

Technical specifications

1. Device: GR10 / GR10 OVP / GR10-AIR /GR10 OVP-AIR

2. Manufacturer: AIRBATT (ACCU-24 Batterien & Systeme GmbH, Untergasse 5, 63688 Gedern)

3. Product purpose and discription:

The GR10 is a compact alternator controller with a zero point management (little to none radio interference). The GR10 OVP also has an inbuilt overvoltage protection (OVP), which protects the LiFePO4 batteries when the normal controller is deactivated. The version "AIR" has a cooling vent in addition. The AIRBATT GR10 has the same housing dimensions, mounting holes, electrical connections and plug as the Ducati-Energia 343620 alternator and can therefore directly replace this alternator.

Important safety instructions:

Before installation, check the compatibility of charging and overvoltage cut-off voltage with the battery used and whether the battery is suitable for the maximum generator charging current! Unsuitable batteries can overheat and/or be damaged. Especially when used with LiFePO4 batteries, an approval by the UL manufacturer must be available.

Technical details:

Measurement:	105 x 64 x 33 mm
Weight:	0,3 kg
Alternator voltage:	max. 140V 2 pole – alternating current
Controller voltage:	13,8V – 14,8V adjustable
Generator power:	Up to 300W depending on cooling
Function control:	Charging control lamp 12V max. 100mA
With OVP feature:	Deactivation > 15,2V / auto. reset at approx. 14V

4. Functional characteristics:

When the main switch is activated the charging control lamp lights up and in version „AIR“ the cooling fan starts running as well. As soon as the GR10 alternator controller produces power the lamp turns off. In case of an error (f.e. no power, high temperature or overvoltage) the charging control lamp lights up again. The voltage controlling of the battery in regular mode runs over connection „C 6 main switch“. If the battery voltage exceeds the 15,2V at the „7 OVP-measuring“ the over-voltage-protection is triggered and cuts off the charging current and a signal occurs on the control lamp. The OVP resets itself automatically at approx. 14V. The function works mainly independently besides the normal controlling with its own voltage tap at the battery (constant current of about 0,1mA).

5. Potentiometer setting:

- Recommended charging voltage of the different battery technologies -

>> factory setting: 14,5V <<

Lead/acid: 13,8V

Lead/Gel: 14,4V

Lead/AGM: 14,8V

LiFePO4: 14,6V

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6. Accessories:

- 8007150 - AIRBATT SB630 6-pol. electrical plug
- 8007151 - AIRBATT AS10 OVP-measuring line connection set for GR10-OVP
- 8007152 - KLAUKE blade receptacle set (5x Klauke 730V 1,5-2,5mm² /5x Klauke 720V 0,5-1mm²)
- 8007153 - KLAUKE 2730 blade receptacle set (10 Stk.)
- 8007154 - KNIPEX 975236 crimping tool for insulated blade receptacle
- 8007155 - KNIPEX 975235 crimping tool for noninsulated blade receptacle

7. Installation: - The installation must only be carried out by qualified staff -

The cooling ribs of the AIRBATT GR10 should be placed as vertical as possible because of that you achieve the best cooling effect possible. Try to place the GR10 in an airflow if possible. Choose an installation point as far as possible from a heat source e.g. an exhaust pipe. Install the measuring line of the OVP as near as possible to the battery and put it with a 6,3mm blade receptacle on "pin 7 OVP-measuring line" of the regulator. In order to do that, you have to cut off the interlock of the plug. You need to install a fuse at the battery if the measuring line is longer than 50cm – you can purchase a measuring line connection set with the order-no. 8007151. For installation of the generator, battery, main switch line, charge controller and OVP-measuring line we recommend using the 6pol. electrical plug – our AIRBATT SB630 connector block (Order-No. 8007150) – or alternatively you can use fully insulated blade receptacle in high quality like the Klauke blade receptables 720V/730V (8007152) to connect the generator, battery, mainline, chargecontrol and OVP-measuring line. The ground connection works over the casing. A solid, well attached connection is mandatory - maybe a readjustment of the connector pins is therefore necessary. There is no need for a capacitor. The fuse for the OVP-Connection and the fan of the version "AIR" needs to be checked in the annual inspection.

8. Cable cross-sections and fuse:

1	Generator line	= 2,5 mm ²
2	Generator line	= 2,5 mm ²
3 and 4	Battery	= 2,5 mm ²
5	Control-Lamp	= 0,5 mm ²
6	Main switch	= 0,5 mm ²
7	OVP Measuring line	= 0,5 mm ²
Fuse for OVP Measuring line over 0,5 m		= 2,0 A

9. Circuit diagramm

