

MARSTEK SATURN-M

Single-Phase On-Grid PV Microinverter

16V Awaken Every Sunshine, Capture More Energy



Adapts to Diverse Complex Scenarios

Adapts to angled roofs, BIPV, and non-uniform orientation scenarios to maximize space utilization.



Max. 1000W PV Input Module-Level MPPT Tracking

Dual independent MPPT channels enable individual maximum power point tracking for each PV module, eliminating the "bucket effect" caused by shading, soiling, module degradation, or orientation mismatch.

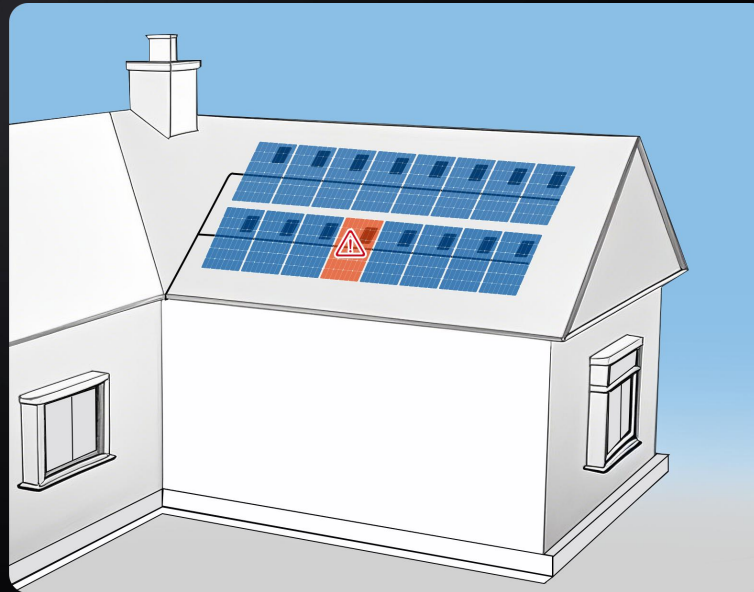


Efficient & Reliable Distributed PV System

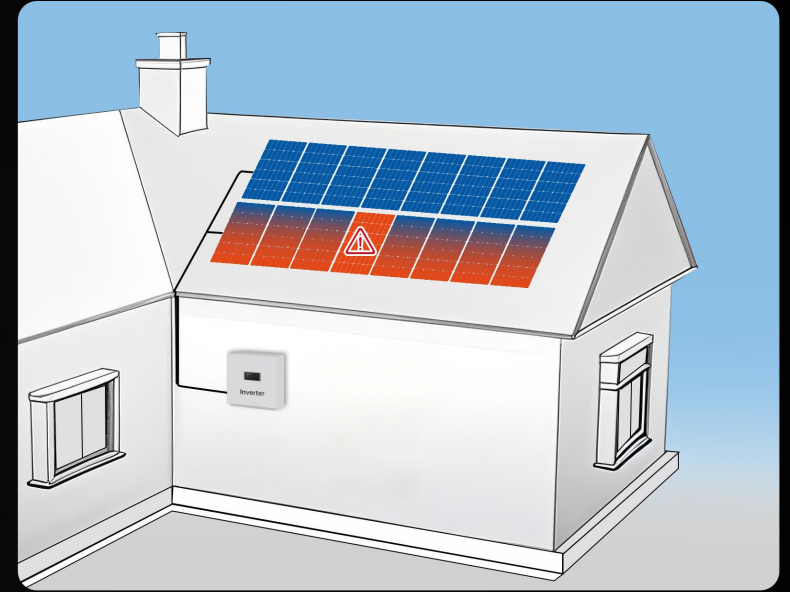
60% ↑

Higher efficiency
than string PV systems

Minimal impact on
generation during partial
issues



Distributed PV System

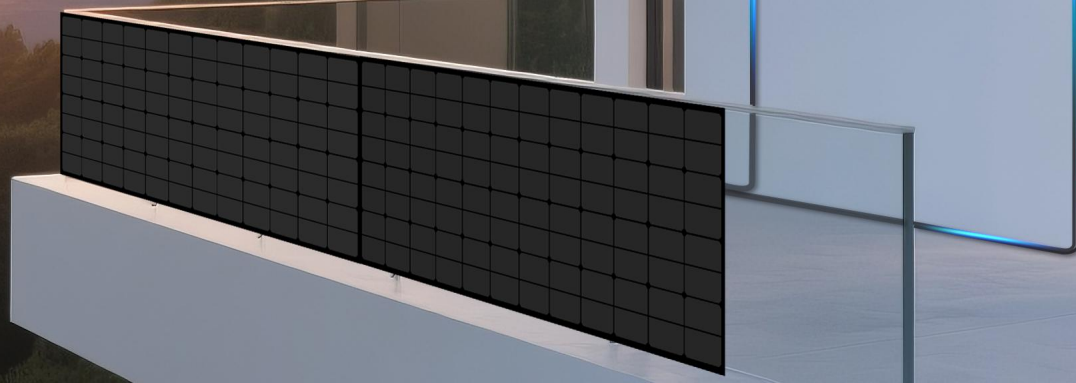


String PV System

Enhanced Low-Light Performance Capture More Energy

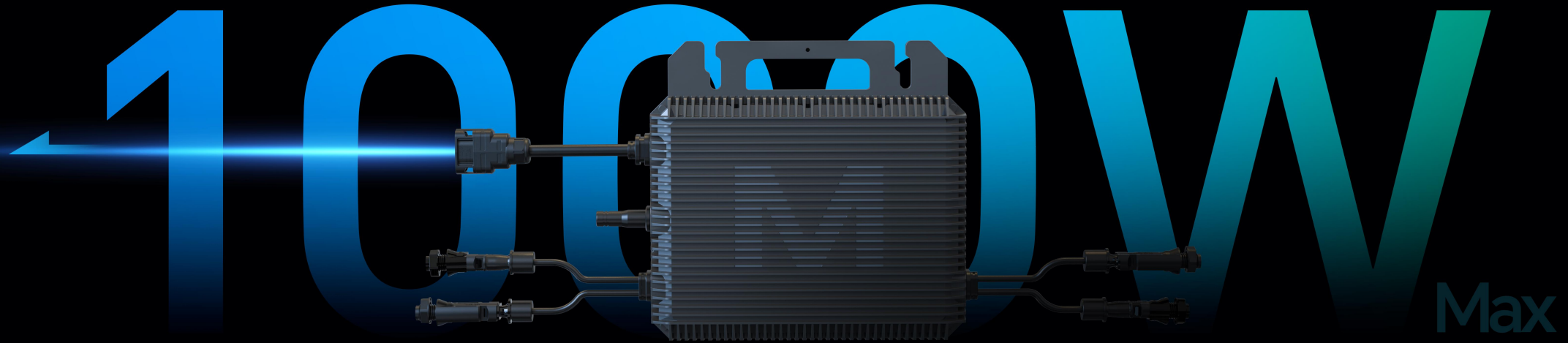
22V MPPT startup voltage and 16V minimum operating voltage ensure power generation during dawn, cloudy days, and other low-light conditions, extending daily operating hours and energy yield.

5am
TIMES



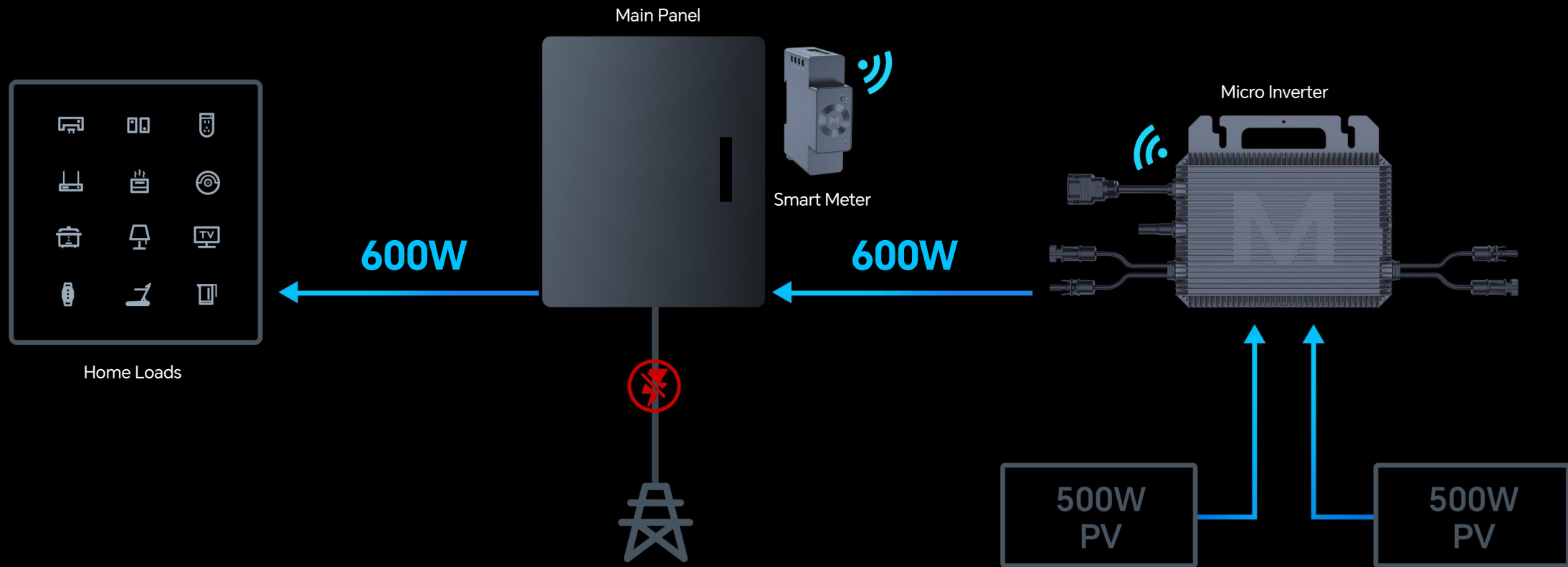
800W / 1000W Max. On-Grid

Utilizes resonant soft-switching technology to significantly reduce switching losses, achieving up to 96.5% efficiency.



Anti Feed-in Guarantee 100% Self-Consumption

Integrated smart meter support enables <10s load response to prevent feed-in to the grid.



High Safety



Dual Shutdown Protection

Built-in high-frequency transformer and power relay at the output to provide redundant shutdown protection, ensuring automatic decoupling from the grid in the event of a single fault.



Isolated Inverter Topology

Utilizing high-frequency transformers to eliminate direct electrical connection between input and output sides, significantly enhancing overall system safety.



THD <3%

Pure sine wave output ensures safe operation for sensitive loads and extends equipment service life.



Low-Voltage DC Input $\leq 60V$

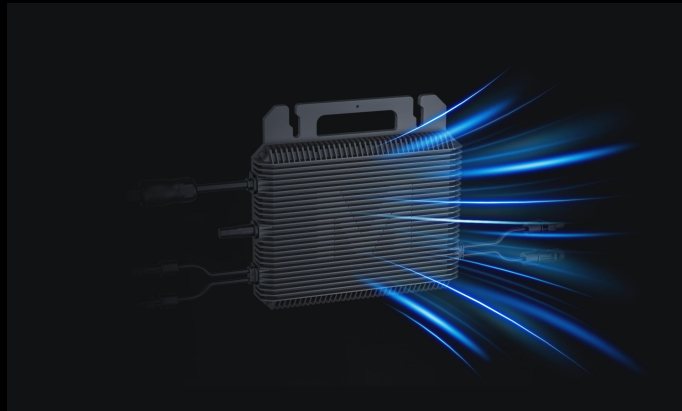
DC input voltage $\leq 60V$ with over-voltage/over-current protection, fundamentally eliminating risks of electric shock and arc fires caused by high-voltage DC.

Extended Lifespan & High Reliability



IP67 Waterproof

Fully potted internal components provide dust/water resistance and salt mist corrosion protection, suitable for harsh coastal/industrial environments.



Stable Full-Power Operation

Aluminum alloy die-cast housing enables efficient heat dissipation, preventing overtemperature triggers.

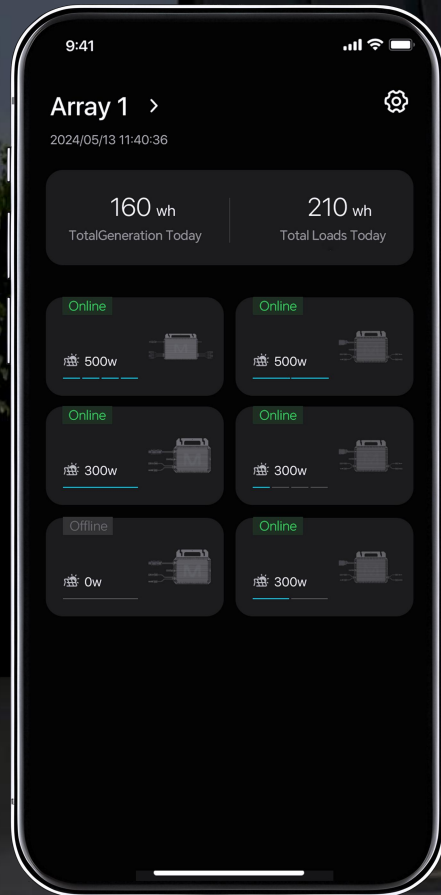


Operating Temp.: -40°C to 65°C

Ultra-wide operational voltage range enables effortless performance in extreme environments.

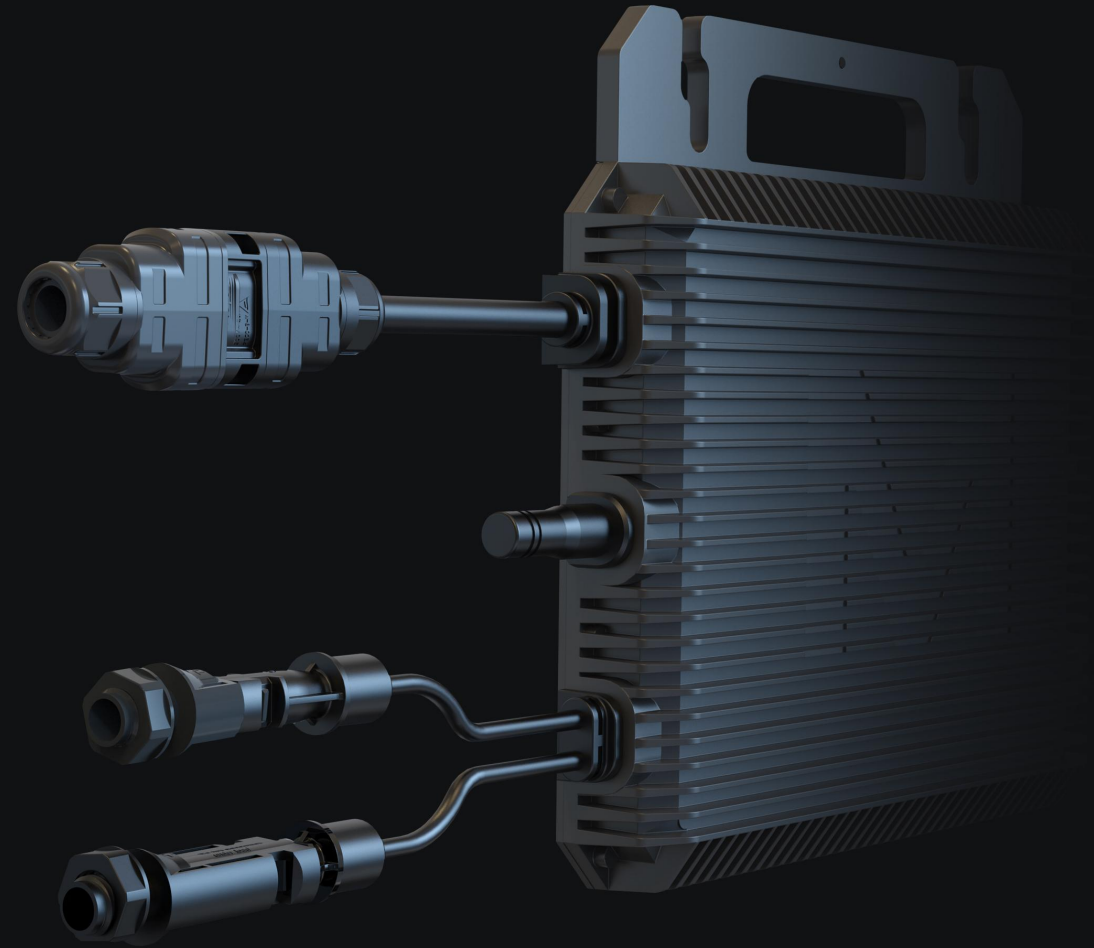
Smart Monitoring & Easy Maintenance

Built-in Wi-Fi and BT communication allows users to view per-module performance and pinpoint faults via APP / cloud platforms for precision maintenance.



Plug & Play Easy Installation & Flexible Expansion

Compact, lightweight design with MC4 connectors allows direct mounting on module backs or racks, saving space and wiring costs. Add new modules in parallel during capacity upgrades without modifying existing systems, supporting phased investments.



Seamlessly Integrates SATURN-D

Stores excess solar energy for use at night

Max. Capacity

$2.24\text{kWh} \times 4 = \mathbf{8.96\text{kWh}}$

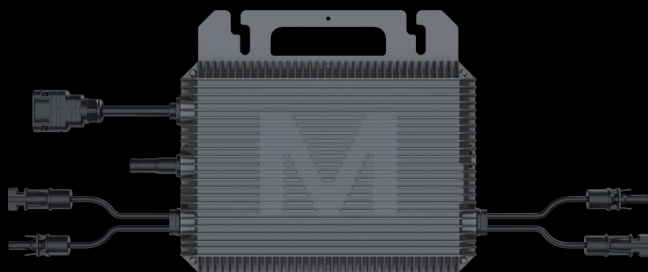
Max. Solar Input

$800\text{W} \times 6 = \mathbf{4800\text{W}}$



MARSTEK SATURN-M2

Specification



Specification Type	Product Specification	
	MST-MI0800W	MST-MI1000W
DC Input		
Max. Input Voltage	60V	
PV Typical Input Power	320W-540W+	400W-670W+
Range of Input Operating Voltage	16-60 V	
Range of Mppt Voltage	25-55 V	
Start-up Voltage	22 V	
Max. Input Current	16 A×2	
Max. Short Current	20 A	
Max. inverter backfeed current to the array	0 A	
MPPT No.	2	
MPPT Efficiency	99.80%	
AC Output		
Max. Output Power	800 VA	1000 VA
Nominal Output Voltage(AC)	230V	
Output Voltage Range	180-275V	
Nominal Output Frequency & Range	50Hz/45~55Hz 60Hz/55~65Hz	
Max. Continuous Output Current(AC)	3.48A	4.35A
Max. Overcurrent	10A	
Max.Fault Current	24A	
Current (In rush)	2A	
Max. Efficiency	96.50%	
Output Power Factor	>0.99 (Default)	
THD	<3%	
General Parameter		
Night Power Consumption	<50mW	
Ingress Protection	IP67	
Over Voltage category	PV: II , Mains:III	
Inverter Topology	Isolated	
Operating Ambient Temp.	-40~+65 °C	
Relative humidity	≤95%RH	
Cooling Strategy	Natural Convection	
Protective Class	I	
Size	570mm×236mm×34.5mm	565.3mm×251.1mm×37.7mm
Weight	3.15kg	3.85kg
Monitoring Platform	Marstek	
Maintenance	10 Year	
Additional Data		
On-grid Connection Standard	VDE 4150/0124, NF EN 50549, (22.1-2015 Rule 64-218, PTPIREE, CEI0-21, PEA 1165-2020	
Regulatory/EMC	IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4, EN 301 489-1/17/52, EN 62920, IEC/EN 61000-3-2/-3, EN 50665, EN 300 328, EN 50549-1	

THANKS!

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