GM-Outdoor.nl
Power Supply - Boating - Camping

GMtech GM12/12 – 40 DC-DC MPPT lader

Handleiding

1、Product Overview

This product is a DC to DC charger that uses an isolated circuit, Equipped with automatic pressure rise and fall function and MPPT function。Equipped with a battery type switching button, Can meet the power supply needs of up to 5 battery types。Adopting a dual input design, one path is for solar charging (default priority), and the other path is for car generator charging.Equipped with ACC delayed start function, the charger will only start working 10 seconds after receiving the engine start signal.

2、Product parameters

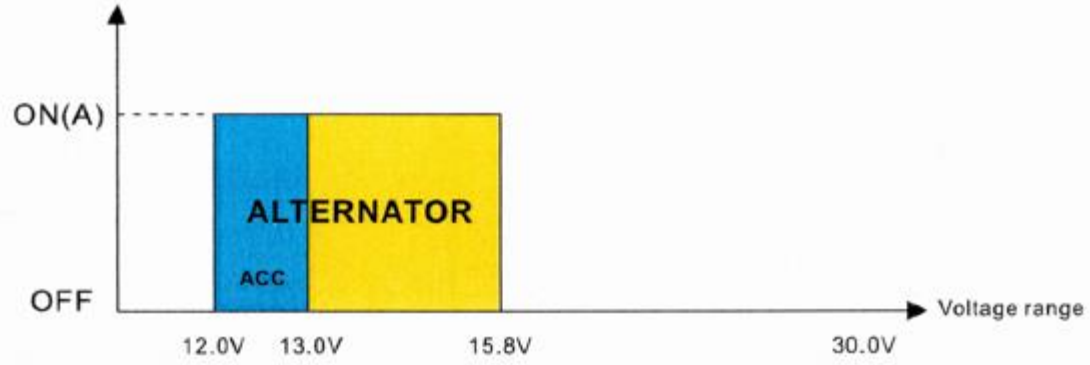
<table>
<tr><td>Model</td><td colspan="6">DCDC 1240B</td></tr>
<tr><td rowspan="2">Input voltage</td><td colspan="3">Solar charging</td><td colspan="3">Car generator charging</td></tr>
<tr><td colspan="3">12.0V-30.0V±0.2V</td><td colspan="3">12.0V-15.8V±0.2V</td></tr>
<tr><td rowspan="3">Output voltage</td><td colspan="6">Battery mode</td></tr>
<tr><td>GEL</td><td>CAL</td><td>STD</td><td>AGM</td><td colspan="2">LiFePo4</td></tr>
<tr><td>14.2V±0.2V</td><td>15.2V±0.2V</td><td>14.4V±0.2V</td><td>14.8V±0.2V</td><td colspan="2">14.6V±0.2V</td></tr>
<tr><td>Output voltage</td><td colspan="6">40A±0.5A</td></tr>
<tr><td>Charging efficiency</td><td colspan="6">Full load ≥ 90%; Maximum efficiency reaches 97%</td></tr>
<tr><td rowspan="3">Protection function</td><td>Short circuit protection</td><td colspan="5">When there is a short circuit in the output, the fault light remains on; Long term short circuit, charger restarts every 90 seconds; Remove the short circuit and the charger will resume output after 90 seconds.</td></tr>
<tr><td>Over temperature protection</td><td colspan="5">When the temperature of the internal casing exceeds 70℃, the fault light flashes; The charger will automatically adjust the output power to maintain a constant temperature of 70℃ inside and outside the machine.</td></tr>
<tr><td>Reverse protection</td><td colspan="5">When the polarity of the input and output terminals is reversed, the charger does not work; After polarity correction, the charger returns to normal operation.</td></tr>
<tr><td>Working mode</td><td colspan="6">1.Solar charging (default priority)
2.Car generator charging
3.Five speed battery type adjustment</td></tr>
</table>

working temperature	0℃-45℃
Relative humidity	45%-75% RH
Storage temperature	-20℃-45℃
Port type	50A Anderson interface * 3, with a wire length of approximately 30 CM
Product size	235*163*75 MM
Packaging size	2.15 KG
Product weight	42*42*46 CM
Shipping weight	6 PCS/CTN,12.9 KG/14.6 KG

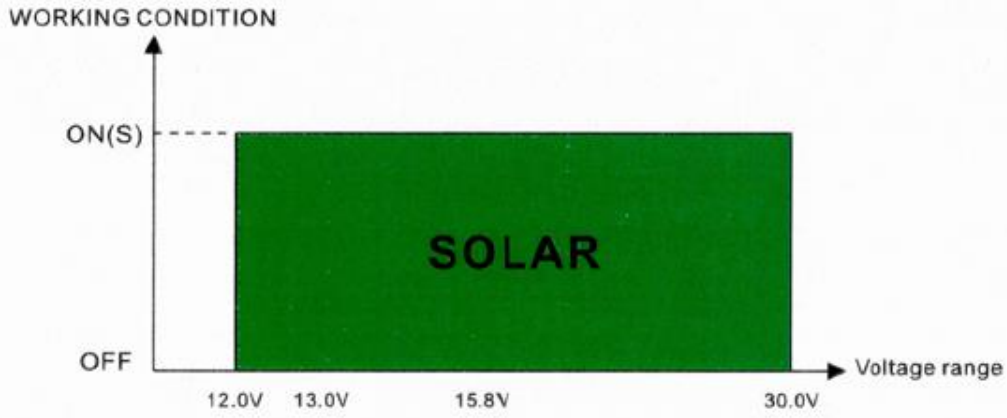
3□Product features

3.1. The input voltage range of the car generator is 12.0V-15.8V ± 0.2V. When the input voltage is between 12-13V, a generator trigger signal (i.e. 10-16V) is required for the charger to function properly.

WORKING CONDITION



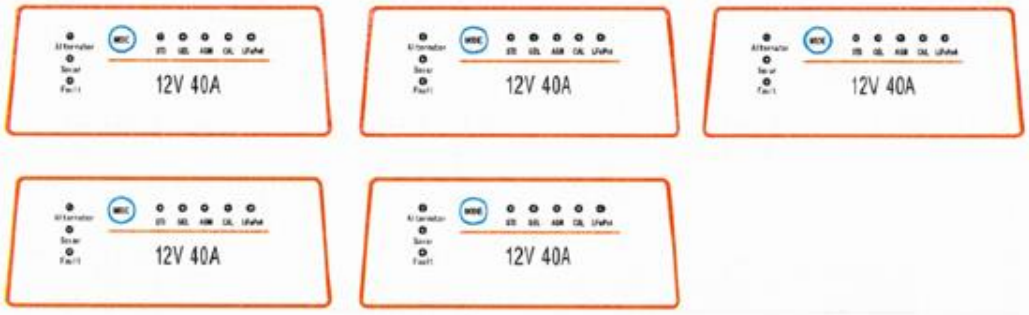
3.2. The solar input voltage range is 12.0V-30.0V ± 0.2V, and the charger is working normally. When the solar input voltage reaches 11V, the charger will automatically shut down.
(Note: When the solar voltage is ≥ 40V, it may damage the charger)



3.3.When the battery is fully charged (i.e. when the voltage reaches the highest value of the battery and the current drops to 1/10 of the maximum value of the charger), the charger automatically shuts down and starts every 90 seconds.

3.4.Please connect the input and output terminals correctly. The charger requires a voltage of 9V or above at the output terminal (battery) and the correct voltage connection at the input terminal to charge properly. This product does not have an on/off button.

3.5.Short press the MODE key to switch battery types, and the corresponding indicator light will light up.



3.6.indicator light

① When a battery is connected (the input end is not connected), a corresponding battery indicator light flashes;

② When there is no battery connected at the output end and there is power connected at the input end, the corresponding battery indicator light and input indicator light will flash simultaneously;

③ When both the input and output terminals are powered on, the battery indicator light remains on, and the corresponding input indicator light is also on.flash simultaneously;

3.7.Anderson Port

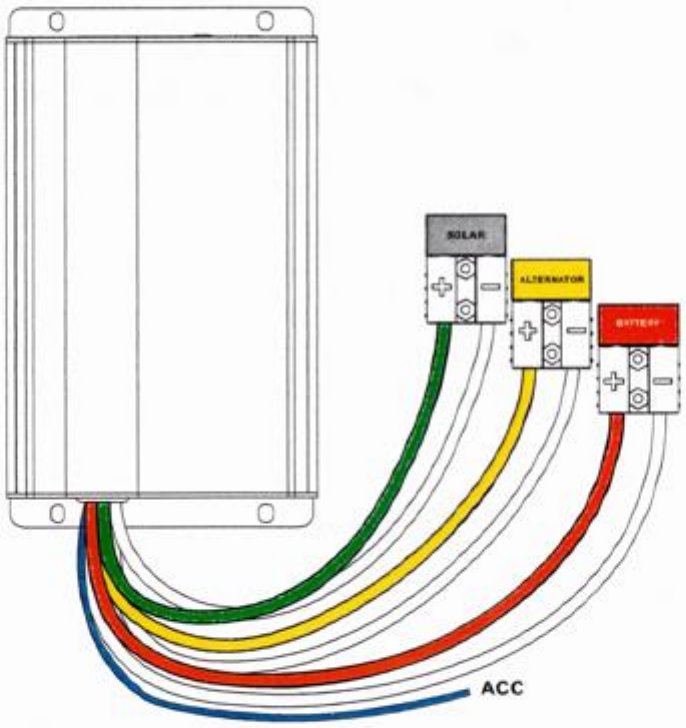
① The red line connects to the positive pole of the battery, and the black line connects to the negative pole of the battery;

② The yellow wire connects to the positive pole of the car generator, while the black wire connects to the negative pole of the car generator;

③ The green line connects to the positive pole of the solar energy, while the black line connects to the negative pole of the solar energy;

④ The blue line connects to the trigger line (ACC line) of the car generator, which is 10-16V.

Attention: The black wire is a common negative wire.



4、Usage and operation methods

4.1. Preparation before use:

① Please ensure that the charger is in a power off state before installing and connecting it.

② Please install the charger in a well ventilated, dry, and away from heat sources.

4.2.Connect input power:

① Please connect the solar charging cable (green and black) of the charger to the solar panel.

② Please connect the car generator charging wire (yellow black) and generator trigger wire (blue) of the charger to the car generator.

③ Please ensure that the input voltage and polarity are correct to avoid damaging the charger.

4.3.Connecting output devices:

① Please connect the output line (red and black) of the charger to the battery that needs to be powered.

② Before connecting the battery, please ensure that the voltage and current requirements of the battery are within the output range of the charger.

③ Please check if all connections are firm and reliable, and there are no short circuits or open circuits.

4.4.Turn on the charger:

① Connect the battery to the charger, and the charger will automatically activate the charging function.

② Choose a charging gear that is suitable for the type of battery being connected.

③ During the charging process, observe the status of the indicator light to confirm whether the charger is working properly.

④ When the battery is fully charged, the charger automatically stops charging.

4.5.Monitoring and adjustment:

① According to the needs of different types of batteries, the output voltage of the charger can be adjusted (select with the MODE key).

② Pay attention to monitoring the temperature and output status of the charger to ensure it operates within a safe range.

③ Pay attention to timely troubleshooting of short circuits to ensure safe operation of the charger.

5. Battery maintenance and management

1. Regularly check the battery level to ensure that the battery is in good condition.
2. Follow the battery manufacturer's guidelines for charging and maintenance.
3. Avoid prolonged overcharging or discharging of the battery to avoid damaging its performance.
4. When storing batteries, please ensure that the environment is dry, cool, and away from heat sources.

6. Safety warnings and precautions

①. Do not use the charger in damp, high temperature, or flammable environments.

②. Do not open or remove the casing while the charger is in operation.

③.During the charging process, do not touch the exposed parts of the charger to avoid electric shock.

④. Please use the original power and charging cables of the charger to avoid using damaged or non-standard cables.

⑤. Do not apply a load that exceeds its rated voltage or current to the input or output ports.

⑥. When connecting or disconnecting input/output lines, make sure the charger is turned off and wait for it to cool down before proceeding.

⑦ Regularly check the connection wires and interfaces of the charger to ensure that there is no damage or looseness.

⑨. If the charger experiences abnormal heating, smoking, or odor during use, please immediately turn off the power and stop using it.

⑩.If the charger malfunctions or is abnormal, please stop using it immediately and contact professional after-sales service personnel for repair or replacement.

7. Troubleshooting

7.1.Charger unable to start:

① Check if the input power supply is connected correctly, and if the voltage and polarity are correct.

② Check if the switch of the charger is turned on.

③ Check if the fuse of the charger is damaged.

7.2.Unstable output voltage or abnormal current:

① Check if the load of the output device or system is within the output range of the charger.

② Check if the output circuit is connected correctly and if there is any damage or short circuit.

③ Check if the charger is overheating and reduce the load or increase heat dissipation.

7.3.Charger overheating:

① Reduce the load on the charger or increase heat dissipation.

② Check if the vent of the charger is blocked and maintain good ventilation.

7.4.If the problem cannot be solved, please contact after-sales personnel to provide professional advice and repair services.

8、Environmental protection and recycling information

1. Please hand over this product to a professional recycling agency for environmental protection treatment when scrapping it.
2. Avoid casually discarding chargers to prevent environmental pollution.
3. The charger casing is made of environmentally friendly materials and can be recycled.

9、Warranty and Maintenance

This charger comes with an 18 month limited warranty period. During the warranty period, if there are malfunctions caused by product quality issues, we will provide free repair or replacement services. If repair or replacement is required, please contact our after-sales engineering department and provide purchase proof and charger information.

Please make sure to follow the guidelines and recommendations in this user manual to ensure proper use of the product and safeguard the safety of the user's life and property. If you have any questions or need assistance, please contact our customer service team.

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