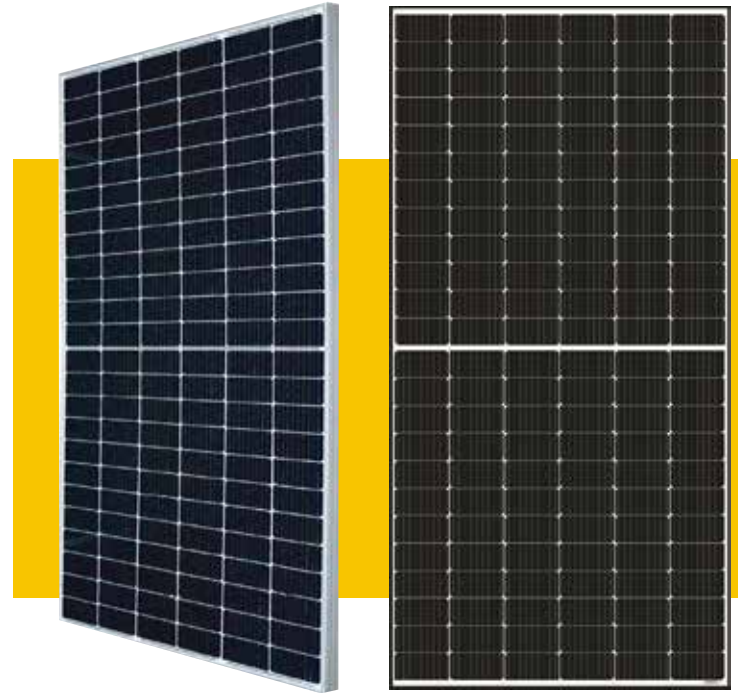









# MSMDxxxM6-72 166 M6 cells half cut

## 440W-460W



### KEY FEATURES

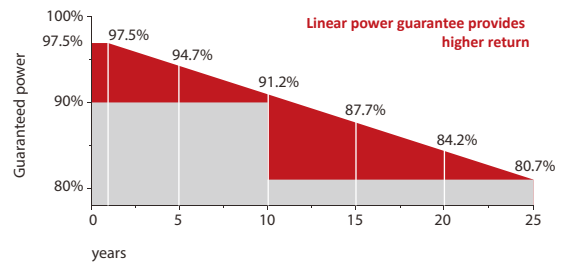
-  Class A fire resistant (possible on request)
-  Outstanding performance in low-light conditions
-  Low temperature coefficient (Pmax): -0.36 % / °C
- +5W** 0~+5W positive tolerance - to assure high output
-  Lower internal current, lower hot spot temperature
-  Cell crack risk limited in small region, enhance the module reliability
- PID FREE** Excellent anti-PID module design, TÜV SÜD certified
-  Certified to withstand high wind loads (3600pa) and snow loads (8000pa) possible on request
-  Salt mist and ammonia corrosion resistant

### PRODUCT CERTIFICATES



### WARRANTY

- Our linear power guarantee
- Standard linear power guarantee



**15**  
years  
Enhanced product guarantee on product and workmanship

**25**  
years  
Linear power output warranty

# MSMDxxxM6-72

## ELECTRICAL CHARACTERISTICS

STC	440	445	450	455	460
Maximum Power at STC (Pmax)	440 W	445 W	450 W	455 W	460 W
Optimum Operating Voltage (Vmp)	41.0 V	41.2 V	41.4 V	41.6 V	41.8 V
Optimum Operating Current (Imp)	10.74A	10.81A	10.87A	10.94A	11.01A
Open Circuit Voltage (Voc)	48.8 V	49.0 V	49.2 V	49.4 V	49.6 V
Short Circuit Current (Isc)	11.47A	11.54 A	11.61 A	11.68 A	11.75A
Module Efficiency	20.2%	20.5%	20.7 %	20.9%	21.1%
Operating Module Temperature	-40 °C to +85 °C				
Maximum System Voltage	1500 V DC (IEC)				
Maximum Series Fuse Rating	20 A				
Power Tolerance	0/+5W				

STC: Irradiance 1000 W/m<sup>2</sup>, module temperature 25 °C, AM=1.5; Tolerances of Pmax, Voc and Isc are all within +/- 5%.

NMOT	440	445	450	455	460
Maximum Power at NMOT (Pmax)	339.0 W	343.1 W	348.10 W	352.24 W	356.80 W
Optimum Operating Voltage (Vmp)	38.7 V	38.9 V	39.2 V	39.4 V	39.6 V
Optimum Operating Current (Imp)	8.76 A	8.82 A	8.88 A	8.94 A	9.01 A
Open Circuit Voltage (Voc)	47.0 V	47.2 V	47.4 V	47.6 V	47.8 V
Short Circuit Current (Isc)	9.24 A	9.3 A	9.36 A	9.42 A	8.96 A

NMOT: Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, AM=1.5, wind speed 1 m/s.

## TEMPERATURE CHARACTERISTICS

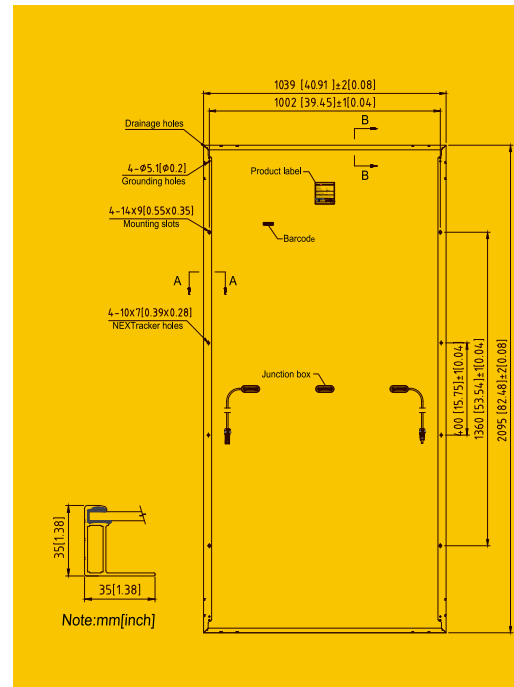
Nominal Module Operating Temperature (NMOT)	42±2°C
Temperature Coefficient of Pmax	-0.36 %/°C
Temperature Coefficient of Voc	-0.304 %/°C
Temperature Coefficient of Isc	0.058 %/°C

## MECHANICAL CHARACTERISTICS

Solar Cell	Monocrystalline silicon 166 mm (9BB)
No. of Cells	144 (6 × 24)
Dimensions	2095 x 1039 x 35 mm
Weight	23.8 kgs
Front Glass	3.2 mm tempered glass with AR coating
Frame	Anodized aluminium alloy
Junction Box	IP68 rated (3 bypass diodes)
Output Cables	4.0 mm <sup>2</sup> , cable length 350mm or customized length

## PACKING CONFIGURATION

Container	20' GP	40' HC
Pieces per pallet	55	31+2
Pallets per container	5	22
Pieces per container	275	726



## Current-Voltage & Power-Voltage Curve (445S)

