Buffer
power supply units
compliant with EN 50131-6
are intended to alarm system devices

The MTP Gold Medal
Securex 2014
### 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 voltage test
- 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
  - Conventional cooling
  - Warranty: 5 year from the production date

### Available models for 13,8VDC version

<table>
<thead>
<tr>
<th>Model</th>
<th>Output voltage</th>
<th>Fitting battery</th>
<th>Display types</th>
<th>Output current for general purpose application</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSBEN2012B</td>
<td>13,8VDC</td>
<td>7Ah</td>
<td>LED</td>
<td>2A</td>
</tr>
<tr>
<td>PSBEN3012C</td>
<td>13,8VDC</td>
<td>17Ah</td>
<td>LED</td>
<td>3A</td>
</tr>
<tr>
<td>PSBEN3012C/LCD</td>
<td>13,8VDC</td>
<td>17Ah</td>
<td>LCD</td>
<td>3A</td>
</tr>
<tr>
<td>PSBEN5012C</td>
<td>13,8VDC</td>
<td>17Ah</td>
<td>LED</td>
<td>5A</td>
</tr>
<tr>
<td>PSBEN5012C/LCD</td>
<td>13,8VDC</td>
<td>17Ah</td>
<td>LCD</td>
<td>5A</td>
</tr>
<tr>
<td>PSBEN5012E</td>
<td>13,8VDC</td>
<td>65Ah</td>
<td>LED</td>
<td>5A</td>
</tr>
<tr>
<td>PSBEN10A12D</td>
<td>13,8VDC</td>
<td>40Ah</td>
<td>LED</td>
<td>10A</td>
</tr>
<tr>
<td>PSBEN10A12D/LCD</td>
<td>13,8VDC</td>
<td>40Ah</td>
<td>LCD</td>
<td>10A</td>
</tr>
<tr>
<td>PSBEN10A12E</td>
<td>13,8VDC</td>
<td>65Ah</td>
<td>LED</td>
<td>10A</td>
</tr>
<tr>
<td>PSBEN10A12E/LCD</td>
<td>13,8VDC</td>
<td>65Ah</td>
<td>LCD</td>
<td>10A</td>
</tr>
</tbody>
</table>

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

### 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

### Available models for 27,6VDC version

<table>
<thead>
<tr>
<th>Model</th>
<th>Output voltage</th>
<th>Fitting battery</th>
<th>Display types</th>
<th>Output current for general purpose application</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSBEN2024B</td>
<td>27,6VDC</td>
<td>2×7Ah</td>
<td>LED</td>
<td>2A</td>
</tr>
<tr>
<td>PSBEN3024C/LCD</td>
<td>27,6VDC</td>
<td>2×17Ah</td>
<td>LCD</td>
<td>3A</td>
</tr>
<tr>
<td>PSBEN5024C</td>
<td>27,6VDC</td>
<td>2×17Ah</td>
<td>LED</td>
<td>5A</td>
</tr>
<tr>
<td>PSBEN5024C/LCD</td>
<td>27,6VDC</td>
<td>2×17Ah</td>
<td>LCD</td>
<td>5A</td>
</tr>
</tbody>
</table>
### Features

<table>
<thead>
<tr>
<th>PSU type</th>
<th>PSBEN2012B</th>
<th>PSBEN3012C</th>
<th>PSBEN5012C</th>
<th>PSBEN5012D</th>
<th>PSBEN5012E</th>
<th>PSBEN10A12D</th>
<th>PSBEN10A12E</th>
<th>PSBEN2024B</th>
<th>PSBEN3024C</th>
<th>PSBEN5024C/LCD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mains supply</td>
<td>A, protection class 1=3, II environmental class</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output voltage</td>
<td>230VAC (-15%/+10%), 50Hz</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output current + battery charging:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• for general use</td>
<td>1A + 0.2A</td>
<td>3A + 0.2A</td>
<td>5A + 0.6A</td>
<td>7A + 0.6A</td>
<td>10A + 0.6A</td>
<td>13A + 0.6A</td>
<td>16A + 0.6A</td>
<td>20A + 0.6A</td>
<td>25A + 0.6A</td>
<td></td>
</tr>
<tr>
<td>• for grades 1, 2</td>
<td>0.5A + 1.5A</td>
<td>1.4A + 1.5A</td>
<td>2.3A + 2.2A</td>
<td>3.2A + 3.3A</td>
<td>4.1A + 3.3A</td>
<td>5.0A + 3.3A</td>
<td>5.9A + 3.3A</td>
<td>6.8A + 3.3A</td>
<td>7.7A + 3.3A</td>
<td></td>
</tr>
<tr>
<td>• for grades 3</td>
<td>0.23A + 1.5A</td>
<td>0.56A + 1.5A</td>
<td>0.56A + 3A</td>
<td>1.13A + 3A</td>
<td>2.16A + 3A</td>
<td>3.13A + 3A</td>
<td>4.16A + 3A</td>
<td>5.16A + 3A</td>
<td>6.16A + 3A</td>
<td></td>
</tr>
<tr>
<td>Total current</td>
<td>2.2A</td>
<td>3.2A</td>
<td>5.6A</td>
<td>5.6A</td>
<td>10.6A</td>
<td>10.6A</td>
<td>2.2A</td>
<td>3.2A</td>
<td>5.6A</td>
<td></td>
</tr>
<tr>
<td>Fitting battery</td>
<td>7Ah</td>
<td>17Ah</td>
<td>17Ah</td>
<td>40Ah</td>
<td>65Ah</td>
<td>40Ah</td>
<td>65Ah</td>
<td>2 x 7Ah</td>
<td>2 x 17Ah</td>
<td></td>
</tr>
<tr>
<td>Over voltage protection OVP</td>
<td>U&gt;15.5V, disconnection of the output voltage (AUX+ disconnection), automatic return</td>
<td></td>
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</tr>
<tr>
<td>Short circuit protection SCP</td>
<td>Electronic – current limitation and / or Ffuse failure in the battery circuit (requires fuse replacement)</td>
<td></td>
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</tr>
<tr>
<td>Overload protection OLP</td>
<td>Program – equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Deep discharge battery protection UVP</td>
<td>U&lt;10.0 V (± 2%) - disconnection (-BAT) of the battery</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Indication of opening the cover of the power supply or detachment from the ground</td>
<td>Micro switch TAMPER</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>EXT IN technical input</td>
<td>Voltage ‘on’ - 10÷30VDC Voltage ‘off’ - 0÷2VDC Level of galvanic isolation: 1500VRMS</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acoustic indication</td>
<td>piezoelectric indicator ~75dB @0.3m, switchable via jumper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enclosure</td>
<td>Steel plate DC01, 1mm, color RAL 9005 (black)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Closing</td>
<td>Cheese head screw x 2 (at the front), lock assembly possible</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Warranty</td>
<td>5 year from the production date</td>
<td></td>
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</tr>
</tbody>
</table>

### Technical outputs

#### EPS FL T
- output indicating AC power failure
  - type – electronic, max 50mA/30VDC, galvanic isolation 1500VRMS – time lag, approx. 5s/140s/70m/20m (+/-5%)

#### APS FL T
- output indicating battery failure
  - type – electronic, max 50mA/30VDC, galvanic isolation 1500VRMS

#### PSU FL T
- output indicating PSU failure
  - type – electronic, max 50mA/30VDC, galvanic isolation 1500VRMS

#### 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

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**The MTP Gold Medal Securex 2014**

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**LED operation indication for PSBEN**
- • LEDs on the PSU’s PCB,
- • 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
“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
- History of parameters

For power supplies with LCD display

- Remote desktop window of PSU
- Event log
- History of parameters

Interfaces

**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** – Interface 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: Data conversion from the RS485 bus to a PC 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/80÷20mA
- 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 / 5dB
- Polarization: Vertical
- Cable: length 1,5m / SMA-RP/U.FL plug
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