

Bulletin 1606 Switched Mode Power Supplies

Catalog Numbers: 1606-BATASSY1, 1606-XLSBAT1, 1606XLSBATBR1

Terminology and Abbreviations

- **DC-UPS**—Uninterruptible power supply with DC Input.
- **Normal mode**—Describes a condition in which the battery is charged, the input voltage is in range and the output is loaded within the allowed limits.
- **Buffer mode**—Describes a condition where the input voltage is below the transfer threshold level, the unit is running on battery (buffering) and the output is loaded within the allowed limits.
- **Charging mode**—Describes a condition where the battery is in the process of charging, the input voltage is in range and the output is loaded within the allowed limits.
- **Inhibit mode**—Describes a condition where buffering is intentionally disabled by using the inhibit input of the DC UPS (e.g. to perform service actions or to save battery capacity).
- **Buffer time**—This term is equivalent to “hold-up time.”
- **T.b.d.**—To be defined, value or description will follow later.



Battery Modules

A modular concept allows the user to meet individual application demands and is available with two different options:

You can order the module with an assembled battery or you can choose only the bracket allowing the mounting of individual batteries – such a long life or higher current which achieves a longer buffer-time. The mounting bracket allows you to assemble the battery just in time, thus avoiding outdated batteries due to limited shelf life.

- Two mounting options:
DIN rail or panel/wall mounting
- Easy access to the terminals and the fuse
- Heavy duty fuse holder and spare fuse included

Description

Battery

Maintenance free valve regulated lead acid battery
 Battery voltage nom 12Vdc
 Battery capacity nom 7Ah
 Self-discharge typ 3%/ month at 20°C
 Design life (EUROBAT) 3 to 5 years

Fuse

Blade terminal fuse nom 30A ATO®
 (257 030 Littelfuse)

Terminals and Wiring

Type Screw terminals
 Solid wire nom 2.5-4mm²
 Stranded wire nom 2.5-4mm²
 American wire gauge max 12 AWG
 Wire stripping length nom 7mm / 0.275"
 Tightening torque nom 0.8Nm / 7lb.in

Ambient Temperature

Operation min +0°C to +40°C
 Storage and transport min -20°C to +50°C

Dimensions and Weight (1606-XLSBATASSY1)

Width nom 155mm / 6.1"
 Height nom 124mm / 4.88"
 Depth nom 112mm / 4.41"
 Weight max 3200g / 7.06lb
 The DIN rail height when used must be added to the depth to calculate the total required installation unit depth.

Catalog Numbers

1606-XLSBATASSY	Battery module with battery
1606-XLSBATBR1	Mounting kit without battery
1606-XLSBAT1	Battery replacement

Specification Quick Reference

Instructions for Use and Disposal of the Battery

- Place the battery module outside the cabinet or in the coolest area when used inside the cabinet.
- Use wires no smaller than 2.5mm² (or 12 AWG) and no longer than 2x1.5m (cord length 1.5m).
- Disconnect battery fuse before working on the battery or on the DC-UPS.
- To replace battery, loosen screw with only one turn and slide the mounting bracket up.
- For storage, installation and operation, the requirements of the EN 50272-2 as well as other national regulations must be observed.
- Ensure sufficient ventilation for the battery.
- Always dispose the batteries through a recycling organisation. Batteries must be completely discharged before recycling.



Warranty

3 Year limited warranty except battery as battery is considered as a service part. Special conditions are part of our general terms and conditions. Do not store the battery longer than 9 month without supplementary charge or performance might change.

Certification Marks



Battery, terminal block, cables, fuse and fuse holder are UL-approved components.

Intended Use

- This device is designed for installation in an enclosure and is intended for the general professional use such as in industrial control, office, communication, and instrumentation equipment.
- Do not use this power supply in aircraft, trains, nuclear equipment or similar systems where malfunction may cause severe personal injury or threaten human life.
- This device is designed for use in non-hazardous, ordinary or unclassified locations.

Installation Requirements

- This device may only be installed and put into operation by qualified personnel.
- This device does not contain serviceable parts. The tripping of an internal fuse is caused by an internal defect.
- If damage or malfunction should occur during installation or operation, immediately turn power off and send unit to the factory for inspection.
- Mount the unit on a DIN rail so that the terminals are located on the bottom of the unit.
- This device is designed for convection cooling and does not require an external fan. Do not obstruct airflow and do not cover ventilation grid (e.g. cable conduits) by more than 30%!
- Keep the following installation clearances: 40mm on top, 20mm on the bottom, 5mm on the left and right sides are recommended when the device is loaded permanently with more than 50% of the rated power. Increase this clearance to 15mm in case the adjacent device is a heat source (e.g. another power supply).



SHOCK HAZARD: Do not use the power supply without proper grounding (Protective Earth). Use the terminal on the input block for earth connection and not one of the screws on the housing.

- Turn power off before working on the device. Protect against inadvertent re-powering
- Make sure that the wiring is correct by following all local and national codes
- Do not modify or repair the unit
- Do not open the unit as high voltages are present inside
- Use caution to prevent any foreign objects from entering the housing
- Do not use in wet locations or in areas where moisture or condensation can be expected
- Do not touch during power-on, and immediately after power-off. Hot surfaces may cause burns.



WARNING: EXPLOSION HAZARDS!

Substitution of components may impair suitability for this environment. Do not disconnect the unit or operate the voltage adjustment or S/P jumper unless power has been switched off or the area is known to be non-hazardous.

Physical Dimensions

Fig. 1 Front view

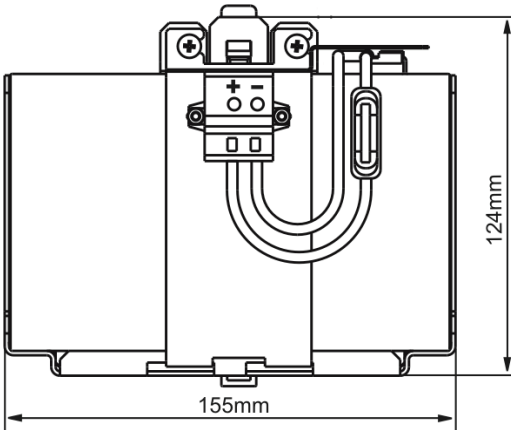
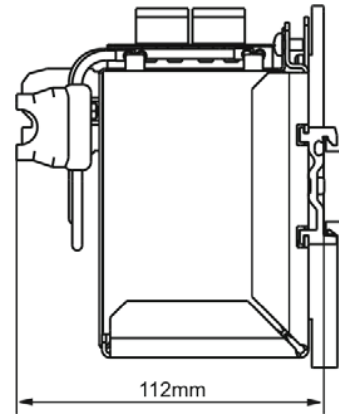
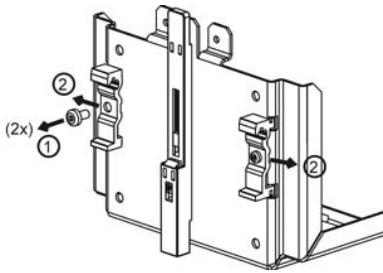


Fig. 2 Side view



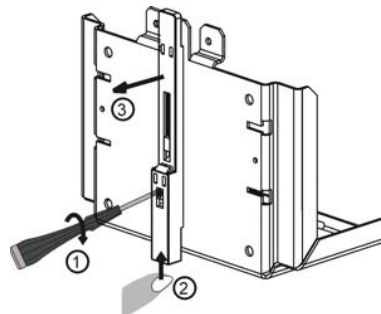
Panel/Wall Mounting

Fig. 3 Detaching DIN rail brackets



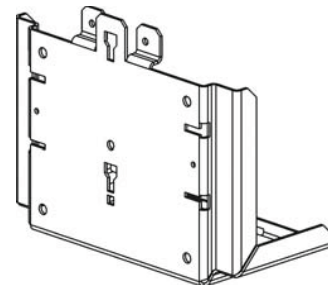
Detach the two aluminium brackets by removing the two screws with a Torx screwdriver (Torx 10).

Fig. 4 Detach slide



Remove the plastic lock mechanism by using a flat-blade screwdriver to press the lock downwards while pushing the plastic slide upwards at the same time. Detach the plastic slide.

Fig. 5 Panel/wall mount



Panel/wall mounting is possible by using either the four holes on the rear or the bottom of the unit. See hole pattern below.

Fig. 6 Rear hole pattern

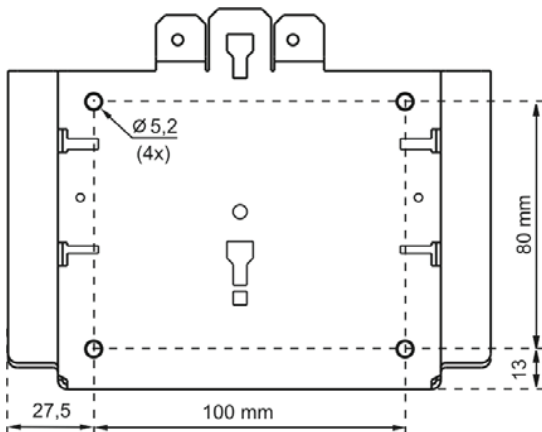
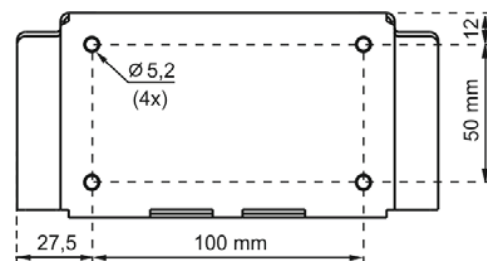


Fig. 7 Bottom hole pattern



All parameters are specified at 25°C ambient and after a 5 minutes run-in time unless noted otherwise.

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For an additional level of technical phone support for installation, configuration, and troubleshooting, we offer TechConnectSM support programs. For more information, contact your local distributor or Rockwell Automation representative, or visit <http://www.rockwellautomation.com/support/>.

Installation Assistance

If you experience a problem within the first 24 hours of installation, review the information that is contained in this manual. You can contact Customer Support for initial help in getting your product up and running.

United States or Canada	1.440.646.3434
Outside United States or Canada	Use the Worldwide Locator at http://www.rockwellautomation.com/rockwellautomation/support/overview.page , or contact your local Rockwell Automation representative.

New Product Satisfaction Return

Rockwell Automation tests all of its products to help ensure that they are fully operational when shipped from the manufacturing facility. However, if your product is not functioning and needs to be returned, follow these procedures.

United States	Contact your distributor. You must provide a Customer Support case number (call the phone number above to obtain one) to your distributor to complete the return process.
Outside United States	Please contact your local Rockwell Automation representative for the return procedure.

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