

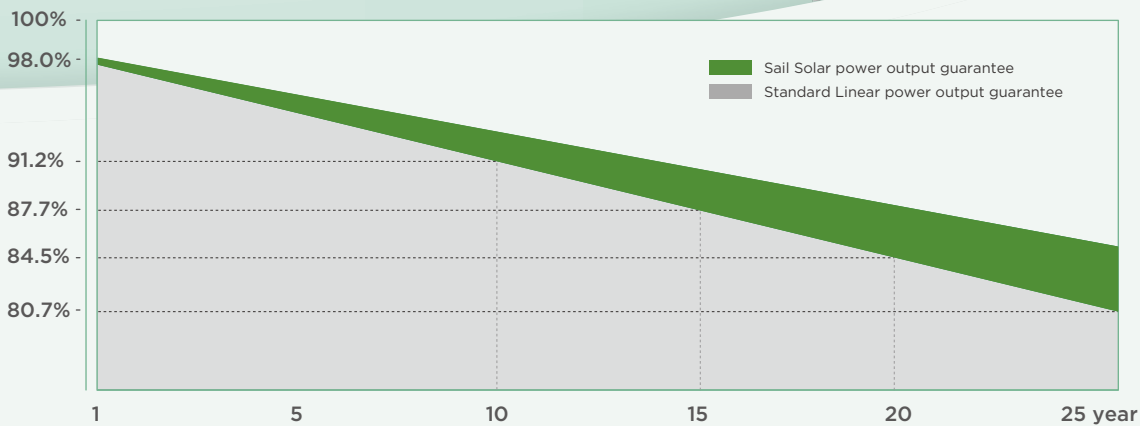
SAS455M-144H **MBB**

# 425~455W

**High Efficiency Low  
LID Mono PERC with  
MBB & Half-cut Technology**

## Quality Guarantee

12-year Warranty for Materials and Processing  
25-year Warranty for Extra Linear Power Output



**20.9%**  
Max Module Eff.

**0~+5W**  
Positive Tolerance

### Complete System and Product Certifications

IEC 61215, IEC 61730, UL 61730  
ISO 9001:2008: ISO Quality Management System  
ISO 14001: 2004: ISO Environment Management System  
OHSAS 18001: 2007 Occupational Health and Safety



Positive power tolerance (0 +5W) guaranteed

High module conversion efficiency (up to 20.9%)

Slower power degradation enabled by Low LID Mono PERC technology: first year <2%, 0.55% year 2-25

Solid PID resistance ensured by solar cell process optimization and careful module BOM selection

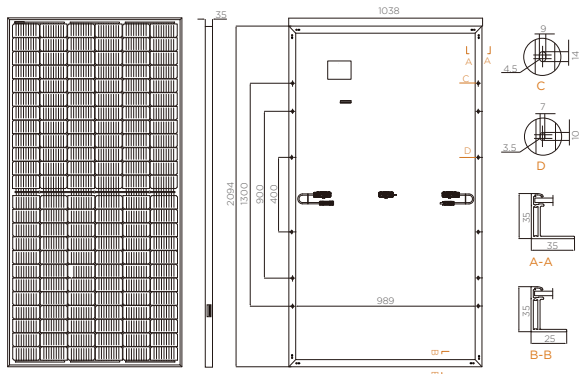
Reduced resistive loss with lower operating current

Higher energy yield with lower operating temperature

Reduced hot spot risk with optimized electrical design and lower operating current

# MBB SAS455M-144H 425~455W

## Design (mm)



<b>Cell Orientation</b>	144 (6x24)
<b>Junction Box</b>	IP68, three diodes
<b>Output Cable</b>	4mm <sup>2</sup> , 300mm in length, length can be customized
<b>Glass</b>	Single glass 3.2mm coated tempered glass
<b>Frame</b>	Anodized aluminum alloy frame
<b>Weight:</b>	23.5kg
<b>Dimension</b>	2094x1038x35mm
<b>Packaging</b>	30pcs per pallet 150pcs per 20'GP 660pcs per 40'HC

<b>Operational Temperature</b>	-40°C~+85°C
<b>Power Output Tolerance</b>	0~+5W
<b>Voc &amp; Isc Tolerance</b>	±3%
<b>Max. System Voltage</b>	DC1500V(IEC/UL)
<b>Max. Series Fuse Rating</b>	20A
<b>NOCT</b>	45±2°C
<b>Safety Class</b>	II
<b>Fire Rating</b>	UL type 1 or 2
<b>Max. Static Load(Front)</b>	5400Pa
<b>Max. Static Load(Back)</b>	2400Pa

\*Units: mm \*Tolerance: ±2mm

## Electrical Characteristics

Model Number	SAS425M-144H		SAS430M-144H		SAS435M-144H		SAS440M-144H		SAS445M-144H		SAS450M-144H		SAS455M-144H	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
<b>Maximum Power (Pmax/W)</b>	425	317.4	430	321.1	435	324.9	440	328.6	445	332.3	450	336.1	455	339.8
<b>Open Circuit Voltage (Voc/V)</b>	48.3	45.3	48.5	45.5	48.7	45.7	48.9	45.8	49.1	46.0	49.3	46.2	49.5	46.4
<b>Short Circuit Current (Isc/A)</b>	11.23	9.08	11.31	9.15	11.39	9.21	11.46	9.27	11.53	9.33	11.60	9.38	11.66	9.43
<b>Voltage at Maximum Power (Vmp/V)</b>	40.5	37.7	40.7	37.9	40.9	38.1	41.1	38.3	41.3	38.5	41.5	38.6	41.7	38.8
<b>Current at Maximum Power (Imp/A)</b>	10.50	8.42	10.57	8.47	10.64	8.53	10.71	8.59	10.78	8.64	10.85	8.70	10.92	8.75
<b>Module Efficiency(%)</b>	19.6		19.8		20.0		20.2		20.5		20.7		20.9	
<b>Temperature Coefficient of Isc</b>														
	+0.048%/°C													
<b>Temperature Coefficient of Voc</b>														
	-0.270%/°C													
<b>Temperature Coefficient of Pmax</b>														
	-0.350%/°C													

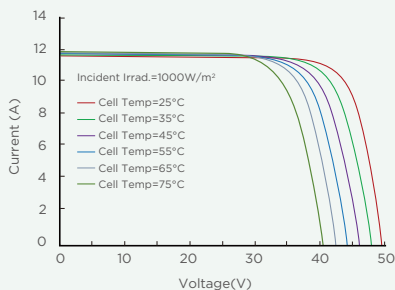
\* STC (Standard Testing Conditions): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Spectra at AM1.5

\* NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, Spectra at AM1.5, Wind at 1m/S

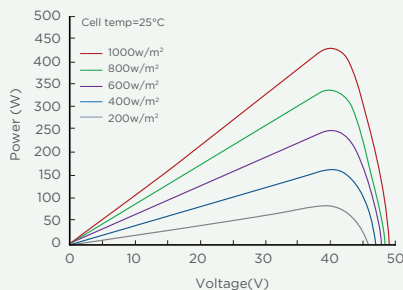
\*Test uncertainty for Pmax: ±3%

## I-V Curve

Current-Voltage Curve(SAS440M-144H)



Current-Voltage Curve(SAS440M-144H)



Current-Voltage Curve(SAS440M-144H)

