

MT5-Pro

620-640W

N-type TOPCon Black Frame
Solar Module

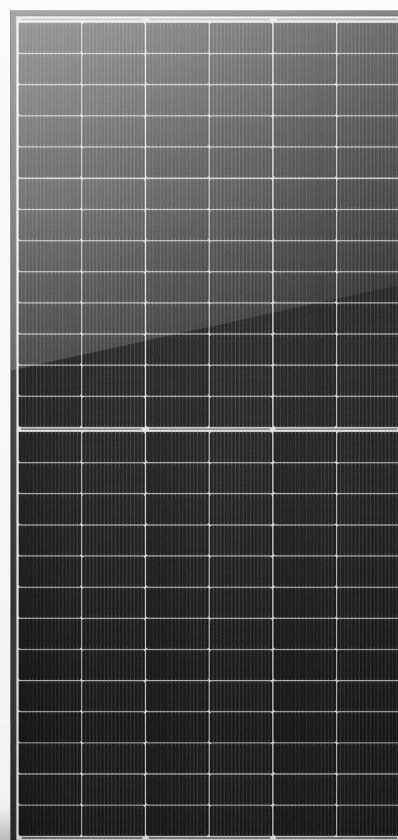
Qualidade Garantida

25-Year Warranty for Materials and Processing

30-Year Warranty for Extra Linear Power Output

22.90%

Max. Module Efficiency



MS-78H

10-30% Additional Power Generation

30 years lifespan brings 10-30% additional power generation comparing with conventional P-type module.

ZERO LID (Light Induced Degradation)

N-type solar cell has no LID naturally which can increase power generation.

Higher Reliability

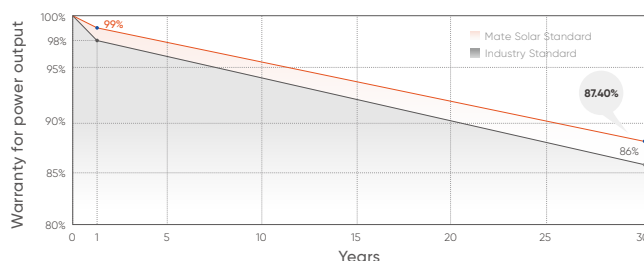
Adopted Mate Solar latest S-TOPCo 2.0 technology,
No polysilicon wrap around, Full electrical isolation,
Zero leakage current; Much Safer for roof.

Better Weak Illumination Response

Higher power output even under low-light environments like on cloudy or foggy days.

Better Temperature Coefficient

Higher power generation under working conditions, thanks to passivating contact cell technology.



* Please refer to Mate Solar standard warranty for details

Quality Management System And Product Certification

IEC61215/61730, IEC62804(PID), IEC61701(Salt).

IEC62716 (Ammonia), IEC60068-2-68(Sand).

ISO 9001:2015/quality management system.

ISO 14001:2015/environmental management system.

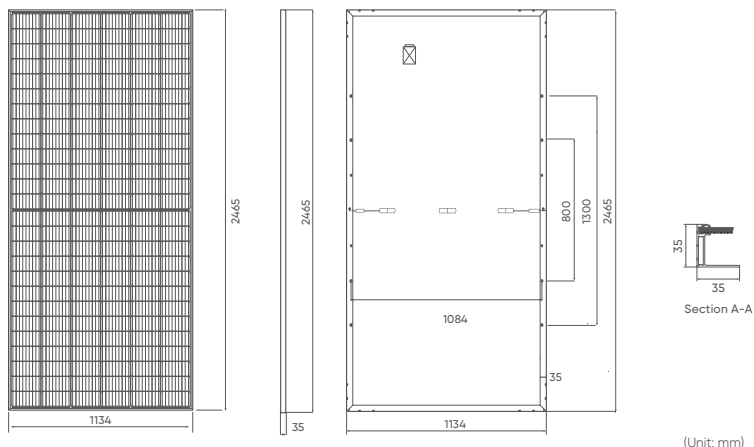
ISO 45001:2018/occupation health safety management system

ISO 50001:2011/energy management system.

IEC TS 62941-2016/PV industry quality management system .



Drawings



Mechanical Parameters

Solar Cells	N-type Mono
No. of Cells	156 (6×26)
Dimensions	2465 × 1134 × 30mm
Weight	30.0kg
Front Glass	3.2mm coated tempered glass
Frame	Black Anodized aluminium alloy
Junction Box	Ip68 rated (3 by pass diodes)
Output Cables	4mm ² , 300mm (+) / 300mm (-), Length can be customized
Connectors	Mc4 compatible
Mechanical load test	5400Pa
Packaging	36pcs/box, 144pcs/20'GP, 576pcs/40'HQ

Electrical Characteristics (STC*)

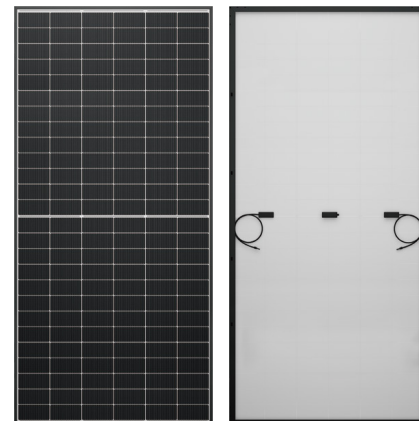
Module Type: MS-78H	620	625	630	635	640
Maximum power (P _{max} /W)	620	625	630	635	640
Open Circuit Voltage (V _{oc} /V)	56.39	56.55	56.71	56.87	57.01
Short Circuit Current (I _{sc} /A)	13.86	13.92	13.98	14.04	14.10
Voltage at Maximum power (V _{mpp} /V)	46.94	47.14	47.30	47.46	47.62
Current Maximum Power (I _{mpp} /A)	13.21	13.26	13.32	13.38	13.44
MODULE EFFICIENCY (%)	22.18	22.36	22.54	22.72	22.90

Electrical Characteristics (NMOT*)

Maximum Power: P _{max} [W]	467	471	475	479	483
Open Circuit Voltage: V _{oc} [V]	53.58	53.72	53.86	54.00	54.14
Short Circuit Current: I _{sc} [A]	11.18	11.23	11.28	11.33	11.38
Voltage at Maximum Power: V _{mp} [V]	44.02	44.19	44.29	44.43	44.64
Current at Maximum Power: I _{mp} [A]	10.61	10.66	10.72	10.77	10.82

1. Standard Test Conditions [STC]: irradiance 1000W/m²; AM 1.5; ambient temperature 25°C according to EN 60904-3;
 2. Nominal Module Operating Temperature (NMOT): Irradiance 800W/m²; wind speed 1m/s, ambient temperature 20°C.
 3. Tolerance of P_m: 0~+5W, Measuring uncertainty of power: ±3%. Performance deviation of V_{oc} [V], I_{sc} [A], V_m [V] and I_m [A]: ±3%.

Product Image



Operating Characteristics

Operating Module Temperature	-40°C to +85°C
Maximum System Voltage	1500 DC (IEC)
Maximum Series Fuse Rating	25A
Power Tolerance	0/+5W

Temperature Characteristics

Nominal Operating Temperature (NMOT)	45±2°C
Temperature Coefficient of P _{max}	-0.30%/°C
Temperature Coefficient of V _{oc}	-0.25%/°C
Temperature Coefficient of I _{sc}	+0.046%/°C

I-V CURVE

