

2021.5.10

Specification

of A48100 Battery System

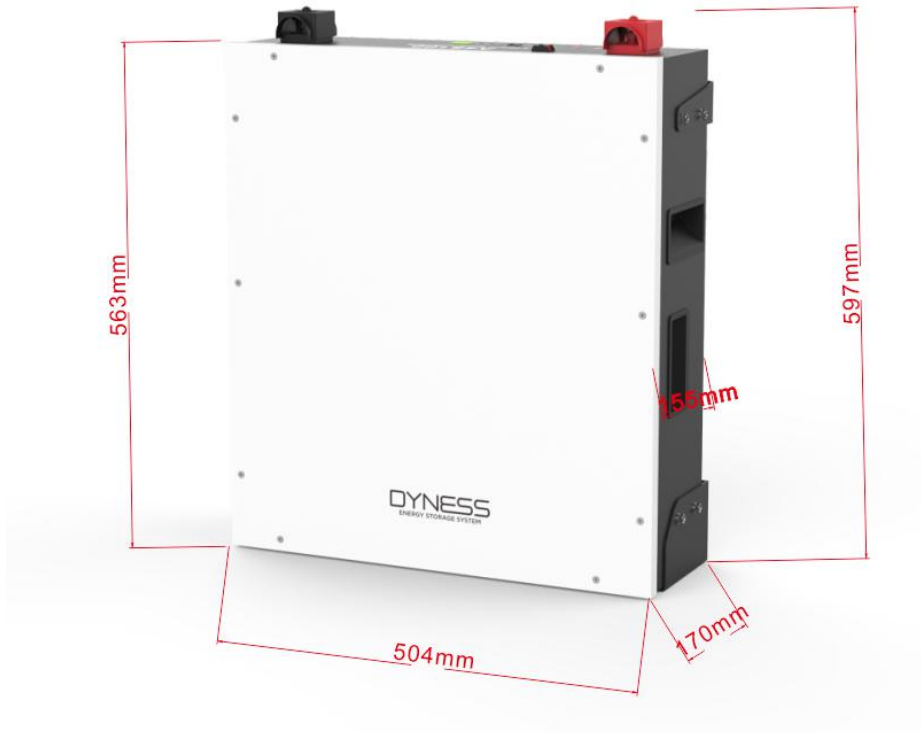


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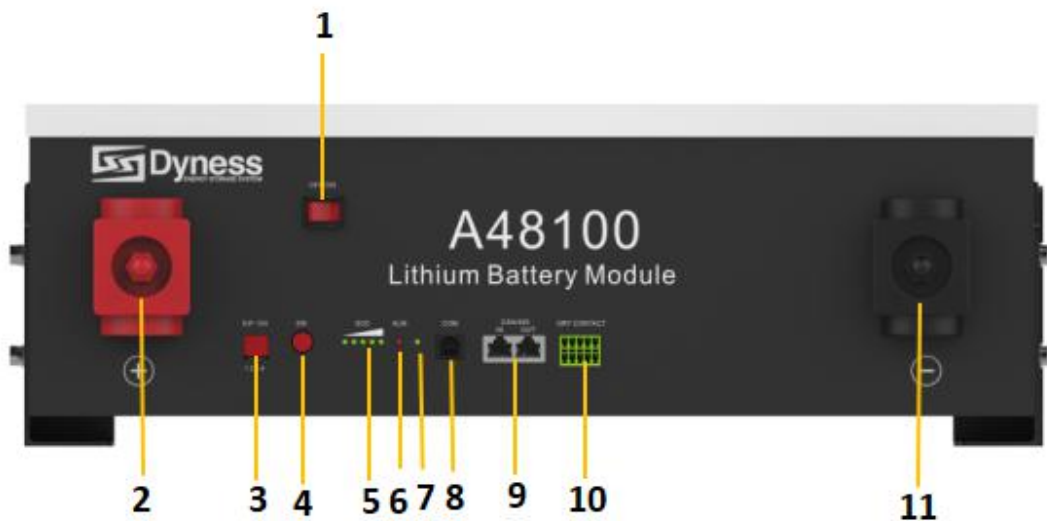
1. Specification

| Production | Nominal Voltage | Nominal Capacity | Weight | Protection Level | Configuration |
|------------|-----------------|------------------|--------|------------------|-----------------------------|
| A48100 | DC48V | 100Ah | 55kg | IP20 | 40 modules parallel at most |



2. System internal module A48100 specification

2.1 Front Panel of battery module



Port Definition

| Item | Name | Definition |
|------|--------------------------------|--|
| 1 | Power switch | OFF/ON, remains 'ON when using |
| 2 | Positive socket | Battery output or parallel anode line |
| 3 | ADD | DIP switch |
| 4 | SW (battery wake/sleep Switch) | When power switch is in 'ON' , long pressing SW for 3s to enable the battery for switch-on or dormant state |
| 5 | SOC | Green light, showing battery capacity |
| 6 | ALM | Red lights, flash when warning, always on when Protection. When the condition of triggering protection is removed, the battery can recover automatically |
| 7 | RUN | Green light, flashing when standby, always on when discharge, flash when charging |
| 8 | COM | |
| 9 | CAN/485 | Communication Port Communication (factory default CAN communication) |
| 10 | DRY CONTACT | / |
| 11 | Negative socket | Battery output or parallel cathode line |

2.2 Product parameters

| Module Name | H5A |
|--|------------------|
| Cell Technology | Li-ion(LFP) |
| Battery Module Capacity (kWh) | 4.8 |
| Battery Module Voltage (Vdc) | 48 |
| Battery Module Capacity (Ah) | 100 |
| Battery Module Cell Quantity (pcs) | 15 |
| Battery Cell Capacity (Wh) | 320 |
| Battery Cell Voltage (Vdc) | 3.2 |
| Battery Cell Capacity (AH) | 100 |
| Battery Module Cell Quantity in Series (pcs) | 15 |
| Battery Module Charge Voltage (Vdc) | 54.75 |
| Battery Charge/Discharge Current (A) | 50 (recommended) |
| | 75 (max) |
| | 100 (peak 15S) |



| | |
|-----------------------|--|
| Dimension(W*D*H, mm) | 504*597*155mm |
| Communication | CAN/RS485 |
| Pollution Degree (PD) | II |
| IP Grade | IP20 |
| Weight(kg) | 55 |
| Working temperature | Charging 0°C~+55°C |
| | Discharging -20°C~+55°C |
| Humidity | 5%~85% RH (No condensation, system work well.) |
| Storage temperature | -10°C~+35°C |

2.3 Alarms and protection

| No. | Item | Default value | Remark | |
|-----|---|---------------------------|--------|----------------------------|
| 1 | High charging voltage protection and recovery | Alarm value | 52.5V | |
| | | Alarm recovery value | 51V | |
| | | Protection value | 54.75V | |
| | | Protection recovery value | 52V | |
| 2 | Low discharging voltage protection | Alarm value | 45V | |
| | | Alarm recovery value | 46.5V | |
| | | Protection value | 42V | |
| | | Protection recovery value | 45V | |
| 3 | Low cell voltage protection and recovery | Alarm value | 2.85V | |
| | | Alarm recovery value | 3.15V | |
| | | Protection value | 2.8V | |
| | | Protection recovery value | 3.1V | |
| 4 | High cell voltage protection and recovery | Alarm value | 3.57V | |
| | | Alarm recovery value | 3.5V | |
| | | Protection value | 3.6V | |
| | | Protection recovery value | 3.45V | |
| 5 | Charging current protection | Charge limit value | 90A | Charge limit current to 3A |

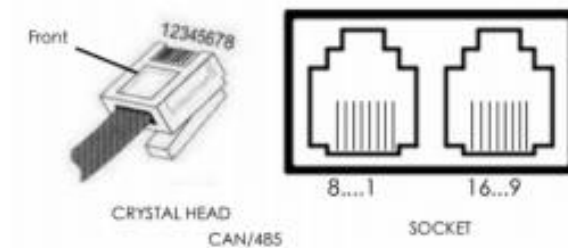


| No. | Item | Default value | Remark |
|-----|---------------------------------------|--|--------|
| | Protection value | 100A | 15s |
| 6 | Alarm value | 75A | |
| | Alarm recovery | After the alarm, restored when the current release or if there is a charging current recovery. | |
| | Protection value | 100A | 15s |
| | Protection recovery | After protection, restored in 60s delay or immediately when there is charging current. | |
| 7 | Charging alarm value | 55°C | |
| | Charging alarm recovery value | 50°C | |
| | Charging protection value | 60°Cwith charging current | |
| | Charging protection Recovery value | 55°C | |
| | Discharging alarm value | 55°C | |
| | Discharging alarm recovery value | 50°C | |
| | Discharging protection value | 60°Cwith discharging current | |
| | Discharging protection recovery value | 55°C | |
| 8 | Discharging alarm value | 2°C | |
| | Discharging alarm recovery value | 5°C | |
| | Discharging protection value | -20°C with discharging current | |
| | Discharging protection recovery value | -10°C | |
| | Charging alarm value | 2°C | |
| | Charging alarm recovery value | 5°C | |
| | Charging protection value | 0°C | |



| No. | | Item | Default value | Remark |
|-----|--------------------------|------------------------------------|---------------|--------|
| | | Charging protection recovery value | 2°C | |
| 9 | Short circuit protection | Short circuit protection value | 400A | |

2.4 Communication port



Pin Definition

| Foot position | Color | Definition |
|---------------|--------------|------------|
| PIN1 | Orange/white | 485B |
| PIN2 | Orange | 485A |
| PIN3 | Green/white | GND |
| PIN4 | Blue | CANH |
| PIN5 | Blue/white | CANL |
| PIN6 | Green | Reserve |
| PIN7 | Brown/white | XIN |
| PIN8 | Brown | Reserve |
| PIN9 | Orange/white | Reserve |
| PIN10 | Orange | Reserve |
| PIN11 | Green/white | XGND |
| PIN12 | Blue | CANH |
| PIN13 | Blue/white | CANL |
| PIN14 | Green | Reserve |
| PIN15 | Brown/white | XOUT |
| PIN16 | Brown | Reserve |





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