

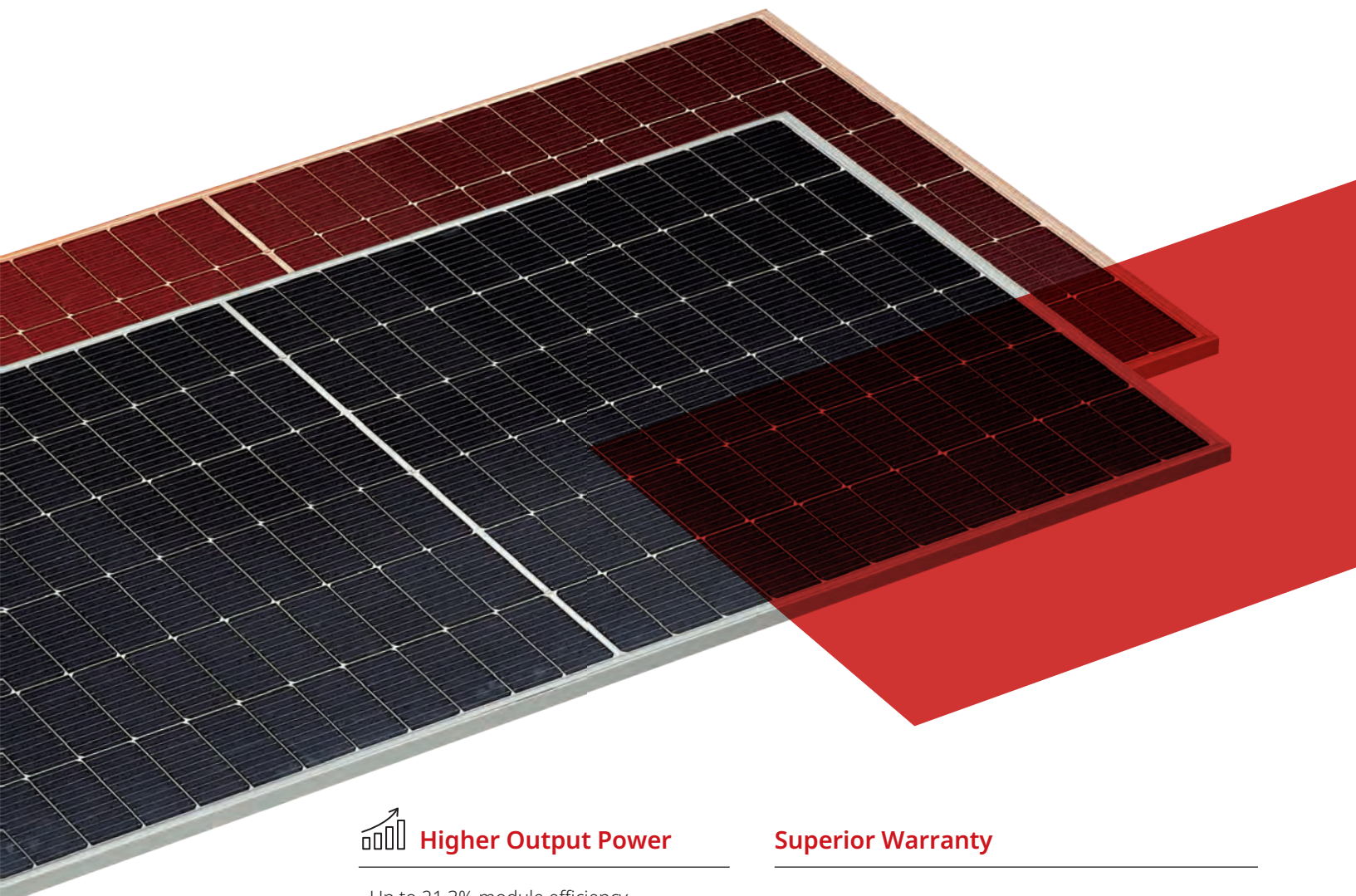
SunDay 10

540W
545W
550W

Bifacial PERC Half-Cell Double-Glass Module

www.sd-pv.com

SPM 540-HBB-A1 / SPM 545-HBB-A1 / SPM 550-HBB-A1



Higher Output Power

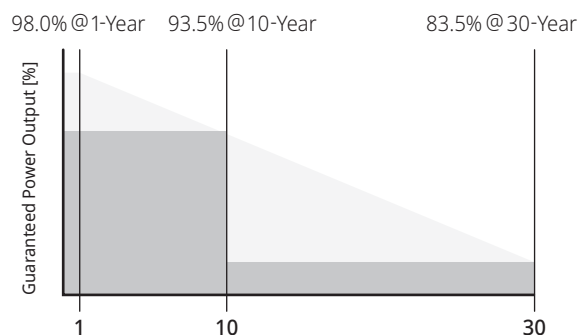
- Up to 21.3% module efficiency
- Based on M10-182mm wafer
- Half-cut and 11-busbar technology for better power generation
- Increased efficiency with excellent bifaciality



Stronger Durability

- Minimized micro-cracks
- Better mechanical loading tolerance

Superior Warranty

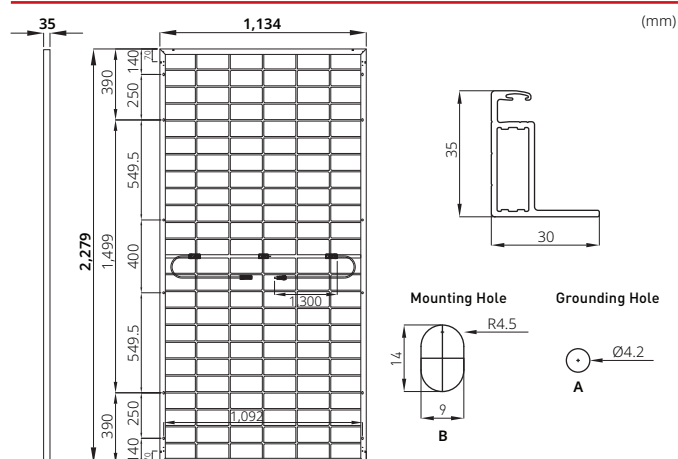


12-year Product Warranty

30-Year Power Output Warranty



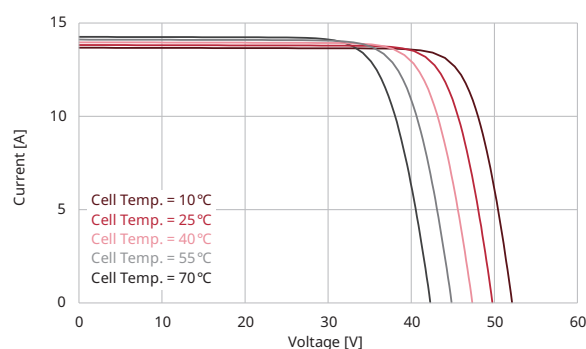
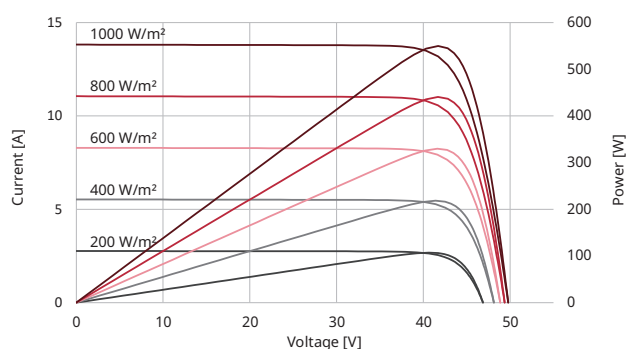
Engineering Drawings



Mechanical Specifications

Solar Cells	P-Type Monocrystalline
Cell Orientation	144 (6 x 24)
Dimensions	2,279x1,134x35 mm ³
Weight	32.8 kg
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

STC¹

Parameter	P _{MAX} [W]	540	545	550
Maximum Power	P _{MAX} [W]	540	545	550
Output Tolerance	[%]	0~3%		
Module Efficiency	η _{MAX} [%]	20.9%	21.1%	21.3%
Open-Circuit Voltage	V _{oc} [V]	49.30	49.45	49.60
Short-Circuit Current	I _{sc} [A]	13.64	13.71	13.78
Max. Power Voltage	V _{mpp} [V]	41.51	41.67	41.83
Max. Power Current	I _{mp} [A]	13.01	13.08	13.15

BSTC²

Parameter	P _{MAX} [W]	594	600	605
Maximum Power	P _{MAX} [W]	594	600	605
Open-Circuit Voltage	V _{oc} [V]	49.30	49.45	49.60
Short-Circuit Current	I _{sc} [A]	15.00	15.08	15.16
Max. Power Voltage	V _{mpp} [V]	41.51	41.67	41.83
Max. Power Current	I _{mp} [A]	14.31	14.39	14.47

- 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}	-0.43 %/°C
Temperature Coefficient of V _{oc}	-0.28 %/°C
Temperature Coefficient of I _{sc}	+0.05 %/°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. SDPV reserves the right of final interpretation.



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