

# Power Receiver v003 - Datasheet

## Product Description

The Power Receiver v003 is a power junction device designed to clip into 18V Li-ion batteries and expose spring-loaded terminals to conveniently power various hobby, educational or professional robotics projects.

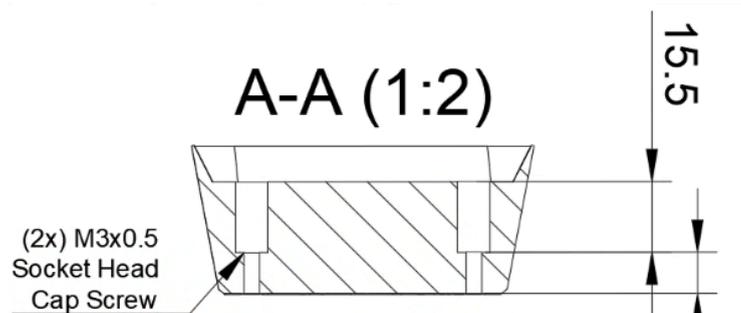
The power receiver v003 is equipped with multiple safety devices such as a replaceable 8A glass fuse and a general toggle switch.



## Mechanical Properties

The Power Receiver v003 is designed to be mounted from the bottom with the help of:

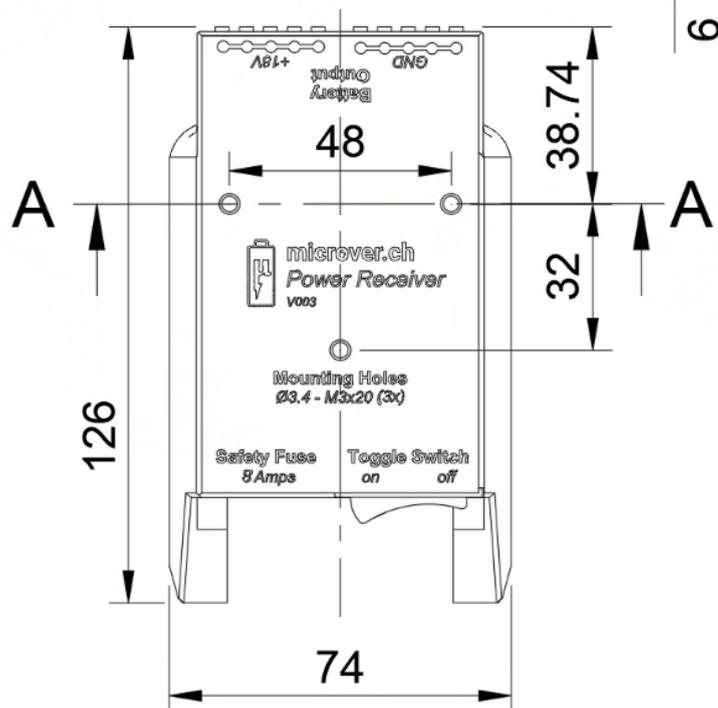
**Fasteners:** 3x M3x05  
**Screw type:** Socket Head



The hole pattern is centered on the vertical symmetry line of the device.

The power receiver should be mounted with the bottom (Toggle Switch side) pointing towards the outside of the robot as this makes the battery replaceable and enables the user to make sure that :

**Fuse:** Not blown  
**State of charge:** High  
**Toggle Switch:** Activated



## Electrical Properties

The Power Receiver v003 is designed to output power from the attached battery:

**Max continuous current:** 8 A  
**Max peak current (1s):** 20 A

Multiple safety devices are implemented to protect the user from mistakes and mishandlings such as short circuits or overdischarge :

**Low voltage cutoff:** 15 V  
**E-fuse current cutoff:** 25 A  
**Glass fuse overcurrent:** 8 A

The status LED on the toggle switch is connected such that it only turns on if the output terminals are powered. If one of the following point are true, the light will not turn on (often to protect the user)

- Battery is overdischarged (charge it)
- E-fuse is triggered (disconnect the load)
- Glass fuse is blown (replace it)

### Charging

Charging must always be done with the help of the supplied battery charger and never externally with an "unsupported" charger or a raw PSU.

### Safety Disclaimer

Before turning "on" the toggle switch and enabling the load to be powered by the battery. Always make sure that there are no short circuits between GND and 18V with the help of a multimeter!

### Replaceable Glass Fuse

*Fuse: 5 x 20 mm – 8 Amps*

The glass fuse is designed to be replaced in the case that a dangerous short-circuit is created and it blows to protect the circuit :

- Pull it out using pliers (careful, it can shatter)
- Throw it away
- Push in a new fuse



Good Fuse



Bad Fuse

