

?? Usage notes

Recharging

Select either the DC port or the USB-C port for charging the power bank, not both at the same time! For the maximum charging power, see the specifications below. We recommend to charge with approximately 40 W. Charging the battery cells with less power helps to conserve them.

Solar charging

The 154 Wh and 307 Wh models also support charging by solar panels. If the panel has a voltage between 12 - 24 V, it can be directly connected to the DC port. The battery management system has a built-in Maximum Power Point Tracking (MPPT) charge controller. Feel free to use the provided barrel connector adapters.

Polarity: Center = positive!

To charge the 99 Wh power bank with solar energy, you need either a solar panel with USB output or a charge controller with proper DC output.

LED Display

It shows the charging state, the battery capacity and the selected DC port voltage

DC port output

Press the button 3 seconds to switch the power output off or on.

By pressing it shortly, toggle through different available voltages:

99 Wh power bank	154 + 307 Wh power banks
<ul style="list-style-type: none">• Select 12V / 16.5V / 20V / 24 / OFF or EXIT• Press button 3s again to confirm• Wait a few seconds until the display confirms the output	<ul style="list-style-type: none">• Select 12V or 24V• just wait until voltage display goes from flashing to constant

Finally, connect your device with the proper cable.

USB outputs

USB ports can be used simultaneously. Only the USB-C1 port has a separated power control. Using USB-C2 and USB-A together will stop fast charging output.

Combinations

It is possible to use the ports simultaneously. For example one can recharge the power bank via the DC port and attach a USB device to the USB-A port at the same time. However, there are a few exceptions:

☐ **No combined usage** of ports is possible in this cases:

- *99 Wh* - DC + USB-C1: no combination is possible (neither charging nor recharging nor mixed)
- *154 + 307 Wh* - DC + USB-C1: no simultaneous charging is possible (use only one input at a time for charging)

Automatic power-off

Some ports will be switched off after a short time to save battery, if too low power is demanded.

	99 Wh	154 Wh	307 Wh
DC / USB-C1	< 1.8 W = 150mA @12V after 5 minutes	< 1.5 W = 125mA @12V after 5 minutes	no power-off
USB-C2 / USB-A	<0.5 W = 100mA @5V after 1 minute	<0.15 W = 30mA @5V after 1 minute	

To prevent the power-off function, plug in another device in parallel - for example, charge your smartphone via USB-C2 if you want to keep the USB-A port active.

LED torch

To switch the light off and on for 154 Wh + 307 Wh power banks: Press the button twice.

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