UPSEN UPSEN

## **Key Features**

- eSmart Controller with peak efficiency up to 99% under MPPT charging mode, can save 30%~60% power compared with traditional PWM controller.
- DC12V/24V/48V battery system automatic detect, users can use it in different system easily.
- Maximum PV input voltage up to DC100V.
- Three stages charging: fast charge(MPPT), constant voltage charge, floating charge, which can protect batteries well.
- Three option of discharge: on mode, off mode and PV (Solar) voltage control mode.
- Users can choose 4 kinds of commonly standard batteries (Sealed lead acid, Vented, Gel, NiCd).
   Other kinds of batteries can be defined by users.
- Digital tube can display battery voltage and charging current. The software can display various parameters such as model number, PV input voltage, battery type, battery voltage, charging current, charging power, working condition.
- RS232 communication, we can offer communication protocol also, it's convenient for user's integration management.
- This controller can be paralleled infinitely.
- Approved CE and RoHS Certifications. Can help clients pass other certifications.
- 2 years warranty; 3~10 years extended technical service.



## MPPT Solar Charge Controller eSMART Series 12V/24V/48Vdc 15Amp - 40Amp

## **Technical Specification**

Charge mode Charge method	MPPT(maximum power point tracking)  d Three stages: constant current(MPPT),constant voltage,floating charge  DC12V/24V/48V Automatic recognition  DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  SSE 12V/24V/48V system 500us  ≥96.5%,599%  INPUT CHARACTERISTICS		Charge mode MPPT(maximum power point tracking)  Charge method Three stages: constant current(MPPT), constant voltage, floating charge	
  |  |  |  | Charge mode MPPT(maximum power point tracking)   | Charge mode MPPT(maximum power point tracking)   |   
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  | Charge mode MPPT(maximum power point tracking)  Charge method Three stages: constant current(MPPT),constant voltage,floating charge                                 | Charge mode MPPT(maximum power point tracking)  Charge method Three stages: constant current(MPPT), constant voltage, floating charge  System type DC12V/24V/48V Automatic recognition   | harge mode MPPT(maximum power point tracking) harge method Three stages: constant current(MPPT), constant voltage, floating charge system type DC12V/24V/48V Automatic recognition   | Charge mode MPPT(maximum power point tracking) harge method Three stages: constant current(MPPT),constant voltage,floating charge  |
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Charge method  System type  System voltage  Soft start time  Dynamic response recovery time  MPPT efficiency  MPPT working voltage range  Low input voltage	Three stages: constant current(MPPT),constant voltage,floating charge	Charge mode MPPT(maximum power point tracking)	Charge method Three stages: constant current(MPPT),constant voltage,floating charge
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  |  |  |  | <u> </u>   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  |   
   |   | Charge mode MPPT(maximum power point tracking)   |  | Charge mode will infinize power point tracking)  | Charge mode MPPT(maximum power point tracking)   
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   | system type DC12V/24V/48V Automatic recognition  |  |
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   | 3ystem type DC12V/24V/48V Automatic reconstitution   |
| Soft start time  Dynamic response recovery time  MPPT efficiency  MPPT working voltage range  Low input voltage   | 9 12V/24V/48V ≤3S system 500us ≥96.5%,≤99% INPUT CHARACTERISTICS  |  |  | Charge method Inree stages: constant current(WPP I),constant voltage,iivaling charge   |   
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  | System type DC12V/24V/48V Automatic recognition   | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  |  | Automatic recognition  |
| Dynamic response recovery time  MPPT efficiency  MPPT working voltage range  Low input voltage  | 12V/24V/48V system 500us  ty ≥96.5%, ≤99% INPUT CHARACTERISTICS   |  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  |  | System type DC12V/24V/48V Automatic recognition   
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  | System type DC12V/24V/48V Automatic recognition   |  |  |  | System type DC12V/24V/48V Automatic recognition   
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| MPPT efficiency  MPPT working voltage range  Low input voltage  | system 500us  yy ≥96.5%,≤99%  INPUT CHARACTERISTICS   | System type DC12V/24V/48V Automatic recognition  |  | System type DC12V/24V/48V Automatic recognition  | 7   
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| MPPT working voltage range Low input voltage  | INPUT CHARACTERISTICS   | System type  | Soft start time ≤3S  | System type  | System voltage  
  | System voltage   | System type  | System voltage   | System voltage   | Soft start time <3S  | System type   
   | System type   | System type  | System voltage   | System type  | System type  
   | System type  | System type  | System type   DC12V/24V/48V   Automatic recognition  | System type   | DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   Self-ctert time   
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  | Soft start time <3S   |  | 1.12V/24V/48V ≤3S  | off start time <3S   |
| range<br>Low input voltage  | tors  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response         500 ts  | Dynamic response system 500us  | System type  | System woltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response         system   
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   | System type  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V           Dynamic response         system  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response         system         500 te   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response         500 us   | System woltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  
   | System woltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System valtage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  | System voltage  | System voltage  
  | System voltage  | Soft start time         12V/24V/48V         \$3S           Dynamic response         system         500ue   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC36V/DC36V-DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         sonus   | System type  | System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   
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| range<br>Low input voltage  | tage DC14V~DC100V/DC30~DC100V/DC60~DC100V   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         system  | Dynamic response recovery time 129/24V/48V system 500us  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         system  | System woltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/46V           Dynamic response recovery time         500us  
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   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC38V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         system   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC38V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         system  | System woltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/46V           Dynamic response recovery time         500us   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us   
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/46V         ≤3S           Dynamic response recovery time         500us   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC38V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         system   | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/46V           Dynamic response recovery time         500us   
   | DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System voltage  | System voltage  
  | System voltage   DC9V~DC15V/DC18V~DC36V~DC60V   | Soft start time         12V/24V/46V         \$3S           Dynamic response recovery time         system         500us   | System type  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us   | System woltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   
  | Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         system         500us   | Dynamic response recovery time 500us   | amic response scovery time 12V/24V/48V system 500us  | Soft start time         12V/24V/48V           namic response recovery time         500us   |
|   |   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         system           MPPT efficiency         ≥96.5%,≤99%  | 12V/24V/48V     12V/24V/48V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%,≤99%  | System woltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/46V           Dynamic response recovery time         \$300us           MPPT efficiency         ≥96.5%,≤99%  
  | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%,≤99%   | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/46V           Dynamic response recovery time         \$3S           MPPT efficiency         \$00us   | System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         \$3S           MPPT efficiency         \$00us   | Soft start time         12V/24V/46V           Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%,≤99%              | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         3S           Dynamic response recovery time         system           MPPT efficiency         ≥96.5%,≤99%  
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC38V~DC60V           Soft start time         33S           Dynamic response recovery time         system           MPPT efficiency         ≥96,5%,≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC38V~DC60V           Soft start time         33S           Dynamic response recovery time         system           MPPT efficiency         ≥96,5%,≤99%  | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         \$300us           MPPT efficiency         ≥96.5%,≤99%   | System type  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%,≤99%   
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%,≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%,≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%, ≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC38V~DC60V           Soft start time         33S           Dynamic response recovery time         system           MPPT efficiency         ≥96,5%,≤99%   | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  
   | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System voltage   DC9V~DC15V/DC18V~DC36V~DC66V   | System voltage   DC9V~DC15V/DC18V~DC36V~DC66V   
  | System voltage   DC9V~DC15V/DC18V~DC36V~DC66V   | Soft start time         12V/24V/46V           Dynamic response recovery time         system         500us           MPPT efficiency         296.5%, ≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | System woltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         Dynamic response recovery time         12V/24V/48V system           MPPT efficiency         ≥96.5%,≤99%   
  | Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%,≤99% | Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%,≤99%  | 12V/24V/48V  | Soft start time         12V/24V/48V           namic response recovery time         500us           PPT efficiency         ≥96.5%,≤99%  |
|   |   | System type  | 22//24V/48V   system   12//24V/48V   system   500us  | System type  | System voltage   Soft start time   12V/24V/48V   System   So0us   System   System   So0us   System   System   So0us   System    | System voltage   Soft start time   12V/24V/48V   System   So0us   System   So0us   System   So0us   System   So0us   System   So0us   System   So0us   System   Sys | System type   
  | System voltage   Soft start time   12V/24V/48V   System   Solution   System   System   Solution   System   System   Solution   System   System   System   Solution   System   S   | System voltage   Soft start time   12V/24V/48V   System   Soft start time   Soft s | Soft start time  | System type   | System type   | System type  | System voltage   Soft start time   12V/24V/48V   System   Soft start time   12V/24V/48V   System   Soft start time   System   Soft start time   System   Soft start time   Soft start time   System   Soft start time   Soft start time   System   Soft start time   Soft start time   Soft start time   Soft start time   System   Soft start time   Soft start | System type  
   | System type  | System type  | System type  | System type  | System type   
   | System voltage   Soft start time   12V/24V/48V   S3S   S00us   | System voltage   Soft start time   12V/24V/48V   System   Soft start time   12V/24V/48V   System   Soft start time   System   System   Soft start time   System   System   Soft start time   System   S   | System valtage   Soft start time   12V/24V/48V   S3S   | System voltage   DC9V-DC15V/DC18V-DC36V-DC66V   | System voltage   DC9V-DC15V/DC18V-DC36V-DC66V  | System voltage   DC9V~DC15V/DC18V~DC36V~DC66V  
  | Soft start time  | System type  | System type  | System voltage   Soft start time   12V/24V/48V   S3S     S00us  
  | Soft start time   | Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%,≤99%           INPUT CHARACTERISTICS           PPT working voltage         DC14V~DC100V/DC30~DC100V/DC50~DC100V   | amic response scovery time system 500us 500us 296,5%,599%  INPUT CHARACTERISTICS  working voltage DC14V-DC100V/IDC30-DC100V  | 12V/24V/48V  |
| Low input voltage<br>Recovery point 12  |   | System type  | 229/24V/48V   system   129/24V/48V   system   500us  | System type  | System voltage   Soft start time   12V/24V/48V   System   S000us  
  | System voltage   Soft start time   12V/24V/48V   System   Soft start time   12V/24V/48V   System   Soft start time   Signature   Signature   Soft start time   Signature   Signatu | System type  | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC66V  | System voltage   DC9V~DC15V/DC18V~DC36V/DC36V~DC66V  | Soft start time  | System type   | System type   
   | System type  | System voltage   Soft start time   12V/24V/48V   S3S     S00   System voltage   Soft start time   12V/24V/48V   System   S00   System   S00 | System type  | System type  | System type  | System type   
  | System type  | System type   | DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   | System voltage   Soft start time   12V/24V/48V   System   Size   Soft start time   12V/24V/48V   System   Size   Soft start time   Size   Si   | System voltage   12V/24V/48V   S3S  
  | System voltage   DC9V-DC15V/DC18V-DC36V-DC60V   | System voltage   DC9V-DC15V/DC18V-DC36V-DC60V  | System voltage  | Soft start time  | System type  
   | System type  | System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  | Soft start time   | Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%,≤99%           INPUT CHARACTERISTICS           PPT working voltage range         DC14V~DC100V/DC30~DC100V/DC60~DC100V           Low input voltage         DC14V/DC100V/DC30~DC100V/DC60V  | 120/724V/48V   | 12V/24V/48V   
  |
| High input voltage<br>protection point  |   | System type  | 22//24//48V   system   12//24//48V   system   500us  | System type  | System voltage   Soft start time   12V/24V/48V   S3S  
  | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System type  | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC66V  | System voltage   DC9V~DC15V/DC18V~DC36V/DC36V~DC66V  | Soft start time  | System type   
   | System type   | System type  | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System type  | System type  
   | System type  | System type  | System type  | System type   | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  
   | System voltage   Soft start time   12V/24V/48V   S3S   | System voltage   12V/24V/48V   S3S   | System voltage  | System voltage  
  | System voltage  | Soft start time  | System type  | System type  | System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   
  | Soft start time   | Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%,≤99%           INPUT CHARACTERISTICS           PPT working voltage range range protection point         DC14V~DC100V/DC30~DC100V/DC80~DC100V           Low input voltage protection point         DC14V/DC30V/DC80V   | 120/24V/A8V   2000      | 12V/24V/48V   system   12V/24V/48V   system   500us  |
| High input voltage<br>recovery point  | nt DOTTO  | System type  | Dynamic response recovery time   12V/24V/48V   system   500us  | System type  | System voltage   Soft start time   12V/24Vi/48V   system   S00us   S | System voltage   Soft start time   12V/24Vi/48V   system   S00us   S96,5%,≤99%   S96,5%,≤99%   S97   S98,5%,≤99%   S98,5%,≤99% | System type   
  | System voltage   Soft start time   12V/24V/48V   system   S00us   S0   | System voltage   Soft start time   12V/24V/48V   system   S00us   S0 | 20   | System type   | System type   | System type  | System voltage   Soft start time   12V/24Vi/48V   system   S00us   S | System voltage   DC12V/24V/48V   Automatic recognition   | System voltage   DC12V/24V/48V   Automatic recognition   
   | System voltage   DC12V/24V/48V   Automatic recognition   | System voltage   DC12V/24V/48V   Automatic recognition   | System type  | System type   | System voltage   Soft start time   12V/24Vi/48V   system   S00us   S | System voltage   Soft start time   12V/24Vi/48V   system   500us  
  | System valtage   Soft start time   12V/24V/48V   system   500us  | System voltage   12V/24V/48V   \$3S   | System voltage   12V/24V/48V   \$3S  | System voltage   Soft start time   12V/24V/48V   \$33\$   \$35\$  
\$35\$   \$35\$ | 20/124V/48V   \$3\$\$   20/124V/48V   \$3\$\$   20/124V/48V   \$3\$\$   20/124V/48V   \$500us     296,5%,≤99%     296  | System vype  | System vyhage  | System voltage   Soft start time   12V/24V/48V   system   S3S   S0Uus  | Soft start time   | Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%,≤99%           INPUT CHARACTERISTICS           PPT working voltage range           Low input voltage protection point         DC14V~DC100V/DC30~DC100V/DC80~DC100V           Low input voltage         DC14V/DC30V/DC60V           Recovery point         12V/Z4/48 system          
High input voltage         DC18V/DC34V/IDC65V  | amic response scovery time  PT efficiency  INPUT CHARACTERISTICS  Fworking voltage range  Input voltage becovery point in input voltage  DC14V/DC30V/DC30V/DC80V  DC14V/DC30V/DC80V  DC14V/DC30V/DC80V  DC14V/DC34V/DC34V/DC65V  | 12V/24V/48V  |
| 1   | ge DC100V   | System type  | 12V/24V/48V   system   12V/24V/48V/48V/48V/48V/48V/48V/48V/48V/48V/4  | System type  | System voltage   Soft start time   12V/24V/48V   system   S00us  
   | System voltage   12V/24V/48V   system   12V/24V/48V   system   S00us   | System type  | System voltage   Soft start time   12V/24V/48V   system   S00us   S0   | System voltage   Soft start time   12V/24V/48V   system   S00us   S00us  | 20   | System type   | System type  
  | System type  | System voltage   Soft start time   12V/24V/48V   system   S00us   S00us  | System type  | System type  | System type  
   | System type  | System type  | System type   | System voltage   Soft start time   12V/24V/48V   S3S   S00us   S00us | System voltage   12V/24V/48V   system   12V/24V/48V   system   S00us   | System valtage   Soft start time   12V/24V/48V   s3S  
  | System voltage   DC9V-DC15V/DC18V-DC36V-DC60V   | System voltage   12V/24V/48V   \$3\$   DC9V~DC15V/DC18V~DC36V~DC60V   System   S3\$   Dynamic response recovery time   12V/24V/48V   \$3\$   MPPT efficiency   System   S00us  | System voltage   DC9V-DC15V/DC18V-DC36V-DC60V   | Soft start time   
  | System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Soft start time   12V/24V/48V   System   Soft start time   12V/24V/48V   System   Soft start time   System   System | System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Soft start time   12V/24V/48V   System   Soft start time   System   System   Soft start time   System   System   System   Soft start time   System   System   Soft start time   System   System   System   Soft start time   System   System   Soft start time   System   System   Soft start time   System   Sy | System voltage   Soft start time   12V/24V/48V   system   S3S   S00us  | 20  | Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%,≤99%           INPUT CHARACTERISTICS           PPT working voltage range           Low input voltage protection point         DC14V-DC100V/DC30-DC100V/DC80-DC100V           Low input voltage recovery point         DC14V/DC30V/DC30V/DC60V           High input voltage protection point         DC18V/DC34V/IDC65V           High input voltage         DC110           Protection point         DC100V/V   | amic response scovery time   2PT efficiency     Solution   Solution  | 12V/24V/48V   system   12V/24V/48V   system   500us  
   |
| '   | ge DC100V   | System type  | Dynamic response recovery time   12V/24V/48V   system   500us  | System type  | System voltage   Soft start time  
  | System voltage   Soft start time   12V/24V/48V   system   S3S  | System type  | System voltage   Soft start time   12V/24V/48V   system   S00us   S    | System voltage   Soft start time   12V/24V/48V   system   S00us   S0 | 20   | System type   | System type   | System type   
  | System voltage   Soft start time   | System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Size   Si   | System voltage   System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   System   S00us      | System voltage   System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   System   S00us      | System type  | System type  | System type   
             | System voltage   Soft start time   | System voltage   Soft start time   12V/24V/48V   system   S00us  | System valtage   12V/24V/48V   s3S   12V/24V/48V   system   S00us   System valtage   12V/24V/48V   system   S00us   System   System   S00us   System   System   System   S00us   System   System   System   S00us   System   Syste | System voltage   Soft start time   12V/24V/48V   \$3S   | System voltage   12V/24V/48V   \$3\$   DC9V~DC15V/DC18V~DC36V~DC60V   System   S30Us     Dynamic response recovery time   Toylor   System   S00Us     MPPT efficiency   System   S00Us     MPPT working voltage range   DC14V~DC100V/DC30~DC100V/DC60~DC100V     Low input voltage protection point   Low input voltage protection point   High input voltage protection point   High input voltage protection point   DC100V/DC30~DC100V/DC60V  | System voltage   Soft start time   12V/24V/48V   \$3\$   Dynamic response recovery time   12V/24V/48V   \$9\$   \$500us   
   | Soft start time  | System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   S3S   SOOUS   System voltage   Soous   S  | System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S3S   Solution   System voltage   Soft start time   12V/24V/48V   System   Solution   Solution   Solution   Solution   System   Solution   Solution   Solution   System   System   Solution   System   Solution   System   Solution   System   System   Solution   System   System   Solution   System   System   Solution   System   System   System   Solution   System   System  | System voltage   Soft start time   12V/24V/48V   system   S3S  | Soft start time   | Dynamic response recovery time system 500us  ### DC14V-DC100V/DC30-DC100V/DC80-DC100V  ### DC14V/DC30V/DC30-DC100V  ### DC14V/DC30V/DC80V  ### DC18V/DC34V/DC65V  ### DC110  ### DC100V  ### DC100V  | 20/724V/48V   system   500us   
   | 12V/24V/48V   S3S  |
	nt DC100V 12V system (W) 213 284 355 426 56	System type	12V/24V/48V   system   12V/24V/48V   system   500us	System type	System voltage   Soft start time   12V/24V/48V   system   S00us   S0	System voltage   12V/24V/48V   System   S00us   System voltage   Soft start time   12V/24V/48V   System   S00us   System   S00us   System   S00us   System   S00us   System   S00us   System   System   S00us   System   System   S00us   System   System   S00us   System   S00us   System   System   System   S00us   System   System   So0us   System   System   So0us   System   System   So0us   System   System   So0us   System   System	System type	System voltage   Soft start time   12V/24V/48V   system   S00us   S0	System voltage   Soft start time   12V/24V/48V   system   S00us   S0	Soft start time	System type	System type	System type	System voltage   Soft start time   12V/24V/48V   system   S00us   S0	System voltage   System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Size	System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   DC12V/24V/48V   System   S3S   System voltage   Soft start time   Dynamic response recovery time   System   Solus   System   System   Solus	System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   DC12V/24V/48V   System   S3S   System voltage   Soft start time   Dynamic response recovery time   System   Solus   System   System   Solus	System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   DC12V/24V/48V   System   S00us   Syst	System type	System type	System voltage   Soft start time   12V/24V/48V   system   S00us     S00us	System voltage   Soft start time   12V/24V/48V   system   S00us   S0	System valtage   Soft start time   12V/24V/48V   system   S3S	System voltage   Soft start time   12V/24V/48V   system     500us	System voltage   12V/24V/48V   system     12V/24V/48V   system	System voltage   Soft start time   12V/24V/48V   system	20/124V/48V   \$33S   \$12V/24V/48V   \$9\$**   \$12V/24V/48V   \$9\$**   \$12V/24V/48V   \$9\$**   \$100U   \$	System voltage   Soft start time   12V/24V/48V   SOFT	System vyltage   System vyltage   Soft start time   12V/24V/48V   System vyltage   Soft start time   12V/24V/48V   System   S3S   System vyltage   Soft start time   12V/24V/48V   System   S00us   System   S00us   System   S00us   System   Syste	System voltage   Soft start time   12V/24V/48V   system	20   2   2   2   2   2   2   2   2   2	System   Solus	2000   2000	12V/24V/48V
Maximum PV power 2	tt	System type	Dynamic response recovery time   12V/24V/48V   system     500us	System type	System voltage   Soft start time   12V/24V/48V   system   S00us   S	System voltage   12V/24V/48V   System   S00us   System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   Soft start	System type	System voltage   Soft start time   12V/24V/48V   system   S00us   S	System voltage   Soft start time   12V/24V/48V   system   Soft start time   System voltage   Soft start time   12V/24V/48V   System   Soft start time   System   System   Soft start time   System   Soft start time   System   System   Soft start time   System   S	Soft start time	System type	System type	System type	System voltage   Soft start time   12V/24V/48V   system   S00us   S	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Solus   System voltage   Soft start time   12V/24V/48V   System   Solus   System   Sy	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Solus	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Solus	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Solus	System type	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   Sof	System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   System voltage   Soft start time   System   S00us   Soft start time   Sof	12V/24V/48V   12V/24V/48V/48V/48V   12V/24V/48V/48V/48V/48V/48V/48V/48V/48V/48V/4	System voltage   Soft start time   12V/24V/48V   System   Soft start time   12V/24V/48V   System   Soft start time   12V/24V/48V   System   Soft start time   System   System   System   Soft start time   System   System   Soft start time   System   Syste	System voltage   Soft start time   12V/24V/48V   system   500us	System voltage   Soft start time   12V/24V/48V   System   Soft start time   12V/24V/48V   System   Soft start time   12V/24V/48V   System   Soft start time   Soft start tim	Soft start time	System type	System type	System voltage   Soft start time   12V/24V/48V   system   500us	20   20   20   20   20   20   20   20	System	### 201/24/148V system ### 500us ##	12V/24V/48V
Maximum PV power 2	tt	System type	Dynamic response recovery time   12V/24V/48V	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   System voltage   Soft start time   System   S00us   Soft start time   Soft	12V/24V/48 system woltage   12V/24V/48 system woltage   12V/24V/48 system   12V/24V/	System type	System voltage   Soft start time   12V/24V/48V   SSS   SOUS	System voltage   Soft start time   12V/24V/48V   SSS   SOUS	Soft start time	System type	System type	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   System voltage   Soft start time   System   S00us   Soft start time   Soft	System voltage   System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Solus   System voltage   Soft start time   System voltage   Soft start time   System   Solus   System	System voltage   System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Solus   System voltage   Soft start time   System voltage   Soft start time   System   Solus   System	System voltage   System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Solus   System voltage   Soft start time   System voltage   Soft start time   System   Solus   System	System voltage   System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Solus	System type	System type	System voltage   Soft start time   12V/24V/48V   System   S3S   S00us   S00u	System voltage   Soft start time   12V/24V/48V   System   S3S   S00us   S00u	12V/24V/48   12V	System voltage   Soft start time   12V/24V/48V   System voltage   12V/24V/48V   System   Solutar time   12V/24V/48V   System   Solutar time   System	System voltage   Soft start time   12V/24V/48V   system   500us	System voltage   Soft start time   12V/24V/48V   System   Soft start time   12V/24V/48V   System   Solution	Soft start time	System vyhage   System vyhage   System vyhage   12V/24V/48V   System vyhage   12V/24V/48V   System vyhage   12V/24V/48V   System vyhage   12V/24V/48V   System   Souls   System   System   Souls   System   System   Souls   System	System voltage   Soft start time   12V/24V/48V   SOFT	System voltage   Soft start time   12V/24V/48V   system   500us	Soft start time	System	20/24/148   20/2	12V/24V/48V
Maximum PV power 2	tt DC100V  12V system (W) 213 284 355 426 568 wwer 24V system (W) 426 568 710 852 113 48V system (W) 852 1136 1420 1704 227  CHARGE CHRECTRESTICS  Types Sealed lead acid, Vented, Get, NiCd battery	System type	12V/24V/48V   system   12V/24V/48V/10C30V/10C30V/10C30V/10C60V   system   12V/24V/48 system   12V/24	System type	System woltage   Soft start time	System voltage   Soft start time   12V/24V/48V   system   S00us     System voltage   Soft start time   12V/24V/48V   System   S00us     System   S00us   System   S00us   System   Soft start time   System   S00us   System   Soft start time   System   S00us   System   Soft start time   System   Sys	System type	System voltage   Soft start time   12V/24V/48V   system   S00us   S	System voltage   Soft start time   12V/24V/48V   system   S00us   S0	Soft start time	System type	System type	System type	System woltage   Soft start time	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System   S00us   System   S00us   System   S00us   System   S00us   System   System   S00us   System   System   S00us   System   Syste	System voltage   Soft start time   12V/24V/48V   Soft start time	System voltage   Soft start time   12V/24V/48V   Soft start time	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   DC12V/24V/48V   System   S00us   System voltage   Soft start time   DC14V/DC18V-DC30V/DC36V-DC60V   System   S00us   Syste	System type	System type	System voltage   Soft start time   12V/24V/48V   system   S00us   S0	System voltage   Soft start time	System valtage   Soft start time   12V/24V/48V   system   S00us     S00us   S00us     S00us	System voltage   Soft start time   12V/24V/48V   \$3S   \$3S	System voltage   Soft start time   12V/24V/48V   system   500us	System voltage   Soft start time   12V/24V/48V   \$33\$   \$500.00	20/124V/48V   \$33S	System voltage   Soft start time   12V/24V/48V   SOFT	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   System   S00us   System   S00us   System   S00us   System   S00us   System   Syst	System voltage   Soft start time   12V/24V/48V   system   S00us   S00us	Soft start time	System	20/24/148V   system	12V/24V/48V
Maximum PV power 2 4  Selectable Battery Types (Default Gel Battery0  Constant Voltage	12V system (W)	System type	Dynamic response recovery time   12V/24V/48V   system   S00us	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   System   S00us   System   S00us   System   S00us	System voltage   Soft start time   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V	System type	System voltage   Soft start time   12V/24V/48V   system   S00us   S	System voltage   Soft start time   12V/24V/48V   system   Soft start time   Soft start time   System voltage   Soft start time   System   System   Soft start time   System   System   Soft start time   System   System   System   Soft start time   System   System   Soft start time   System   System   Soft start time   System   System	20   20   20   20   20   20   20   20	System type	System type	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   System   S00us   System   S00us   System   S00us	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Solus   System voltage   Soft start time   12V/24V/48V   System   Solus   System   System   System   Solus   System	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   System   S00us   System   System   S00us   System   S00us   System   System   S00us   System   Sys	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   System   S00us   System   System   S00us   System   S00us   System   System   S00us   System   Sys	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   System   S00us   System voltage   Soft start time   System   S00us   System   System   S00us   System   System	System type	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   Signature   Soft start time   Soft start time	System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   System   S00us   System   System   S00us   System   S	System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V	System voltage	System voltage	System voltage	Soft start time	System voltage   Soft start time   12V/24V/48V   System voltage   DC12V/24V/48V   System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V	System voltage   Soft start time   12V/24V/48V   Soft start time   Soft start ti	System voltage   Soft start time   12V/24V/48V   system   500us	20	System	20/74V/48V   system   500us	12V/24V/48V
Maximum PV power  4  Selectable Battery Types (Default Gel Battery0  Constant Voltage  Floating Charge Voltage	12V system (W)   213   284   355   426   568   568   710   852   113   48V system (W)   852   1136   1420   1704   227	System type	12V/24V/48V   12V   12	System type	System voltage   Soft start time   12V/24V/48V   system   S00us   Soft start time   S3S   S00us   Soft start time   S00us   S	System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   12V/24V/48V   System   S00us   System   System   S00us   System   System   S00us   System   S	System type	System voltage   Soft start time   12V/24V/48V   system	System voltage   Soft start time   12V/24V/48V   system   Soft start time   Soft	Soft start time	System type	System type	System type	System voltage   Soft start time   12V/24V/48V   system   S00us   Soft start time   S3S   S00us   Soft start time   S00us   S	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Solus   System	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   12V/24V/48V   System   S00us   System   System   S00us   System   Sy	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   12V/24V/48V   System   S00us   System   System   S00us   System   Sy	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   System   S00us   System   System   S00us   System	System type	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   S3S   S00us   Soft start time   S00us	System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   S3S   S00us   Soft start time   S00us	System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V	System voltage	System voltage	System voltage	Soft start time	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Soft start time   System   System   Soft start time   System   System   Soft start time   System   System	System voltage   Soft start time   12V/24V/48V   SAUTHORISE   SAS	System voltage   Soft start time   12V/24V/48V   system   500us	20	System	24/749/48V   system	12V/24V/48V
Maximum PV power 2 4  Selectable Battery Types (Default Gel Battery0  Constant Voltage	12V system (W)   213   284   355   426   568   568   710   852   113   48V system (W)   852   1136   1420   1704   227	System type	12V/24V/48V   12V   12	System type	System voltage   Soft start time   12V/24V/48V   system   S00us   Soft start time   S3S   S00us   Soft start time   S00us   S	System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   12V/24V/48V   System   S00us   System   System   S00us   System   System   S00us   System   S	System type	System voltage   Soft start time   12V/24V/48V   system	System voltage   Soft start time   12V/24V/48V   system   Soft start time   Soft	Soft start time	System type	System type	System type	System voltage   Soft start time   12V/24V/48V   system   S00us   Soft start time   S3S   S00us   Soft start time   S00us   S	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Solus   System	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   12V/24V/48V   System   S00us   System   System   S00us   System   Sy	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   12V/24V/48V   System   S00us   System   System   S00us   System   Sy	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   System   S00us   System   System   S00us   System	System type	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   S3S   S00us   Soft start time   S00us	System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   S3S   S00us   Soft start time   S00us	System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V	System voltage	System voltage	System voltage	Soft start time	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Soft start time   System   System   Soft start time   System   System   Soft start time   System   System	System voltage   Soft start time   12V/24V/48V   SAUTHORISE   SAS	System voltage   Soft start time   12V/24V/48V   system   500us	20	System	24/749/48V   system	12V/24V/48V
Maximum PV power  4  Selectable Battery Types (Default Gel Battery0  Constant Voltage  Floating Charge Voltage	12V system (W)	System type	12V/24V/48V   12V/24V/48V   12V/24V/48V   12V/24V/48V   12V/24V/48V   12V/24V/48V   12V/24V/48V   12V/24V/48V   12V/24V/48V   12V/24V/48   12V/24V/48V   12V/24V/48V   12V/24V/48   12V/24V/48V   12V/24V/48   12V/24V/48V   12V/24V/24V/24V/24V/24V/24V/24V/24V/24V/2	System type	System voltage   Soft start time   12V/24Vi/48V   S3S   S00us   S00u	System voltage   Soft start time   12V/24V/48V   System   So0us   System   System   So0us   System   System   System   So0us   System   System	System voltage   Soft start time   12V/24V/48V   Soft start time   Soft start ti	System voltage   Soft start time   12V/24V/48V   System   S00us   S0	System voltage   Soft start time   12V/24V/48V   System   S00us   S00us   S00us   S00us   S00us   S00us   S00us   S00us   S06.5%, s99%   S00us   S00us   S00us   S06.5%, s99%   S00us   S00	Soft start time	System type	System type	System type	System voltage   Soft start time   12V/24Vi/48V   S3S   S00us   S00u	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   System   S00Us   System voltage   Soft start time   System   S00Us   System   System   S00Us   System   System   S00Us   System   System   S00Us   System   Sy	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   S3S   Solution   System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   System   Solution	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   S3S   Solution   System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   System   Solution	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   DC12V/24V/48V   System   S00us   System voltage   Soft start time   System   S00us   S00us   System   S00us   S00us   System   S00us   System   S00us   System   S00us   System   S00us   System   S00us   Syst	System type	System type	System voltage   Soft start time   12V/24Vi/48V   S3S   S00us   S00u	System voltage   Soft start time   DC9V~DC15V/IDC18V~DC30V/IDC36V~DC60V	System valtage   Soft start time   12V/24V/48V   system   Soft start time   Soft s	System voltage   Soft start time   12V/24V/48V   system	System voltage   Soft start time   12V/24V/48V   system	System voltage   Soft start time   12V/24V/48V   system   Soft start time   12V/24V/48V   system   Soft start time   S	Soft start time	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Soft start time   12V/24V/48V   System   Soft start time   System   Sy	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Soft start time   System voltage   12V/24V/48V   System   Soft start time   System   Sys	System voltage   Soft start time   12V/24V/48V   system   S3S	Soft start time	System	247 system (W)   213   284   355   426   566	12V/24V/48V
Maximum PV power 2 4 Selectable Battery Types (Default Gel Battery) Constant Voltage Floating Charge Voltage Rated Input Current Current-Imit Protection Temperature Factor	12V system (W)   213   284   355   426   568   568   710   852   113   284   426   568   710   852   113   48V system (W)   852   1136   1420   1704   227   1704	System type	12V/24V/48V   system   S00us	System type	System voltage   Soft start trime   12V/24V/48V   System   S00us   System voltage   Topour CHARACTERISTICS   System voltage   Topour CHARACTERISTICS   Selectable Battery Types (Default Cel Battery)   Constant Voltage   C	System voltage   Soft start time   12V/24V/48V   System   SOOUS   SO	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   S3S   S00us   Soft start time   S00us   S00us   Soft start time   S00us   Soft start time   S00us   S00us   Soft start time   S00us   S00us   Soft start time   S00us   S	System voltage   Soft start time   12V/24V/48V   System   Signature   Soft start time   System   System   Soft start time   System   System   Soft start time   System   System   System   Soft start time   System   System   Soft start time   System   System   Soft start time   System   System   System   Soft start time   System   Sy	Soft start time	System type	System type	System type	System voltage   Soft start trime   12V/24V/48V   System   S00us   System voltage   Topour CHARACTERISTICS   System voltage   Topour CHARACTERISTICS   Selectable Battery Types (Default Cel Battery)   Constant Voltage   C	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S3S   Soft start time   System voltage   Soft start time   System voltage   Soft start time   System	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System   System   S00us   System   System   S00us   System   System   S00us   System   System   S00us   System   S00us   System	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System   System   S00us   System   System   S00us   System   System   S00us   System   System   S00us   System   S00us   System	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   System   System   S00us   System   S0	System type	System type	System voltage   Soft start time   12V/24V/48V   System   S3S   S00us   S96.5%,599%   S00us   S00us   S96.5%,599%   S00us   S96.5%,599%   S00us   S96.5%,599%   S00us   S96.5%,599%   S00us   S96.5%,599%   S96.5%,599%   S00us   S96.5%,599%   S96.5%	System voltage   Soft start time   12V/24V/48V   System   S3S   S00us   S96.5%, s99%   S00us   S00us   S96.5%, s99%   S00us   S0	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   System voltage   Soft start time   System voltage   Soft start time   System voltage   Sys	System voltage	System voltage	System voltage	Soft start time	System vybac    System vybac    System vybac    System vybac    System vybac    System vybac    Soft start time	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Soft start time   Sas   Sas   Soft start time   Sas   Sas	System voltage   Soft start time   12V/24V/48V   system	Soft start time	System	240/24V/48V   System   Solus   System   System   Solus   System   Solus   System   Solus   System   Solus   System   Solus   System   Solus   System   System   System   Solus   System   System   System   Solus   System   Syste	12V/24V/48V
Maximum PV power  2 4  Selectable Battery Types (Default Gel Battery) Constant Voltage Floating Charge Voltage Rated Input Current Current-limit Protection	12V system (W)	System type	12V/24V/48V   system   system   system   system   system   system	System type	System voltage   Soft start time   12V/Z4V/48V   System   S00us   System   System   S00us   System   S00us   System   System   System   System   S00us   System	System voltage	System type	System voltage   Soft start time   12V/24V/48V   System   12V/24V/48V   System   So0us   System	System voltage   Soft start time   12V/24V/48V   System	Soft start time	System type	System type	System type	System voltage   Soft start time   12V/Z4V/48V   System   S00us   System   System   S00us   System   S00us   System   System   System   System   S00us   System	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   System   System   System   S00us   System   Syst	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   Se6.5%,≤99%   Soft start time   System   Soft start time   System   Soft start time	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   Se6.5%,≤99%   Soft start time   System   Soft start time   System   Soft start time	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   System   System   S00us   System   System   S00us   System   System   S00us   System   System   System   S00us   System   System   S00us   System   System   System   S00us   System   System   System   System   System   So0us   System	System type	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   System   System   S00us   System   System   S00us   System   System   S00us   System   System   System   S00us   System   System   S00us   System	System voltage   Soft start time   12V/24V/48V   System   S3S   Solus   System voltage   Soft start time   12V/24V/48V   System   Solus   System	System voltage	System voltage	System voltage	System voltage	Soft start time	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Soft start time   System   System   Soft start time   System   System	System voltage   Soft start time   12V/24V/48V   Sas   DC9V-DC16V/DC18V-DC30V/DC36V-DC60V	System voltage   Soft start time   12V/24V/48V   system   S3S   Solous   System voltage   12V/24V/48V   system   S00us   System   System   S00us   System   System   S00us   System	Soft start time	System	### System ### Solus  ### System ### Solus  ### System ### Solus	12V/24V/48V   S3S
Maximum PV power  A  Selectable Battery Types (Default Gel Battery0 Constant Voltage Floating Charge Voltage Rated Input Current Current-Imit Protection Temperature Factor Temperature	12V system (W)	System type	12V/24V/48V   system   system   system   system   system   system	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   System   System   S00us   System   Sy	System voltage   Soft start time   Dynamic response recovery time   System voltage   Soft start time   Dynamic response recovery time   System   Solutary   System   System   Solutary   System   Solutary   System   Sy	System type	System voltage   Soft start time   12V/24V/48V   system   Soft start time   Soft	System voltage   Soft start time   12V/24V/48V   system	Soft start time	System type	System type	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   System   System   S00us   System   System   S00us   System	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   system   SOUUS   System voltage   Soft start time   12V/24V/48V   System   SOUUS   System   System   SouuS   System   System   SouuS   System	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   System   S00us   System   System   S00us   System   System   S00us   System   Syst	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   System   S00us   System   System   S00us   System   System   S00us   System   Syst	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   System voltage   Soft start time   System   S00us   Soft start time   System   System   Soft start time   System   Soft start time   System   System   Soft start time   System   Soft start time   System   System   Soft start time   System   System   Soft start time   System   System   System   System   Soft start time   System   Syst	System type	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   S96.5%, ≤99%   S96.5%, ≤99%   S00us   S96.5%, ≤99%   S96.5%, ≤99%   S00us   S96.5%, ≤99%   S00us   S96.5%, ≤99%   S96.5%, ≤99%   S00us   S96.5%, ≤99%   S96.5%, ≤99%   S00us   S96.5%, ≤99%   S00us   S96.5%, ≤99%   S96.5%, ≤99%   S00us   S96.5%, ≤99%   S96.5%, ≤99%   S00us   S96.5%, ≤99%   S00us   S96.5%, ≤99%   S9	System voltage   Soft start time   12V/24V/48V   System   S00us   S96.5%, ≤99%   S00us	System voltage   Soft start time   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V	System voltage	System voltage	System voltage	Soft start time	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   Sas   Soft start time   Soft start time   Soft start time   Sas   Soft start time   Soft start time   Sas   Soft start time   Sas   Soft start time   Soft star	System voltage   Soft start time   12V/24V/48V   system   S3S	Soft start time	System	### System ### Solus  ### System ### Solus  ### System ### Solus	12V/24V/48V
Maximum PV power  2 4  Selectable Battery Types (Default Gel Battery)  Constant Voltage Floating Charge Voltage Rated Input Current  Current-limit Protection  Temperature Factor  Temperature Compensation	12V system (W)	System type	12V/24V/48V   12V   13   284   355   426   568   710   652   1136   1420   1704   2272	System type	System voltage   Soft start trime   12V/24V/48V   System   S00us   Soft start trime   S3S   S00us   Soft start trime   S00us   S00us   Soft start trime   S00us   S00us   Soft start trime   S00us   S00	System voltage   Soft start time   DC9V-DC15V/IDC18V-DC30V/IDC36V-DC80V	System type	System voltage   Soft start time   12V/24V/48V   System   Signature   Soft start time   Soft s	System voltage   Soft start time   12V/24V/48V   system   SOUGH   S	20	System type	System type	System type	System voltage   Soft start trime   12V/24V/48V   System   S00us   Soft start trime   S3S   S00us   Soft start trime   S00us   S00us   Soft start trime   S00us   S00us   Soft start trime   S00us   S00	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   DC12V/24V/48V   System   S00us   System voltage   Soft start time   DC14V/DC18V-DC30V/DC36V-DC60V   System   S00us   System   Syst	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   DC12V/24V/48V   System   S00us   System   System   S00us   System   S00us   System   System   S00us   System   System   S00us   System   S	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   DC12V/24V/48V   System   S00us   System   System   S00us   System   S00us   System   System   S00us   System   System   S00us   System   S	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   Solutary   System   Sys	System type	System type	System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V/DC36V~DC66V	System voltage   Soft start time   DC9V-DC15V/IDC18V-DC30V/IDC36V-DC80V	System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V	System voltage	System voltage	System voltage	Soft start time	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Soft start time   S3S   Soft start time   S4S   S4S	System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   SOUND   System voltage   System voltage   System   Sound   System   Sound   System   Sound   System   Sound   System   Sound   System   System	System voltage   Soft start time   12V/24V/48V   system   S3S	Soft start time	System	amic response soovery time  PPT efficiency  INPUT CHARACTERISTICS  Working voltage range	12V/24V/48V   system   S00us   S00us
Maximum PV power  A  Selectable Battery Types (Default Gel Battery) Constant Voltage Floating Charge Voltage Rated Input Current Current-limit Protection Temperature Factor Temperature Compensation Output Ripples(peak) Output Voltage Stability	12V system (W)	System type	12V/24V/48V   12V/24V/48V   12V/24V/48V   12V/24V/48V   12V/24V/48	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   S0	System voltage   Soft start time   12V/24V/48V   System   S00us   System   System   S00us   S00us   System   S00us	System voltage   System voltage   System voltage   Soft start time   12V/24V/48V   System   S3S   System voltage   Soft start time   12V/24V/48V   System   S00us   System   System   S00us   System   System   System   S00us   System   Syste	System voltage   Soft start time   12V/24V/48V   System   S00us   S0	System voltage   Soft start time   12V/24V/48V   System   S00us   S0	Soft start time   Dynamic response recovery time   System   S00us   S06.5%, s99%	System type	System type	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   S0	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   System   System   S00us   System   Sy	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   System   System   S00us   System   Sy	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   System   System   S00us   System   Sy	System voltage   Soft start time   DC12V/24V/48V   S3S   DC9V-DC15V/DC18V-DC30V/DC36V-DC6DV	System type   DC12V/24V/48V   System voltage	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   S0	System voltage   Soft start time   12V/24V/48V   System   S00us   S0	System voltage   Soft start time   12V/24V/48V   S3S   S00us   S00u	System voltage   Soft start time   12V/24V/48V   system	System voltage   Soft start time   12V/24V/48V   system	System voltage   Soft start time   12V/24V/48V   system   S00us   S0	Soft start time	System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   System   S00us   System   Sy	System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   System voltage recovery time   Soft start time   Soft start time   System   S00us   System	System voltage   Soft start time   12V/24V/48V   system   S3S	Soft start time	Dynamic response	amic response soovery time  PPT efficiency  INPUT CHARACTERISTICS  Working voltage range vinput voltage obtection point in input voltage covery point in input voltage covery point in input voltage covery point  12V/24/48 system  14/20 system  14/20 system  15A 20A 25A 30A 40A  15A 20A 25A 30A 40A  15A 20A 25A 30A 35A 45A  15A 20A 25A 30A	12V/24V/48V
Maximum PV power  2 4  Selectable Battery Types (Default Gel Battery)  Constant Voltage Floating Charge Voltage Rated Input Current  Current—Imit Protection  Temperature Factor  Temperature Compensation  Output Ripples(peak)  Output Voltage Stability  Precision	tit ge to the control of the contro	System type	12V/24V/48V   system   S00us   S00us	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   Signature   Soft start time   Soft start time	System voltage   Soft start time   Dynamic response recovery time   System voltage   Soft start time   Dynamic response recovery time   System   Soous   System   System   Soous   System   Soous   System   Soous   System   Soous   System   System   System   Soous   System   Soous   System   System   Soous   System   System   Soous   System   Syste	System type	System voltage   Soft start time   12V/24V/48V   system   SODUS   S	System voltage   Soft start time   12V/24V/48V   system   SODUS   S	20	System type	System type	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   Signature   Soft start time   Soft start time	System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   MPPT efficiency   System   S00us   Se6.5%, ≤99%   SOFT voltage range   DC14V/DC30V/DC30V/DC60V   Se6.5%, ≤99%   SOFT voltage range   DC14V/DC30V/DC30V/DC60V   Se7.5%   Se7.5%   Se7.5%   SOFT voltage range   DC14V/DC30V/DC30V/DC60V   DC14V/DC30V/DC60V   SE7.5%   SOFT voltage recovery point   SOFT vo	System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   MPPT efficiency   System   S00us   Se6.5%, ≤99%   SOFT voltage range   DC14V/DC30V/DC30V/DC60V   Se6.5%, ≤99%   SOFT voltage range   DC14V/DC30V/DC30V/DC60V   Se7.5%   Se7.5%   Se7.5%   SOFT voltage range   DC14V/DC30V/DC30V/DC60V   DC14V/DC30V/DC60V   SE7.5%   SOFT voltage recovery point   SOFT vo	System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   MPPT efficiency   System   S00us   Se6.5%, ≤99%   SOFT voltage range   DC14V/DC30V/DC30V/DC60V   Se6.5%, ≤99%   SOFT voltage range   DC14V/DC30V/DC30V/DC60V   Se7.5%   Se7.5%   Se7.5%   SOFT voltage range   DC14V/DC30V/DC30V/DC60V   DC14V/DC30V/DC60V   SE7.5%   SOFT voltage recovery point   SOFT vo	System voltage   System voltage   Soft start time   Dynamic response   recovery time   MPPT efficiency   System   Solutaria   System voltage   Today   System   Solutaria   System   System   Solutaria   System   Solutaria   System   System   Solutaria   System	System type	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   Secure voltage   Soft start time   System   S00us   Secure voltage   Soft start time   System   S00us   Secure voltage   Soft start time   System   S00us   Secure voltage   Soft start voltage	System voltage   Soft start time   12V/24V/48V   System   S00us   Secure voltage   Soft start time   System   S00us   Secure voltage   Soft start time   System   S00us   Secure voltage   Soft start time   System   S00us   Secure voltage   Soft start voltage	System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V/DC36V~DC60V	System voltage   Soft start time   Soft start time   12V/24V/48V   System   Solution   Soft start time   12V/24V/48V   System   Solution   Soft start time   Solution   Soft start time   Soft start time   Solution   Soft start time   Solution   Soft start time   Solution   Soft start time   Solution   Soft start time   Soft start tim	System voltage   Soft start time   Pythonic response recovery time   Soft start ti	System voltage   Soft start time   Soft start time   12V/24V/48V   System   Solution   Soft start time   12V/24V/48V   System   Solution   Soft start time   Solution   Soft start time   Soft start time   Solution   Soft start time   Solution   Soft start time	Soft start time	System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   So0us   System   System   So0us   System   System   So0us   System   System   System   So0us   System   System	System voltage   Soft start time   DC12V/24V/48V   SAUDUSTON	System voltage   Soft start time   12V/24V/48V   system   S3S	Soft start time	System	### Solution	12V/24V/48V
Maximum PV power  A  Selectable Battery Types (Default Gel Battery)  Constant Voltage Floating Charge Voltage  Rated Input Current  Current—Imit Protection  Temperature Factor  Temperature Compensation  Output Ripples(peak)  Output Voltage Stability Precision	tit ge to the control of the contro	System type	12V/24V/48V   system	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   Solution   System   Solution   Solution   System   Solution   Solution   Solution   System   Solution   Solution   Solution   System   Solution   Solution   Solution   System   Solution   So	System voltage   Soft start time   Dynamic response recovery time   System   Solus   System   System   Solus   System   System   Solus   Solus   System   Solus   Solus   System   Solus   Solus   System   Solus   Solus   Solus   System   Solus   Solus   Solus   Solus   System   Solus   Solus	System type	System voltage   Soft start time   12V/24V/48V   System   Signature   Soft start time   Signa	System voltage   Soft start time   12V/24V/48V   System   Signature   Soft start time   Signa	25	System type	System type	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   Solution   System   Solution   Solution   System   Solution   Solution   Solution   System   Solution   Solution   Solution   System   Solution   Solution   Solution   System   Solution   So	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   System   System   S00us   System   S00us   System   S00us   System   S00us   System   System   System   S00us   System   Syste	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   System   System   S00us   System   S00us   System   S00us   System   S00us   System   System   System   S00us   System   Syste	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   System   System   S00us   System   S00us   System   S00us   System   S00us   System   System   System   S00us   System   Syste	System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   System   System   S00us   System   System   S00us   System   Syst	System type	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   S96.5%, ≤99%   S00us	System voltage   Soft start time   12V/24V/48V   System   S00us   S96.5%, ≤99%   S00us	System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V/DC36V~DC60V	System voltage	System voltage	System voltage	Soft start time	System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   So0us   System voltage   Soft start time   12V/24V/48V   System   So0us   System   System   So0us   System   System   So0us   System   System   So0us   System   Syste	System voltage   Soft start time   12V/24V/48V   Sastem voltage   Soft start time   12V/24V/48V   Sastem voltage   Soft start time   12V/24V/48V   Sastem voltage   Soft start time   Sas   Soft start sta	System voltage   Soft start time   12V/24V/48V   system   500us	Soft start time	Source	amic response scovery time  PPT efficiency  INPUT CHARACTERISTICS  working voltage range	12V/24V/48V
Maximum PV power  A  Selectable Battery Types (Default Gel Battery) Constant Voltage Floating Charge Voltage Rated Input Current Current-limit Protection Temperature Factor Temperature Compensation Output Ripples(peak) Output Voltage Stability Precision  Output voltage Low voltage output Prote Rated output Cur Rated output Cur	12V system (W)	System type	12V/24V/48V   system   15A	System type	System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   S00us   S00us   Soft start time   S00us   S00	System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V	System type																											
   | System voltage   Soft start time   12V/24V/48V   System   S00us   S    | System voltage   Soft start time   12V/24V/48V   System   S00us   S  | Soft start time  | System type   | System type   | System type  | System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   S00us   S00us   Soft start time   S00us   S00  | System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   
   | System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   | System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   | System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   MPPT efficiency   System   S00us   Se6.5%, s99%   SOUS   Se6.5%, s99%   SECOND   SecOND  | System type  | System type   | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V/DC36V~DC66V   
  | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V/DC36V~DC66V  | System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  | System voltage  | System voltage   | System voltage  
   | Soft start time  | System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System   S00us  | System voltage   | System voltage   Soft start time   12V/24V/48V   system  
   | Soft start time   | System       | ### Source   ### S | 12V/24V/48V  |
| Maximum PV power  A  Selectable Battery Types (Default Gel Battery)  Constant Voltage Floating Charge Voltage Rated Input Current  Current—Imit Protection  Temperature Factor  Temperature Compensation  Output Ripples(peak)  Output Voltage Stability Precision  Output voltage cutput Prote  Low voltage output Prote  Rated output Cur  The output cur   | th t ge   | System type  | Dynamic response recovery time   12V/24V/48V   system   S00us  | System type  | System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   S00us   S00us   Soft start time   S00us    | System voltage   Soft start time   Dynamic response recovery time   System voltage   Soft start time   Dynamic response recovery time   System   Soous   System   System   Soous   System   Soous   System   Soous   System   System   System   Soous   System   System   Soous   System   Sy  | System type  | System voltage   Soft start time   12V/24V/48V   system   SODUS   S    | System voltage   Soft start time   12V/24V/48V   system   SODUS   S  | 25   | System type   | System type   | System type  | System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   S00us   S00us   Soft start time   S00us    | System voltage   System voltage   Soft start time   Dynamic response   recovery time   MPPT efficiency   12V/24V/48V   system   S00us   Se6,5%,≤99%   S00us   Se6,5%,≤99%   Se7      | System voltage   System voltage   Soft start time   Dynamic response   recovery time   MPPT efficiency   12V/24V/48V   system   S00us   Se6,5%,≤99%   S00us   Se6,5%,≤99%   Se7      | System voltage   System voltage   Soft start time   Dynamic response   recovery time   MPPT efficiency   12V/24V/48V   system   S00us   Se6,5%,≤99%   S00us   Se6,5%,≤99%   Se7      | System voltage   System voltage   Soft start time   Dynamic response   recovery time   MPPT efficiency   12V/24V/48V   system   S00us   S96,5%,599%   S96,5%,599%   S00us   S96,5%,599%    | System type  | System type   | System voltage   Soft start time   Dynamic response recovery time   System   Solutary   System   System   Solutary   System     | System voltage   Soft start time   Dynamic response recovery time   System   Solutary   System   System   Solutary   System       | System voltage   Soft start time   Dynamic response recovery time   System voltage   Soft start time   Dynamic response recovery time   System voltage   Soft start voltage   Soft st  | System voltage  | System voltage   | System voltage  | Soft start time  | System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   So0us   System   System   So0us   System   System   System   So0us   System   Syste  | System voltage   | System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   system   S00us   | Soft start time   | System       | ### Source   ### S | 12V/24V/48V   S3S  |
| Maximum PV power  A  Selectable Battery Types (Default Gel Battery)  Constant Voltage Floating Charge Voltage Rated Input Current  Current—Imit Protection  Temperature Factor  Temperature Compensation  Output Ripples(peak)  Output Voltage Stability Precision  Output voltage cutput Prote  Low voltage output Prote  Rated output Cur  The output cur   | 12V system (W)  | System type  | 12V/24V/48V   system   | System type  | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V~DC60V   
  | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V/DC36V~DC66V  | System type  | System voltage   Soft start time   12V/24V/48V   System   Signature   Soft start time   Soft     | System voltage   Soft start time   12V/24V/48V   System   Signature   Soft start time   Soft   | Dynamic response recovery time   | System type   | System type   | System type   
  | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V~DC60V  | System voltage   System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   System   S00us   S96.5%, ≤99%   INPUT CHARACTERISTICS   | System voltage   System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   System   S00us   S96.5%, ≤99%   INPUT CHARACTERISTICS   | System voltage   System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   System   S00us   S96.5%, ≤99%   INPUT CHARACTERISTICS   | System voltage   System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   System   S00us   System voltage   Soft start time   Dynamic response recovery time   System   S00us   System   System   S00us   System   System   S00us   System   System   System   System   S00us   System   Syst  | System type  
   | System type   | System voltage   Soft start time   | System voltage   Soft start time   | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V/DC36V~DC66V   
  | System voltage  | System voltage   Soft start time   12V/24V/48V   system   S3S    | System voltage  | Soft start time  | System voltage   | System voltage  
  | System voltage   Soft start time   12V/24V/48V   system   500us     500us   500us     500us     500us     500us     500us     500us     500us     500us     500us     500us     500us     500us     500us   500us     500us     500us     500us     500us     500us     500us     500us     500us     500us     500us     500us     500us   500us     500us   500us     500us    | Soft start time   | South  | ### System ### Source   Source | 12V/24V/48V   system   S00us   S00us |
| Maximum PV power  A  Selectable Battery Types (Default Gel Battery0 Constant Voltage Floating Charge Voltage Rated Input Current Current-limit Protection Temperature Compensation Output Ripples(peak) Output Voltage Stability Precision  Output voltage Low voltage output Prote Rated output Cur The output cont Output control set   | 12V system (W)  | System type  | Dynamic response recovery time   | System type  | System voltage   Soft start time   12V/24V/48V   System   S00us   
  | System voltage   Soft start time   12V/24V/48V   System   S00us  | System type  | System voltage   Soft start time   12V/24V/48V   System   S00us  | System voltage   Soft start time   12V/24V/48V   System   S00us  | Soft start time  | System type   
   | System type   | System type  | System voltage   Soft start time   12V/24V/48V   System   S00us  | System voltage   System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   System   S00us   System   System   System   S00us   System   System   System   S00us   System   System   S00us   System       | System voltage   System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   System   S00us   System   System   System   S00us   System   System   System   S00us   System   System   S00us   System       | System voltage   System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System voltage   Soft start time   System   S00us   System   System   System   S00us   System   System   System   S00us   System   System   S00us   System       | System voltage   System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   
  | System type  | System type   | System voltage   Soft start time   12V/24V/48V   System   S00us  | System voltage   Soft start time   12V/24V/48V   System   S00us  | System voltage   Soft start time   12V/24V/48V   System   SOUUS   S  | System voltage   
  | System voltage   | System voltage  | Soft start time  | System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   | System voltage   System voltage  
Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Soft start time   Sis   Soft start time   | System voltage   Soft start time   12V/24V/48V   system   500us     12V/24V/48V   system   500us     12V/24V/48V   system   500us     12V/24V/48V   system   500us     12V/24V/48V   system   12V/24V/48V   system   12V/24V/48V   system   12V/24V/48V   system   12V/24V/48   system   12    | Soft start time   | System       | amic response soovery time  **PT efficiency**  **INPUT CHARACTERISTICS**  **Working voltage range  | 12V/24V/48V  |
| Maximum PV power  A  Selectable Battery Types (Default Gel Battery)  Constant Voltage Floating Charge Voltage Rated Input Current  Current-Imit Protection  Temperature Factor  Temperature Factor  Temperature Factor  Untput Ripples(peak)  Output Voltage Stability Precision  Output Voltage Stability Precision  Rated output Control  Output control set  LED digital tube di  LED digital tube di  LED digital tube di   | 12V system (W)  | System type  | Dynamic response recovery time   12V/24V/48V system   S00us  | System type  | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V~DC66V   
  | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V/DC36V~DC66V  | System type  | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V~DC66V  | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V~DC66V  | Dynamic response recovery time   | System type   
   | System type   | System type  | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V~DC66V  | System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   System   S00us   S96.5%, ≤99%   INPUT CHARACTERISTICS  | System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   System   S00us   S96.5%, ≤99%   INPUT CHARACTERISTICS  
   | System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   System   S00us   S96.5%, ≤99%   INPUT CHARACTERISTICS  | System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us   System   System   S00us   System   System   S00us   System   Syst  | System type  | System type   | System voltage   Soft start time   | System voltage   Soft start time   
   | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V/DC36V~DC66V  | System voltage  | System voltage   | System voltage  
   | Soft start time  | System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System   System   S00us   S00us   System   S00us   S00us   System   S00us   System   S00us   System   S00us   System   S00us     | System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   System   S00us  | System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  | Soft start time   | System   | amic response soovery time  PPT efficiency  INPUT CHARACTERISTICS  Working voltage range  Vinput
voltage solection point  Vinput voltage covery point  In input voltage covery point covery p  | 12V/24V/48V   system   S00us   |
| Maximum PV power  A  Selectable Battery Types (Default Gel Battery)  Constant Voltage Floating Charge Voltage Rated Input Current  Current-Imit Protection  Temperature Factor  Temperature Factor  Temperature Factor  Untput Ripples(peak)  Output Voltage Stability Precision  Output Voltage Stability Precision  Rated output Control  Output control set  LED digital tube di  LED digital tube di  LED digital tube di   | 12V system (W)  | System type  | Dynamic response recovery time   | System type  | System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   S3S   S00us   Soft start time   S00us   S00us   Soft start time   S00us   S  | System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  
   | System voltage   System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   system   S00us  | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V~DC66V  | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V~DC66V  | Soft start time  | System type   | System voltage  
   | System voltage   | System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   S3S   S00us   Soft start time   S00us   S00us   Soft start time   S00us   S  | System voltage   Soft start time   Properties  | System voltage   Soft start time   Properties  | System voltage   Soft start time   Properties  | System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   system   S00us   S96,5%,599%  
   | System type  | System voltage  | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V~DC66V  | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V~DC66V  | System voltage   Soft start time  
DC9V-DC15V/IDC18V-DC30V/IDC36V-DC60V  | System voltage  | System voltage   | System voltage  | Soft start time   
  | System voltage   System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   System   S00us   | System voltage   | System voltage   Soft start time   DC9V-DC15V/DC18V-DC36V-DC60V  | Soft start time   | Dynamic response       | ### Source   | 12V/24V/48V   system   S00us   |
| Maximum PV power  A  Selectable Battery Types (Default Gel Battery)  Constant Voltage Floating Charge Voltage Rated Input Current  Current-Imit Protection  Temperature Factor  Temperature Compensation  Output Ripples(peak)  Output Voltage Stability Precision  Output voltage output Prote  Rated output Cur  The output cur  The output cur  Leb digital tube di  LED light displa  PC (communication   | th to the control of | System type  | Dynamic response recovery time   | System type  | System voltage   Soft start time   12V/24V/48V   System   S00us   System   System   S00us   System   System   S00us   System   Sys  | System voltage   Soft start time   Dynamic response recovery time   System   Solus   | System voltage   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   Dynamic response   recovery time   System   S00us  
  | System voltage   Soft start time   Description   System voltage   Soft start time   Dynamic response recovery time   System   Solus   System   System   Solus   System   Solus   System   Solus   System   System   Solus   System   System   Solus   System   System   Solus   System   Sys    | System voltage   Soft start time   Description   System   System   System   Solus   System   System   Solus   System   Solus   System   Solus   System   System   Solus   System   System   Solus   System   System   Solus   System   Sy  | Dynamic response recovery time   | System type   | System type   | System type  | System voltage   Soft start time   12V/24V/48V   System   S00us   System   System   S00us   System   System   S00us   System   Sys  | System type  | System type                              
   | System type  | System type  | System type  | System type  
  | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V/DC36V~DC60V  | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V/DC36V~DC60V  | System voltage   Soft start time   DC9V~DC15V/DC18V~DC36V/DC36V~DC66V  | System voltage  | Soft start time   
  | System voltage  | Soft start time  | System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   So0us   System   Soous   System   System   Soous   System   Soous   System     | System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   DC12V/24V/48V   System voltage   Soft start time   DC12V/24V/48V   System   S00us  | System voltage   Soft start time   Dynamic response recovery time   System   Solution   System   System   Solution   System   System   Solution   System   Sys    | Dynamic response recovery time  | System       | amic response scovery time  PPT efficiency  INPUT CHARACTERISTICS  Working voltage range  
  | 12V/24V/48V   System   Signature   Signa |
| Maximum PV power  A  Selectable Battery Types (Default Gel Battery)  Constant Voltage Floating Charge Voltage Rated Input Current  Current-Imit Protection  Temperature Factor  Temperature Factor  Temperature Factor  Unput Ripples(peak)  Output Voltage Stability Precision  Output Voltage output Prote  Rated output Current  Rated output Current  Cutput control set  LED digital tube of  LED light dispit  PC (communication  Low input voltage pre   | 12V system (W)  | System type  | 200  | System type  | System voltage  
  | System voltage   | System voltage   | System voltage   | System voltage   | 25   | System type   
   | System type   | System type  | System voltage   | System type  | System type  
   | System type  | System type  | System type  | System type   | System voltage   
   | System voltage   | System voltage   Soft start time   DC9V-DC15V/DC18V-DC36V-DC60V  | System voltage  | System voltage  
  | System voltage  | Soft start time  | System voltage   | System voltage   Soft start time   DC12V/24V/48V   System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   | System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   
  | Soft start time   | System       | amic response soovery time  PPT efficiency    System   S  | 12V/24V/48V  |
| Maximum PV power  A  Selectable Battery Types (Default Gel Battery) Constant Voltage Floating Charge Voltage Rated Input Current Current-Imit Protection Temperature Factor Temperature Compensation Output Ripples(peak) Output Voltage Stability Precision  Output voltage output Prote Rated output Cur The output cont Output cont Output cont Cutput cont LED digital tube di LED light displit PC (communication Lev input voltage pre High input voltage pre High input voltage pre  | 12V system (W)  | System voltage   | Dynamic response recovery time   | System voltage   System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   Soft    | System voltage   Soft start time   Dynamic response recovery time   12Vi724Vi48V   system   500us  | System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   system   S00us   
   | System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   Solus      | System voltage   Soft start time   12V/24V/48V   system   500us  | System voltage   Soft start time   12V/24V/48V   system   500us  | Dynamic response recovery time   | System voltage   System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   12V/24V/48V   System   S00us   Soft start time   S00us   S00us | System voltage   System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   12V/24V/48V   System   S00us   Soft start time   Soft star | System voltage   System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   12V/24V/48V   System   S00us   Soft start time   Soft star    | System voltage   Soft start time   Dynamic response recovery time   12Vi724Vi48V   system   500us  | System voltage   System voltage   Soft start time   DC9V-DC15V/DC16V-DC36V-DC66V  
  | System voltage   System voltage   Soft start time   DC9V-DC15V/DC16V-DC36V-DC66V   | System voltage   System voltage   Soft start time   DC9V-DC15V/DC16V-DC36V-DC66V   | System voltage   System voltage   Soft start time   DC9V-DC15V/DC18V-DC36V/DC36V-DC60V   | System type  | System voltage   System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   12V/24V/48V   System   S00us   Soft start time   Soft star | System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   system   S00us   
   | System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V   system   S00us   | System voltage   Soft start time   Dynamic response recovery time   12W/24V/48V system   Solous  | System voltage  | System voltage   | System voltage   
  | Soft start time  | System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   Soft sta  | System voltage   | System voltage   Soft start time   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  | Dynamic response recovery time  | System       | ### Source   | 12V/24V/48V   S3S  
   |
| Maximum PV power  A  Selectable Battery Types (Default Gel Battery)  Constant Voltage Floating Charge Voltage Rated Input Current  Current-limit Protection  Temperature Factor  Temperature Compensation  Output Ripples(peak)  Output Voltage Stability Precision  Output Voltage Stability Precision  A Rated output Current  Rated output Current  Leb digital tibué  LeD light displi  PC (communication  Low input voltage precision  Low input voltage precision  Low input voltage precision  Low input voltage precision  Charge overwer precision | 12V system (W)  | System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   Soft star | 12V/24V/48V   system   500us   | System voltage   | System voltage   | System voltage   Soft start time   Dynamic response recovery time   System   System   Solus  
   | System voltage   | System voltage   | System voltage   | Soft start time  | System voltage  | System voltage  
   | System voltage   | System voltage   | System voltage   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System voltage   Soft start time   12V/24V/48V   System   S00us   Soft start time   Soft start time   Soft start time   System   S00us   Soft start time   System   Soft start time   System   Soft start time   System   S00us   Soft start time   System   System   Soft start time   System   Soft start time   System   System   System   Soft start time   System   System   Soft start time   System   Soft start time   System   Soft start time   System   System   System   Soft start time   System   Syste   | System voltage   System voltage   Soft start time   DC9V-DC15V/DC16V-DC36V-DC66V   | System voltage   System voltage   Soft start time   DC9V-DC15V/DC16V-DC36V-DC66V  
  | System voltage   System voltage   Soft start time   DC9V-DC15V/DC16V-DC36V-DC60V   | System type  | System voltage  | System voltage   Soft start time   Dynamic response recovery time   12V/24V/48V system   S00us   S00 | System voltage   | System voltage   
   | System voltage  | System voltage   | System voltage  | Soft start time  | System voltage   System voltage   DC12V/24V/48V   DC15V/DC15V-DC30V/DC36V-DC60V                         
  | System voltage   System voltage   DC12V/24V/48V   DC15V/DC18V-DC30V/DC38V-DC60V  | System voltage   | Dynamic response recovery time  | South  | ### System ### Source   Source | 12V/24V/48V   system   S00us   
   |
| Recovery point 12 High input voltage protection point High input voltage recovery point   | 12V/24/48 system DC18V/DC34V/DC65V ge DC110   | System type  | 22//24//48V   system   12//24//48V   system   500us     500us   500us     500us      | System type  | System voltage   Soft start time   12V/24V/48V   S3S  
  | System voltage   Soft start time   12V/24V/48V   S3S   S00   S14   S14 | System type  | System voltage   DC9V-DC15V/DC18V-DC30V/DC38V-DC60V  | System voltage   DC9V-DC15V/DC18V-DC30V/DC38V-DC60V  | Soft start time  | System type   | System type   
   | System type  | System voltage   Soft start time   12V/24V/48V   S3S   | System type  | System type  | System type   
  | System type  | System type  | System type   | System voltage   Soft start time   12V/24V/48V   System   Sissem voltage   12V/24V/48V   System   Sissem   Si | System voltage   Soft start time   12V/24V/48V   System   Sissem voltage   12V/24V/48V   System   Sissem   Si   | System voltage   Soft start time   12V/24V/48V   S3S   S00   System voltage   Soft start time   S3S   System voltage   System   S00   System   System   S00   System   S00   System   Sy | System voltage   Soft start time   12V/24V/48V   S3S   S00 start time   12V/24V/48V   S3S   S00 start time   S00 start time   S00 start time   S00 start time   S3S   S00 start time   S00 start time   S3S   S00 start time   S00 start time   S00 start time   S00 start time   S3S   S00 start time   S00 start time   S00 start time   S3S   S00 start time   S00 start time   S3S   S00 start time   S00 start time   S3S   S00 start time   S0  | System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   
  | System voltage   Soft start time   12V/24V/48V   S3S   S00 start time   12V/24V/48V   S3S   S00 start time   S00 start time   S00 start time   S00 start time   S3S   S00 start time   S00 start time   S3S   S00 start time   S00 start time   S00 start time   S00 start time   S3S   S00 start time   S00 start time   S00 start time   S3S   S00 start time   S00 start time   S3S   S00 start time   S00 start time   S3S   S00 start time   S0  | Soft start time  | System type  | System type  | System voltage   DC9V-DC15V/DC18V-DC30V/DC38V-DC60V   
  | Soft start time   | Dynamic response recovery time         system         500us           MPPT efficiency         ≥96,5%,599%           INPUT CHARACTERISTICS           PPT working voltage range         DC14V~DC100V/DC30~DC100V/DC60~DC100V range           Low input voltage         DC14V~DC100V/DC30~DC100V/DC60~DC100V range  | 12V/24V/48V   system   500us   | 12V/24V/48V   \$3S   |
| Low input voltage   |   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | Dynamic response recovery time         12V/Z4V/48V           MPPT efficiency         500us           ≥96.5%,≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | System voltage  
  | System voltage   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | System voltage   | System voltage   | Soft start time         12V/24V/46V           Dynamic response recovery time         \$3S           MPPT efficiency         \$96.5%,≤99%                             | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%   
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | System voltage   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%   | System voltage   
   | System voltage   | System voltage   | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   | System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   
  | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   | Soft start time         12V/24V/48V           Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%,≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | System voltage  
  | Soft start time   | Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%,≤99%  | 12V/24V/48V  | Soft start time         12V/24V/48V           namic response recovery time         500us           PPT efficiency         ≥96.5%,≤99%  |
| range<br>Low input voltage  | tors  | System type         DC12W/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/46V           Dynamic response recovery time         system  | 12V/24V/48V     12V/24V/48V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us   | System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC66V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us  
  | System voltage   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         system  | System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/46V           Dynamic response recovery time         500us   | System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/46V           Dynamic response recovery time         500us   | Soft start time         12V/24V/46V         ≤3S           Dynamic response recovery time         system         500us  | System type         DC12W/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/46V           Dynamic response recovery time         system   
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us   | System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC66V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us   
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         ±3S           Dynamic response recovery time         system           500us  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us  | System valtage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  
   | System valtage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System voltage   DC9V~DC15V/DC18V~DC36V~DC60V  | System voltage  | System voltage  
  | System voltage  | Soft start time         12V/24V/46V           Dynamic response recovery time         system           500us  | System type  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us   | System woltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   
  | Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         system         500us   | Dynamic response recovery time 500us   | amic response scovery time 12V/24V/48V system 500us  | Soft start time         12V/24V/48V           namic response recovery time         500us   |
| MPPT working voltage range Low input voltage  | INPUT CHARACTERISTICS   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S  | 12V/24V/48V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S  | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V   
  | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S  | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V  | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V  | Soft start time 12V/24V/48V ≤3S  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S   
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S  | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S  
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S   | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V  
   | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V  | System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/46V  | System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   | System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V   
  | System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   | Soft start time 12V/24V/48V ≤3S  | System type         DC12V/24V/48V         Automatic recognition           System veltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S  | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S   
  | Soft start time 12V/24V/48V ≤3S   |  | 12V/24V/48V  | Soft start time 12V/24V/48V ≤3S  |
| MPPT efficiency  MPPT working voltage range  Low input voltage  | sy ≥96.5%, 599%  INPUT CHARACTERISTICS  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  |  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | DC9V-DC15V/DC18V~DC30V/DC36V~DC60V  
  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   | DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   |  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | DC9V-DC15V/DC18V~DC30V/DC36V~DC60V   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   | System voltage DC9V-DC15V/DC18V~DC30V/DC36V~DC60V  
   | System voltage DC9V-DC15V/DC18V~DC30V/DC36V~DC60V  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   
  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   |  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V~DC36V~DC66V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  
  |   | Soft start time 12V/24V/48V ≤3S  | ., start time  |  |
| Dynamic response recovery time  MPPT efficiency  MPPT working voltage range  Low input voltage  | 12V/24V/48V system 500us  ty ≥96.5%, ≤99% INPUT CHARACTERISTICS   |  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  |  | System type DC12V/24V/48V Automatic recognition   
  | System type DC12V/24V/48V Automatic recognition  |  | System type DC12V/24V/48V Automatic recognition  | System type DC12V/24V/48V Automatic recognition  |  |   
   |   |  | System type DC12V/24V/48V Automatic recognition  |  |  
   |  |  |  |   | System type DC12V/24V/48V Automatic recognition  
   | System type DC12V/24V/48V Automatic recognition  | System type DC12V/24V/48V Automatic recognition  | System type DC12V/24V/48V Automatic recognition   | System type DC12V/24V/48V Automatic recognition   
  | System type DC12V/24V/48V Automatic recognition   |  |  |  | System type DC12V/24V/48V Automatic recognition   
  | System sultant  |  | DC9V~DC18V~DC30V/DC36V~DC60V   | ystem voltage DC9V~DC15V/DC18V~DC30\//DC26\/~DC60\/  |
| Soft start time  Dynamic response recovery time  MPPT efficiency  MPPT working voltage range  Low input voltage   | 9 12V/24V/48V ≤3S system 500us ≥96.5%,≤99% INPUT CHARACTERISTICS  |  |  | Charge method Inree stages: constant current(MPP1),constant Witage, ilvating charge  |   
  |  | onage metre and one of the control o |  |  | System type DC12V/24V/48V Automatic recognition  | Charge metriod Three stages, constant current(wire r), constant voltage, floating charge  | g Three stages, sentential surrengin 1 1,000 start surrenge livering strange  
   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  |  | Charge method Inree stages: constant current(MPP1), constant voltage, noating charge   | Charge method Three stages: constant current(MPPT),constant voltage;floating charge  | Charge method Three stages: constant current(MPPT), constant voltage, floating charge   
  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | াষাge metnod I hree stages: constant current(MPPT),constant voltage,floating charge  | ,   |  |   
  |  |   |  | 0 1 1 1 10040/400/400/   
  | System type DC12V/24V/48V Automatic recognition  | Three stages, constant current(MPP1),constant voltage,floating charge  |  | · · · · · · · · · · · · · · · · · · ·  | System type DC 12V1/24V148V Automatic recognition   | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  
   |  | Automatic recognition  |
| System voltage Soft start time Dynamic response recovery time MPPT efficiency  MPPT working voltage range Low input voltage   | DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  12V/24V/48V system 12V/24V/48V system 500us ≥96.5%,≤99% INPUT CHARACTERISTICS   | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | System type DC12V/24V/48V Automatic recognition  | There steems constant a work(MRRT) constant allows desting above   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge   
  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  |  | Chargo method Three stages; constant surrent(MPPT) constant within the stages   
   | Charge method Three stages: constant current(MPPT) constant voltage floating charge   |  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Character and the state of the  |  |  
   |  | Charge models of Transaction of Tran | Charge method Three stages; constant current(MPPT).constant voltage.floating charge   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Inree stages: constant current(MPP1), constant voltage, noating charge   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge   
  | Charge method Three stages: constant current(MPPT), constant voltage, floating charge   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | orange metres transfer to tran  |  | Charge method Three storage constant susceptible DDT   
   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | System type DC42//04///40//   |  | 7  | System type DC12V/24V/48V Automatic recommittee   
  |
| System type D System voltage Soft start time Dynamic response recovery time MPPT efficiency  MPPT working voltage range Low input voltage   | DC12V/24V/48V   Automatic recognition   |  |  | Offalge fillade wit i symmetrical power point adolling)  |   
  |  |  |  |  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  |   
   |   | Charge mode MPPT(maximum power point tracking)   |  | Charge mode with timeximum power point tracking)   | Charge mode MPPT(maximum power point tracking)   
   | Charge mode MPPT(maximum power point tracking)   | Charge mode MPPT(maximum power point tracking)   | MPP1(maximum power point tracking)   |   |  
   | Character and the state of the  |  |   |  | Charge method Three stages: constant current(MPPT) constant voltage floating charge   
   |  |  |  | Oleman and the d   |   | System type DC12V/24V/48V Automatic recognition   
  | system type DC12V/24V/48V Automatic recognition  |  |
| Soft start time  Dynamic response recovery time  MPPT efficiency  MPPT working voltage range  Low input voltage   | 9 12V/24V/48V ≤3S system 500us ≥96.5%,≤99% INPUT CHARACTERISTICS  |  |  | Charge method Inree stages: constant current(WPP1),constant voltage,iioauliig charge   |   
  |  | onalige metres   |  |  | System type DC12V/24V/48V Automatic recognition  | Charge metriod Three stages, constant current(wir r i),constant wittage, toating charge   
   | g   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  |  | Charge method Infee stages: constant current(MPP1),constant voltage, noating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  
   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT), constant voltage, floating charge  | оны ge metnod Inree stages: constant current(MPPT), constant voltage, floating charge  |   | ·  
   |  |  |   | |
  | 2 1 1 2000/00/000   | System type DC12V/24V/48V Automatic recognition  | onlarge interior index stages, constant current(MPPT), constant voltage, floating charge   |  |   
  | System type DC12VI/24VI48V Automatic recognition  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  |  | Automatic recognition  |
| System voltage Soft start time Dynamic response recovery time MPPT efficiency  MPPT working voltage range Low input voltage   | DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  12V/24V/48V system 12V/24V/48V system 500us ≥96.5%,≤99% INPUT CHARACTERISTICS   | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | System type DC12V/24V/48V Automatic recognition  | Three states a secretary assert of ADDTs assert a black distribution of the states of  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  
   | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  |  | Charge method Three stages: constant current/MPPT) constant values 4-stirs shares   | Charge method Three stages: constant current(MPPT) constant voltage floating charge   
   |  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  |  |  |   
  |  | Characteristics Transition of the Control of the Co | Charge method Three stages: constant current(MPPT).constant voltage.floating charge   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Inree stages: constant current(MPP1),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT), constant voltage, floating charge   
  | Charge method Three stages: constant current(MPPT),constant voltage;floating charge   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | charge means and stages, constant canonical history, realing charge   |   
  | Charge method Three stages; constant aurent/MDDT   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Unarge method Three stages: constant current(MPPT),constant voltage,floating charge  | System type DC40///04///40//  |  | 7  
   | System type DC12V/24V/48V Automatic requirement  |
| System type D System voltage Soft start time Dynamic response recovery time MPPT efficiency  MPPT working voltage range Low input voltage   | DC12V/24V/48V   Automatic recognition   |  |  | Charge mode will I removiment power point adorange   |   
  |  |  |  |  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  |   
   |   | Charge mode MPPT(maximum power point tracking)   |  | Chaige mode with intracting power point decking)   | Charge mode MPPT(maximum power point tracking)   
   | Charge mode MPPT(maximum power point tracking)   | Charge mode MPPT(maximum power point tracking)   | Grange mode MPP1(maximum power point tracking)   |   |  
   | Observation of the state of the |  |   |  | Charge method Three stages: constant current(MPPT) constant voltage floating charge   
   |  | (  |  | Observation of the state of the |   | System type DC12V/24V/48V Automatic recognition  | system type DC12V/24V/48V Automatic recognition   
  |  |
| Soft start time  Dynamic response recovery time  MPPT efficiency  MPPT working voltage range  Low input voltage   | 9 12V/24V/48V ≤3S system 500us ≥96.5%,≤99% INPUT CHARACTERISTICS  |  |  | Charge method Inree stages: constant current(WPP1),constant voltage,iioaurig charge  |   
  |  | onalige metres   |  |  | System type DC12V/24V/48V Automatic recognition  | Onarge metriou — Tillee stages, constant current(wir r 1),constant witage, toating charge   
   | g vitage, ivaling charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  |  | Charge method Infee stages: constant current(MPP1),constant voltage, noating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  
   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT), constant voltage, floating charge  | Unarge method Inree stages: constant current(MPPT),constant voltage,floating charge  |   |  
   |  |  |   |   
  | 2 1 1 2000/00/000   | System type DC12V/24V/48V Automatic recognition  | onlarge interior index stages, constant current(MPPT), constant voltage, floating charge   |  |   
  | Cystem type DC12VI24VI48V Automatic recognition   | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  |  | Autoritatic recognition  |
| System voltage Soft start time Dynamic response recovery time MPPT efficiency  MPPT working voltage range Low input voltage   | DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  12V/24V/48V system 12V/24V/48V system 500us ≥96.5%,≤99% INPUT CHARACTERISTICS   | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | System type DC12V/24V/48V Automatic recognition  | Three stores constant surrout/MDDT) constant where desting should  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge   
  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  |  | Chargo method Three stages; constant current/MPPT) constant uniform destination of a  
   | Charge method Three stages: constant current(MPPT) constant voltage floating charge   |  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Character and ALDET  |  
   |  |  | Charge making  | Charge method Three stages: constant current(MPPT).constant voltage.floating charge   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  
   | Charge method Inree stages: constant current(MPP1),constant voltage, noating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT), constant voltage, floating charge   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge   
  | orial go motion 17,000 can't foliage, realing orial go  |  | Charge method Three stores; constant assemble DTS  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Unarge method Three stages: constant current(MPPT),constant voltage,floating charge   
  | System type DC42V/04V/48V   |  | 7  | 3ystem type DC12V/24V/48V Automatic reconstitution   |
| System voltage Soft start time Dynamic response recovery time MPPT efficiency  MPPT working voltage range Low input voltage   | DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  12V/24V/48V system 12V/24V/48V system 500us ≥96.5%,≤99% INPUT CHARACTERISTICS   | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | System type DC12V/24V/48V Automatic recognition  | Three steers assets to provide the state of a steer design and the state of a steer design and the state of a steer design and the state of a s | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge   
  | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | Charge method Three stages: constant current(MPPT), constant voltage, floating charge  | Charge method Three stages: constant current(MPPT), constant voltage, floating charge  |  | Charge method Three stages; constant surrent/MPPT) constant relies a feeting shares   | Charge method Three stages: constant current(MPPT) constant voltage floating charge  
  |  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  |  |  |  
   |  | Characteristics Theorem 1  | Charge method Three stages: constant current(MPPT).constant voltage.floating charge   | Charge method Three stages: constant current(MPPT), constant voltage, floating charge  | Charge method   Inree stages: constant current(wiPPI),constant voltage,floating charge   
   | Charge method Three stages: constant current(MPPT), constant voltage, floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | | |
   |  | Charge method Three stages: constant auromat/MDDT3   | Charge method Three stages: constant current(MPPT),constant voltage.floating charge  | unarge method   Three stages: constant current(MPPT), constant voltage, floating charge  | System type DC42///AV//ADV  |   
  | 7  | System type DC12V/24V/48V Automotic reconstitution   |
| System type D System voltage Soft start time Dynamic response recovery time MPPT efficiency  MPPT working voltage range Low input voltage   | DC12V/24V/48V   Automatic recognition   | Charge method  |  |  | Charge mattered Three storage constant support/MDDT constant witness desting charge   
  |  | Characteristics Three stores constant a war (MARRY) constant where destine characteristics   | Charge method Three stores; constant conset(MDDT) constant interes desting charge  | Charge method Three stores; constant conset(MDDT) constant interes desting charge  | Charge method Three stages, constant current(wire r),constant voltage,iloating charge  |   
   |   | The state of the s | Characteristics Three stores constant surrout(MDDT) constant where desting shows   |  | The state of the s | and the second of the second o |  |   
  | Characteristical Three states, constant a want/MDDT; constant where destine shares  |  |  |  | Characteristical Three stages, constant aurent/MERT) constant allows desting characteristics  
   | Characteristical Three stages, constant consent/MDDT) constant altere flection characteristics   |   |  |   
  | Characteristical Three states constant aurent/MODT) constant allow decline share   | There steems constant a week(MDDT) constant attend desting shares  |   | System type DC12V/24V/48V Automatic recognition  | system type DC12V/24V/48V Automatic recognition  |  
   |
| System type  System voltage  Soft start time  Dynamic response recovery time  MPPT efficiency  MPPT working voltage range  Low input voltage  | DC12V/24V/48V   Automatic recognition   | Charge method Three stages: constant current(MPPT) constant voltage floating charge  |  |  | Charge method Three stages: constant current(MPPT) constant voltage floating charge   
  |  | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | charge method  |   
   |   |  | Charge method Three stages: constant current(MPPT) constant voltage floating charge  |  |  
   |  |  |  | Charge method Three stages: constant current(MPPT) constant voltage floating charge   | Charge method Three stages: constant current(MPPT) constant voltage floating charge  
   |  | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | Charge method Three stages: constant current(MPPT) constant voltage floating charge   | Charge method Three stages: constant current(MPPT) constant voltage floating charge   
  |   |  |  | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | uparge method   
  |   | System type DC12V/24V/48V Automatic recognition  | system type DC12V/24V/48V Automatic recognition  |  |
| System voltage Soft start time Dynamic response recovery time MPPT efficiency  MPPT working voltage range Low input voltage   | DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  12V/24V/48V system 12V/24V/48V system 500us ≥96.5%,≤99% INPUT CHARACTERISTICS   | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | System type DC12V/24V/48V Automatic recognition  | Three stores constant surrent(MDDT) constant where destine shares  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge   
  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  |  | Charge method Three stages; constant ourself(MPRT) constant inflered distinct charges   
   | Charge method Three stages: constant current(MPPT) constant voltage floating charge   |  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Characteristics of the state of |  |  
   |  | Characteristics  | Charge method Three stages: constant current(MPPT).constant voltage.floating charge   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Inree stages: constant current(WPP1),constant voltage, noating charge  
   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT), constant voltage, floating charge   | Charge method Three stages: constant current(MPPT), constant voltage, floating charge  | | |
   |  | Charge method Three stores; constant automat/MARIAT  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Unarge method Three stages: constant current(MPPT),constant voltage,floating charge  | System type DC40/1/04/1/40V   |   
  | 7  | System type DC12V/24V/48V Automotio recommission   |
| System voltage Soft start time Dynamic response recovery time MPPT efficiency  MPPT working voltage range Low input voltage   | DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  12V/24V/48V system 12V/24V/48V system 500us ≥96.5%,≤99% INPUT CHARACTERISTICS   | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | System type DC12V/24V/48V Automatic recognition  | There steems constant a world ADDT) constant where destine shows   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge   
  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  |  | Charge method Three stages; constant current(MPPT) constant values described  
   | Charge method Three stages: constant current(MPPT) constant voltage floating charge   |  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Character and the second of th |  |   
  |  | Charge modeled   | Charge method Three stages; constant current(MPPT).constant voltage.floating charge   | Charge method Three stages: constant current(MPPT), constant voltage, floating charge  | Charge method Inree stages: constant current(WPPI),constant voltage, loating charge   
  | Charge method Three stages: constant current(MPPT), constant voltage, floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge   | Charge method Three stages: constant current(MPPT), constant voltage, floating charge  | enalge metres  
  |  | Charge method Three stocks constant surrent/MDDTS  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Unarge method Three stages: constant current(MPPT), constant voltage, floating charge  | System type DC40//04///40//   |  
   | 7  | System type DC12V/24V/48V Automotio socialist  |
| System voltage Soft start time Dynamic response recovery time MPPT efficiency  MPPT working voltage range Low input voltage   | DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  12V/24V/48V system 12V/24V/48V system 500us ≥96.5%,≤99% INPUT CHARACTERISTICS   | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | System type DC12V/24V/48V Automatic recognition  | Three stances constant support/MDDTs constant altere flection shows  | Charge method Three stages: constant current(MPPT),constant voltage;floating charge   
  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current/MPPT) constant voltage floating charge  | Charge method Three stages: constant current(MPPT), constant voltage; floating charge  | Charge method Three stages: constant current(MPPT), constant voltage; floating charge  |  | Chargo method Three stages; constant oursent/MPPT) constant in the stages shows   
   | Charge method Three stages: constant current(MPPT) constant voltage floating charge   |  | Charge method Three stages: constant current(MPPT),constant voltage;floating charge  | Character and the state of the  |  |  
   |  | Characteristical Three states  | Charge method Three stages: constant current(MPPT).constant voltage.floating charge   | Charge method Three stages: constant current(MPPT), constant voltage, floating charge  | Charge method Inree stages: constant current(WPPI),constant voltage, lioating charge   
   | Charge method Three stages: constant current(MPPT), constant voltage, floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | | | |
   |  | Charge method Three stores constant superstANDET   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | unarge method Three stages: constant current(MPPT),constant voltage;floating charge  | System type DC42)//04//40//   |   
  | 7  | System type DC12V/24V/48V Automotic recommittee  |
| Soft start time  Dynamic response recovery time  MPPT efficiency  MPPT working voltage range  Low input voltage   | 9 12V/24V/48V ≤3S system 500us ≥96.5%,≤99% INPUT CHARACTERISTICS  |  | DOMESTIC DESCRIPTION OF THE PROPERTY PR |  |  |   
  |  |  | 1  | System type DC12V/24V/48V Automatic recognition  |   |  
  |  |  |  |  |  
   |  |  |   |  |  
   |  |   |  |   
   |  |  |  |  |   | System voltage  
DC9V=DC15V/HC15V/HC16V/HC36V/HC |  |  |
| System voltage Soft start time Dynamic response recovery time MPPT efficiency  MPPT working voltage range Low input voltage   | DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  12V/24V/48V system 12V/24V/48V system 500us ≥96.5%,≤99% INPUT CHARACTERISTICS   |  | - Automatic recognition  | Charge method I Inree stages: constant current(WMM1).constant variage illusione charge   | g   
  |  |  | , and the state of | Judgo libering orange  | System type DC12V/24V/48V Automatic recognition  | Charge metrou   Three stages, constant currentition of the total control  |   
   | Charge method Three stages; constant current(MPPT).constant voltage floating charge  |  |  | Charge method Three stages: constant current(MPPT).constant voltage floating charge  | Charge method Three stages; constant current(MPPT),constant voltage floating charge   
  | Charge method Three stages: constant current(MPPT).constant voltage floating charge  | Unarge method   Three stages: constant current(MPPT), constant voltage floating charge   |   | - Adags, Italia  | |
  |  |   |  |  
  | System type DC12V/24V/48V Automatic recognition  | milee stages, constant current(with 1) constant voltage floating charge  |  |  | System type   DC12V/24V/48V   Automatic recognition   |  
   | 7  | -, eurorianic recognition  |
| System voltage Soft start time Dynamic response recovery time MPPT efficiency  MPPT working voltage range Low input voltage   | DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  12V/24V/48V system 12V/24V/48V system 500us ≥96.5%,≤99% INPUT CHARACTERISTICS   | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | System type DC12V/24V/48V Automatic recognition  | The start constant of the first start of the | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  
   | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | Charge method Three stages: constant current(MPPT), constant voltage, floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | <del></del>  | Chargo method   | Charge method Three stages: constant current(MPPT) constant voltage floating charge   
   |  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | 0  |  |   
  |  | Characteristics and the second | Charge method Three stages; constant current(MPPT).constant voltage.floating charge   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Inree stages: constant current(wir-P-1), constant voltage, floating charge   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  
   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | - Interest and the state of the  |  | Charge method Three stages; constant automat/MDDT  
   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Unarge method Three stages: constant current(MPPT), constant voltage, floating charge  | System type DC42/404/404/   |  | 7  | System type DC12V/24V/48V Automotic recomition  
  |
| System type D System voltage Soft start time Dynamic response recovery time MPPT efficiency  MPPT working voltage range Low input voltage   | DC12V/24V/48V   Automatic recognition   | Charge method Three stages: constant current(MPPT) constant voltage floating charge  |  | The extension constant consent (ADDT) constant values distinguished  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge   
  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT) constant voltage floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  |  | Charge method Three stages: constant ourrent(MPRT) constant in the section shares   
   | Charge method Three stages: constant current(MPPT) constant voltage floating charge   |  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Character and the state of the  |  |  
   |  | Characteristics  | Charge method Three stages: constant current(MPPT).constant voltage floating charge   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Charge method Infree stages: constant current(MPP1),constant voltage, floating charge  
   | Charge method Three stages: constant current(MPPT), constant voltage, floating charge  | Charge method Three stages: constant current(MPPT), constant voltage, floating charge   | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | onalge metres transfer to tran  |   
  | Charge method Three stores: constant automat/MDDT  | Charge method Three stages: constant current(MPPT),constant voltage,floating charge  | Unarge method Three stages: constant current(MPPT),constant voltage,floating charge  |   | System type DC12V/24V/48V Automatic recognition  | system type DC12V/24V/48V Automatic recognition  
   |  |
| System type  System voltage  Soft start time  Dynamic response recovery time  MPPT efficiency  MPPT working voltage range  Low input voltage  | DC12V/24V/48V   Automatic recognition   | Charge method Three stages: constant current(MPPT) constant valtoco floating observe   |  |  | Charge method Three stages: constant current/MPPT) constant values flecting observe   
  |  | Charge method Three stages: constant current(MPPT) constant voltage floating shares  | Charge method Three stages: constant current(MPPT) constant voltage flecting observe   | Charge method Three stages: constant current(MPPT) constant voltage flecting observe   | gout-out-out-out-out-out-out-out-out-out   |   
   |   |  | Charge method Three stages: constant current(MPPT) constant inflace floating observe   |  |  
   |  |  |  | Charge method Three stages: constant current(MPPT) constant voltage decine observe  | Charge method Three stages: constant current(MPPT) constant saltage floating observe   
   |  | Charge method Three stages: constant current(MPPT) constant saltage floating observe   | Charge method Three stages: constant current/MPPT) constant voltage floating observe  | Charge method Three stages: constant current(MPPT) constant voltage floating observe  
  |   |  |  | Charge method Three stages: constant current/MPPT) constant voltage floating charge  | Unarge method   Three stages: constant current/MPPT) constant valtage floating observe  
  |   | System type DC12V/24V/48V Automatic recognition  | system type DC12V/24V/48V Automatic recognition  |  |
| MPPT efficiency  MPPT working voltage range  Low input voltage  | sy ≥96.5%, 599%  INPUT CHARACTERISTICS  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  |  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V~DC60V  |   
  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V~DC60V  | DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   | DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   |  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  |  | System type         DC12V/24V/48V         Automatic recognition           System vdtage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   | System type         DC12V/24V/48V         Automatic recognition           System vdtage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   
   | System type         DC12V/24V/48V         Automatic recognition           System vdtage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   | System type         DC12V/24V/48V         Automatic recognition           System vdtage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  
   | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   
  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   |  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V~DC60V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  | DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  
  |   | Soft start time ≤3S  | . start time   |  |
| Low input voltage   | DC 14V-DC 100V/DC30-DC 100V/DC80~DC 100V  | System type         DC12W/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         ≤3S           Dynamic response recovery time         system           MPPT efficiency         ≥96.5%, ≤99%   | 22V/24V/48V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         ≤3S           Dynamic response recovery time         system           MPPT efficiency         ≥96.5%, ≤99%   | System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         \$3S           MPPT efficiency         \$96.5%, ≤99%   
  | System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         ±33S           Dynamic response recovery time         system           MPPT efficiency         ±96,5%,≤99%   | System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/46V           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%,≤99%   | System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/46V           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%,≤99%   | Soft start time         12V/24V/46V         ≤3S           Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%, ≤99% | System type         DC12W/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         ≤3S           Dynamic response recovery time         system           MPPT efficiency         ≥96.5%, ≤99%  
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         ≤3S           Dynamic response recovery time         system           MPPT efficiency         ≥96.5%, ≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         ≤3S           Dynamic response recovery time         system           MPPT efficiency         ≥96.5%, ≤99%   | System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         \$3S           MPPT efficiency         \$96.5%, ≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | System type         DC12W/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         ≤3S           Dynamic response recovery time         system           MPPT efficiency         ≥96.5%, ≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         ≤3S           Dynamic response recovery time         system           MPPT efficiency         ≥96.5%, ≤99%  | System valtage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%,≤99%   
   | System valtage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%,≤99%   | System voltage   DC9V~DC15V/DC18V~DC36V~DC60V  | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   
  | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   | Soft start time         12V/24V/46V         \$3S           Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%,≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%  | System woltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         Dynamic response recovery time         12V/24V/48V system           MPPT efficiency         ≥96.5%,≤99%   
  | Soft start time         12V/24V/48V           Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%,≤99%             | Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%,≤99%  | 12V/24V/48V  | Soft start time         12V/24V/48V           namic response recovery time         500us           PPT efficiency         ≥96.5%,≤99%  |
| Low input voltage   |   | System type         DC12V/24V/48V         Automatic recognition           System woltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ±38           Dynamic response recovery time         500us           MPPT efficiency         ±96,5%,≤99%   | 12V/24V/48V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         ≤38           Dynamic response recovery time         500us         500us           MPPT efficiency         ≥96,5%,≤99%   | System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         3SS           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%  
  | System watage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         3SS           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         338           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%   | System woltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         3SS           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,599%   | System woltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         3SS           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,599%   | Soft start time         12V/24V/48V           Dynamic response recovery time         12V/24V/48V           MPPT efficiency         ≥98,5%,≤99%                       | System type         DC12V/24V/48V         Automatic recognition           System woltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         ±38           Dynamic response recovery time         500us           MPPT efficiency         ±96,5%,≤99%  
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         ≤38           Dynamic response recovery time         500us         500us           MPPT efficiency         ≥96,5%,≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         ≤38           Dynamic response recovery time         500us         500us           MPPT efficiency         ≥96,5%,≤99%   | System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         3SS           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%   
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         ≤3S           Dynamic response recovery time         system           MPPT efficiency         ≥96,5%,≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         ≤38           Dynamic response recovery time         500us         500us           MPPT efficiency         ≥96,5%,≤99%  | System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         3SS           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%   
   | System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         3SS           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%   | System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V  | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   
  | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   | Soft start time         12V/24V/46V           Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%,≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         338           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         338           Dynamic response recovery time         \$500us           MPPT efficiency         ≥96,5%,≤99%   | System woltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         3SS           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,599%  
  | Soft start time         12V/24V/48V           Dynamic response recovery time         12V/24V/48V           MPPT efficiency         296.5%, ≤99%                     | Dynamic response recovery time         system         500us           MPPT efficiency         ≥96.5%,≤99%  | 12V/24V/48V  | Soft start time         12V/24V/48V           namic response recovery time         500us           PPT efficiency         ≥96.5%,≤99%  |
| range<br>Low input voltage  |   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         53S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,599%   | 12V/24V/48V  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         s3S           Dynamic response recovery time         500us         500us           MPPT efficiency         ≥96,5%,≤99%   | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         33S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%  
  | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         33S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         33S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%   | System woltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         \$3S           MPPT efficiency         \$90,5%,599%   | System woltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         \$3S           MPPT efficiency         \$90,5%,599%   | Soft start time         12V/24V/48V           Dynamic response recovery time         12V/24V/48V           MPPT efficiency         296,5%,≤99%                       | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         53S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,599%  
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         s3S           Dynamic response recovery time         500us         500us           MPPT efficiency         ≥96,5%,≤99%  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         s3S           Dynamic response recovery time         500us         500us           MPPT efficiency         ≥96,5%,≤99%   | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         33S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         s3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,599%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         s3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,599%   
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         s3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,599%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         s3S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,599%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us         500us           MPPT efficiency         ≥96,5%,599%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         s3S           Dynamic response recovery time         500us         500us           MPPT efficiency         ≥96,5%,≤99%  | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         33S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%   
   | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         33S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%   | System watage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us           MPPT efficiency         ≥96.5%, ≤99%   | System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   | System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   
  | System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   | Soft start time         12V/24V/48V           Dynamic response recovery time         12V/24V/48V           MPPT efficiency         ≥96.5%,≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         33S           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,≤99%   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         s38           Dynamic response recovery time         500us           MPPT efficiency         ≥96,5%,599%   | System woltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         \$3S           MPPT efficiency         \$995,5%,599%   
  | Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         system         500us           MPPT efficiency         ≥96,5%,≤99% | Dynamic response recovery time         system         500us           MPPT efficiency         ≥96,5%,≤99%  | 12V/24V/48V  | Soft start time         12V/24V/48V           namic response recovery time         \$3S           PPT efficiency         500us           \$99,5%,599%  |
| range<br>Low input voltage  | tore  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us   | Dynamic response recovery time 12V/24V/48V system 500us  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us   | System woltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us  
  | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System type         DC12V/24V/48V         Automatic recognition           System woltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/46V         ≤3S           Dynamic response recovery time         500us   | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us   | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us   | Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         system         500us  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us  
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us   | System woltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us   | System type  | System type  
   | System type  | System type  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/46V         ≤3S           Dynamic response recovery time         500us   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us  | DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   
   | DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   | System voltage   DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   | System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   
  | System voltage   DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   | Soft start time  | System type         DC12V/24V/48V         Automatic recognition           System woltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/46V         ≤3S           Dynamic response recovery time         500us   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V         ≤3S           Dynamic response recovery time         500us   | System voltage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response recovery time         500us  
  | Soft start time         12V/24V/46V         ≤3S           Dynamic response recovery time         system         500us   | Dynamic response recovery time system 500us  | amic response scovery time 12V/24V/48V system 500us  | Soft start time         12V/24V/48V           namic response recovery time         500us   |
| MPPT working voltage range Low input voltage  | INPUT CHARACTERISTICS   | System type         DC12V/24V/48V         Automatic recognition           System waltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         SOO <sub>UP</sub>   | Dynamic response system 500 us   | System type         DC12V/24V/48V         Automatic recognition           System waltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         SOO <sub>UP</sub>   | System voltage  
  | System watage  | System type         DC12V/24V/48V         Automatic recognition           System waltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         SOO <sub>UP</sub>   | System voltage   | System voltage   | Soft start time         12V/I24V/48V         ≤3S           Dynamic response         system         500 us  | System type         DC12V/24V/48V         Automatic recognition           System waltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         SOO <sub>UP</sub>  
   | System type         DC12V/24V/48V         Automatic recognition           System waltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         SOO <sub>UP</sub>  | System type         DC12V/24V/48V         Automatic recognition           System waltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         SOO <sub>UP</sub>   | System voltage   | System type         DC12V/24V/48V         Automatic recognition           System valtage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V           Dynamic response         system  | System type         DC12V/24V/48V         Automatic recognition           System valtage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V           Dynamic response         system  
   | System type         DC12V/24V/48V         Automatic recognition           System valtage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V           Dynamic response         system  | System type         DC12V/24V/48V         Automatic recognition           System valtage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V           Dynamic response         system  | System type         DC12V/24V/48V         Automatic recognition           System waltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         SOO <sub>UP</sub>   | System type         DC12V/24V/48V         Automatic recognition           System waltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         SOO <sub>UP</sub>  | System valtage   
   | System valtage   | System voltage   | System voltage  | System voltage  
  | System voltage  | Soft start time         12V/24V/48V         ≤3S           Dynamic response         system         500 pc   | System type         DC12V/24V/48V         Automatic recognition           System waltage         DC9V-DC15V/DC18V-DC30V/DC36V-DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         SOO <sub>UP</sub>   | System type  | System voltage  
  | Soft start time         12V/I24V/48V         ≤3S           Dynamic response         system         500 us   | Dynamic response system 500us  | amic response system 500ue   | Soft start time         12VI24V/48V         ≤3S           namic response         system         500 te   |
| MPPT working voltage range Low input voltage  | INPUT CHARACTERISTICS   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         500us   | Dynamic response system 500us  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         500us   | System voltage  
  | System valtage   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         500us   | System voltage   | System voltage   | Soft start time         12V/24V/48V         ≤3S           Dynamic response         system         500us  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         500us  
   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         500us  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         500us   | System voltage   | System type         DC12V/24V/48V         Automatic recognition           System valtage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response         system  | System type         DC12V/24V/48V         Automatic recognition           System valtage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response         system  
   | System type         DC12V/24V/48V         Automatic recognition           System valtage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response         system  | System type         DC12V/24V/48V         Automatic recognition           System valtage         DC9V~DC15V/DC18V~DC30V/DC36V~DC60V           Soft start time         12V/24V/48V           Dynamic response         system  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         500us   | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V~DC15V/DC18V~DC36V/DC36V~DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         500us  | System valtage   
   | System valtage   | System voltage   | System voltage  | System voltage  
  | System voltage  | Soft start time         12V/24V/48V         ≤3S           Dynamic response         system         ≤00.0cm  | System type         DC12V/24V/48V         Automatic recognition           System voltage         DC9V-DC15V/DC18V-DC36V/DC36V-DC60V           Soft start time         12V/24V/48V         SS           Dynamic response         system         sonus   | System type  | System voltage  
  | Soft start time         12V/24V/48V         ≤3S           Dynamic response         system         500 μg  | Dynamic response system 500us  | amic response system 500ue   | Soft start time         12VI24V/48V         ≤3S           namic response         system         500 te   |
| MPPT efficiency  MPPT working voltage range  Low input voltage  | by SUUUS  SPECIAL SERVICES  INPUT CHARACTERISTICS   | System type  | Soft start time  | System type  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   
  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  Self-start time.   538  | System type  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | Soft start time <3S  | System type   
   | System type   | System type  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System type  | System type  
   | System type  | System type  | System type  | System type   | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  
   | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V  | System voltage   | DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   Seft start time  | DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   Seft start time  
  | DC9V-DC15V/DC18V-DC30V/DC36V-DC60V   Seft start time  | Soft start time <35  | System type  | System type  | System voltage DC9V~DC15V/DC18V~DC30V/DC36V~DC60V   
  | Soft start time <3S   |  | 1 40/004/2000 1  | off start time <39   |
| Soft start time Dynamic response recovery time MPPT efficiency  MPPT working voltage range Low input voltage  | 9 12V/24V/48V system 500us  12V 12V/24V/48V system 500us  10V   |  | System voltage   |  | System type DC12V/24V/48V   
  | System type DC12V/24V/48V  |  | System type DC12V/24V/48V  | System type DC12V/24V/48V  | Automatic recognition  |   
   |   |  | System type DC12V/24V/48V  | <u> </u>   | <u> </u>   
   | <u> </u>   | <u> </u>   |  |   | System type DC12V/24V/48V  
   | System type DC12V/24V/48V  | System type DC12V/24V/48V  | System type DC12V/24V/48V   | System type DC12V/24V/48V   
  | System type   DC12V/24V/46V   A. J. L.  |  |  |  | System type DC12V/24V/48V   
  |   | - DUSV~L15V/DC18V~DC90V/DC98V~DC60V  |  |  |