

Harvest the Sunshine

Mono

470W MBB Half-Cell Module JAM72S20 445-470/MR Series

Introduction

Assembled with multi-busbar PERC cells, the half-cell configuration of the modules offers the advantages of higher power output, better temperature-dependent performance, reduced shading effect on the energy generation, lower risk of hot spot, as well as enhanced tolerance for mechanical loading.



Higher output power



Lower LCOE



Less shading and lower resistive loss

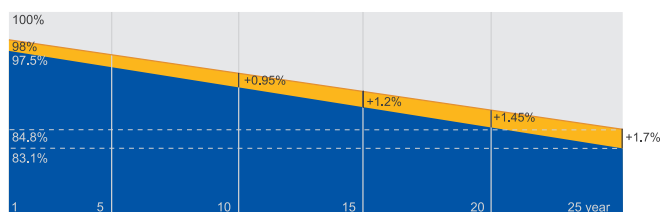


Better mechanical loading tolerance

Superior Warranty

- 12-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

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 TS 62941: 2016 Terrestrial photovoltaic (PV) modules – Guidelines for increased confidence in PV module design qualification and type approval



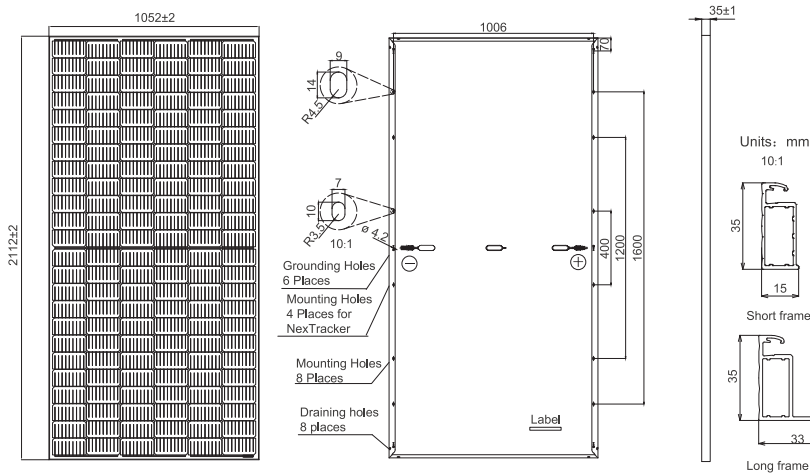
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Specifications subject to technical changes and tests.
JA Solar reserves the right of final interpretation.



MECHANICAL DIAGRAMS



SPECIFICATIONS

Cell	Mono
Weight	24.5kg
Dimensions	2112±2mm×1052±2mm×35±1mm
Cable Cross Section Size	4mm ² (IEC) , 12 AWG(UL)
No. of cells	144 (6×24)
Junction Box	IP68, 3 diodes
Connector	QC 4.10(1000V) QC 4.10-35(1500V)
Cable Length (Including Connector)	Portrait: 300mm(+)/400mm(-); Landscape: 1200mm(+)/1200mm(-)
Packaging Configuration	31pcs/pallet 682pcs/40ft Container

ELECTRICAL PARAMETERS AT STC

TYPE	JAM72S20 -445/MR	JAM72S20 -450/MR	JAM72S20 -455/MR	JAM72S20 -460/MR	JAM72S20 -465/MR	JAM72S20 -470/MR
Rated Maximum Power(P _{max}) [W]	445	450	455	460	465	470
Open Circuit Voltage(V _{oc}) [V]	49.56	49.70	49.85	50.01	50.15	50.31
Maximum Power Voltage(V _{mp}) [V]	41.21	41.52	41.82	42.13	42.43	42.69
Short Circuit Current(I _{sc}) [A]	11.32	11.36	11.41	11.45	11.49	11.53
Maximum Power Current(I _{mp}) [A]	10.80	10.84	10.88	10.92	10.96	11.01
Module Efficiency [%]	20.0	20.3	20.5	20.7	20.9	21.2
Power Tolerance	0~+5W					
Temperature Coefficient of I _{sc} (α _{Isc})	+0.044%/°C					
Temperature Coefficient of V _{oc} (β _{Voc})	-0.272%/°C					
Temperature Coefficient of P _{max} (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.

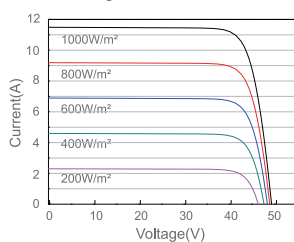
ELECTRICAL PARAMETERS AT NOCT

TYPE	JAM72S20 -445/MR	JAM72S20 -450/MR	JAM72S20 -455/MR	JAM72S20 -460/MR	JAM72S20 -465/MR	JAM72S20 -470/MR	Maximum System Voltage	1000V/1500V DC
Rated Max Power(Pmax) [W]	336	340	344	348	352	355	Operating Temperature	-40 ℃ ~+85 ℃
Open Circuit Voltage(Voc) [V]	46.65	46.90	47.15	47.38	47.61	47.84	Maximum Series Fuse Rating	20A
Max Power Voltage(Vmp) [V]	38.95	39.19	39.44	39.68	39.90	40.10	Maximum Static Load,Front* Maximum Static Load,Back*	5400Pa(112 lb/ft²) 2400Pa(50 lb/ft²)
Short Circuit Current(Isc) [A]	9.20	9.25	9.29	9.33	9.38	9.42	NOCT	45±2 ℃
Max Power Current(Imp) [A]	8.64	8.68	8.72	8.76	8.81	8.86	Safety Class	Class II
NOCT	Irradiance 800W/m², ambient temperature 20℃,wind speed 1m/s, AM1.5G						Fire Performance	UL Type 1

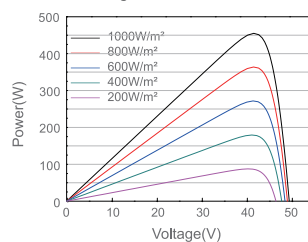
OPERATING CONDITIONS

CHARACTERISTICS

Current-Voltage Curve JAM72S20-455/MR



Power-Voltage Curve JAM72S20-455/MR



Current-Voltage Curve JAM72S20-455/MR

