

Solar panel

Mono-Crystalline

Technology & Quality

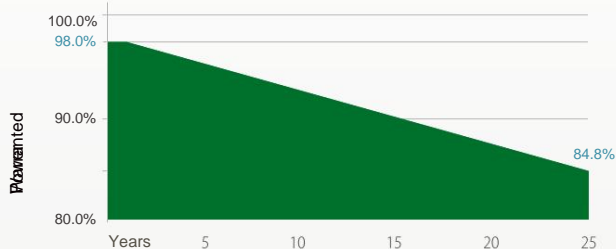
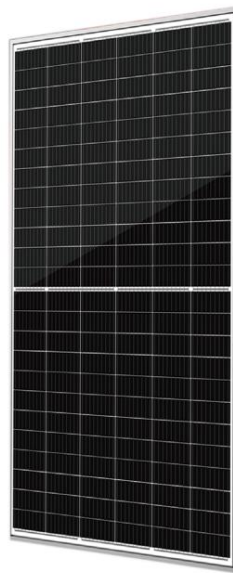
A complete photovoltaic industrial chain.

Solarever Group has a complete photovoltaic industry including silicon ingots, solar cells, solar modules and photovoltaic systems.

Great quality

Supply and processing of material insured for 12 years.

We guarantee our products above 91.9% power in 12 years and more than 84.8% in 25 years. The first year's degradation is 2%, the next 24 years, each year's degradation is 0.55%.



SE-166*83-M-144N

440-460 Watts



Main Features

- Multi-busbar half-cut cell with PERC technology to provide higher power output.
- Anti-reflective coating and high glass transmission increase the power output and strength of the solar panel.
- Anti-twist and corrosion-resistant anodized frame ensuring reliable operation even when atmospheric conditions are difficult.
- Pre-drilled and lightweight mounting holes for easy installation.
- Waterproof connection box.
- Specially designed to meet the demands of our customers for residential, commercial and industrial use.

Complete system and product certification

IEC 61215, IEC 61730, UL61730

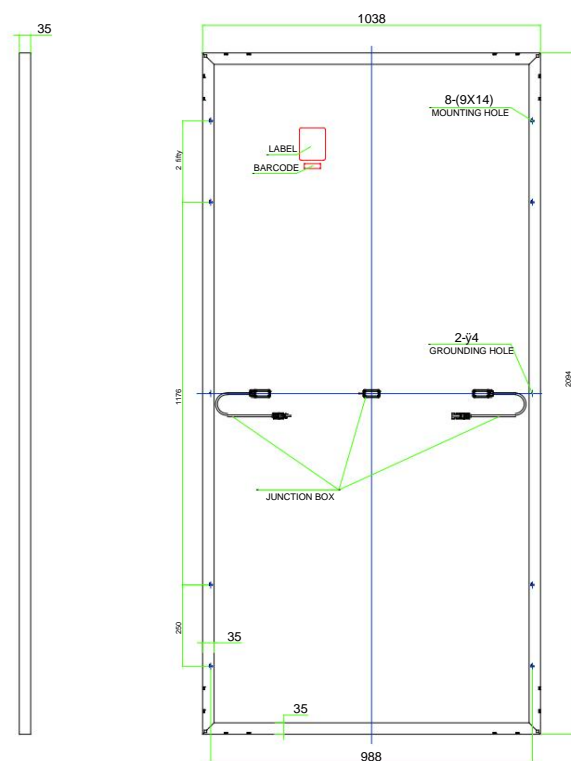
ISO 9001:2015:ISO Quality Management System



SE-166*83-M-144

Mechanical characteristics

Cell type	Monocrystalline 166x83mm(Half cut)
Number and arrangement of cells	6x24(144pcs)
Dimensions	2094x1038x35mm
Weight	23.5Kg
Front glass	3.2mm tempered glass
Frame	Anodized aluminum alloy
Encapsulation	Crystal/EVA/Cell/ EVA/TPT
RH	0 to 100%
maximum static load	5400Pa(front side) 2400Pa(back side)
Connection box	IP 68, three diodes, MC4 compatible connector
Output cable	4mm ² , 450mm or 1200mm
Fire resistance	UL: Type 1, IEC: Class C

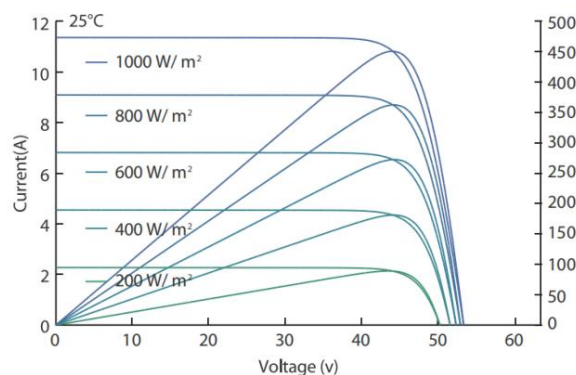


Note: All units in mm

Temperature Coefficients

Nominal operating temperature in the cell	45 \pm 2 γ
Maximum power temperature	-(0.35 \pm 0.05)%/ γ
Open Circuit Voltage Temperature	-(0.27 \pm 0.02)%/ γ
Short Circuit Current Temperature	+(0.05 \pm 0.005)%/ γ
Maximum fuse current	20 A

Characteristic curve IV



Electrical Characteristics

	STC	STC	STC	STC	STC
Module type	440M	445M	450M	455M	460M
Open circuit voltage(V)	49.60	49.80	50.0	50.2	50.4
Short circuit current(A)	11.33	11.40	11.47	11.54	11.61
Optimal circuit voltage(V)	41.00	41.2	41.4	41.6	41.8
Optimal circuit current(A)	10.74	10.80	10.87	10.93	11.00
Maximum operating power	440W	445W	450W	455W	460W
Module efficiency in STC	20.24%	20.47%	20.71%	20.93%	21.16%

Operating temperature -40 γ to +85

Maximum system voltage 1500V DC

Output Power Tolerance 0~+5W

STC: Irradiation 1000W/m², module temperature 25°C, AM 1.5; NOCT: Irradiation 800W/m², ambient temperature 20°C, AM 1.5., wind speed 1m/s

* Power test tolerance: \pm 3%