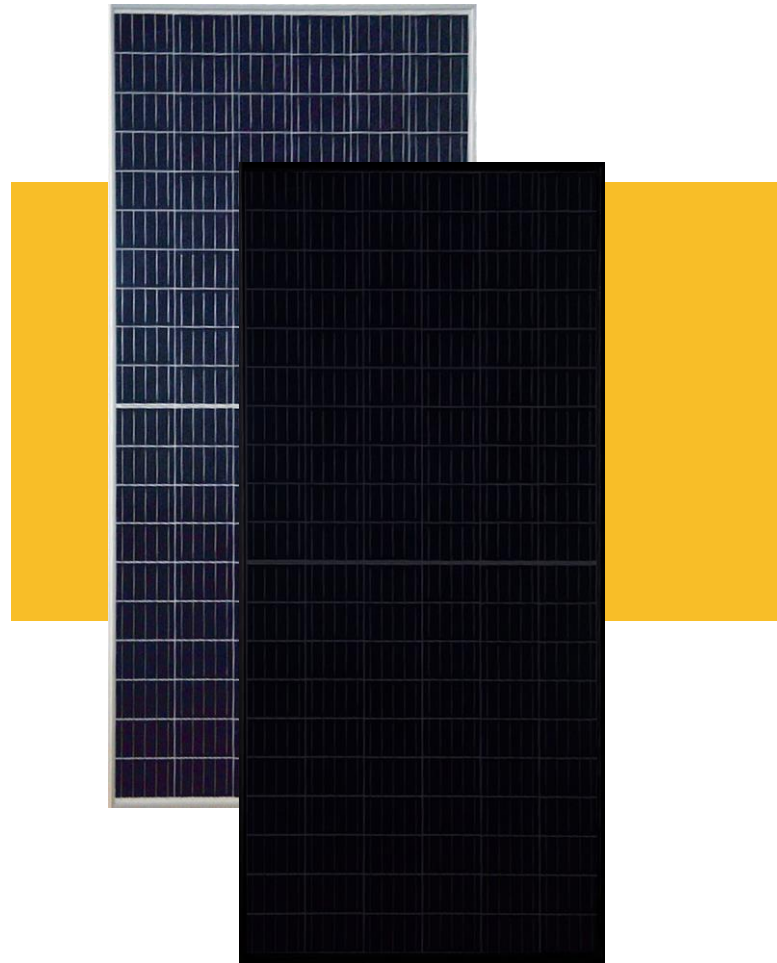









**MSMDxxxM3-60**

**M3=158.75 cells**

**320W-345W**



## KEY FEATURES

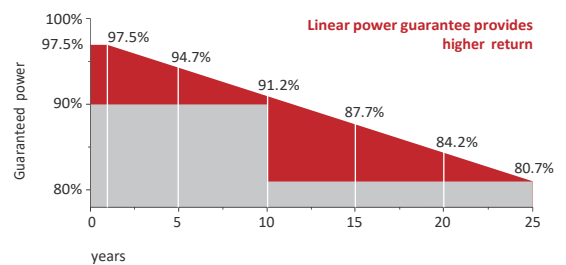
-  **Class A fire resistant (possible on request)**
-  Outstanding performance in low-light conditions
-  Low temperature coefficient (Pmax): -0.35 % / °C
- +5W** 0~+5W positive tolerance - to assure high output
-  Lower internal current, lower hot spot temperature
-  Cell crack risk limited in small 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

# MSMDxxxM3-60

## ELECTRICAL CHARACTERISTICS

STC	320	325	330	335	340	345
Maximum Power at STC (Pmax)	320 W	325 W	330 W	335 W	340 W	345 W
Optimum Operating Voltage (Vmp)	34.3 V	34.5 V	34.7 V	34.9 V	35.1 V	35.3 V
Optimum Operating Current (Imp)	9.33 A	9.43 A	9.52 A	9.60 A	9.68 A	9.78 A
Open Circuit Voltage (Voc)	40.2 V	40.05 V	40.7 V	40.9 V	41.1 V	41.3 V
Short Circuit Current (Isc)	9.33 A	10.04 A	10.13 A	10.21 A	10.29 A	10.37 A
Module Efficiency	19.0%	19.2 %	19.5%	19.8%	20.1%	20.4%
Operating Module Temperature	-40 °C to +85 °C					
Maximum System Voltage	1000/1500 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	325	330	335	340	345
Maximum Power at NMOT (Pmax)	244.9 W	248.6 W	252.1 W	255.5 W	259.3 W
Optimum Operating Voltage (Vmp)	31.7 V	31.9 V	32.1 V	32.3 V	32.5 V
Optimum Operating Current (Imp)	7.72 A	7.79 A	7.85 A	7.92 A	7.98 A
Open Circuit Voltage (Voc)	37.9 V	38.1 V	38.3 V <td 38.5 V	38.7 V	
Short Circuit Current (Isc)	8.11 A	8.18 A	8.24 A	8.31 A	8.37 A

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

## TEMPERATURE CHARACTERISTICS

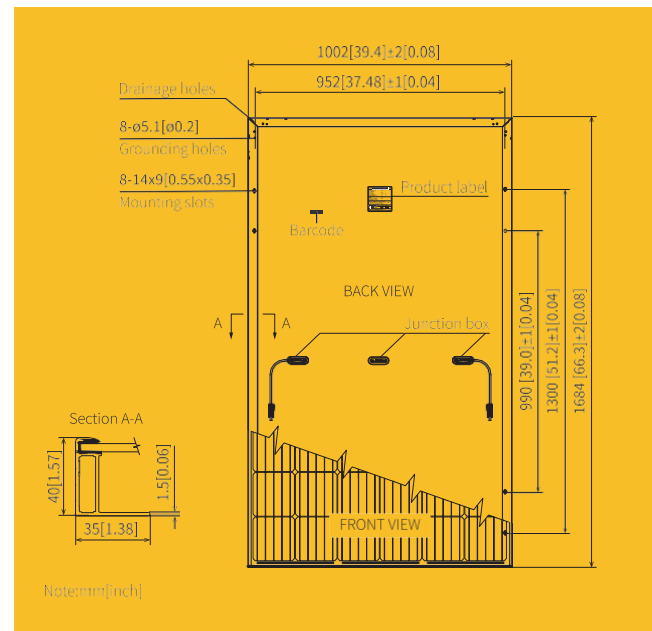
Nominal Module Operating Temperature (NMOT)	42±2°C
Temperature Coefficient of Pmax	-0.35 %/°C
Temperature Coefficient of Voc	-0.304 %/°C
Temperature Coefficient of Isc	0.050 %/°C

## MECHANICAL CHARACTERISTICS

Solar Cell	Monocrystalline 158.75 mm
No. of Cells	120 (6 × 20)
Dimensions	1684 × 1002 × 35 mm
Weight	19.0 kgs
Front Glass	3.2 mm tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP68 rated (3 bypass diodes)
Output Cables	4.0 mm <sup>2</sup> , symmetrical lengths (-) 1200 mm and (+) 1200 mm
Connectors	MC4 compatible (1000V)

## PACKING CONFIGURATION

Container	20' GP	40' HC
Pieces per pallet	30	29
Pallets per container	12	28
Pieces per container	360	812



## Current-Voltage & Power-Voltage Curve (345S)

