

# Solar Smart Junction Box

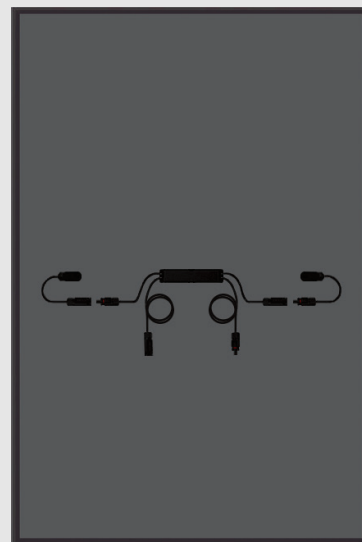
MPPT + Intelligent Monitoring + Rapid Shutdown + Bypass Protection

V202502



## Product Description

The application scenarios of this product are pv modules using split junction boxes, which can collect the data (such as power, voltage, current, temperature) of solar modules in real time, and the data is summarized at the communication gateway and uploaded to the server. At the same time, the product has the function of actively and quickly shutting off the output of the corresponding solar module when necessary. In addition, Maximum Power Point Tracking (MPPT) optimizes the power output of solar modules in real time to increase power generation.



## Product Features

### Real-Time Monitoring

Minute-level data monitoring, millisecond-level data response. Even if it is thousands of miles away, it is possible to grasp the power generation status of pv modules in real time through multiple channels

### Optimization and Improve-ment

MPPT to ensure the maximum power output of solar modules. Recover the power loss of solar modules caused by factors such as shadow occlusion and different solar cell attenuation

### Safe and Rapid Shutdown

After the smart device detects a high-risk power generation abnormality, it will actively shut down the output of the pv module within milliseconds, giving priority to the safety of personnel and systems

### Exception and Timely Response

More and more perfect data model, accurate determination of abnormal components, rapid diagnosis of abnormal factors, and notification of power station owners

### Long Working Years

Selected and reliable components, double standard test conditions, daily working power is less than 1% and strive to guarantee the same working life as pv modules

### Easy Installation Process

Pre installed on pv modules, without affecting normal power testing and packaging, greatly simplifying the installation process

## Technical Specifications

### SPECIFICATION

Size	210*35*21.5mm
Weight	340g
Input cable length	200mm / (customized)
Output cable length	600mm / (customized)
Connector	MC4/MC4 compatible
Operating temperature	-40°C ~ +85°C
Protection class	IP68

### INPUT PARAMETER

Max. system voltage	2000V
Operating voltage range	8 ~ 80V
MPPT voltage range	17 ~ 60V
Max. input current	20A
Overcurrent protection	25A
Over temperature protection	135°C

### OUTPUT PARAMETER

Max. output current	20A
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### CONVERSION EFFICIENCY

Peak conversion efficiency	99.7%
Power consumption @ 12A	99.6%@Vin:70V,Duty:95%
Power consumption @ 14A	99.7%@Vin:60V,Duty:95%
Power consumption @ 17A	99.5%@Vin:50V,Duty:95%
Power consumption @ 20A	99.6%@Vin:44.5V,Duty:95%

### DATA COMMUNICATION

Communication method	PLC
Monitoring platform	Solar Point intelligent data monitoring platform
Data cycle	5 min (customized)

### DESIGN STANDARD

Warranty	5 years
Design service life	25 years

### CERTIFICATION STANDARD

Certificate	TUV
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