

DEEP BLUE 3.0 Pro

Mono

420W MBB Half-cell Module

JAM54S31 395-420/GR Series

Introduction

Assembled with 11BB PERC cells and gapless ribbon connection technology, the modules can offer higher output power with improved module efficiency, the reduction of cells gaps brings outstanding module appearance. The half-cell configurature makes less shading effect, lower risk of hot spot, as well as more reliable and stable power generation.



Higher output power



Lower LCOE



Less shading and lower resistive loss

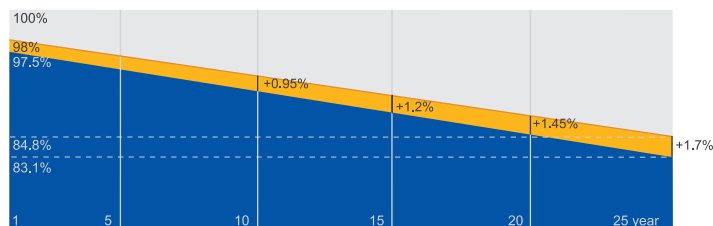


Better mechanical loading tolerance

Superior Warranty

- 15-year product warranty
- 25-year linear power output warranty

0.55% Annual Degradation Over 25 years



■ New linear power warranty ■ Standard module linear power warranty

*Subject to the terms and conditions contained in the Limited Warranty Statement. Also this 15-year limited product warranty is available only for products installed and operating on residential rooftops in certain regions.

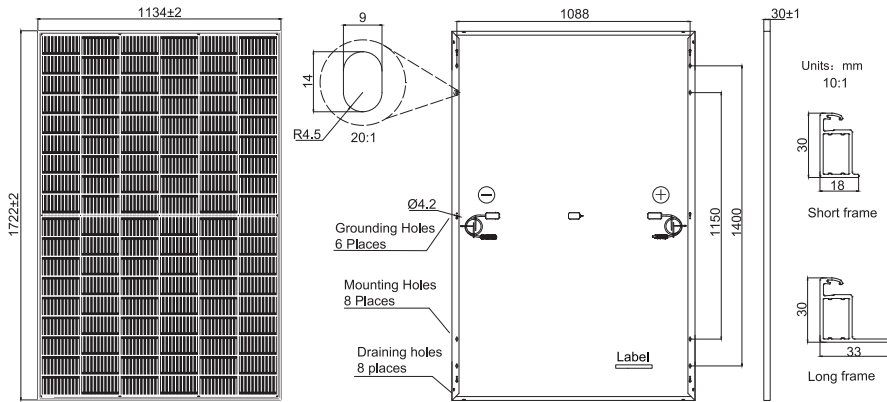
Comprehensive Certificates

- IEC 61215, IEC 61730, UL 61215, UL 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems
- IEC 62941: 2019 Terrestrial photovoltaic (PV) modules - Quality system for PV module manufacturing



MECHANICAL DIAGRAMS

SPECIFICATIONS



| | |
|------------------------------------|--|
| Cell | Mono |
| Weight | 19.5kg |
| Dimensions | 1722±2mm×1134±2mm×30±1mm |
| Cable Cross Section Size | 4mm ² (IEC) , 12 AWG(UL) |
| No. of cells | 108(6x18) |
| Junction Box | IP68, 3 diodes |
| Connector | MC4-EVO2/ QC 4.10-35 |
| Cable Length (Including Connector) | Portrait: 300mm(+)/400mm(-); Landscape: 1100mm(+)/1100mm(-) |
| Front Glass | 2.8mm |
| Packaging Configuration | 36pcs/Pallet 936pcs/40HQ Container |

Remark: customized frame color and cable length available upon request

ELECTRICAL PARAMETERS AT STC

| TYPE | JAM54S31 -395GR | JAM54S31 -400/GR | JAM54S31 -405/GR | JAM54S31 -410/GR | JAM54S31 -415/GR | JAM54S31 -420/GR |
|---|---|---------------------|---------------------|---------------------|---------------------|---------------------|
| Rated Maximum Power(Pmax) [W] | 395 | 400 | 405 | 410 | 415 | 420 |
| Open Circuit Voltage(Voc) [V] | 36.98 | 37.07 | 37.23 | 37.32 | 37.45 | 37.58 |
| Maximum Power Voltage(Vmp) [V] | 30.84 | 31.01 | 31.21 | 31.45 | 31.61 | 31.80 |
| Short Circuit Current(Isc) [A] | 13.70 | 13.79 | 13.87 | 13.95 | 14.02 | 14.10 |
| Maximum Power Current(Imp) [A] | 12.81 | 12.90 | 12.98 | 13.04 | 13.13 | 13.21 |
| Module Efficiency [%] | 20.2 | 20.5 | 20.7 | 21.0 | 21.3 | 21.5 |
| Power Tolerance | | | | 0~+5W | | |
| Temperature Coefficient of Isc(α_{Isc}) | | | | +0.045%/°C | | |
| Temperature Coefficient of Voc(β_{Voc}) | | | | -0.275%/°C | | |
| Temperature Coefficient of Pmax(γ_{Pmp}) | | | | -0.350%/°C | | |
| STC | Irradiance 1000W/m ² , cell temperature 25°C, AM1.5G | | | | | |

Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer.They only serve for comparison among different module types.

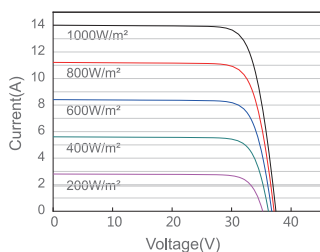
ELECTRICAL PARAMETERS AT NOCT

OPERATING CONDITIONS

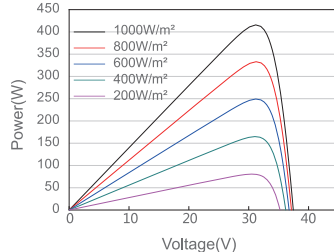
| TYPE | JAM54S31 -395/GR | JAM54S31 -400/GR | JAM54S31 -405/GR | JAM54S31 -410/GR | JAM54S31 -415/GR | JAM54S31 -420/GR | | |
|--------------------------------|--|---------------------|---------------------|---------------------|---------------------|---------------------|---|---|
| Rated Max Power(Pmax) [W] | 298 | 302 | 306 | 310 | 314 | 318 | Maximum System Voltage | 1000V/1500V DC |
| Open Circuit Voltage(Voc) [V] | 34.75 | 34.88 | 35.12 | 35.23 | 35.37 | 35.50 | Operating Temperature | -40°C~+85°C |
| Max Power Voltage(Vmp) [V] | 29.08 | 29.26 | 29.47 | 29.72 | 29.89 | 30.09 | Maximum Series Fuse Rating | 25A |
| Short Circuit Current(Isc) [A] | 10.96 | 11.03 | 11.10 | 11.16 | 11.22 | 11.29 | Maximum Static Load, Front Maximum Static Load, Back | 5400Pa(112lb/ft ²) 2400Pa(50lb/ft ²) |
| Max Power Current(Imp) [A] | 10.25 | 10.32 | 10.38 | 10.43 | 10.50 | 10.57 | NOCT | 45±2°C |
| NOCT | Irradiance 800W/m ² , ambient temperature 20°C, wind speed 1m/s, AM1.5G | | | | | | Safety Class | Class II |
| | | | | | | | Fire Performance | UL Type 1 |

CHARACTERISTICS

Current-Voltage Curve JAM54S31-415/GR



Power-Voltage Curve JAM54S31-415/GR



Current-Voltage Curve JAM54S31-415/GR

