eSmart3 series is the third generation of eSmart mppt controller, based on eSmart1, eSmart2 series mppt controller.





MPPT Solar Controller 12V24V36V48 50A-60A



Features

1.It has an efficient MPPT algorithm, MPPT efficiency \geq 99.5% and converter efficiency up to 98%.

2. Charge mode: three stages (constant current, constant voltage, floating charge),

it prolongs service life of the batteries.

3.Four types of load mode selection: ON/OFF, PV voltage control, Dual Time control, PV+Time control . 4.Battery system voltage automatic recognition.

5. Three kinds of commonly lead-acid battery (Seal\Gel\Flooded)types, parameter settings can be selected by the user, and the user can also self-defined some parameters for other battery type.

6.It has a current limiting charging function. When the power of PV is too large, the controller automatically keeps its Mat rated charging power, and the charging current will not exceed the rated value.

7. High definition LCD display function to check the device running data and working status, also can support modify the controller display parameter.

8.RS485 communication, we can offer communication protocol to convenient user's integrated management and secondary development.

9.Support PC software monitoring and WiFi module to realize APP cloud monitoring.

10.CE, RoHS, FCC certifications approved, we can assist clients to pass various certifications.

11. Two years warranty, and $2\sim10$ years extended warranty service also can be provided.

MPPT Controller connection diagram



Parameters Display & Setting information





LCD display information



Set the battery type and LOAD control mode

Set the battery type and LOAD control mode

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|---------------------------------|--|---------------------------|--|--|
| P 😵 🚍 🖬 | Monitored device: Device mode: | | | Guest Login |
| Devices | Battery type: Main CPU processor version: Machine temp: 'C PV voltage Charging voltage Charging power Load voltage 200 200 200 200 200 200 200 20 | Load type: Medel name: | PV Info PV voltage: 0.0 V PV power: PV current: 0.0 A Reduced CO2: Battery Info Charging current: 0.0 A Battery capacity. Charging current: 0.0 A Battery temp. Charging power: 0.0 W Load voltage: 0.0 V Load power: Load voltage: 0.0 V Load power: Load current: 0.0 A -Energy Info Daily: 0.0 wh Load daily: Monthly: 0.0 wh Load total: | D.0 W D.0 g D.0 % D.0 "C D.0 W D.0 W D.0 wh D.0 wh |
| ISolar V2.00 Copy Right I-Panda | | | - Kath | 1227 |

PC software_SolarEagle

Visual display of charge and discharge status, PV voltage, charge voltage, charge current, and can set the battery type, LOAD output control;

Parameter

| eSmart3 series | | | 20A | 30A | 40A | 50A | 60A | | | |
|---------------------------|---|-----------------------------|---|---|------------------------------|-------|-------|--|--|--|
| Product category | Controller Properties | | | MPPT (max | | | | | | |
| | MPPT efficiency | | | | | | | | | |
| | Standby power | | | 0.5W~1.2W | | | | | | |
| | System voltage | | | Automatic recognition | | | | | | |
| | Heat-dissip | ation method | | Intelligent fan cooling | | | | | | |
| Input | Max.F voltag | V input je(VOC) | DC150V | | | | | | | |
| | Start the ch | narge voltage pint | | Battery voltage + 3V | | | | | | |
| | input volta | ow ge protection oint | | Battery voltage + 2V | | | | | | |
| | Over voltag | ge protection pint | DC150V | | | | | | | |
| | | 12V system | 260W | 390W | 520W | 650W | 780W | | | |
| | Rated PV | 24V system | 520W | 780W | 1040W | 1300W | 1560W | | | |
| | power | 36V system | 780W | 1170W | 1560W | 1950W | 2340W | | | |
| | | 48V system | 1040W | 1560W | 2080W | 2600W | 3120W | | | |
| Charge Characteristics | Selectable Battery Types | | | Sealed lead acid, Gel battery, Flooded | | | | | | |
| | (Default | Gel battery) | | (Other types of the batteries also can be defined) | | | | | | |
| | Charge ra | ited current | 20A | 30A | 40A | 50A | 60A | | | |
| | charging method | | | 3-Stage: constant current(fa | | | | | | |
| | Load voltage | | | The same as the battery voltage | | | | | | |
| LOAD | Load rat | ed current | 40A | | | | 60A | | | |
| Characteristics | Load control mode | | | On\Off mode, PV voltage control mode, Dual-time control mode. PV + Time control mode | | | | | | |
| Display & | Display & Display mode High-definition LCD segment code backlight display | | | | | | | | | |
| Communication | Communication mode 8-pin RJ45 port/RS485/support PC software monitoring/support WiFi module to realize APP cloud monitoring | | | | | | | | | |
| Other Parameters | Protect function | | | Input-output o | over \ under voltage protect | tion, | | | | |
| | | | Prevention of connection reverse protection, battery shedding protection etc. | | | | | | | |
| | Operation [•] | Temperature | | | -20°C~+50°C | | | | | |
| | Storage T | emperature | | -40°C~+75℃ | | | | | | |
| | IP(Ingress protection) | | | IP21 | | | | | | |