evb.com

BENY Datasheet

1. Product Introduction

BCP-MH-01 is an electric vehicle charging monitoring device independently developed by Beny New Energy. This product has a built-in intelligent balancing algorithm and multiple charging configuration strategies. It can automatically manage multiple EV charger through RS485 communication, providing users with a dynamic load balancing solution for parking lots.

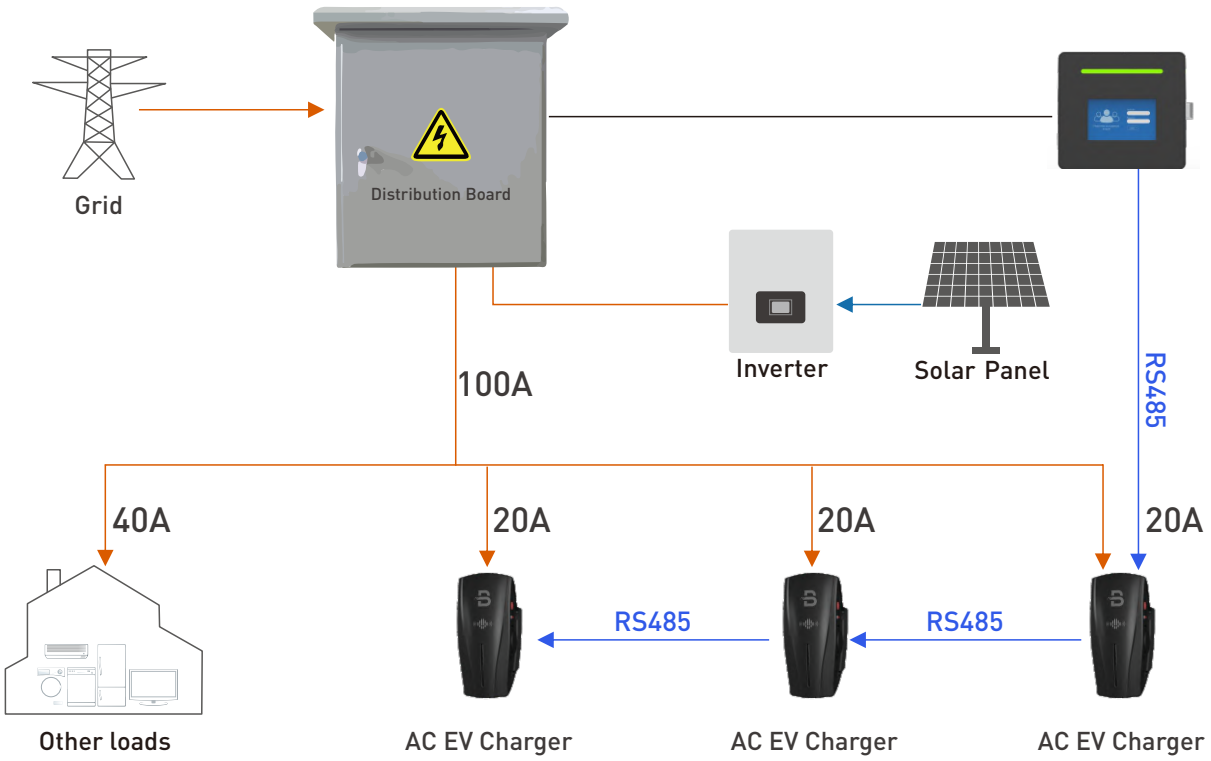
2. Applications

2.1. When there are one or more chargers in a public parking lot/user's home, the load is balanced between the chargers and other loads

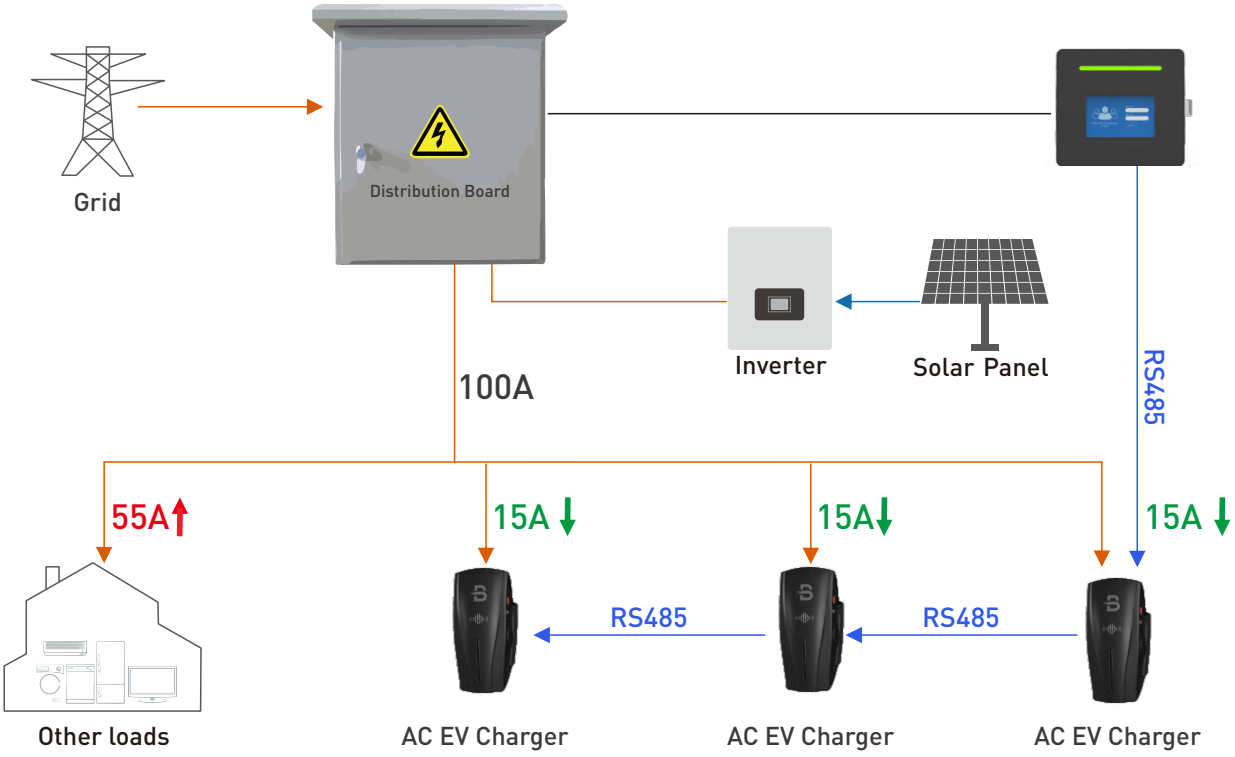
The monitoring device BCP-MH-01 adjusts the current of the chargers to keep the current in the circuit within the setting current of the monitoring device.

Take a 100A home distribution box as an example: when the current of other loads rises from 40A to 55A, the monitoring device will reduce the charging current of the charger to keep the current in the circuit within the safe range of 100A.

Before:



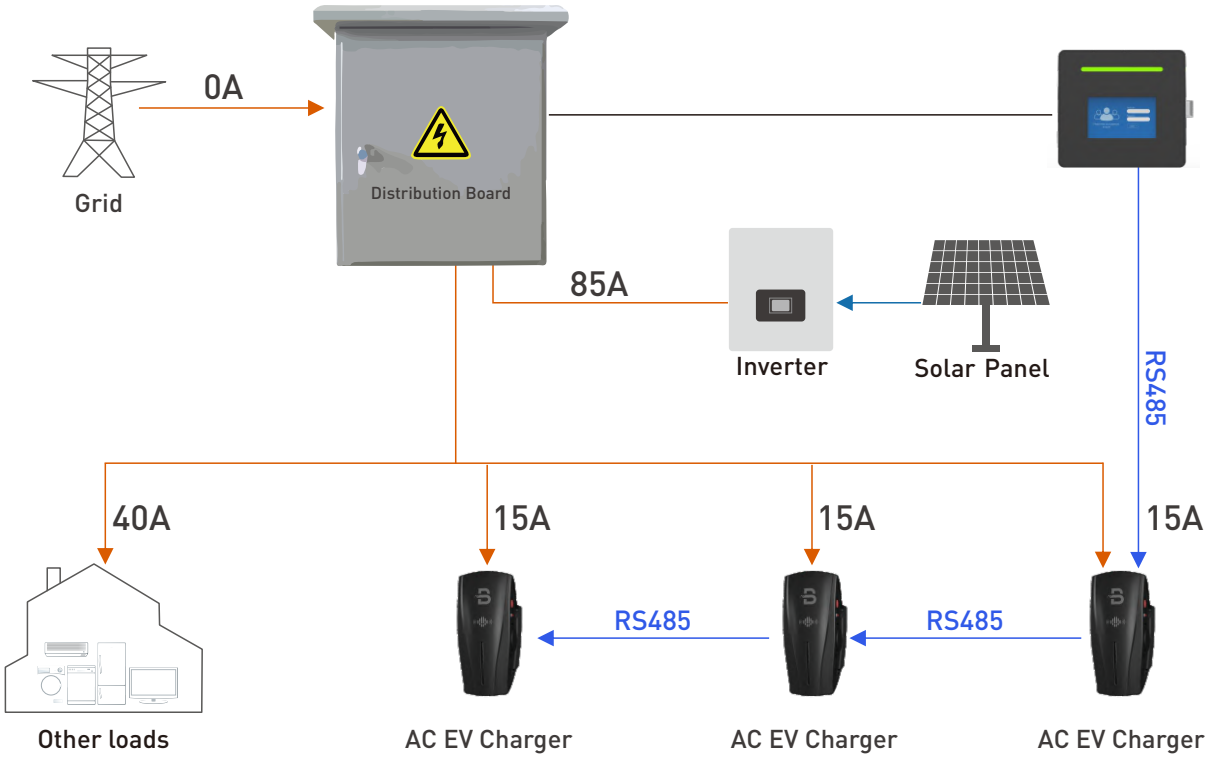
After:



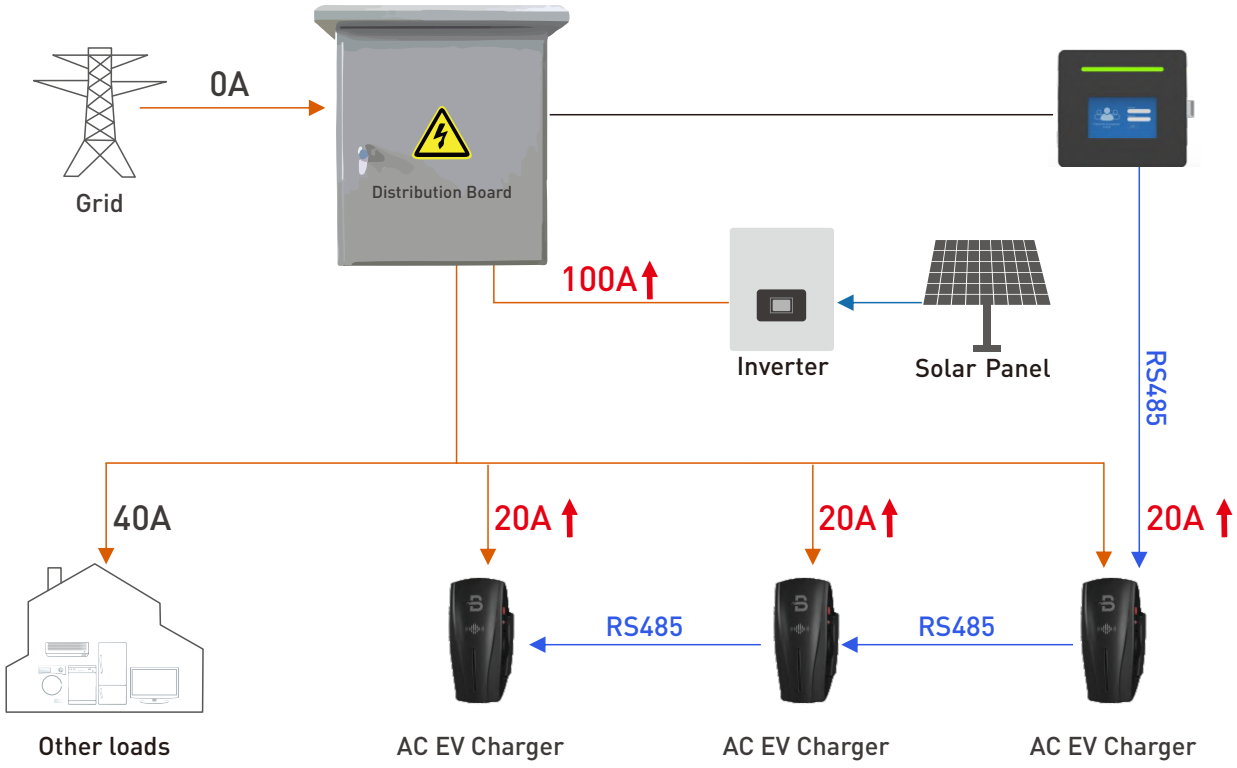
2.2.When there are one or more chargers in a public parking lot/user's home, photovoltaic charging needs to be implemented (Pure PV Mode)

The monitoring device can detect the flow direction of the main line current through CT, and use photovoltaic power generation as much as possible by adjusting the power consumption of the charger, thereby avoiding the waste caused by unconsumed photovoltaic current entering the power grid and avoiding the use of power grid to generate electricity.

Before:



After:

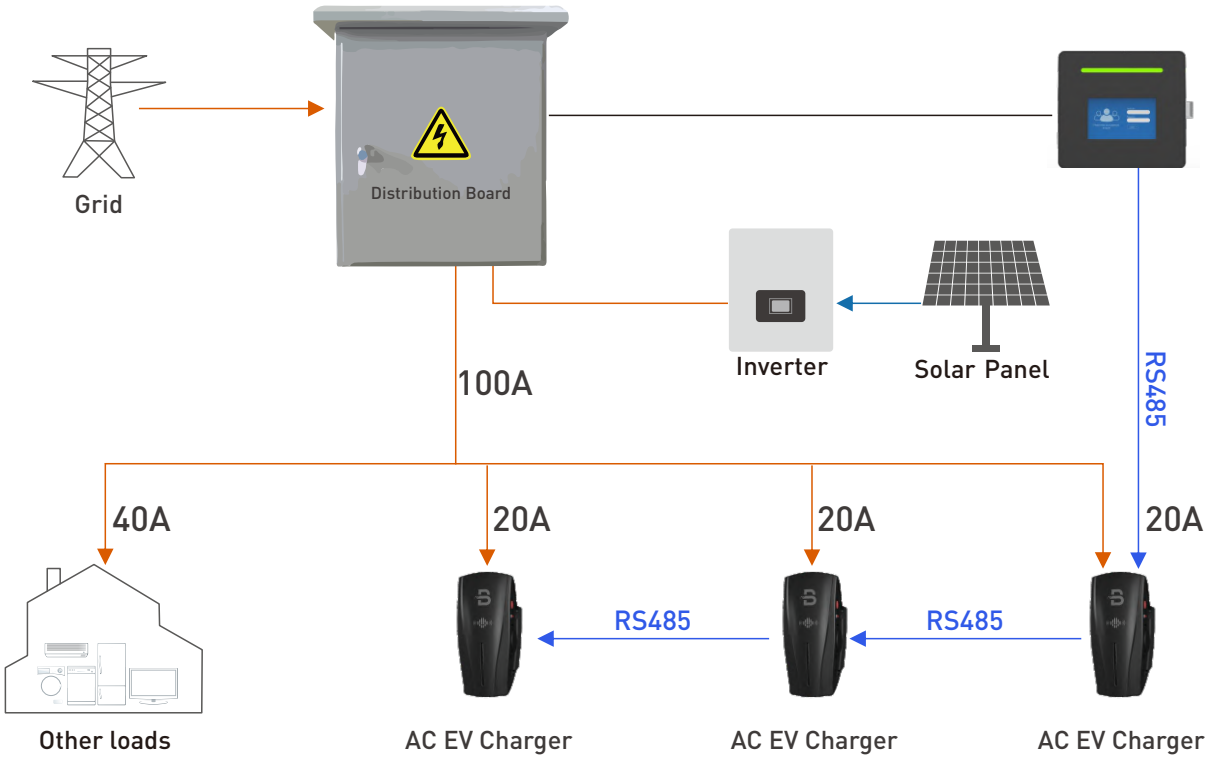


2.3.When users need to avoid charging during periods of high peak time (schedule mode)

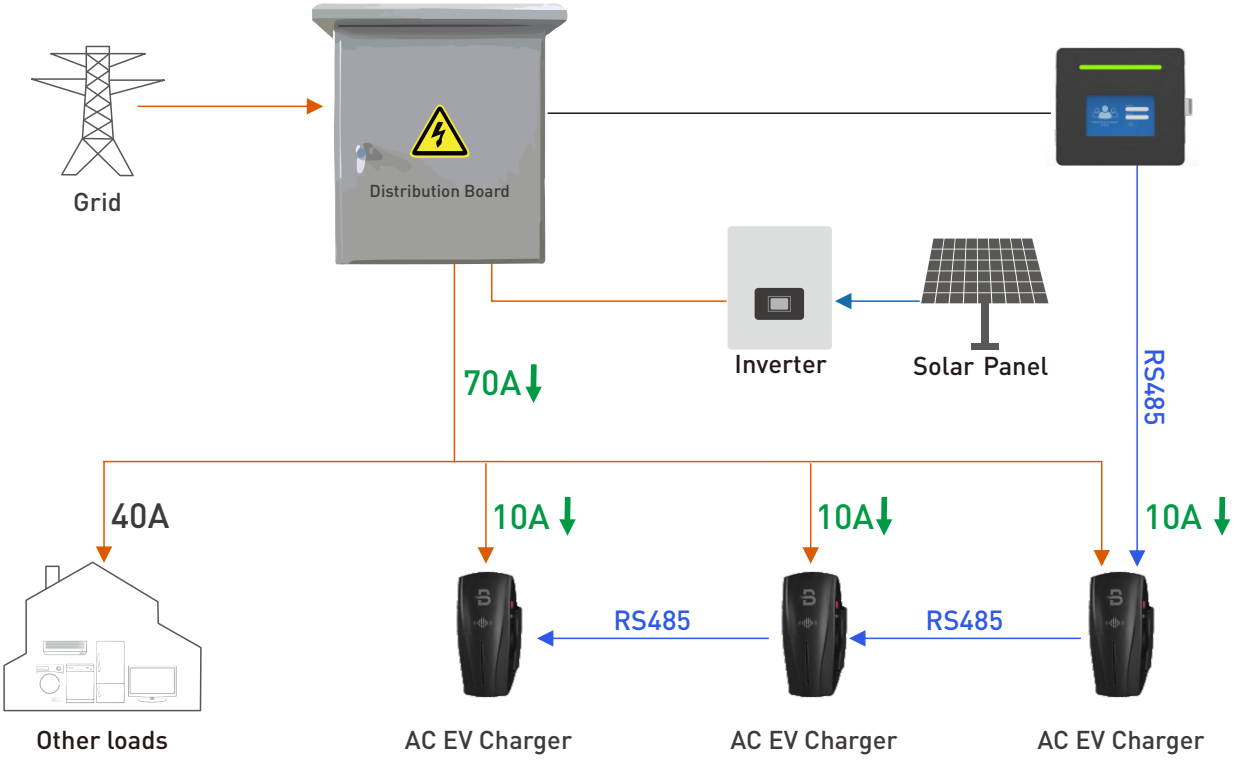
When the electricity price in the user's area changes over time, reasonably avoiding or reducing electricity consumption during periods of high electricity prices can effectively reduce electricity expenses, thereby reducing electricity costs.

Example: During off peak time, set the total three-phase current in the circuit to 100A. During periods of high electricity prices, set the total three-phase current in the circuit to 70A.

OFF PEAK:



HIGH PEAK:



It can be seen that during periods of high electricity prices, the charger reduces the charging current. This setting avoids excessive electricity bills due to excessive power consumption by the charger during periods of high electricity prices.

3.Specifications

Model	BCP-MH-01
	
Rated operating voltage	AC230V±15%
Communication mode	RS485 bus
Number of RS485 loops	3
Quantity of EV chargers that can be bound	AC EV charger: ≤50 charging connector
Maximum communication distance	300m
Operating temperature	-25°C ~55°C
Storage temperature	-30°C ~55°C
Protection Degree	IP65
HMI	LCD touch screen and LED indicator
CT specification options	100A / 300A / 600A
Maximum Altitude	<2000m

ZHEJIANG BENYI NEW ENERGY CO.,LTD.

SHUANGHUANGLOU INDUSTRIAL ZONE , BEIBAIXIANG TOWN, YUEQING CITY, WENZHOU CITY, ZHEJIANG PROVINCE, CHINA.

TEL: +86-577-5717 7008 FAX: +86-577-5717 7007

info@evb.com

www.evb.com

VERSION: 20240906-01

evb.com

BENY Datasheet

1. Product Introduction

BCP-MH-01 is an electric vehicle charging monitoring device independently developed by Beny New Energy. This product has a built-in intelligent balancing algorithm and multiple charging configuration strategies. It can automatically manage multiple EV charger through RS485 communication, providing users with a dynamic load balancing solution for parking lots.

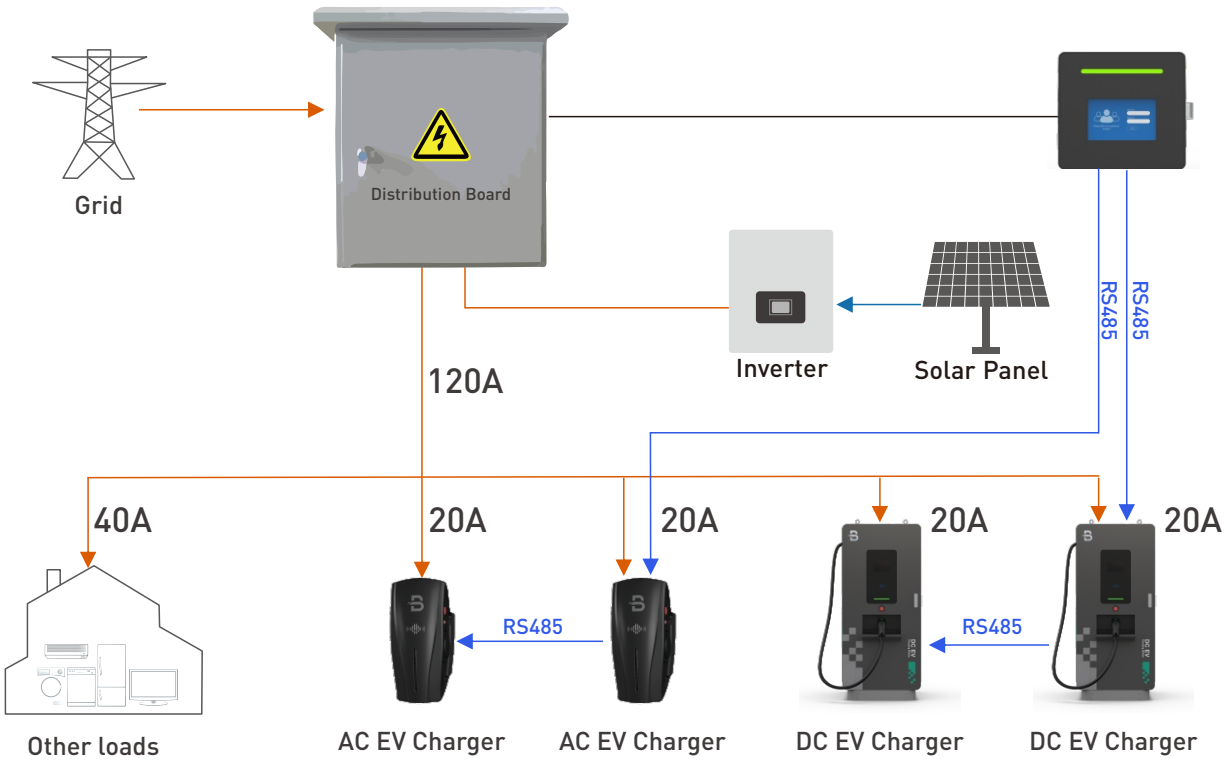
2. Applications

2.1. When there are one or more chargers in a public parking lot/user's home, the load is balanced between the chargers and other loads

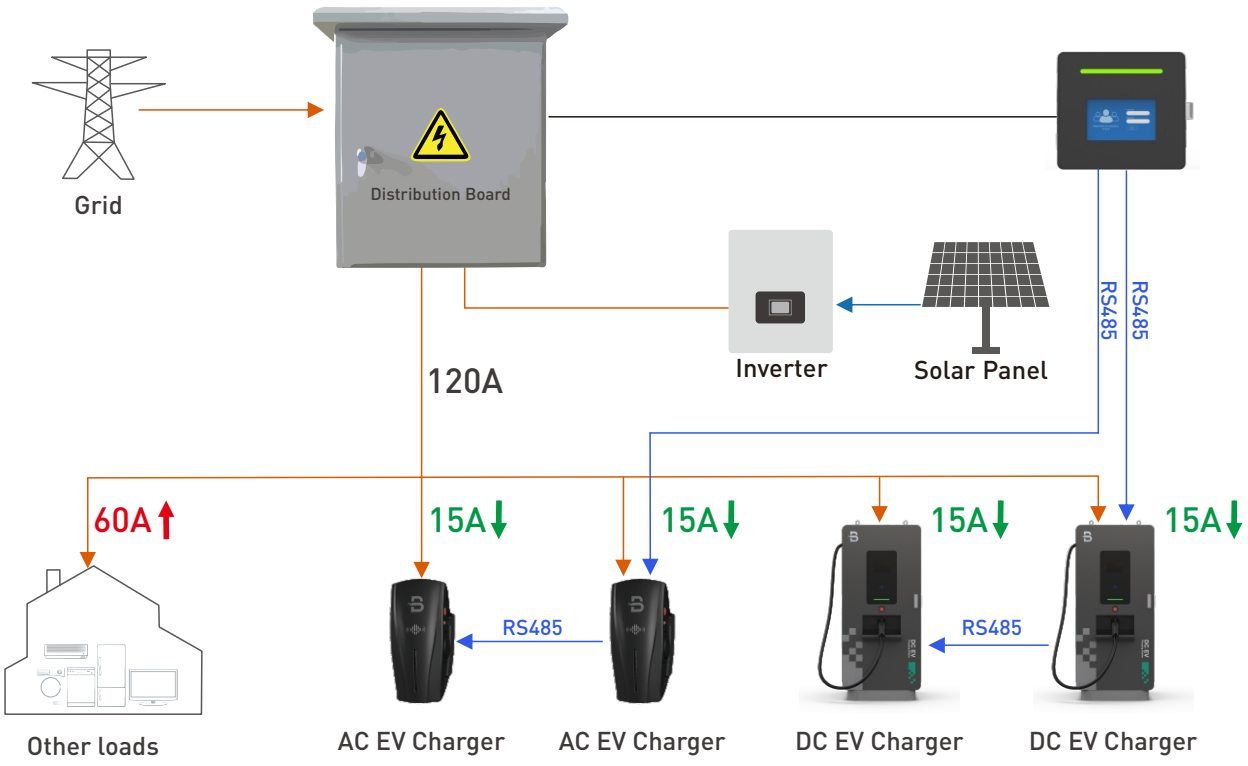
The monitoring device BCP-MH-01 adjusts the current of the chargers to keep the current in the circuit within the setting current of the monitoring device.

Take a 100A home distribution box as an example: when the current of other loads rises from 40A to 60A, the monitoring device will reduce the charging current of the charger to keep the current in the circuit within the safe range of 120A.

Before:



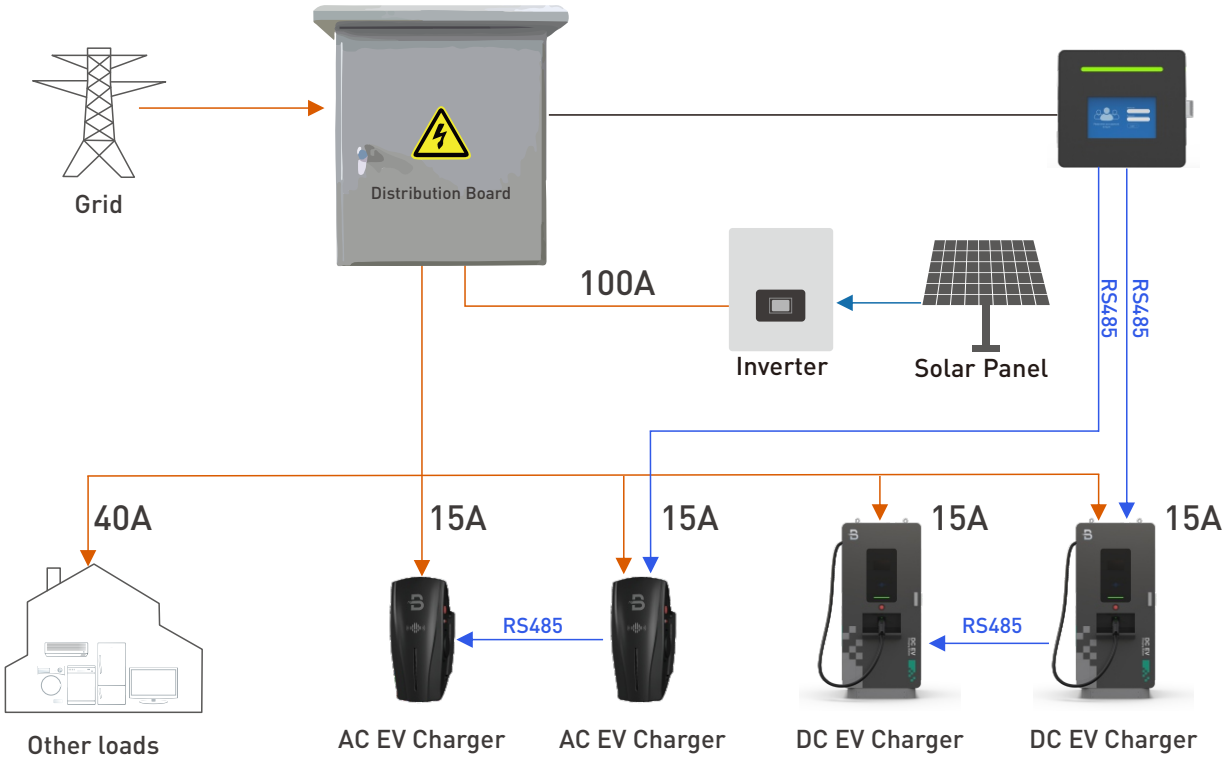
After:



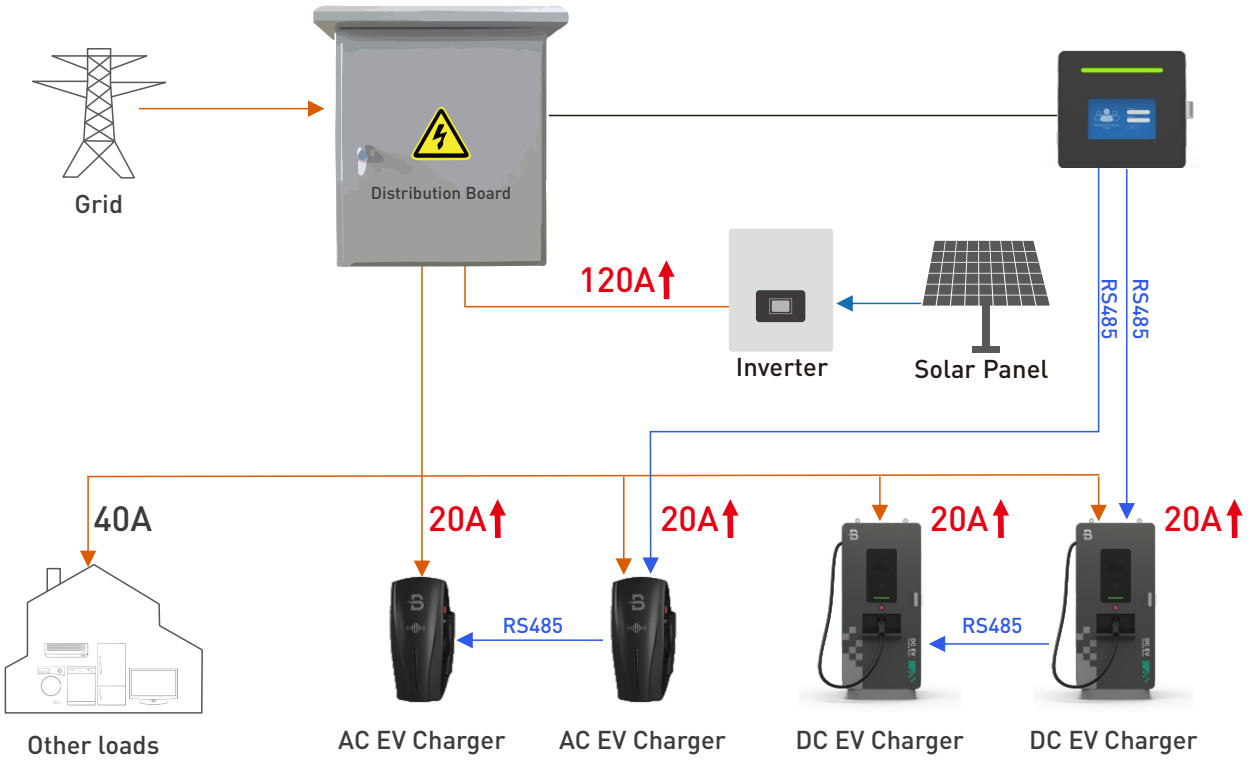
2.2.When there are one or more chargers in a public parking lot/user's home, photovoltaic charging needs to be implemented (Pure PV Mode)

The monitoring device can detect the flow direction of the main line current through CT, and use photovoltaic power generation as much as possible by adjusting the power consumption of the charger, thereby avoiding the waste caused by unconsumed photovoltaic current entering the power grid and avoiding the use of power grid to generate electricity.

Before:



After:

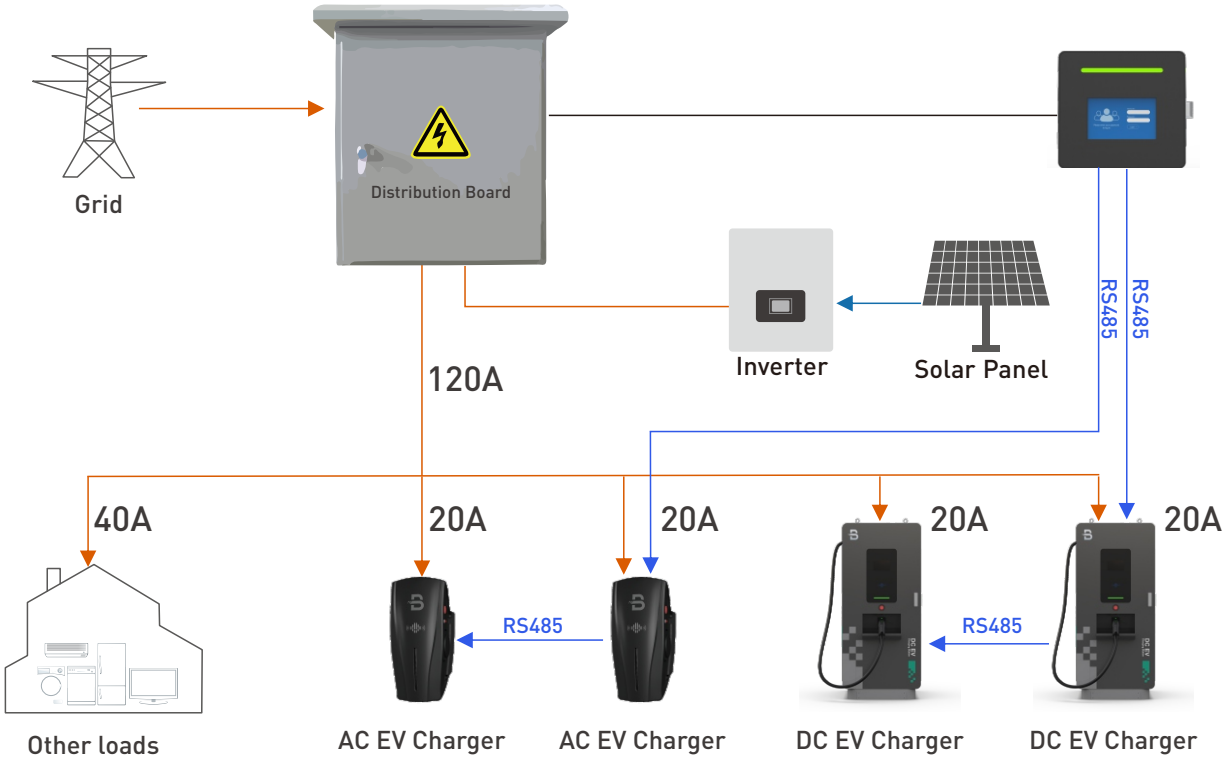


2.3.When users need to avoid charging during periods of high peak time (schedule mode)

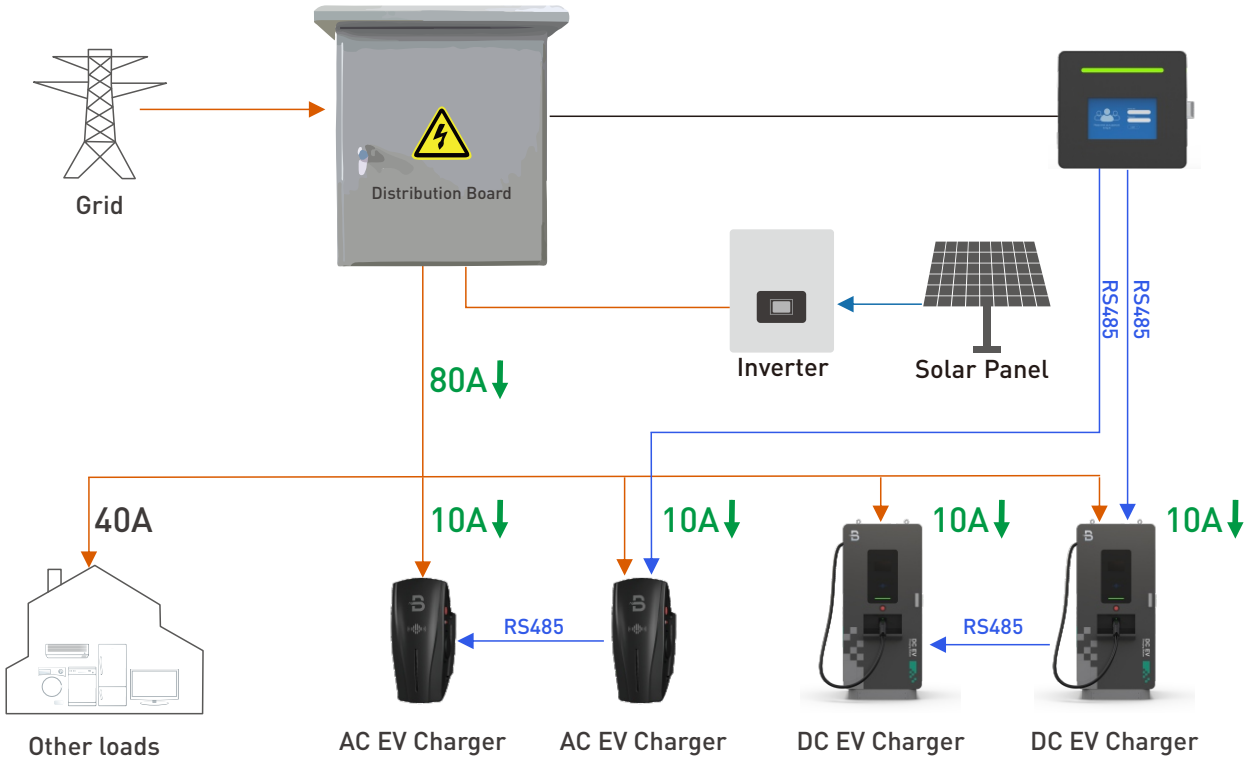
When the electricity price in the user's area changes over time, reasonably avoiding or reducing electricity consumption during periods of high electricity prices can effectively reduce electricity expenses, thereby reducing electricity costs.

Example: During off peak time, set the total three-phase current in the circuit to 120A. During periods of high electricity prices, set the total three-phase current in the circuit to 80A.

OFF PEAK:



HIGH PEAK:



It can be seen that during periods of high electricity prices, the charger reduces the charging current. This setting avoids excessive electricity bills due to excessive power consumption by the charger during periods of high electricity prices.

3.Specifications

Model	BCP-MH-01
	
Rated operating voltage	AC230V±15%
Communication mode	RS485 bus
Number of RS485 loops	3
Quantity of EV chargers that can be bound	DC EV charger: ≤50 charging connector, AC EV charger: ≤50 charging connector
Maximum communication distance	300m
Operating temperature	-25°C ~55°C
Storage temperature	-30°C ~55°C
Protection Degree	IP65
HMI	LCD touch screen and LED indicator
CT specification options	100A / 300A / 600A
Maximum Altitude	<2000m

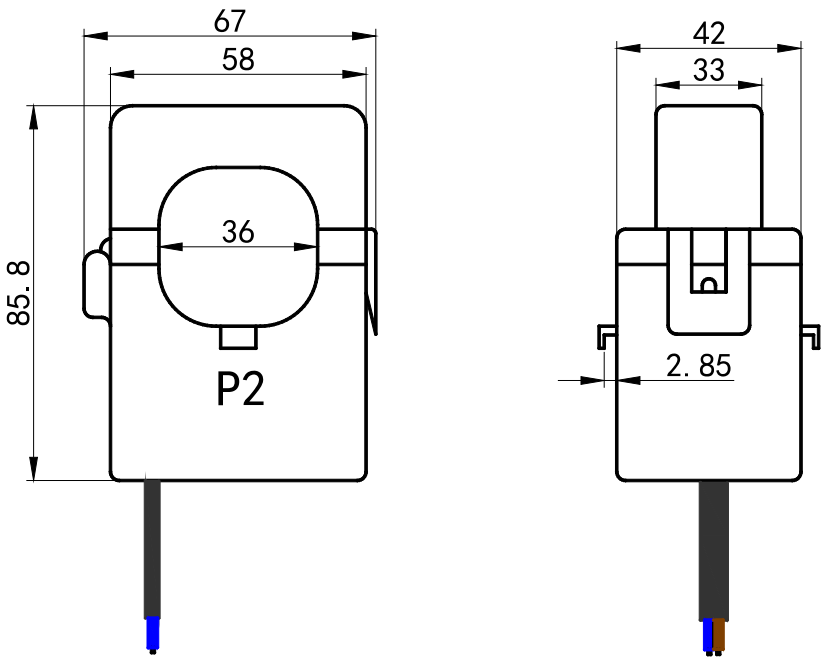
4.Accessories

Accessory options				
1	DLB			wiring position
	×			≤1m
	✓			≤6m
2	CT Clamp			
	100A	300A	600A	Electric field current
	✓			≤100A
		✓		≤300A
			✓	≤600A

✓:necessary ×:unnecessary

Note: When the electric field current is 600A ~ 2000A, the CT clamp needs to be customized.

5.CT clamp installation dimensions (mm)



ZHEJIANG BENYI NEW ENERGY CO.,LTD.

SHUANGHUANGLOU INDUSTRIAL ZONE, BEIBAIXIANG TOWN, YUEQING CITY, WENZHOU CITY, ZHEJIANG PROVINCE, CHINA.

TEL: +86-577-5717 7008 FAX: +86-577-5717 7007

✉ info@evb.com

🌐 www.evb.com

VERSION: 20240906-01