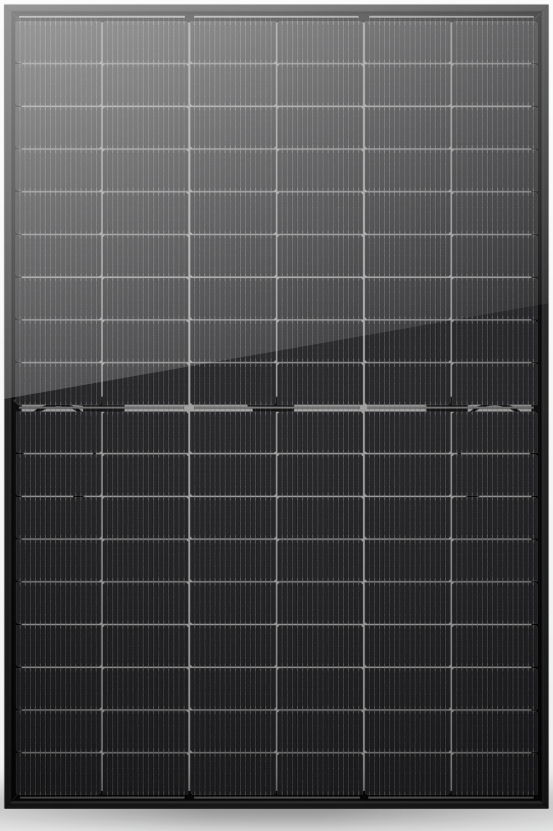
MT5-Pro

430-455W

N-type TOPCon Full Black Bifacial Dual Glass Solar Module



MS-54H

Qualidade Garantida

25-Year Warranty for Materials and Processing
30-Year Warranty for Extra Linear Power Output

23.30%
Max. Module Efficiency

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

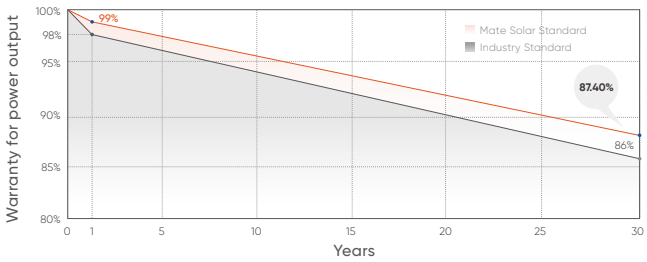
Adpoted Mate Solar lastest S-TOPCo 2.0 technology, No polysilicon wrap around, Full electrical isolation, Zero leakage current; Much Safer for roof.

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 .

MATESOLAR
Mate Solar Co.,Ltd Add: 6th Floor, No.398 Ganquan Road Hefei AnHui China Email: thomas@mate-solar.com Tel: +86-177 5698 2906 Web: www.mate-solar.com

MT5-Pro MS-54H

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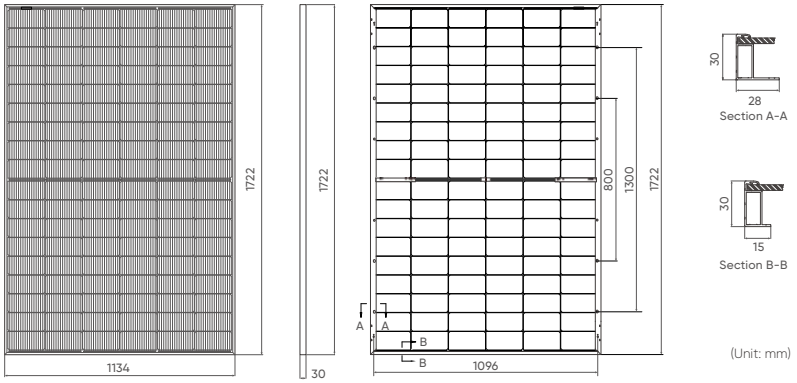
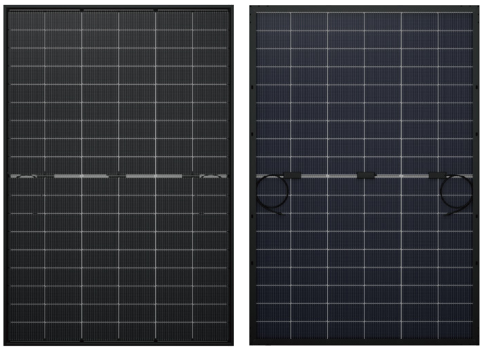
Drawings



Product Image



Mechanical Parameters

Solar Cells	N-type Mono
No. of Cells	108 (6x18)
Dimensions	1722 x 1134 x 30mm
Weight	23.5kg
Glass	Front: 2.0mm coated semi-tempered glass; Back: 2.0mm semi-tempered glass
Frame	Black Anodized aluminium alloy
Junction Box	Ip68 rated (3 by pass diodes)
Output Cables	4mm², 1000mm (+) / 1000mm (-), Length can be customized
Connectors	Mc4 compatible
M echanical load test	5400Pa
Packaging	36pcs/box, 216pcs/20'GP, 936pcs/40'HQ

Operating Characteristics

Operating Module Temperature	-40°C to +85°C
Maximun System Voltage	1500 DC (IEC)
Maximun Series Fuse Rating	30A
Power Tolerance	0/+5W

Temperature Characteristics

Nominal Operating Temperature (NMOT)	45±2°C
Temperature Coeffcient of Pmax	-0.29%°C
Temperature Coeffcient of Voc	-0.25%°C
Temperature Coeffcient of Isc	+0.045%°C

Electrical Characteristics (STC*)

Module Type: **MS-54H**	430	435	440	445	450	455
Maximum power (Pmax/W)	430	435	440	445	450	455
Open Circuit Voltage (Voc/V)	38.95	39.16	39.38	39.59	39.78	39.98
Short Circuit Current (Isc/A)	13.73	13.80	13.86	13.93	14.00	14.07
Voltage at Maximum power (Vmpp/V)	32.38	32.59	32.81	33.02	33.21	33.41
Current Maximum Power (Impp/A)	13.28	13.35	13.41	13.48	13.55	13.62
MODULE EFFICIENCY (%)	22.02	22.28	22.53	22.79	23.04	23.30

Bifacial Output-Rearsid Power Gain

5%	Maximum Power (Pmax/W)	452	457	462	467	473	478
	Module Effciency STC (%)	23.12	23.39	23.66	23.93	24.20	24.47
15%	Maximum Power (Pmax/W)	495	500	506	512	518	523
	Module Effciency STC (%)	25.32	25.62	25.91	26.21	26.50	26.80
25%	Maximum Power (Pmax/W)	538	544	550	556	563	569
	Module Effciency STC (%)	27.53	27.85	28.17	28.49	28.81	29.13

1. Standard Test Conditions [STC]: irradiance 1000W/m2; AM 1.5; ambient temperature 25°C according to EN 60904-3;
2. Tolerance of Pm: 0~+5W, Measuring uncertainty of power: ±3%. Performance deviation of Voc [V], Isc [A], Vm [V] and Im [A]: ±3%.

I-V Curve