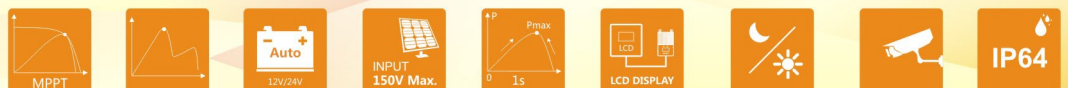


SR-MT Maximum Power Point Tracking Series Solar charge controller

SR-MT2410



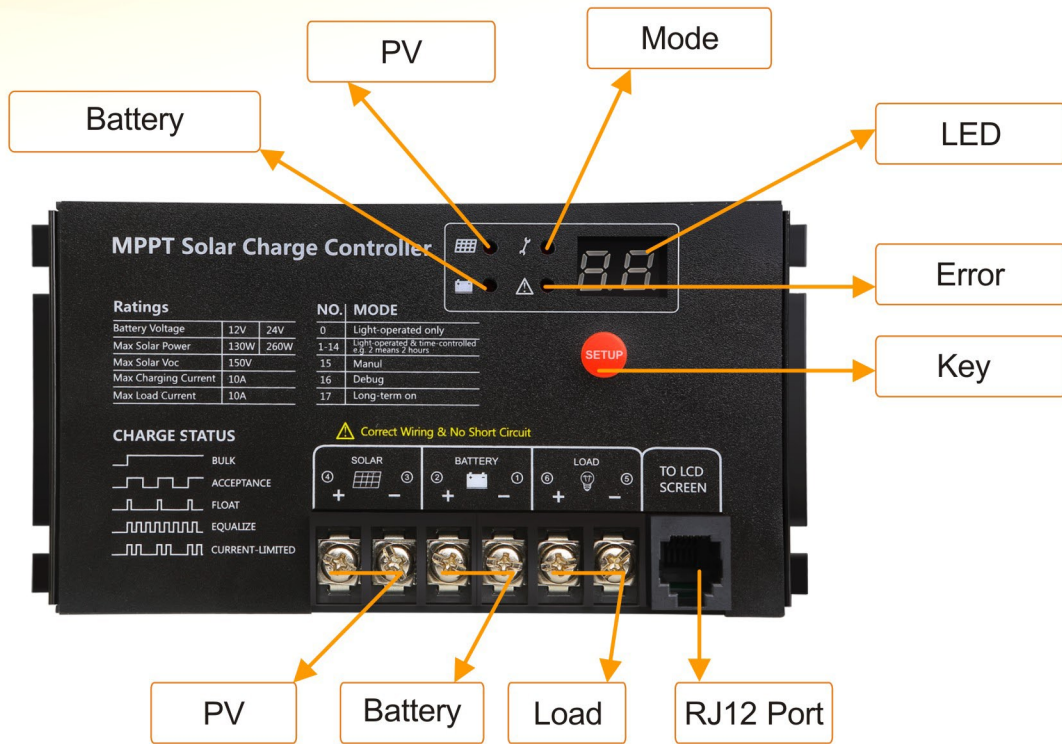
SR-MT2410



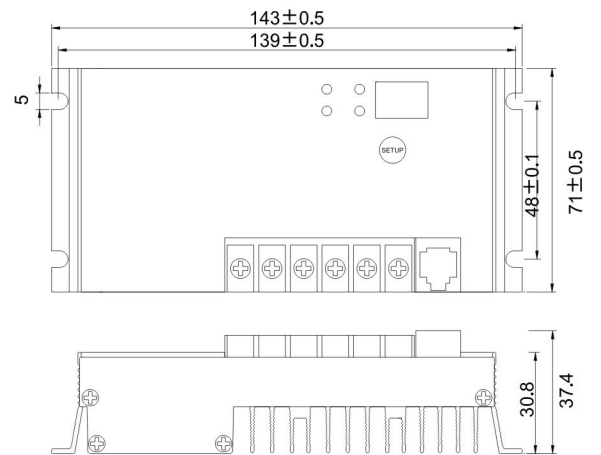
Features

1. Adopting double crest or multi crest tracing technique, used for the condition when a part of solar panel is under shadow or parts of solar panel is damage.
2. Built-in maximum power point tracking algorithm which could promote the energy utilization efficiency of pv system. The charging efficiency is 15%~20% higher than PWM mode.
3. It can find out the best working point of I-V curve within 1 minute. the MPPT efficiency could reach to 99.9%.
4. Adopting advanced digital power supply techniques which makes the energy conversion efficiency reach up to 97%.
5. Four charging stages: MPPT - equalizing charge- boosting charge- floating charge.
6. With current-limiting charging mode. When the power of solar panel is oversized, the controller will lower charging power automatically, which enable the system to work under the rated charging current.
7. Have the fault code indication, it helps user confirm the system fault.
8. Various load control methods. Could recognize day and night automatically.
9. Various system protection functions. Including over-charge, over-discharge, over-load, over-heat, battery-reverse connection and short-circuit protection etc.

Front View Schemat



Installation Dimension



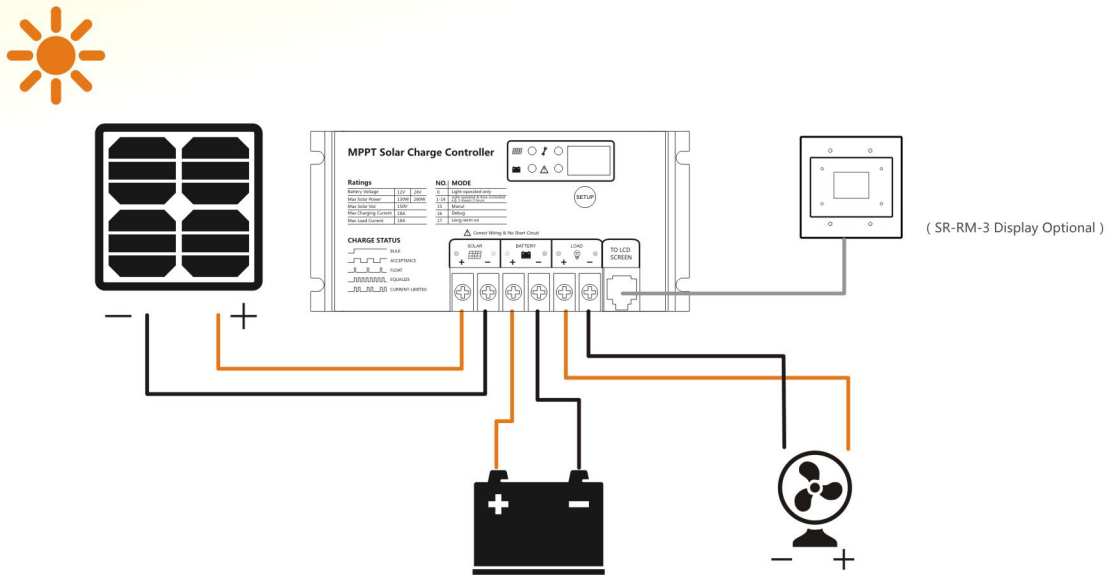
Overall Dimension : 143×71×36(mm)

Installation Dimension : 143×71×36(mm)

Product Detail



Wiring diagram is as below



Working State Indication

1. Charge indication: When the solar panel output voltage reaches a certain value, charge indicator start to work. Different flash status represents different charge mode. The specific meaning of charge mode is as the table A below.
2. Battery capacity indication: When the battery is normal, the indicator is on, when it is over discharge, the indicator will slow flash, when the battery is over voltage, the indicator will fast flash.(Table B)
3. Mode indication: When the mode indicator is on, it indicates that the value on the Nixie tube is controller mode. The value will disappear if no key operation within 5s.
4. Fault indication: when the fault indicator is on, it indicates that the value on the Nixie tube is controller fault code; The value will disappear if no key operation within 5s. If fault exists, the indicator will flash.

A. Charging Status Indication Specification:

| Serial Number | Diagram | Indicating Status | State of charge |
|---------------|-----------------|--|---------------------------|
| ① | BULK | Normally on. | Charge at Max. Power. |
| ② | ACCEPTANCE | Slow flash. (light for 1s, off for 1s, the cycle is 2s) | Boost charging. |
| ③ | FLOAT | Single flash. (light for 0.1s, off for 1.9s, the cycle is 2s) | Float charging. |
| ④ | EQUALIZE | Fast flash. (light for 0.1s, off for 0.1s, the cycle is 0.2s) | Equalizing charge. |
| ⑤ | CURRENT-LIMITED | Double flash. (light for 0.1s, off for 0.1s, reopen for 0.1s, reclose for 1.7s, the cycle is 2s) | Current limited charging. |

B. Battery Indication Specification.

| Serial Number | LED Status | Battery Status |
|---------------|---|---------------------------------|
| ① | Normally on. | The battery voltage is normal. |
| ② | Slow flash. (light for 1s, off for 1s, the cycle is 2s) | The battery is over discharged. |
| ③ | Fast flash. (light for 0.1s, off for 0.1s, the cycle is 0.2s) | The battery is over voltage. |

Parameters

| Item | Value | |
|-----------------------------------|---|-------|
| Model | SR-MT2410 | |
| System voltage | 12V | 24V |
| Max. input power of solar panel | 130W | 260W |
| Transfer efficiency | ≤96% | ≤97% |
| Rated charge/ discharge current | 10A | |
| No load loss | <15mA | |
| Max. input voltage of solar panel | <150V | |
| MPPT tracing efficiency | >99% | |
| Over voltage protection | 16.5V | 33.0V |
| Limited charge voltage | 15.5V | 31.0V |
| Equalizing charge voltage | 15.2V | 30.4V |
| Equalizing charge interval | 30 days | |
| Boosting charge voltage | 14.4V | 28.8V |
| Floating charge voltage | 13.8V | 27.6V |
| Over-discharge recover voltage | 12.5V | 25.0V |
| Over discharge voltage | 11.0V | 22.0V |
| Boosting charge time | 2 hours | |
| Equalizing charge time | 1 hour | |
| Over temperature protection | Yes | |
| Light-operated voltage (on) | 5V | |
| Light-operated voltage (off) | 6V | |
| Light-operated delay time | 5min | |
| Working temperature | -35°C~+65°C ; | |
| Weight | 430g | |
| Altitude | ≤3000m | |
| Dimension | 143*71*37.4 (mm) | |
| Installation dimension | 139*48(mm) | |
| Overload protection | Load current≥1.25 times rated current, cut off the load within 10 seconds; Load current≥1.5 times rated current, cut off the load within 5 seconds | |
| Protections | 1.Reverse connection. 2.Inner over temperature. 3.The voltage of PV input terminal is over value. 4.Over load 5.Reverse charging protection at night. 6. TVS lightning protection 7. Waterproof: IP 64 | |