

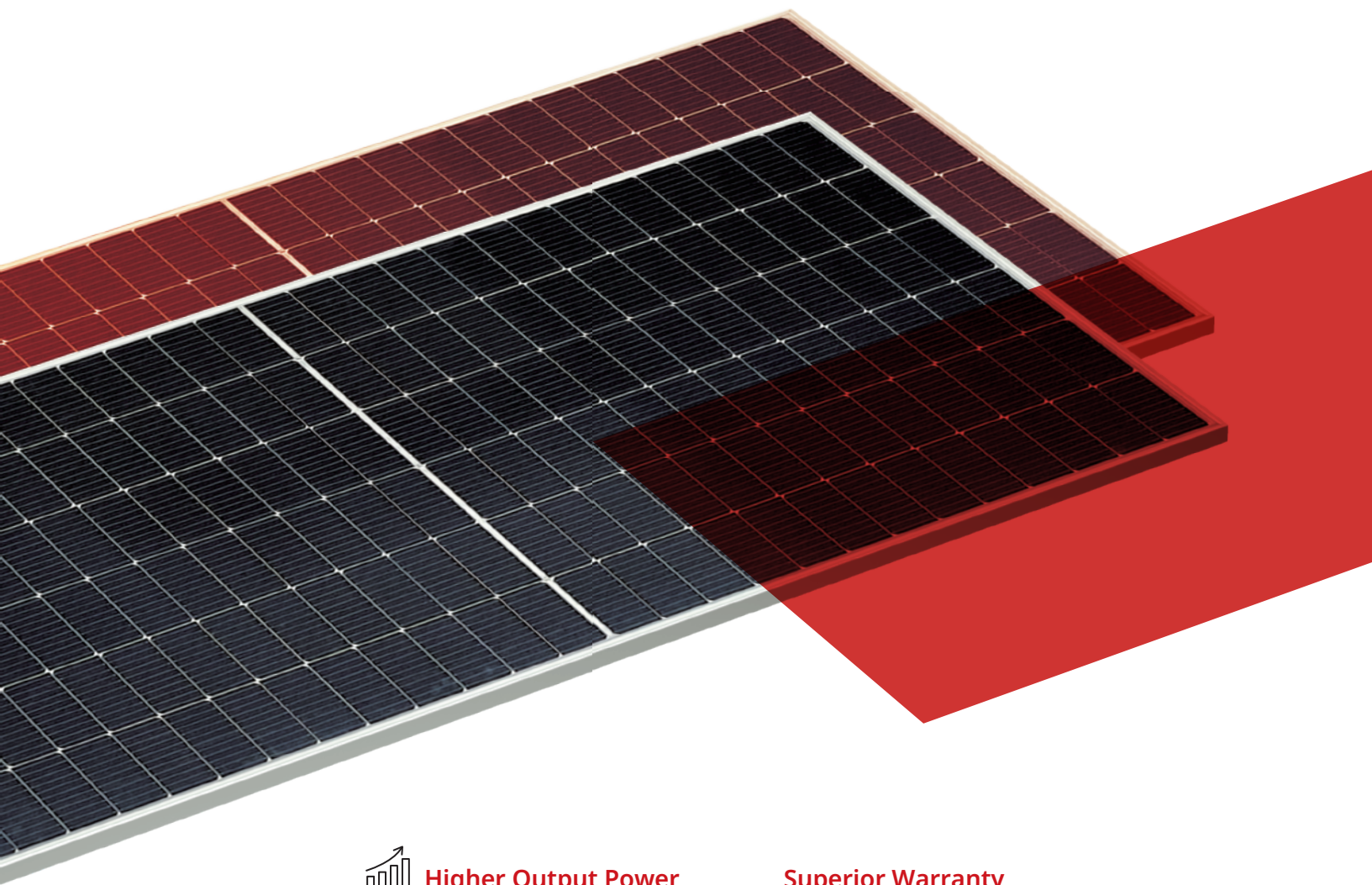
SunDay 10⁺

590W
595W
600W

Bifacial PERC Half-Cell Double-Glass Module

www.sdn-i.com

Sdm 590-HBA-A1 / Sdm 595-HBA-A1 / Sdm 600-HBA-A1



Higher Output Power

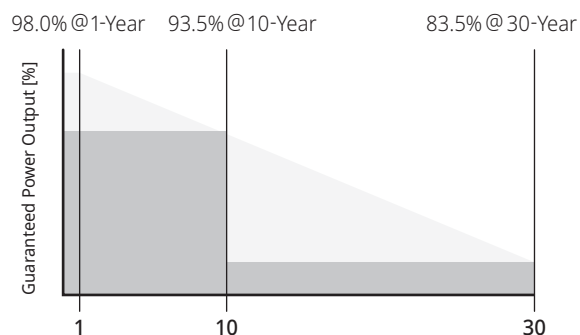
- Up to 21.46% module efficiency
- Based on M10-182mm wafer
- Half-cut and 11-busbar technology for better power generation
- Increased efficiency with excellent bifaciality



Stronger Durability

- Minimized micro-cracks
- Better mechanical loading tolerance

Superior Warranty

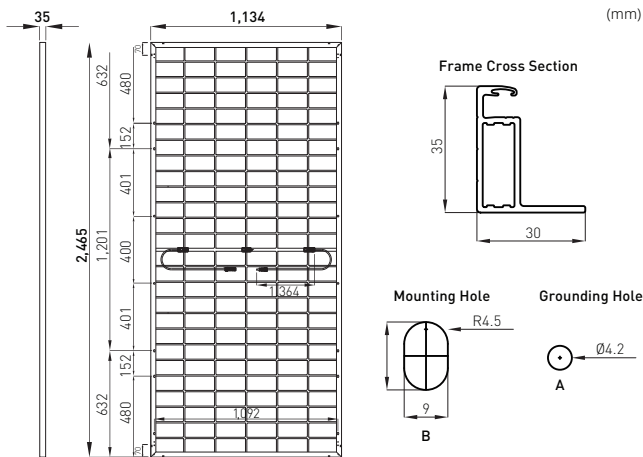


12-year Product Warranty

30-Year Power Output Warranty

SDN

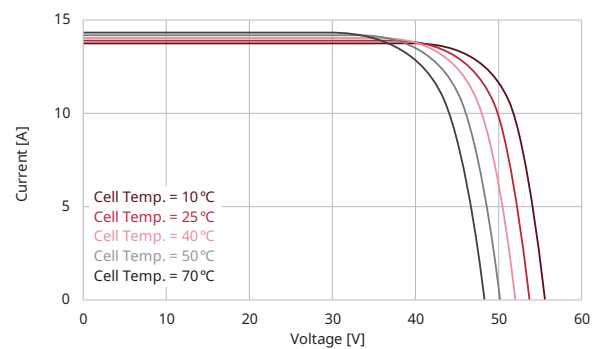
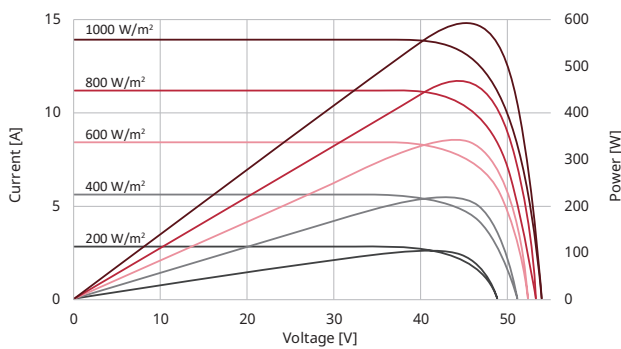
Engineering Drawings



Mechanical Specifications

Solar Cells	P-Type Monocrystalline
Cell Orientation	156 (6 x 26)
Dimensions	2,465x1,134x35 mm ³
Weight	35.9kg
Junction Box	IP68, diode x 3
Connector	MC4
Front Glass	2.0 mm, AR Coated Heat Strengthened Glass
Back Glass	2.0 mm, Heat Strengthened Glass, White Pattern
Encapsulant Material	POE/EVA
Frame	Anodized Aluminium Alloy

Performance Data



Electrical Characteristics

STC ¹				
Maximum Power	P _{MAX} [W]	590	595	600
Output Tolerance	[%]	0~3%		
Module Efficiency	η _{MAX} [%]	21.11%	21.29%	21.46%
Open-Circuit Voltage	V _{oc} [V]	53.79	53.95	54.11
Short-Circuit Current	I _{sc} [A]	13.92	13.99	14.05
Max. Power Voltage	V _{mpp} [V]	45.28	45.45	45.58
Max. Power Current	I _{mp} [A]	13.04	13.12	13.18

BSTC ² (10%)				
Maximum Power	P _{MAX} [W]	649	655	660
Open-Circuit Voltage	V _{oc} [V]	53.79	53.95	54.11
Short-Circuit Current	I _{sc} [A]	15.31	15.39	15.46
Max. Power Voltage	V _{mpp} [V]	45.28	45.45	45.58
Max. Power Current	I _{mp} [A]	14.34	14.43	14.50

• ¹STC: The intensity of radiation = 1000 W/m², Module temperature = 25 °C, AM = 1.5
 • ²BSTC: The intensity of radiation = 1000 + φ × 135 W/m², Module temperature = 25 °C, AM = 1.5

System Parameters

Operational Temperature	-40~+85 °C
Max. System Voltage	DC 1500V
Max. Series Fuse Rating	30 A

Mechanical Loading

Front-Side Maximum Static Loading	5400 Pa
Rear Side Maximum Static Loading	2400 Pa

Temperature Ratings

Temperature Coefficient of P _{MAX}	-0.40 %/°C
Temperature Coefficient of V _{oc}	-0.29 %/°C
Temperature Coefficient of I _{sc}	+0.04 %/°C
NOCT (Nominal Operating Cell Temp.)	45±2°C

Warranty

12-Year Product Warranty		
Power Warranty	1-Year	98.0%
	10-Year	93.5%
	30-Year	83.5%

※Specifications included in this datasheet are subject to change without notice. SDN reserves the right of final interpretation.