



SUNWAY P☀ER

Green and Creative
HEFEI SUNWAY POWER



PV SYSTEM

MPPT SOLAR CHARGE CONTROLLER



MPPT

SMART SERIES

As a SME manufacture of solar controller, Sunway power using the most advanced **MPPT** technology to rise the efficiency of solar charging to the optimum level. This controller is for off-grid PV system to control the charging and discharging of the battery, especially suitable for street light system. The controller features a smart tracking algorithm inside that maximizes the energy from the solar PV module(s) and charge the battery. At the same time, the low voltage disconnect function (LVD) will prevent the battery from over discharging. Charging process has been optimized for long battery life and improved system performance.

FEATURES

- 12V/24V system auto detection
- USB ports (5V, 1A) Output
- Peak conversion efficiency of 95%, high Tracking efficiency of 97%
- Very fast sweeping of the entire I-V curve, several seconds tracking speed
- Be suitable for Sealed, Gel and Li-Fe battery various kinds of batteries
- Adopting temperature compensation and correcting the charging and discharging parameters automatically, improving the battery lifetime
- With multi-functions of perfect protection.
- The metal housing case cooling

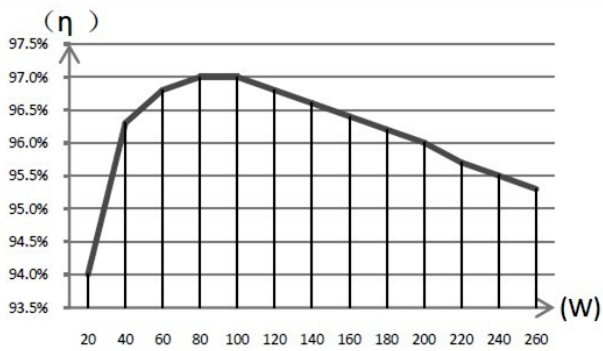


<http://www.sunway-power.com> please click for more details

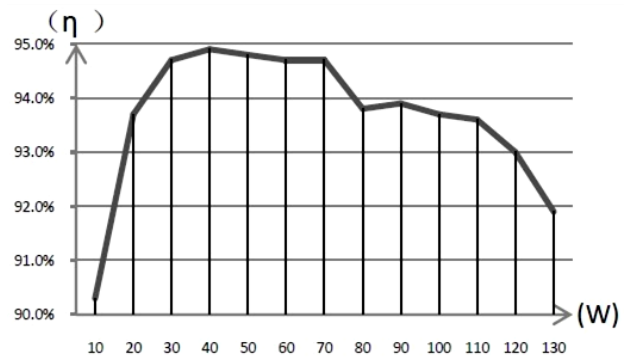
Protect function

- Battery over charge、over discharge protection
- Over flow protection
- Overload protection
- Short circuit protection
- Anti - counter function in night

Voc of solar panel(36V) in 24V system

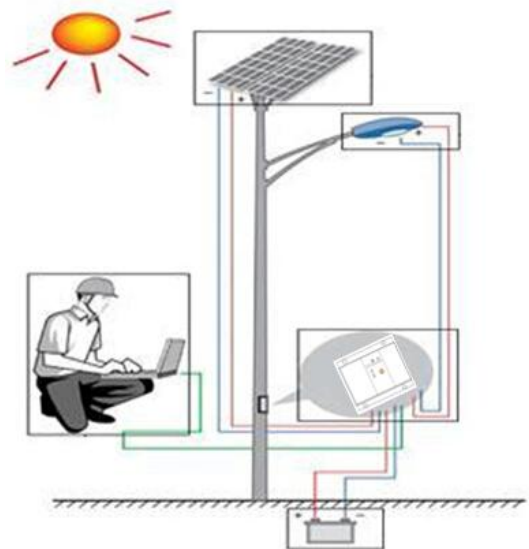
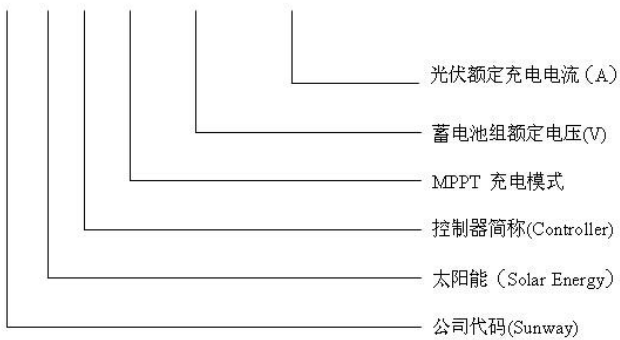


Voc of solar panel(17V) in 12V system



MODEL

S S C M-XX-XXA



TECH-DATA



system	Vmp	Vmp (suggestion)	Vmp
12V	15V	18V	25V
24V	30V	36V	45V



system	Over-discharge	Over-discharge recovery	floating	Over-charge	Over-charge recovery
12V	10.5 V	12.0 V	14.0 V	13.5 V	15.0 V
24V	20.0 V	24.0 V	28.0 V	27.0 V	30.0 V



output functions

Each line rated current	1-5A
Each line rated power (5V/12V/24V)	5W/ 60W / 100W
MODE: lighting	Lighting on/off
MODE: lighting+ city-electric supply switch	Lighting on/off
MODE: home	Output constantly
MODE: home+ city-electric supply switch	Output constantly

performance

Voc of solar Max. [V]	≤60
Battery condition	>9V (12V system) ; >18V (24V system)
Rated charging current [A]	□5-20
Self-consumption [mA]	≤20
Charging efficiency	≥95%
Temperature-compensation coefficient	-35mV/°C (25°C ref.)
cooling	Casing cooling
Ambient temp. range	-30°C to +55°C
Humidity range	10% - 90% (NC)
Protection class	IP55
Altitude work [m]	≤2000
Net weight [kg]	0.85
Size [mm]	120*140*50



PV SYSTEM

MPPT SOLAR CHARGE CONTROLLER

MPPT SMART+ SERIES

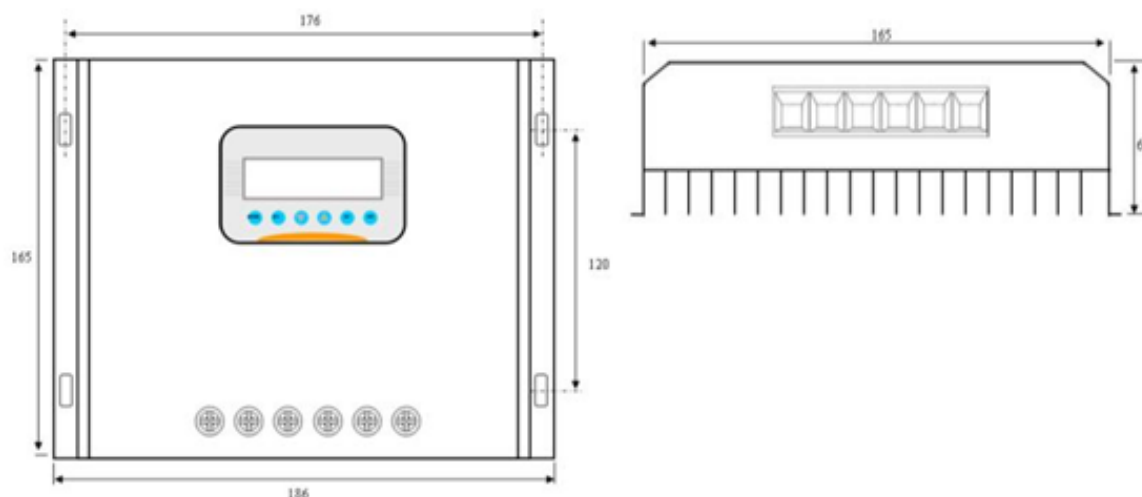
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- With multi-functions of perfect protection.
- The metal housing case cooling



DIMENSION



Technical Data

System Capability

Model type	SSCM- 12V / 24V
Max. PV input power [W]	360 / 720 (12/24V system)
Rated charging current [A]	30 A
Min. input voltage [V]	15 / 28 (12/24V system)
Max. PV input voltage (Voc) [V]	150
Float charge (be adjustable) [V]	14 / 28 (12/24V system)
Boost charge [V]	10 / 20 (12/24V system)
Deep discharge protection (be adjustable) [V] Load disconnect	10.5 / 21 (12/24V system)
Reconnect level (be adjustable) [V] With 10s delay	12 / 24 (12/24V system)
Over-voltage protection (be adjustable) [V] Cut-off charging 10s delay (be adjustable)	15 / 30 (12/24V system)
Reconnect charging [V] With 10minutes delay (be adjustable)	13.5 / 27 (12/24V system)
Consumption at standby [mA]	<30
Conversion Efficiency	Up to 98%
Peak of conversion efficiency	99%
Topology	Inductor
Ambient Temperature	-40°C to +50°C (exceed 50°C with derating)
Ambient Humidity	0%~98% Non-condensing
Cooling Method	Natural Convection
Temperature compensation	-4mV/K(2V cell)
Altitude [m]	<2000 (without power derating)

General Data

LCD Display	LCD (16X2characters, green backlight)
Display Language	English
Data communication (option)	RS-485/ RS-232
Grounding	Negative
Ingress Protection Class	IP65
Dimensions (W*D*H) [mm]	186 *165 *62
Net weight [kg]	1.5

MPPT

APOLLO SERIES

SOLAR CHARGE CONTROLLER

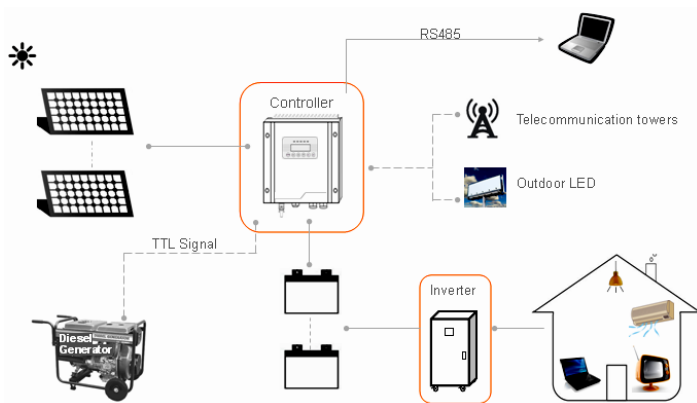


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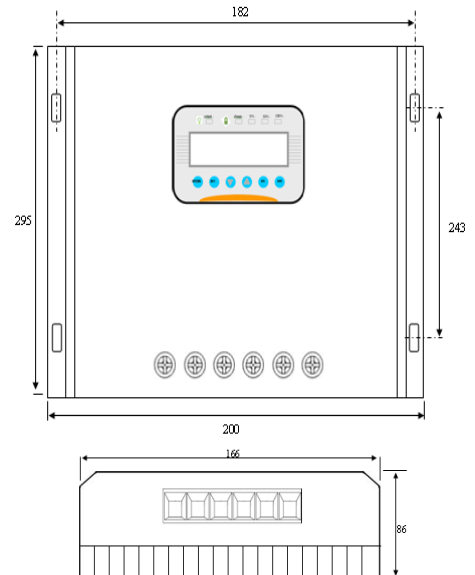
Product



Application Topology



Dimensions

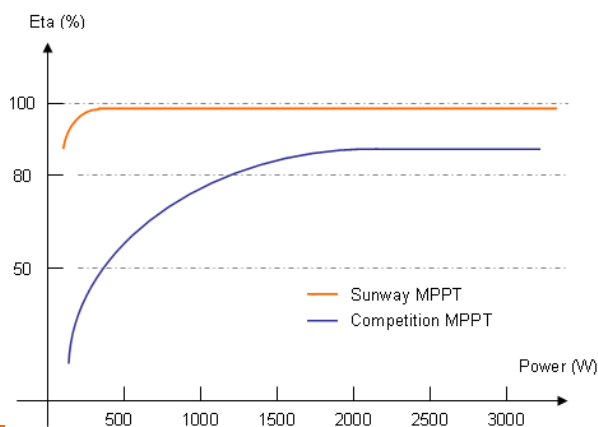


Features

- MPPT technology increases the efficiency of your PV system
- Modular Central Unit (MCU) control
- 12/24/36/48V selectable and auto recognition
- Be suitable for Lead-Acid, GEL,AGM and Li-Fe various kinds of batteries
- Users can to modify the system parameters by setting keys
- Standard RS485 data transfer function
- Darkness / Light detector.
- Utility power backup function (optional)

Protection Functions

- Battery over-charge/discharge protection
- Over-current disconnect function
- Over-loading disconnect function
- Over-temperature protection
- Short circuit disconnect function
- Reverse polarity protection
- anti-reverse charging on night



Technical Data

Data Transfer Accessories



System Capability

Model type	SSCM- 12V / 24V / 48V
Max. PV input power [W]	900 / 1800 / 3000 (12/24/48V system)
Rated charging current [A]	30 A / 40A
Min. input voltage [V]	15 / 28 / 58 (12/24/48V system)
Max. PV input voltage (Voc) [V]	150
Float charge (be adjustable) [V]	14 / 28 / 56 (12/24/48V system)
Boost charge [V]	10 / 20 / 40 (12/24/48V system)
Deep discharge protection (be adjustable) [V]	10.5 / 21 / 42 (12/24/48V system)

Load disconnect	
Reconnect level (be adjustable) [V] With 10s delay	12 / 24 / 48 (12/24/48V system)
Over-voltage protection (be adjustable) [V] Cut-off charging 10s delay (be adjustable)	15 / 30 / 60 (12/24/48V system)
Reconnect charging [V] With 10minutes delay (be adjustable)	13.5 / 27 / 54 (12/24/48V system)
Consumption at standby [mA]	< 30
Conversion Efficiency	Up to 98%
Peak of conversion efficiency	99%
Topology	Inductor
Ambient Temperature	-40°C to +50°C (exceed 50°C with derating)
Ambient Humidity	0%~98% Non-condensing
Cooling Method	Natural Convection
Temperature compensation	-4mV/K(2V cell)
Altitude [m]	<2000 (without power derating)

General Data

LCD Display	LCD (16X2characters, green backlight)
Display Language	English
Data communication (option)	RS-485/ RS-232
Grounding	Negative
Ingress Protection Class	IP65
Dimensions (W*D*H) [mm]	200 *395 *86
Net weight [kg]	3.5

MPPT PLUS SERIES

SOLAR CHARGE CONTROLLER

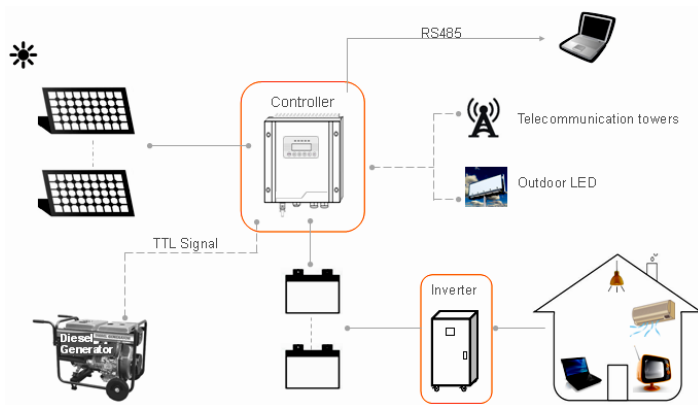


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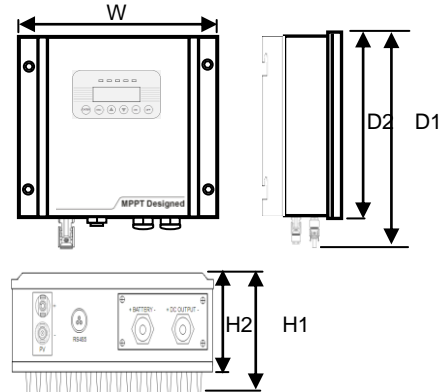
Product



Application Topology



Dimensions



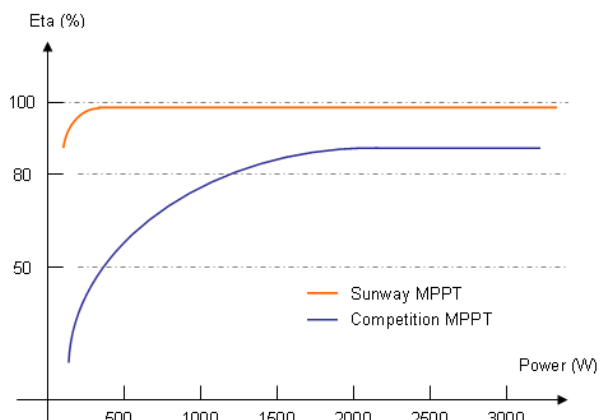
D1	D2	W	H1	H2
320	345	265	105	90

Features

- MPPT technology increases the efficiency of your PV system
- Modular Central Unit (MCU) control
- 12/24/36/48V selectable and auto recognition
- Be suitable for Lead-Acid, GEL, AGM and Li-Fe various kinds of batteries
- Users can to modify the system parameters by setting keys
- Standard RS485 data transfer function
- TTL Control Signal is offered, suitable for PV&Diesel generator hybrid system(optional)
- Temperature compensation function (optional)
- Utility power backup function (optional)

Protection Functions

- Battery over-charge/discharge protection
- Over-current disconnect function
- Over-loading disconnect function
- Over-temperature protection
- Short circuit disconnect function
- Reverse polarity protection
- anti-reverse charging on night
- Surge protection



Data Transfer Accessories



Technical Data

System Capability

Model type	SSCM- 12V / 24V / 48V
Max. PV input power [W]	720/ 1440/ 2880
Rated charging current [A]	50A 60A
Min. input voltage (Vmp) [V]	15 / 28 / 58 (12/24/48V system)
Max. input voltage (Vmp) [V]	18 / 36 / 72 (12/24/48V system)
Max. PV input voltage (Voc) [V]	150
Float charge (be adjustable) [V]	14 / 28 / 56 (12/24/48V system)
Boost charge [V]	10 / 20 /40 (12/24/48V system)
Deep discharge protection (be adjustable) [V] Load disconnect	10.5 / 21 / 42 (12/24/48V system)
Reconnect level (be adjustable) [V] With 10s delay	12 / 24 / 48 (12/24/48V system)
Over-voltage protection (be adjustable) [V] Cut-off charging 10s delay (be adjustable)	15 / 30 /60 (12/24/48V system)
Reconnect charging [V] With 10minutes delay (be adjustable)	13.5 / 27 / 54 (12/24/48V system)

Performance

Consumption at standby [mA]	<30
Conversion Efficiency	Up to 98%
Peak of conversion efficiency	99%
Topology	Inductor
Ambient Temperature	-40°C to +50°C (exceed 50°C with derating)
Ambient Humidity	0%~98% Non-condensing
Cooling Method	Natural Convection
Temperature compensation	-4mV/K(2V cell)
Altitude [m]	<2000 (without power derating)

General Data

LCD Display	LCD (16X2characters, green backlight)
Display Language	English
Data communication (option)	RS485
Grounding	Negative
Ingress Protection Class	IP65
Dimensions (W*D*H) [mm]	265 *345 *105
Net weight [kg]	5.5