Product Specification

primepower
Idavägen 11
352 46 Växjö
Tel +46 470 72 74 95
Fax +46 470 72 74 99
www.primepower.se

LEAB Booster 0037132



General description

This Primepower DC/DC booster is designed for use with all types of rechargable lead acid batteries. The Booster raise the input voltage from the alternator to an output level with appropriate voltage level to charge the connected battery.
The product is suitable both in marine and automotive applications.

Features

- High efficiency, Cool running normal operation
- Overheat protection
- Waterproof and shock resistant, IP67
- Compact metal enclosure
- Small and easy to install

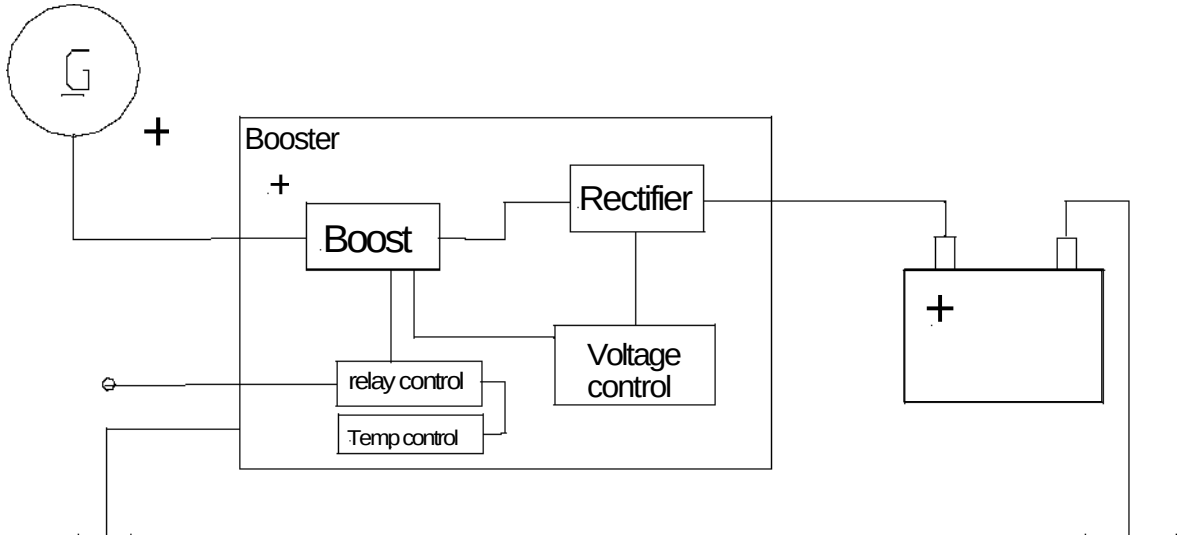
Part number / order information

Primepower part number	Nominal current	Nom voltage
0037132	8A	24V

Theory of operation

The input voltage is converted to the suitable charging voltage. This conversion is made by a step down construction and works with high efficiency. The output voltage is kept stable within the input voltage specification. The charging characteristics is IU. Depending on the input voltage condition, the charging current can reach up to maximum 12amp. This enable a quick recharge.
The booster is turned on and off by an semiconductor relay. The semiconductor relay is controlled by the internal microcontroller. The level of voltage controlled on/off switch is determined by the internal microcontroller. Default setting is 25,8V input voltage and turn off at 25V.

Block Diagram



Descriptions of features

The normal operation is very effective and cool running. The cooling is convection only. If mounted in poor ventilated or airtight compartments the surface heat may raise significant. The unit has a build in overheat protection. This will turn the unit off if the surface temperature reaches approx 60 degrees.

The complete electronics is mounted in the metal enclosure and totally sealed in polyurethane. Water, oil or other substances will thereby be effectively kept out. The booster can be mounted in very harsh environment such as engine-compartment due to the encapsulation.

Electrical specifications

ABSOLUTE MAXIMUM RATINGS

Maximum ratings establish the maximum electrical rating to which the unit may be subjected without damage

Parameter	Value	Notes:
Max Current	12Amp	
Fuses, mounted on cable	20Amp	
Stand off voltage	40V	Note 1
Enclosure Temperature	60°C	
Operating Temperature Range	-30°C - +55°C	
Storage Temperature Range	-55°C- 85°C	

1. This is maximum voltage applied between INPUT and GND that the unit Will standoff without causing damage to the unit.

Electrical Characteristics

Unless otherwise stated, conditions apply to full temperature range and full input voltage range.

Characteristic	**MIN**	**TYP**	**MAX**	**Unit Notes:**
Input Voltage Turn ON	25.5	25,8	26,6	V
Input Voltage Turn OFF	25	25,5	26.2	V
Input Over Voltage			30	V
Output Voltage	28	28,2	28,4	V

Quiescent Current off	<1	mA
Quiescent Current on	100	mA

Environmental Specifications

Parameter	Level	Conditions / Notes
Humidity	0– 100 %RH	
Splash	Yes, IP67	
Pressure Wash	Yes, IP67	
Mechanical Vibration	40G	according to standard IEC 60068-2-6
Handling Shock	Will Show Damage	

Mechanical specifications

Terminals:
The unit utilizes two 1 ,5mm2 cupper Cables to make the battery connections. Each cable is fitted with cable shoe 1,5 x 8. Overall cable lengths is 1500mm.

The powersupply will be connected through a Neutrik connector

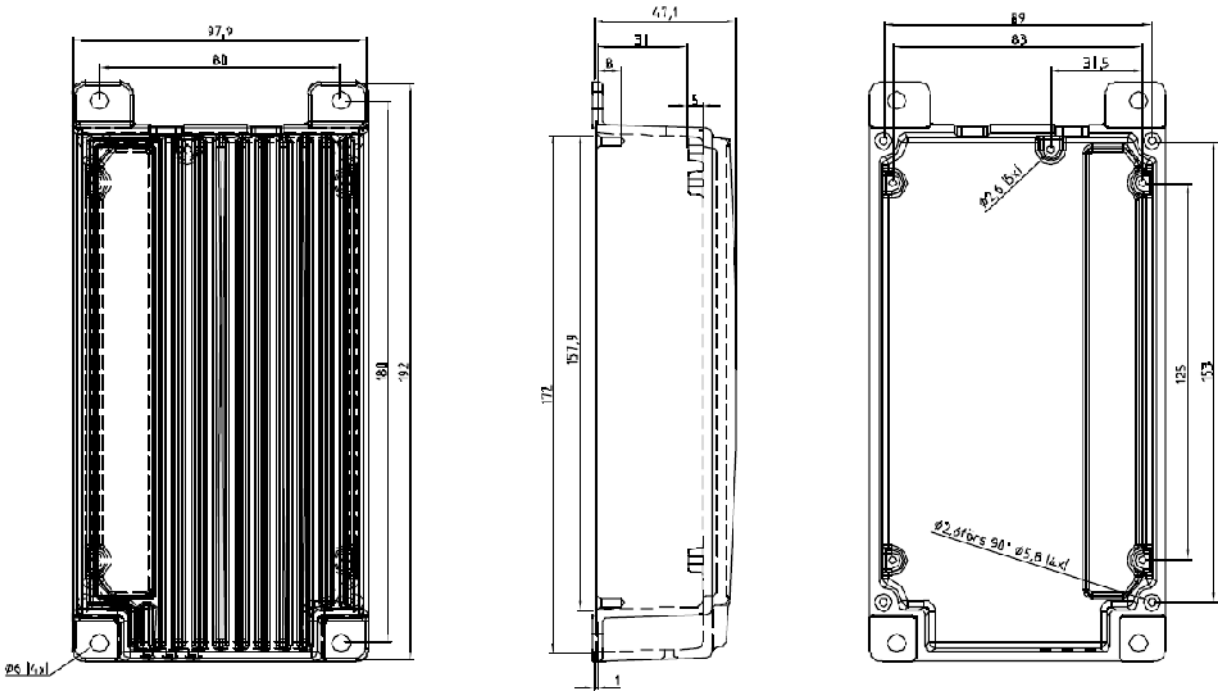
Finish: Grey RAL 7035 powder coated aluminium enclosure

Potting material: Polyurethane

Mounting Slots: 4X, Accepts M4-M6 (6mm diam)

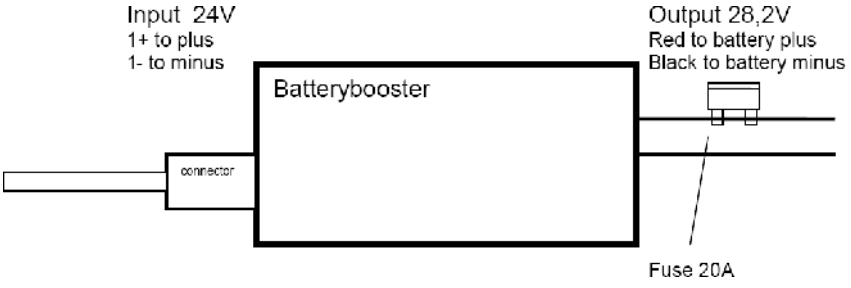
Weight: 1,4Kg

Unit Dimensions: 198 x 98 x 43

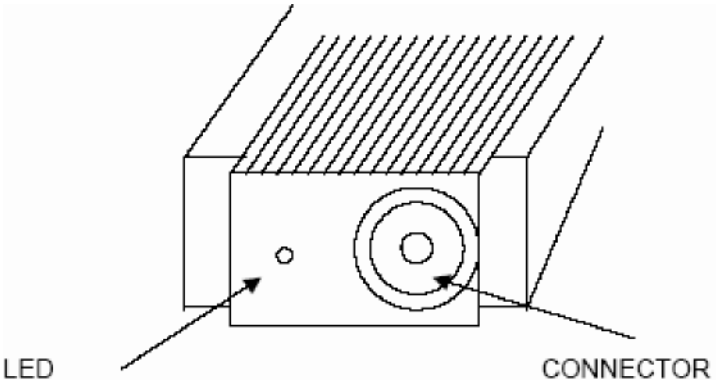


Connection and installation:

Install the Booster if possible vertical with the cable connectors down. The booster shall preferable be mounted close to the charged battery to obtain maximum charging effect.



The Booster use a Neutrik connector on input





Approvments acc. : EN 55022 CE and **e** mark e5 0086

www.primepower.se