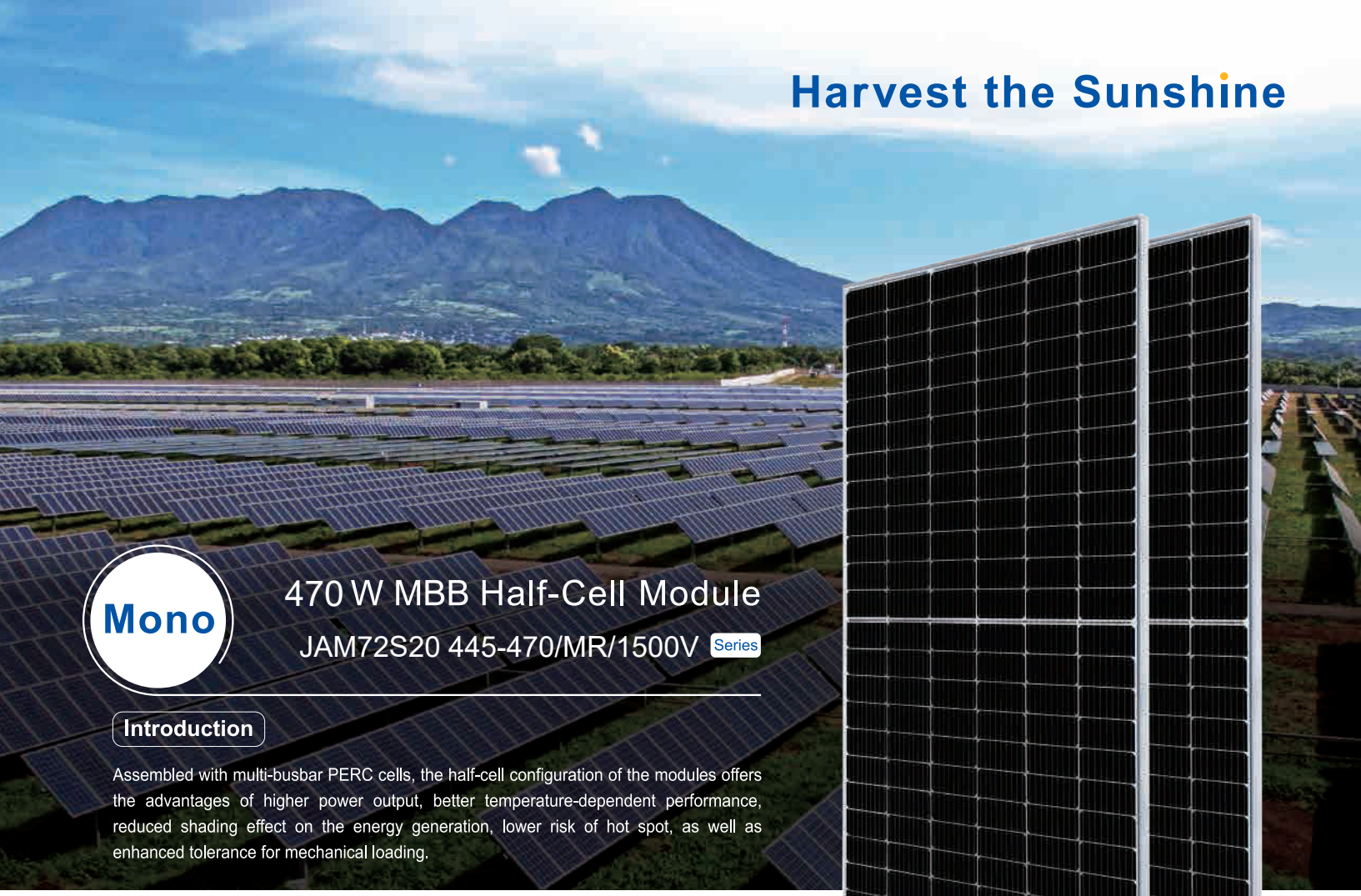
Harvest the Sunshine



Mono

470 W MBB Half-Cell Module

JAM72S20 445-470/MR/1500V Series

Introduction

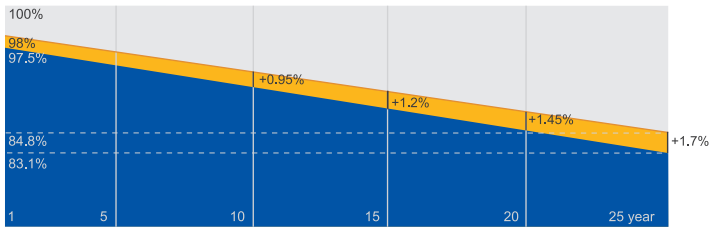
Assembled with multi-busbar PERC cells, the half-cell configuration of the modules offers the advantages of higher power output, better temperature-dependent performance, reduced shading effect on the energy generation, lower risk of hot spot, as well as enhanced tolerance for mechanical loading.

- 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
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001:2018 Occupational health and safety management systems

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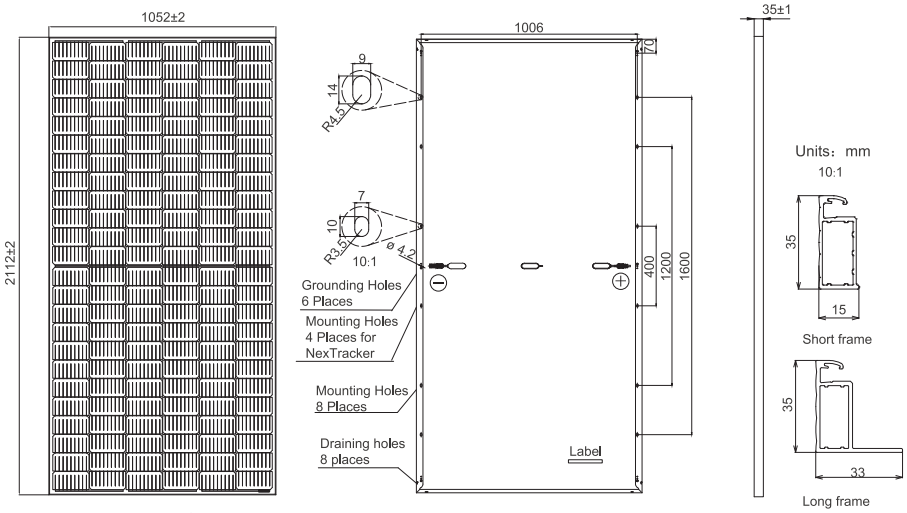
Specifications subject to technical changes and tests.
JA Solar reserves the right of final interpretation.

Shanghai JA Solar Technology Co., Ltd.

MECHANICAL DIAGRAMS



Remark: customized frame color and cable length available upon request

SPECIFICATIONS

Cell	Mono
Weight	24.5kg±3%
Dimensions	2112±2mm×1052±2mm×35±1mm
Cable Cross Section Size	4mm²（IEC）
No. of cells	144（6×24）
Junction Box	IP68, 3 diodes
Connector	Stäubli MC4-EVO2/ MC4-EVO2A QC Solar QC 4.10-35/ QC 4.10-351
Cable Length (Including Connector)	Portrait: 300mm(+)/400mm(-); Landscape: 1200mm(+)/1200mm(-)
Country of Manufacturer	China/Vietnam

ELECTRICAL PARAMETERS AT STC

TYPE	JAM72S20 -445/MR/1500V	JAM72S20 -450/MR/1500V	JAM72S20 -455/MR/1500V	JAM72S20 -460/MR/1500V	JAM72S20 -465/MR/1500V	JAM72S20 -470/MR/1500V
Rated Maximum Power(Pmax) [W]	445	450	455	460	465	470
Open Circuit Voltage(Voc) [V]	49.56	49.70	49.85	50.01	50.15	50.31
Maximum Power Voltage(Vmp) [V]	41.21	41.52	41.82	42.13	42.43	42.69
Short Circuit Current(Isc) [A]	11.32	11.36	11.41	11.45	11.49	11.53
Maximum Power Current(Imp) [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 Isc(α_Isc)	+0.044%/°C					
Temperature Coefficient of Voc(β_Voc)	-0.272%/°C					
Temperature Coefficient of Pmax(γ_Pmp)	-0.350%/℃					
STC	Irradiance 1000W/m², 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.
Measurement tolerance at STC: Pmax ±3 %, Voc ±3% and Isc ±4%.

ELECTRICAL PARAMETERS AT NOCT

TYPE	JAM72S20-445 /MR/1500V	JAM72S20-450 /MR/1500V	JAM72S20-455 /MR/1500V	JAM72S20-460 /MR/1500V	JAM72S20-465 /MR/1500V	JAM72S20-470 /MR/1500V
Rated Max Power(Pmax) [W]	336	340	344	348	352	355
Open Circuit Voltage(Voc) [V]	46.65	46.90	47.15	47.38	47.61	47.84
Max Power Voltage(Vmp) [V]	38.95	39.19	39.44	39.68	39.90	40.10
Short Circuit Current(Isc) [A]	9.20	9.25	9.29	9.33	9.38	9.42
Max Power Current(Imp) [A]	8.64	8.68	8.72	8.76	8.81	8.86
NOCT	Irradiance 800W/m², ambient temperature 20°C,wind speed 1m/s, AM1.5G					

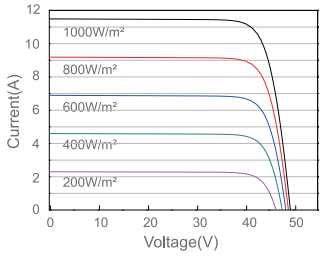
*For NexTracker installations ,Maximum Static Load, Front is1800Pa while Maximum Static Load, Back is1800Pa.

OPERATING CONDITIONS

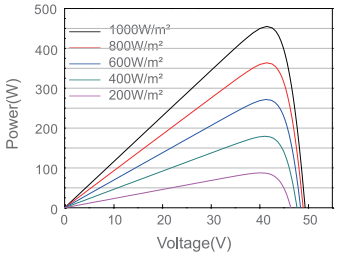
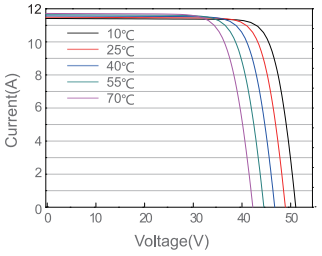
Maximum System Voltage	1500V DC(IEC)
Operating Temperature	-40℃~+85℃
Maximum Series Fuse	20A
Maximum Static Load,Front*	3600Pa, 1.5
Maximum Static Load,Back*	1600Pa, 1.5
NOCT	45±2℃
Safety Class	Class Ⅱ
Fire Safety Class	Class C

CHARACTERISTICS

Current-Voltage Curve JAM72S20-455/MR/1500V



Power-Voltage Curve JAM72S20-455/MR/1500V



Current-Voltage Curve JAM72S20-455/MR/1500V