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|  <b>MAXTOP SOURCING</b><br>ADD:5th Floor, No. 6, 4th Street, Dongpai West Road,Shengfeng,<br>Xiaolan Town,Zhongshan,GD,PRC | NO.:MX-C-006P |
|   | <b>V1.0</b>   |
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## Specification for outdoor energy storage power supply

**MODEL NAME**                        MX-C-006P                  

**DATE**                                        2022-11-16                  


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| <b>CUSTOMER<br/>APPROVED</b> | <b>INSPEC.RESULT :</b><br><br><br><br><b>APPROVAL SIGNET :</b><br>Date        : |
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|                 | <b>APPROVAL</b> | <b>CHECK</b> | <b>ISSUE</b> |
| <b>SUPPLIER</b> |                 |              | CJF          |

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## Revision History

| NO. | Type    | Content           | Issued Date | Approved By |
|-----|---------|-------------------|-------------|-------------|
| 1   | Primary | The first edition | 2022-11-16  | GJF         |
| 2   |         | Before            |             |             |
|     |         | After             |             |             |
| 3   |         | Before            |             |             |
|     |         | After             |             |             |
| 4   |         | Before            |             |             |
|     |         | After             |             |             |
| 5   |         | Before            |             |             |
|     |         | After             |             |             |
| 6   |         | Before            |             |             |
|     |         | After             |             |             |
| 7   |         | Before            |             |             |
|     |         | After             |             |             |

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## 1. Application Scope

This specification specifies the technical requirements, performance requirements, safety warnings, labeling, packaging, transportation, and storage of outdoor energy storage power supplies produced by

MAXTOP TECH CO., LIMITED

## 2. Application standards


“Lithium ion cells and batteries used in portable electronic equipments— Safety requirements”

“Electrotechnical terminology - Primary and secondary cells and batteries” GB/T 2900.41-2008.

“Packaging-pictorial marking for handing of goods”GB191-2008

### 3. Technical parameters of finished products


| NO. | Name                                    | Condition                                     | Parameter          | unit |
|-----|---|---|--------------------|------|
| 1   | Model                                   | MX-C-006P                                     | MX-C-006P          |      |
| 2   | Overall structure dimension             | Sheet metal parts+ABS                         | 300*185*228mm      | mm   |
| 3   | Weight of finished product              | Net weight                                    | 8Kg                | Kg   |
| 4   | AC output voltage                       | /   | 220V               | V    |
| 5   | AC rated output power                   | /   | 500W±10%           | W    |
| 6   | AC output peak power                    | Duration: 20mS                                | 900W               | W    |
| 7   | Rated output energy                     | /   | 500Wh              | Wh   |
| 8   | AC frequency                            | /   | 50                 | Hz   |
| 9   | AC output waveform                      | /   | Pure sine wave     |      |
| 10  | DC working voltage                      | /   | 10V-14.6V          | V    |
| 11  | DC Output                               | DC-5525 Output                                | 12.0V              | V    |
|     |   | USB-QC3.0 Output                              | 45W (5V, 9V, 12 V) | V    |
|     |   | USB-type-C-PD Output                          | 45W (5V, 9V, 12 V) | V    |
| 12  | DC input                                | DC-5525 Charging                              | 14.6V/ 10A         | V    |
|     |   | Aviation plug charging                        | 14.6V- 15A         | V    |
| 13  | conversion efficiency                   | DC≥12V , temperature=25°C±3°C                 | ≥90%               |      |
| 14  | Flashlight                              | /   | LED-5W             |      |
| 15  | Display                                 | Display battery voltage, power and AC voltage | LCD                |      |
| 16  | Battery low voltage protection voltage  | /   | 10.0V              | V    |
| 17  | Battery high voltage protection voltage | /   | 15.0V              | V    |
| 18  | AC overload protection                  | Last for 20S                                  | 600W±10%           | W    |
| 19  | AC short circuit protection             | /   | Yes                |      |
| 20  | High temperature protection             | /   | 85°C               | °C   |

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#### 4. Technical parameters of battery pack

| NO. | Name                                 | Condition   | Parameter              | unit |
|-----|--------------------------------------|---|------------------------|------|
| 1   | Battery type                         | Lithium iron phosphate                                | Lithium iron phosphate |      |
| 2   | Assembly method                      | /   | 4S1P                   |      |
| 3   | Nominal voltage                      | 3.2V*n  | 12.8V                  | V    |
| 4   | Rated capacity                       | 0.2C charge to 14.6v, 0.2C discharge to 10V           | 90±5%                  | Ah   |
| 5   | Rated energy                         | /   | 500Wh                  | Wh   |
| 6   | Charging cut-off voltage             | /   | 14.6V                  | V    |
| 7   | Maximum continuous charging current  | /   | 20A                    | A    |
| 8   | Discharge cut-off voltage            | /   | 10V                    | V    |
| 9   | Maximum continuous discharge current | /   | 60A                    | A    |
| 10  | Overcharge protection voltage        | Single battery voltage 3.65V or total voltage 14.6V*n | 14.6V                  | V    |
| 11  | Over discharge protection voltage    | Single battery voltage 2.5V or total voltage 10V*n    | 10V                    | V    |
| 12  | Overcurrent protection current       | /   | 70A                    | A    |
| 13  | Short circuit protection             | /   | Yes                    |      |
| 14  | Storage temperature                  | /   | 25℃±3℃                 | ℃    |
| 15  | cycle life                           | 0.2C charge to 14.6V, 0.2C discharge to 10V           | ≥1000 次                |      |

**Note: when the outdoor energy storage power supply is idle, charge it to 14.6V full power, and then be sure to turn off all its switches and store it in a ventilated and dry place out of reach of children!!!**

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## 5 . Electrical characteristics

### 5.1 Interface definition

5. 1. 1 DC charging input and output interface:DC5525 : input voltage 14.6V, maximum continuous charging current 8A. At the same time, it can provide 12V output voltage to provide power for 12V electrical equipment. The maximum output current is 10A

5. 1.2 Aviation plug charging input interface: input voltage 14.6V, continuous charging current 15A

5. 1.3 USB QC3 .0 output interface: support Qualcomm QC2.0, QC3.0, apple 2.4 a, Huawei FCP, Samsung AFC and other fast charging protocols.

5. 1.4 USB type-c-pd output interface: PD, Qualcomm QC2.0, QC3.0, apple 2.4 a, Huawei FCP, Samsung AFC and other fast charging protocols

5. 1.5 AC out three hole universal AC output interface: AC output voltage 220V, maximum AC Output Power 500W  $\pm$  10%.

5. 1.6 Lighter cigarette lighter input and output interface: the cigarette lighter interface can charge the outdoor energy storage power supply together with the 12V vehicle charger. This interface can also be used as a 12V power supply to supply power to 12V electrical equipment.


### 5.2 Power on indication

5.2. 1 Turn on the main switch and the display screen will display the battery voltage, power, etc.

5.2.2 Turn on the AC switch, the words "220V" on the display screen will be lit, and the three hole socket AC output will be turned on.

5.2.3 Turn on the USB switch, the USB symbol on the display will be lit, and the USB DC output will be turned on at the same time.

5.2.3 Turn on the LED switch, the LED light will be on, press the LED switch again, the LED will flash, and press the LED switch again to turn off the LED light.

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### 5.3 Protection characteristics

5.3.1 Inverter input (internal battery) high voltage protection :  $15V \pm 0.3V$

5.3.2 Inverter input (internal battery voltage) under voltage protection :  $10V \pm 0.3V$

5.3.2 over load protection

When the output load power of the AC hole is greater than  $500W \pm 10\%$ , the overload protection is started, and it will recover automatically after the overload is eliminated.

5.3.3 Output short circuit protection

When the AC output hole is short circuited, the equipment starts protection, turns off the output power supply, and resumes normal operation after troubleshooting.

5.3.4 Over temperature protection

When the temperature of the internal MOS tube of the outdoor energy storage power supply exceeds  $85\text{ }^{\circ}\text{C}$ , the AC output will be automatically turned off, and it will be automatically restored when the temperature recovers below  $75\text{ }^{\circ}\text{C}$  AC output


### 5.4 Load adaptability

5.4.1 Resistive load with 100% rated power (incandescent lamp, etc.)

5.4.2 Capacitive load with 65% rated power (adapters, energy-saving lamps, LED lamps, etc.)

5.4.3 Inductive load (fan) at 65% rated power



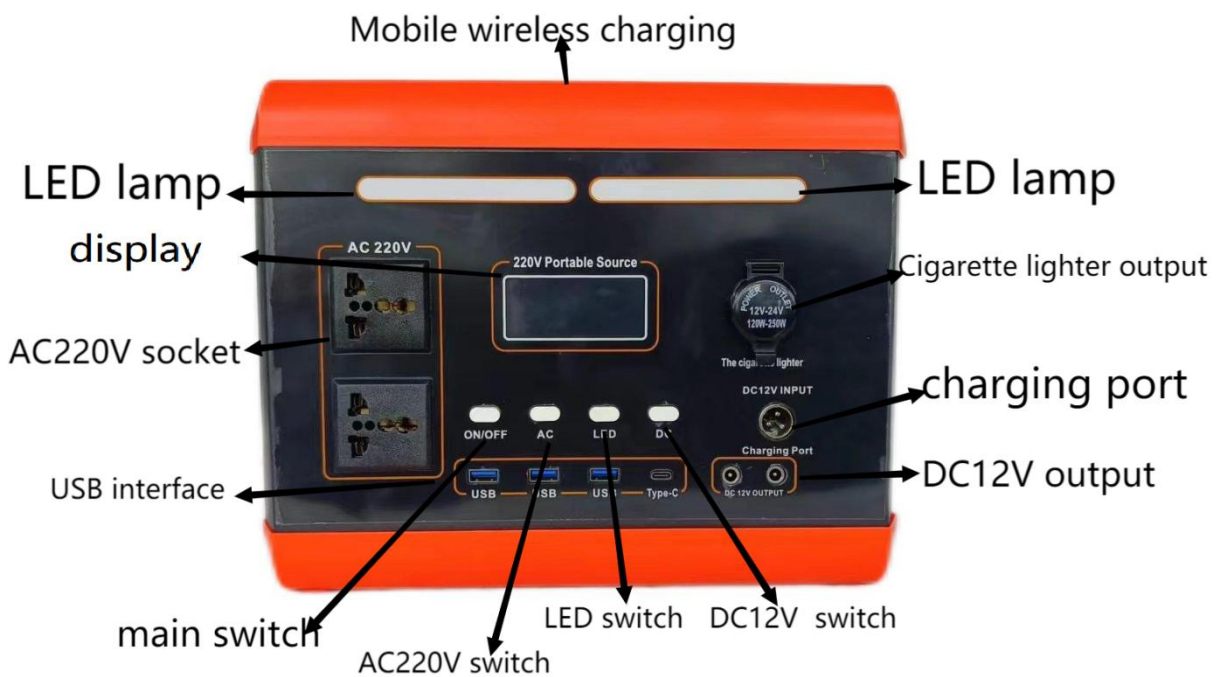
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## 6 . Structural dimension drawing and appearance requirements

### 6.1 Finished product appearance drawing



### 6.2 Function description diagram



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### 6.3 Finished Product Dimensional Drawing:




### 6.3 Appearance requirements

6.3.1 The product size meets the drawing size requirements;

6.3.2 The appearance of the product is clean, without mechanical damage, and the contact is free of rust;

6.3.3 The product surface shall be provided with necessary product parameter labels, which meet the label design requirements;


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## 7.Package schematic diagram

- 1) Product name and model and specification.
- 2) Quantity:
- 3) Product labeling.
- 4) Production batch, manufacturing date.
- 5) Have the sign of caution light, up, afraid of hot, afraid of wet. .



Note: please ensure that all switches of outdoor energy storage power supply are turned off before packaging!!!

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## 8. Transportation and storage

### 8.1 Transportation

The finished products should be packed under 80% power state, and confirm that all switches have been turned off. In the process of transportation, violent vibration, impact or extrusion should be prevented, and the sun and rain should be prevented. It is suitable for sea, land and air transportation

### 8.2 Storage

8.2.1 The finished products should be stored in a clean, dry and ventilated room with an ambient temperature of -5 °C to 35 °C. They should avoid contact with corrosive substances and should be away from fire and heat sources.

8.2.2 When the outdoor energy storage power supply is not used for a long time, all switches should be turned off. It is recommended to recharge the battery every 1 month or so, and recharge it with a charger for 5-6 hours.

## 9. Time limit for Quality

The guarantee period is 12 months after the start of the production period.

## 10. Matters needing attention

Do not put the outdoor energy storage power into water or get it wet!


It is forbidden to charge the outdoor energy storage power supply under fire or extremely hot conditions! Do not use or store outdoor energy storage power near heat sources (such as fire or heater)! If the internal battery leaks or emits peculiar smell, it should be removed from the place close to the open fire immediately. When using it for the first time, it is necessary to fully charge the battery before using it!

It is forbidden to connect the positive and negative poles reversely!

Do not put the outdoor energy storage power into the fire or heat it!

Do not short circuit any interface of the energy storage power supply with wires or other metal objects!

It is forbidden to pierce the outdoor energy storage power supply housing with nails or other sharp objects, and it is forbidden to hammer or pedal!

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It is forbidden to disassemble the outdoor energy storage power supply in any way!

It is forbidden to place the outdoor energy storage power supply in the microwave oven or pressure vessel!

It is forbidden to use in rainy or extremely humid environment!

If the outdoor energy storage power supply emits peculiar smell, heating, deformation, discoloration or any other abnormal phenomena, it shall not be used; If the outdoor energy storage power supply is being used or charged at this time, it should be removed from the electrical appliance or charger immediately and stop using!

### **Special Considerations ! ! !**

During the charging process of outdoor energy storage power supply, if there is peculiar smell and abnormal sound, please stop charging immediately.

If there are above phenomenon, please contact the manufacturer, do not disassemble by yourself.

### **11. Product responsibility**

We sincerely hope that users can use outdoor energy storage power supply in strict accordance with the specifications provided and the attached attention clauses. Incorrect use of outdoor energy storage power supply may lead to battery heating, fire or explosion.

If the contents of this specification is changed because improving product quality or upgrading technical parameters, we will not give notice . For the latest product information, please contact our company.

Please use this product in strict accordance with the specifications. Within the warranty period, our company is responsible for maintenance and other after-sales services, but does not bear any third party or joint and several liability!

**If you have any questions, please contact the following address:**

MAXTOP SOURCING AGENT

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