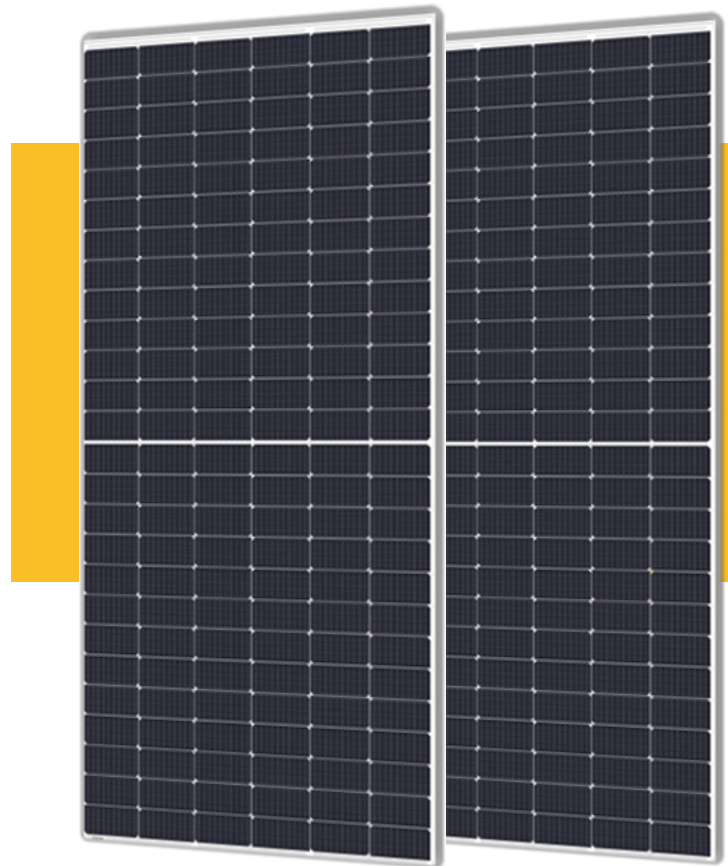









182 M10 cells half cut Mono-crystallineModule

MSMDxxxM10-78 565W-590W



KEY FEATURES

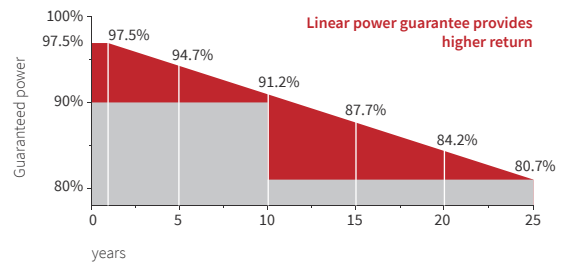
-  **Class A fire resistant (industry standard class C)**
-  **Outstanding performance in low-light conditions**
-  **Low temperature coefficient (Pmax): -0.39 % / °C**
- +5W** 0~+5W positive tolerance - to assure high output
-  **Lower internal current, lower hot spot temperature**
-  **Cell crack risk 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 (5400pa)**
-  **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

MSMDxxxM10-78

ELECTRICAL PERFORMANCE

Electrical parameters at Standard Test Conditions (STC)

Module Type

Power output	Pmax	(w)	565	570	575	580	585	590
Power output tolerances	ΔP_{max}	(w)	0~+5W					
Module efficiency	η_m	(%)	20.1	20.3	20.5	20.7	20.9	21.1
Voltage at Pmax	Vmpp	(V)	43.85	44.01	44.15	44.30	44.45	44.60
Current at Pmax	Imp	(A)	12.88	12.95	13.02	13.09	13.16	13.23
Open circuit voltage	Voc	(V)	53.05	53.20	53.35	53.50	53.65	53.8
Short circuit current	Isc	(A)	13.32	13.40	13.48	13.56	13.64	13.72

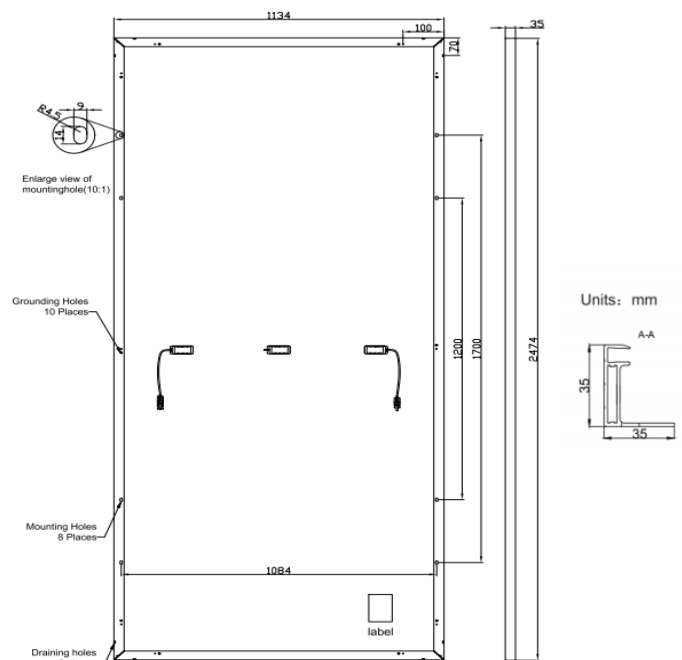
STC: 1000W/m² irradiance, 25°C cell temperature, AM1.5g spectrum according to EN 60904-3. Average relative efficiency reduction of 5% at 200W/m² according to EN 60904-1.

THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	45 +/-2
Temperature coefficient of Pmax	Y	% / °C	-0.403
Temperature coefficient of Voc	β_{Voc}	% / °C	-0.390
Temperature coefficient of Isc	Isc	% / °C	+0.049

OPERATING CONDITIONS

Max. System Voltage	1500VDC
Max. series fuse rating	20A
Limiting reverse current	20A
Operating temperature range	-40°C to 85°C
Max. static load, front (e.g., snow)	5400Pa
Max. static load, back (e.g., wind)	3600Pa
Max. hailstone impact (diameter/velocity)	25 mm / 23 m/s



MECHANICAL CHARACTERISTICS

Front Cover (material / thickness)	low-iron tempered glass / 3.2 mm
Cell (quantity)	144pcs (6x12x2)
Encapsulant (material)	EVA
Frame material	anodized aluminum alloy
Junction box (protection degree)	IP67 with bypass-diode
Cable (length / cross sectional area)	4 mm ² (portrait:400mm/landscape:1400mm)
Plug connector (type / protection degree)	MC4 / IP67
Fire Safety Classification (IEC 61730)	Class C

Specifications are subject to change without notice.

GENERAL CHARACTERISTICS

Dimensions	2474 mm / 1134 mm / 35mm
Weight	30.8kg

IV-Curves

