

GEPA BAR-24GP 24V Output Battery Charger with 7/12 Ah Battery Group User Guide

1. General



GEPA BAR-24GP Battery Charger with 18/26 Ah Battery Group is a reliable and low cost DC power supply with in-cabinet battery group solution. In-cabinet VRLA (AGM) batteries doesn't need maintenance, provide high current demands and have low discharge current.

A series connected battery group is only able to get charged up to weakest battery capacity. Rectification unit consists of a dual output transformer and two individual charger circuits for each battery to overcome this weakness and charge each battery until maximum capacity. Charger circuits are MOSFET based high frequency DC/DC converters.

This device is specifically designed for small substations, also applicable in automation projects and where DC voltage is required.

- **Low cost DC supply for small substations**
- Individual charger for each battery for maximum capacity
- Easily replaceable internal 7 or 12 Ah VRLA batteries
- 27.6 V fixed voltage output
- 1.75 A_{max} continuous current output
- Low-ripple DC output
- On device fuse holders at input and output
- AC and DC presence LED indicators
- Battery voltage test function
- Ergonomic wall-mount or rack type case

- Read this document before montage and wiring.
- Make sure device is not energized before wiring. Do not touch terminals while device is energized.
- Montage and wiring must be done according to document by qualified person/people.
- Use dry cloth to clean. Do not use chemicals that may lead deformation or corrosion.
- Warranty is valid for 2 years from invoice date, batteries are excluded from warranty.
- Warranty will be violated under these conditions; unauthorized modifications, opening enclosure and removing warranty label.
- This device is intended for use in indoor and industrial environment.
- Manufacturer or sales company is not responsible of faults if user doesn't obey recommendations at the above.
- This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.



Contact with high voltage ($\geq 42.2V_{ACpeak}$ or $\geq 60 V_{DC}$) may cause electrical shock and injury.



This product conforms to Low Voltage Directive (LVD) 2014/35/EU and Electromagnetic Compatibility (EMC) Directive 2014/30/EU.

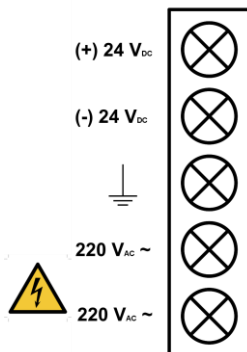


Consult us for recycling or disposal of the device and batteries according to WEEE directive.



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2. Commissioning



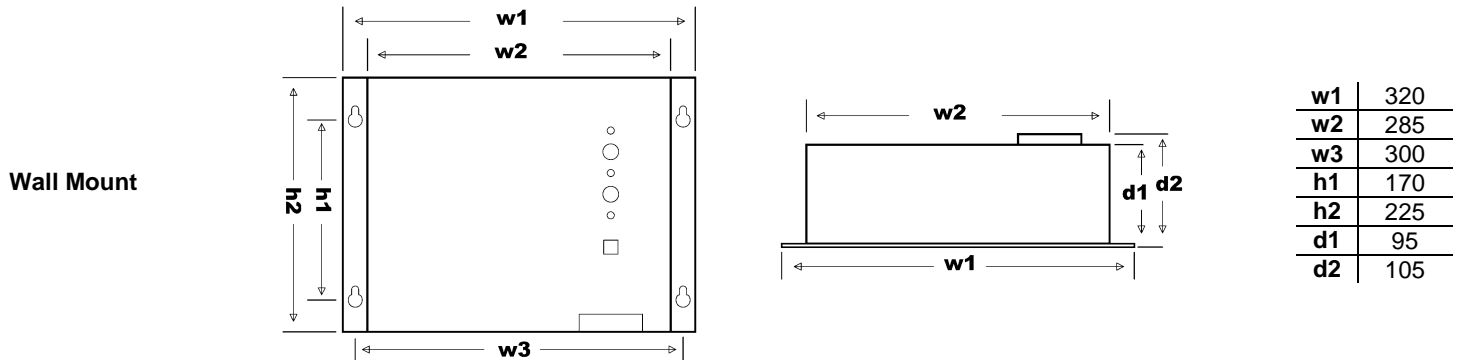
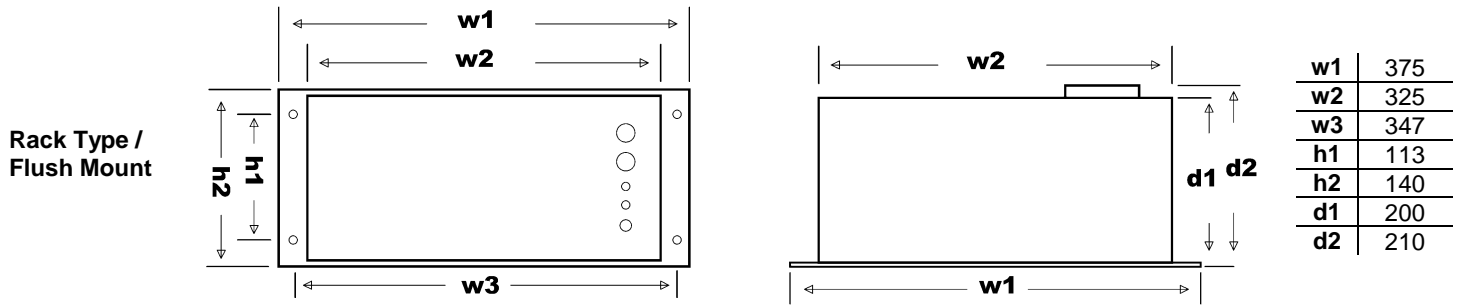
1. **Wall mount:**
Fix the device on the wall from bolt holes on the both sides.
Rack type:
Flush the device to panel-cut hole and fix to the panel.
2. Make connections according to schema on the left.
3. Use AC cables minimum 0.75 mm² (AWG 18) and DC cables minimum 2.5 mm² (AWG 13).
4. Apply AC (supply) voltage and observe AC and DC LED are on.



In case of fuse blown, change fuses with recommended type and rating. See section 4. *Technical Specifications.*

3. Dimensions

All dimensions are in mm.



4. Technical Specifications

Input Voltage	230 V _{AC} (± 20 %)
Input Frequency	47.5 – 62.5 Hz
Input Current	0.5 A _{max}
Input Fuse	C type, 2 A
Input Cable Diameter	0.75 mm ² _{min} (AWG 18)
Output Voltage	27.6 V _{DC} (> 1 % w/out battery group)
Output Ripple	> 1 %
Output Current	1.75 A _{max}
Output Fuse	C type, 10 A
Output Cable Diameter	2.5 mm ² _{min} (AWG 13)
Power Factor	0.9
Efficiency	60 %
Cooling Method	Natural convection
Internal Battery Capacity	7 - 12 Ah
Internal Battery Type	VRLA (AGM)
Pollution Degree	III
Dielectric Withstand	2 kV _{AC} / 50 Hz, 1 min
Impulse Withstand	5 kV _{peak} , 1.2 / 50 μs
Operating Temperature	(-25) – (+55) °C *
Storage Temperature	(-30) – (+60) °C *
Relative Humidity	<95 RH (w/o condensation)
Ingress Protection	IP 20

*: Operating or storing batteries at elevated temperatures improves performance but prolonged exposure will shorten life.