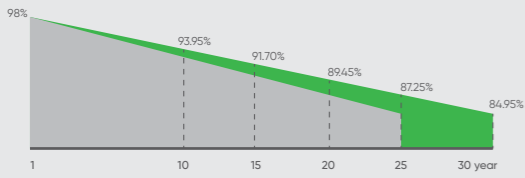


SunMaster 4M

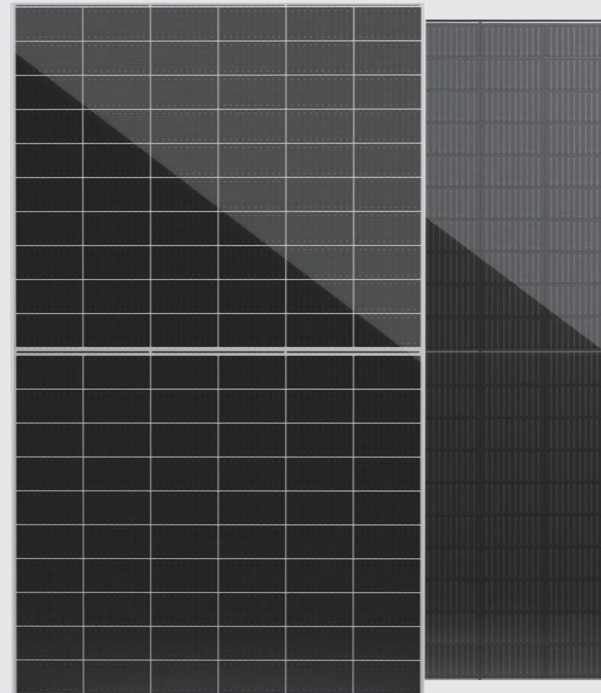
SM450-465W(120)

182mm Cells Mono
PERC with MBB & Half-cut
Technology

Quality Guarantee



▶ Sunmaster solar linear power output guarantee
▶ Standard linear power output guarantee



Standard

All Black

450-465W **-0.55%** **30years**
power attenuation Power warranty

Comprehensive Products and System Certificates



IEC 61215 / IEC 61730 / CE / INMETRO

ISO 9001-

2015/Quality management system

ISO 14001-

2015/Standards for environmental management system

ISO 45001-

2018/International standards for occupational health & safety

Key Features

- Optimal Process Design**
166mm*9BB+Half-cut, higher power output
- Select Grade A Crystalline Silicon Solar Cells**
Grade A crystalline silicon solar cells make high-power output with cost-effective
- Stable Generation Performance**
Power attenuation: first year ≤2%, 0.55% per year from 2-25
- Process Upgraded**
PID Resistant
Lower risk of hot spot and stronger anti-PID ability
- Higher Power Gains and Lower Losses**
Excellent low irradiance performance and low shadow loss
- Strong Environmental Adaptability and Great Durability**
Certified by Dust-Sand, Salt-Mist, Ammonia etc. weather resistance tests and enhanced mechanical load: wind load (2400 Pa) and snow load (5400 Pa)

Mechanical Characteristic

Cell type	Monocrystalline PERC 182*91mm
Number of cells	120(6x20)
Module dimensions	1908x1134x35mm (75.12x44.65x1.38inches)
Weight	22kg (48.84lbs)
Front cover	3.2mm(0.13inches) tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	≥IP68 & UL
Cable	4mm ² (0.006inches ²), Portrait: 300mm (11.8inches); Landscape: 1200mm (47.24inches)
Connector	MC4 or MC4 compatible

Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of Pmax	-0.36% /°C
Temperature Coefficients of Voc	-0.28% /°C
Temperature Coefficients of Isc	0.05% /°C

Packaging

Standard packaging	31pcs/pallet
Module quantity per 20' container	186pcs
Module quantity per 40' container	744pcs(HQ)

Electrical Characteristics at STC

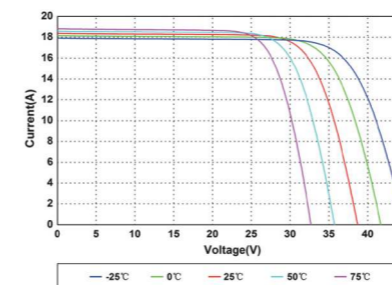
Maximum Power (Pmax)	450W	455W	460W	465W
Open Circuit Voltage (Voc)	41.4V	41.6V	41.8V	42V
Short Circuit Current (Isc)	13.80A	13.85A	13.90A	13.95A
Voltage at Maximum Power (Vmp)	34.6V	34.8V	35.0V	35.2V
Current at Maximum Power (Imp)	13.01A	13.08A	13.15A	13.22A
Module Efficiency(%)	20.57	21.08	21.03	21.26
Operating Temperature	-40°C to +85°C			
Maximum System Voltage	1000V DC/1500V DC			
Fire Resistance Rating	Type 1(in accordance with UL1703)/Class C(IEC61730)			
Maximum Series Fuse Rating	25A			
STC Irradiance 1000W/m ² , Cell temperature 25°C, AM1.5; Tolerance of Pmax ±3%; Measurement Tolerance ±3%				

Electrical Characteristics at NOCT

Maximum Power (Pmax)	336W	340W	344W	348W
Open Circuit Voltage (Voc)	38.2V	38.4V	38.6V	38.8V
Short Circuit Current (Isc)	11.18A	11.22A	11.26A	11.33A
Voltage at Maximum Power (Vmp)	31.5V	31.7V	31.9V	32.1V
Current at Maximum Power (Imp)	10.67A	10.73A	10.79A	10.85A

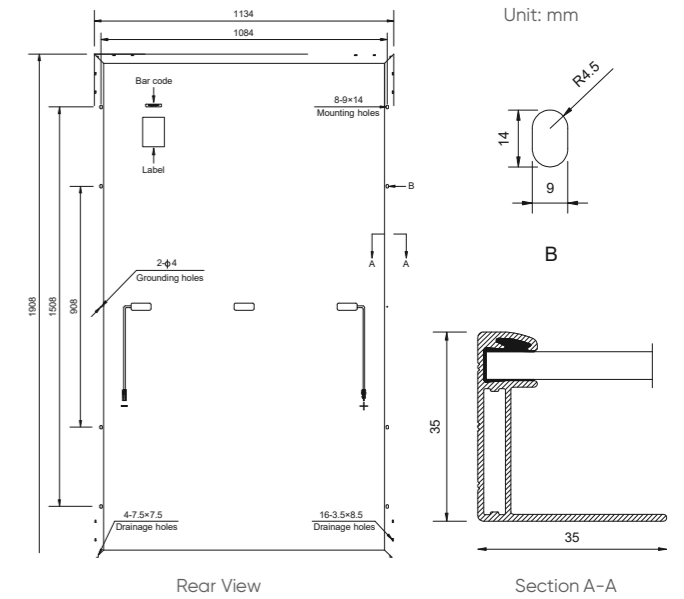
NOCT: Irradiance 800W/m², Ambient temperature 20°C, Wind Speed 1m/s

IV Curves

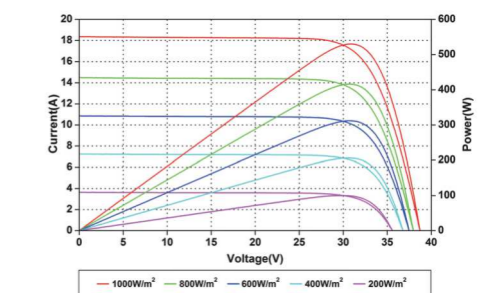


Current-Voltage and Power-Voltage Curves at Different Irradiances

Engineering Drawings



Specifications in this datasheet are subject to change without prior notice.



Current-Voltage Curves at Different Temperatures