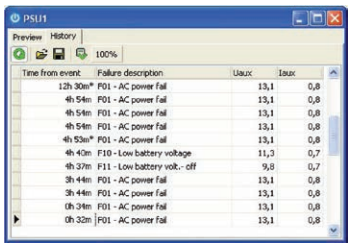
1. Voltage and current at the AUX output of the power supply
2. 230V mains supply status
3. Voltage and battery charging level (optional remote battery test)
4. Status of technical outputs (EPS, PSU, APS)
5. Status of input of collective failure – EXTi

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

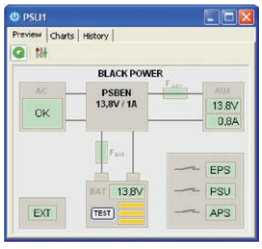


Remote desktop window of PSU

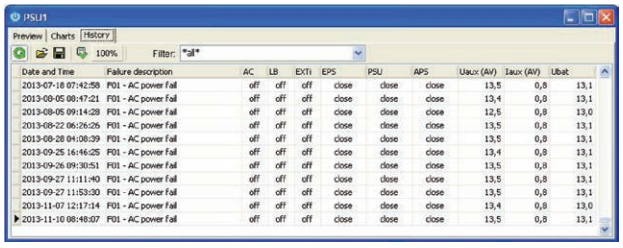


Event log

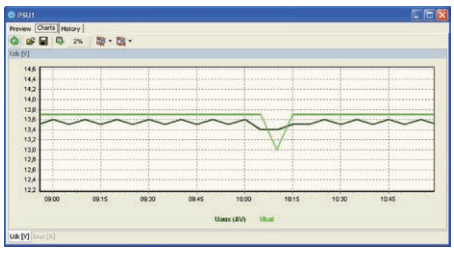
For power supplies with LCD display



Remote desktop window of PSU



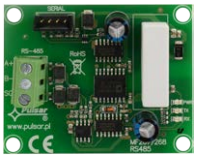
Event log



History of parameters

Interfaces

5 YEAR WARRANTY



SERIAL TTL

RS485

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)

SERIAL TTL

ETHERNET

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)

SERIAL TTL

Wi Fi

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)

SERIAL TTL

USB

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

SERIAL TTL

USB

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

RS485

ETHERNET

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)

RS485

Wi Fi

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)

RS485

USB

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

SMA-RP/U.FL

Wi Fi

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

Buffer power supply units 13.8VDC / 27.6VDC linear, compliant with EN50131-6 standard for alarm systems AWZ plus series

GREY POWER plus

Features

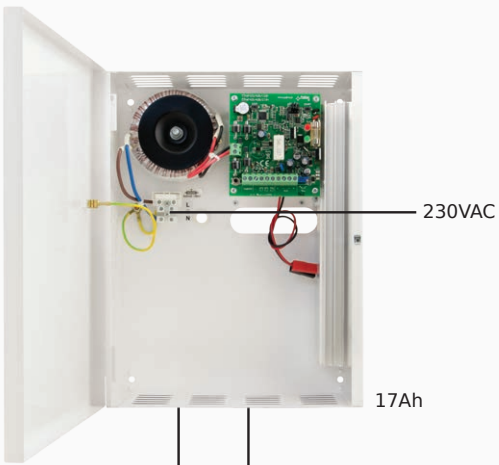
- power supply: 230VAC
- linear voltage regulator
- in accordance with EN50131-6, GRADE 1÷2 standard for alarm systems and II environmental class
- technical outputs OC type:
  - EPS – 230V power failure AC,
  - PSU – power supply failure,
  - APS – indicates battery failure
- deep discharge battery protection (UVP)
- protections:
  - SCP short circuit protection,
  - OLP overload protection,
  - OHP overheat protection,
  - surge protection,
  - antisabotage protection,
  - OVP overvoltage protection
- warranty: 5 years from production date

Sample product
AWZ333

Code	Output voltage	Total current	Battery charging current	Fitting battery	Dimensions W × H × D [mm]
AWZ110	13.8VDC	1A	0.4A	7Ah	200 × 230 × 82
AWZ230		2A	0.4A / 0.9A	7Ah	230 × 230 × 92
AWZ222		2A	0.4A / 0.9A	17Ah	230 × 300 × 92
AWZ333		3A	0.4A / 0.9A	17Ah	230 × 300 × 92
AWZ224	27.6VDC	2A	0.4A	2 × 7Ah	230 × 300 × 92

Compliant with EN50131-6 standard for alarm systems

Sample product: AWZ333



Receiver e.g.

Camera

Detector

Indicator

Electromagnetic lock

Electric strike

Intercom

Video intercom

Universal

Dedicated for control panels DSC, SATEL, PARADOX, RISCO, PYRONIX, CROW...

Code	Transformer	Power supply output	Fitting battery	External dimensions of enclosure: W × H × D (D_1) [±2mm]	External dimensions of front panel: W_1 × H_1 [±2mm]
AWO137	TRP 40VA	16V/2,2A or 18V/2,0A	7Ah/12V	290 × 290 × 100 (15)	285 × 295
AWO221	TRP 40VA	16V/2,2A or 18V/2,0A	17Ah/12V	340 × 300 × 110 (15)	335 × 310
AWO191	TRP 50VA	16V/3,0A or 18V/2,8A or 20V/2,5A	17Ah/12V	340 × 395 × 110 (15)	335 × 400

SATEL

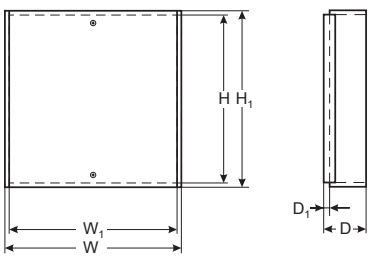
Dedicated for control panels SATEL.

Code	Transformer	Power supply output	Fitting battery	External dimensions of enclosure: W × H × D (D_1) [±2mm]	External dimensions of front panel: W_1 × H_1 [±2mm]
AWO004	TRZ 20VA	16V/1,2A or 18V/1,0A	7Ah/12V	290 × 280 × 105 (15)	285 × 285
AWO213	TRZ 40VA	16V/2,2A or 18V/2,0A	17Ah/12V	330 × 305 × 110 (15)	325 × 310
AWO257	TRZ 50VA	16V/3,0A or 18V/2,8A or 20V/2,5A	17Ah/12V	340 × 400 × 110 (15)	335 × 405
AWO270	EIZ 75VA	20V/3,75A	17Ah/12V	340 × 400 × 110 (15)	335 × 405
AWO306	TRP80VA	16V/5,0A or 18V/4,5A or 20V/4,0A	28Ah/12V	460 × 550×175 (20)	455 × 555

PARADOX

Dedicated for control panels PARADOX.

Code	Transformer	Power supply output	Fitting battery	External dimensions of enclosure: W×H×D (D_1) [±2mm]	External dimensions of front panel: W_1 × H_1 [±2mm]
AWO268	TRP 40VA	16V/2,2A or 18V/2,0A	17Ah/12V	340 × 400 × 130 (15)	335 × 405
AWO278	TRP 80VA	16V/5,0A or 18V/4,5A or 20V/4,0A	17Ah/12V	340 × 400 × 130 (15)	335 × 405



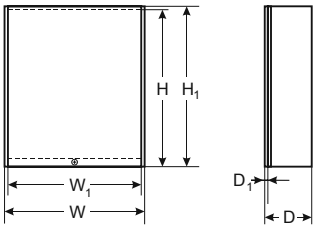
* depending on model

Empty enclosure for alarm control panels SATEL – GRADE 3 version without transformer

Dedicated for control panels SATEL.

Security metal enclosure for alarm control panels is designed for mounting mother-board of alarm control panel and input/output expansion modules, security modules, relays, etc.
Enclosure in empty version is without transformer - this enclosure has pre-embossed openings for transformer of TRP, TRZ, EI and TOR series. Enclosure compliant with EN50131 (GRADE 3) is used in alarm systems in accordance with EN50131.

Compliant with EN50131



Code	Fitting battery	External dimensions of enclosure: W × H × D (D_1)[±2mm]	External dimensions of front panel: W_1 × H_1 [±2mm]
AWO269PU	17Ah/12V	325 × 400 × 100 (15)	323 × 405

Accessories:

AWO269S

Enclosures for expanders GRADE 3 version construction compliant with EN50131

Universal

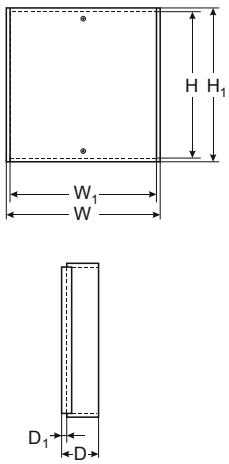
Dedicated for control panels DSC, SATEL, PARADOX, RISCO...

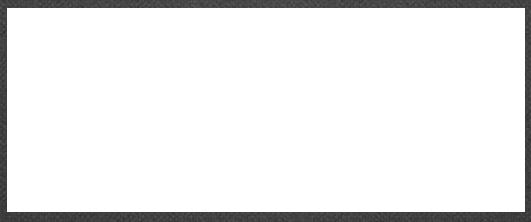
Code	Destination	External dimensions of enclosure: W × H × D (D_1) [±2mm]	External dimensions of front panel: W_1 × H_1 [±2mm]
AWO454	DSC, SATEL, PARADOX, RISCO	297 × 203 × 67 (16)	292 × 207

SATEL

Dedicated for control panels SATEL.

Code	Destination	Fitting battery	External dimensions of enclosure: W × H × D (D_1) [±2mm]	External dimensions of front panel: W_1 × H_1 [±2mm]
AWO229	SATEL	17Ah/12V	330 × 305 × 120 (15)	325 × 310





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