

SMORSN

MS 60HS

365~375 watt

166 HALF-CUT CELL, MONO-FACIAL MODULE

MS 60HS mono crystalline silicon solar module, which is particularly designed for rooftops, makes installation much easier. Its remarkable reliability and high efficiency provide strong guarantee of excellent performance.



Key Features



Multi-busbar Technology

Multi-busbar helps to trap more light and electricity



Light design

Light design for rooftop particularly



Less Hot Spot Risk

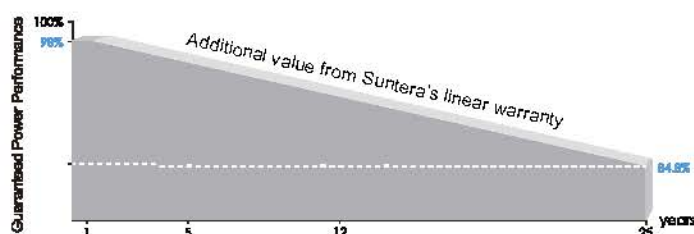
Half-cut technology reduces inner loss and hot spot risk



Better LCOE

Excellent performance brings better LCOE

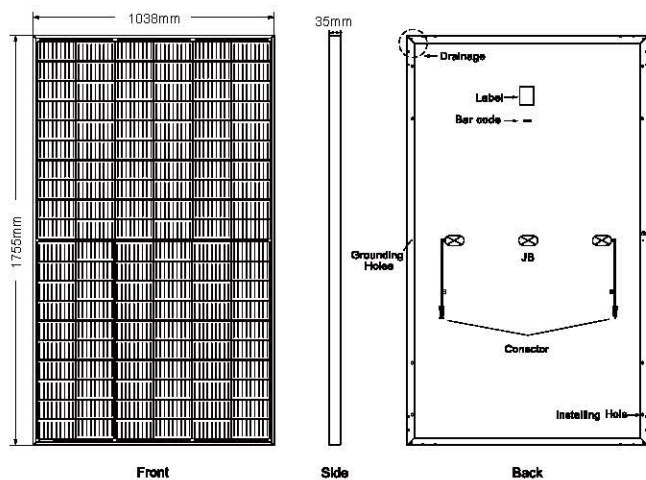
Linear Performance Warranty



12 Years Product Warranty

25 Years Linear Power Warranty

0.55% Annual Degradation Over 25 Years



MECHANICAL CHARACTERISTICS

Cell Type	P type Mono-crystalline 166x83mm
No. of Cells	120 cells
Dimensions	1755(±2)×1038(±2)×35(±1)mm
Weight	20kg±3%
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy
Max Static Loading	5400Pa(front)/2400Pa(rear)
Junction Box	IP67 Rated
Output Cables	4.0 mm ² , cable length: 300 mm or Customized Length

PACKAGING CONFIGURATION

(Two pallets = One stack)

31pcs/pallets, 62pcs/stack, 806pcs/ 40'HQ Container

SPECIFICATIONS

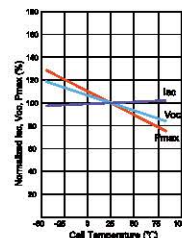
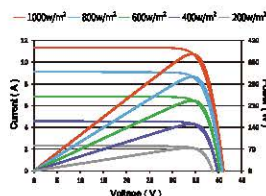
Module Type	MSMP-60HS-365	MSMP-60HS-370	MSMP-60HS-375
Maximum Power (P _{max} /W)	365	370	375
Maximum Power Voltage (V _{mp} /V)	34.18	34.39	34.59
Maximum Power Current (I _{mp} /A)	10.68	10.76	10.84
Open-circuit Voltage (V _{oc} /V)	42.7	42.9	43.1
Short-circuit Current (I _{sc} /A)	11.1	11.21	11.32
Module Efficiency STC (%)	20.0	20.3	20.6
Operating Temperature	-40°C~+85°C		
Maximum System Voltage	1500VDC		
Maximum Series Fuse Rating	20A		
Power Tolerance	0~+3%		
STC	Irradiance 1000W/M ² , cell temperature 25°C, AM 1.5		

TEMPERATURE RATINGS

Temperature Coefficient of P _{max}	-0.34%/°C
Temperature Coefficient of V _{oc}	-0.27%/°C
Temperature Coefficient of I _{sc}	+0.04%/°C
Nominal Operating Cell Temperature (NOCT)	45±2°C

Current-Voltage & Power-Voltage Curve

Temperature Dependence of I_{sc}, V_{oc}, P_{max}



SMORSN

MsMax 54HS 395~410 watt

182 HALF-CUT CELL, MONO-FACIAL MODULE

MsMax 54HS mono crystalline silicon solar module, which is particularly designed for rooftops, makes installation much easier. Meanwhile, its extraordinarily high efficiency enables you to install as many as you can in a limited area.



Key Features



Multi-busbar Technology

Multi-busbar helps to trap more light and electricity



Light design

Light design for rooftop particularly



Less Hot Spot Risk

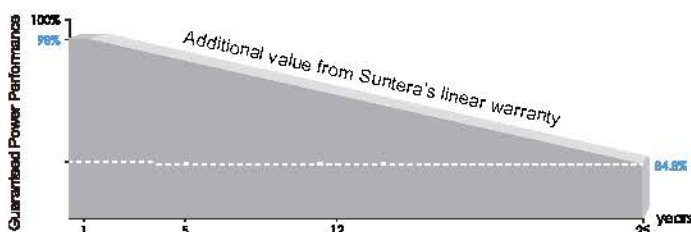
Half-cut technology reduces inner loss and hot spot risk



Better LCOE

Excellent performance brings better LCOE

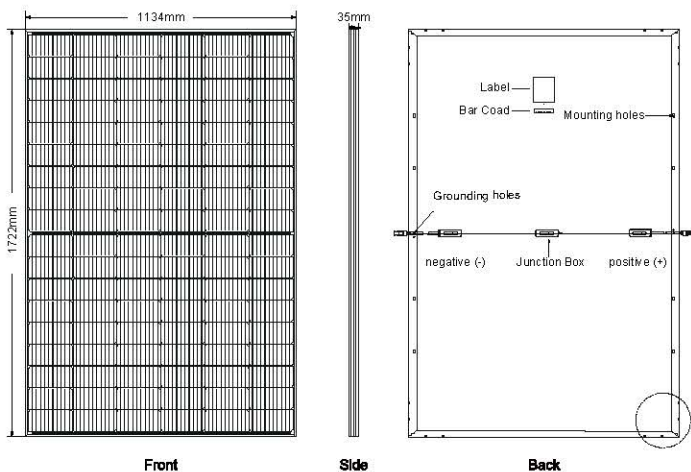
Linear Performance Warranty



12 Years Product Warranty

25 Years Linear Power Warranty

0.55% Annual Degradation Over 25 Years



MECHANICAL CHARACTERISTICS

Cell Type	P type Mono-crystalline 182x91mm
No. of Cells	108 cells
Dimensions	1722(±2)×1134(±2)×35(±1)mm
Weight	21kg±3%
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy
Max Static Loading	5400Pa(front)/2400Pa(rear)
Junction Box	IP68 Rated
Output Cables	4.0 mm ² , cable length: 300 mm or Customized Length

PACKAGING CONFIGURATION

(Two pallets = One stack)

31pcs/pallets, 62pcs/stack, 806pcs/ 40'HQ Container

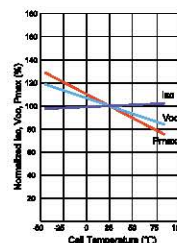
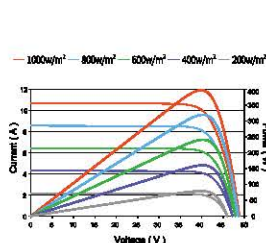
SPECIFICATIONS

Module Type	MSMP-M54HS-395	MSMP-M54HS-400	MSMP-M54HS-405	MSMP-M54HS-410
Maximum Power (P _{max} /W)	395	400	405	410
Maximum Power Voltage (V _{mp} /V)	31.03	31.11	31.23	31.4
Maximum Power Current (I _{mp} /A)	12.73	12.86	12.97	13.06
Open-circuit Voltage (V _{oc} /V)	36.93	37.18	37.33	37.86
Short-circuit Current (I _{sc} /A)	13.24	13.39	13.44	13.59
Module Efficiency STC (%)	20.2	20.5	20.7	21.0
Operating Temperature	-40°C~+85°C			
Maximum System Voltage	1500VDC			
Maximum Series Fuse Rating	25A			
Power Tolerance	0~+3%			
STC	Irradiance 1000W/M2, cell temperature 25°C, AM 1.5			

TEMPERATURE RATINGS

Temperature Coefficient of P _{max}	-0.35%/°C
Temperature Coefficient of V _{oc}	-0.27%/°C
Temperature Coefficient of I _{sc}	+0.05%/°C
Nominal Operating Cell Temperature (NOCT)	45±2°C

Current-Voltage & Power-Voltage Curve Temperature Dependence of I_{sc}, V_{oc}, P_{max}



SMORSN

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SMORSN

MS 72HS

440~450 watt

166 HALF-CUT CELL, MONO-FACIAL MODULE

MS 72HS mono crystalline silicon solar module, designed in classic pattern, is a good choice for large rooftops. Its remarkable reliability and high efficiency provide strong guarantee of excellent performance.



Key Features



Multi-busbar Technology

Multi-busbar helps to trap more light and electricity



Enhanced Structure

Enhanced structure provides extraordinary durability



Less Hot Spot Risk

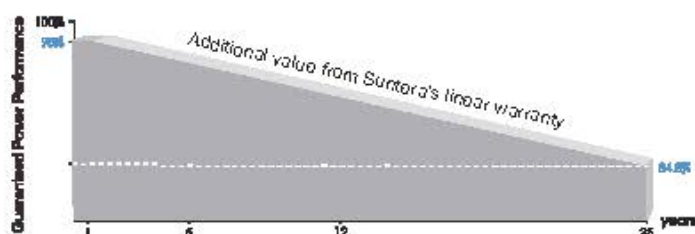
Half-cut technology reduces inner loss and hot spot risk



Better LCOE

Excellent performance brings better LCOE

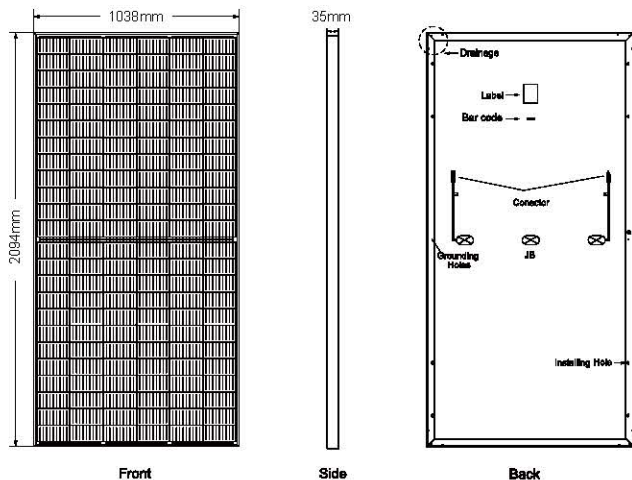
Linear Performance Warranty



12 Years Product Warranty

25 Years Linear Power Warranty

0.55% Annual Degradation Over 25 Years



MECHANICAL CHARACTERISTICS

Cell Type	P type Mono-crystalline 166x83mm
No. of Cells	144 cells
Dimensions	2094(±2)×1038(±2)×35(±1)mm
Weight	24kg±3%
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy
Max Static Loading	5400Pa(front)/2400Pa(rear)
Junction Box	IP67 Rated
Output Cables	4.0 mm ² , cable length: 300 mm or Customized Length

PACKAGING CONFIGURATION

(Two pallets = One stack)

31pcs/pallets, 62pcs/stack, 682pcs/ 40'HQ Container

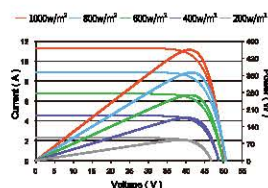
SPECIFICATIONS

Module Type	MSMP-72HS-440	MSMP-72HS-445	MSMP-72HS-450
Maximum Power (P _{max} /W)	440	445	450
Maximum Power Voltage (V _{mp} /V)	41.08	41.28	41.47
Maximum Power Current (I _{mp} /A)	10.71	10.78	10.85
Open-circuit Voltage (V _{oc} /V)	50.08	50.24	50.4
Short-circuit Current (I _{sc} /A)	11.33	11.4	11.47
Module Efficiency STC (%)	20.2	20.5	20.7
Operating Temperature	-40°C~+85°C		
Maximum System Voltage	1500VDC		
Maximum Series Fuse Rating	20A		
Power Tolerance	0~+3%		
STC	Irradiance 1000W/M ² , cell temperature 25°C, AM 1.5		

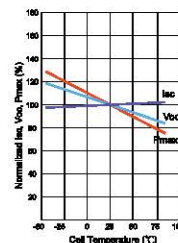
TEMPERATURE RATINGS

Temperature Coefficient of P _{max}	-0.37%/°C
Temperature Coefficient of V _{oc}	-0.29%/°C
Temperature Coefficient of I _{sc}	+0.05%/°C
Nominal Operating Cell Temperature (NOCT)	45±2°C

Current-Voltage & Power-Voltage Curve



Temperature Dependence of I_{sc}, V_{oc}, P_{max}



SMORSN

MsMax 72HS 535~550 watt

182 HALF-CUT CELL, MONO-FACIAL MODULE

MsMax 72HS mono crystalline silicon solar module is particularly designed for large rooftops and solar farms. Its extraordinarily high power output and power density reduce BOS cost significantly and provide better LCOE.



Key Features



Multi-busbar Technology

Multi-busbar helps to trap more light and electricity



M10(182mm) Cell

M10 cell provides extraordinarily high power



Less Hot Spot Risk

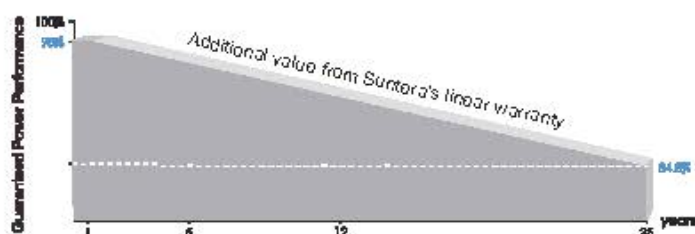
Half-cut technology reduces inner loss and hot spot risk



Better LCOE

Excellent performance brings better LCOE

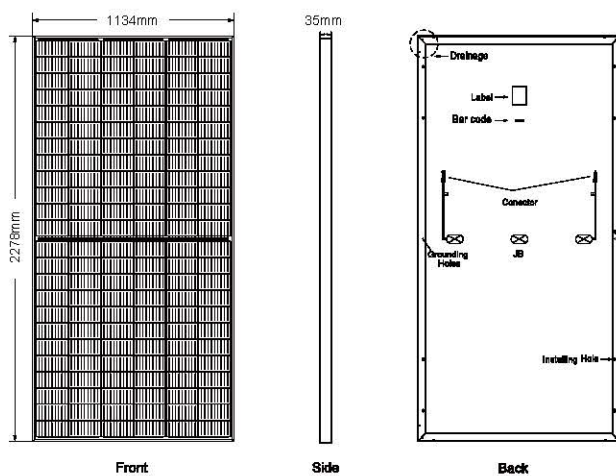
Linear Performance Warranty



12 Years Product Warranty

25 Years Linear Power Warranty

0.55% Annual Degradation Over 25 Years



MECHANICAL CHARACTERISTICS

Cell Type	P type Mono-crystalline 182x91mm
No. of Cells	144 cells
Dimensions	2278(±2)×1134(±2)×35(±1)mm
Weight	28kg±3%
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy
Max Static Loading	5400Pa(front)/2400Pa(rear)
Junction Box	IP68 Rated
Output Cables	4.0 mm ² , cable length: 300 mm or Customized Length

PACKAGING CONFIGURATION

(Two pallets = One stack)

31pcs/pallets, 62pcs/stack, 620pcs/ 40'HQ Container

SPECIFICATIONS

Module Type	MSMP-M72HS-535	MSMP-M72HS-540	MSMP-M72HS-545	MSMP-M72HS-550
Maximum Power (P _{max} /W)	535	540	545	550
Maximum Power Voltage (V _{mp} /V)	41.44	41.64	41.86	41.96
Maximum Power Current (I _{mp} /A)	12.91	12.97	13.02	13.11
Open-circuit Voltage (V _{oc} /V)	49.34	49.42	49.51	49.6
Short-circuit Current (I _{sc} /A)	13.79	13.85	13.94	14.04
Module Efficiency STC (%)	20.7	20.9	21.1	21.3
Operating Temperature	-40°C~+85°C			
Maximum System Voltage	1500VDC			
Maximum Series Fuse Rating	25A			
Power Tolerance	0~+3%			
STC	Irradiance 1000W/M2, cell temperature 25°C, AM 1.5			

TEMPERATURE RATINGS

Temperature Coefficient of P _{max}	-0.35%/°C
Temperature Coefficient of V _{oc}	-0.27%/°C
Temperature Coefficient of I _{sc}	+0.048%/°C
Nominal Operating Cell Temperature (NOCT)	45±2°C

Current-Voltage & Power-Voltage Curve Temperature Dependence of I_{sc}, V_{oc}, P_{max}

