EVEREST SOLAR™

PEAK 525-550W

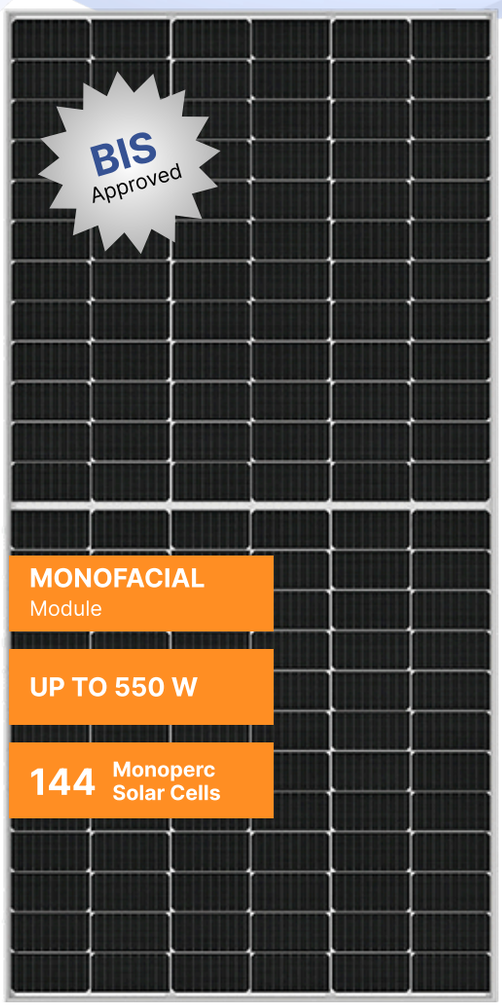
HIGH EFFICIENCY MONOFACIAL PV MODULES

Maximum Module Efficiency %
21.40

Positive Power Tolerance WP
0~+4.99

Cells
M10 144

Module Technology
Half Cut & Micro Gap Design
With improved side tolerance



MAKE IN INDIA

FRAME	FRONTCOVER	BACK
Silver	Glass	Backsheet White

ADVANCED CELL DESIGN

Enhanced power output & reliability achieved with precision-engineered PERC half-cut cells, reducing electrical losses and improving shade tolerance.

OPTIMIZED ELECTRICAL CONFIGURATION

Split junction box with bypass diodes ensures better performance under partial shading, minimizing power loss compared to traditional designs.

MULTI-BUSBAR TECHNOLOGY

Resilient to micro-cracks & improved current collection with high-density busbar design, ensuring consistent long-term performance.

PID Resistance

Excellent Anti-PID Performance guarantee limited power degradation for mass production

LOWER LEVELIZED COST OF ENERGY (LCOE)

High-efficiency M10 cells delivers superior power density, reducing project costs, maximizing energy yield.

ROBUST BUILD QUALITY

Durable anodised aluminium frames and anti-reflective coated glass that withstands extreme environmental conditions like snow and wind loads.

Monocrystalline Solar PV Modules, Monofacial, MBB, M10 Half-Cell, PEAK ESBT-AAA-144 (AAA 520 to 560)

Applications

- **On-grid large scale utility systems**
- **On-grid rooftop industrial and commercial systems**
- **Rooftop residential systems**

+91 9830011400 www.everestpv.com linkedin.com/in/everestsolar/ info@everestpv.com

EVEREST SOLAR™

PEAK 525-550W

HIGH EFFICIENCY MONOFACIAL PV MODULES

THIS DATASHEET IS APPLICABLE FOR: **PEAK ESM-AAA-144 (AAA 525 to 550)**

Electrical Data1,2

All data refers to STC (AM 1.5, 1000 W/m2, 25°C)

Peak Power P_{max} (Wp)	525	530	535	540	545	550
Maximum Voltage V_{mpp} (V)	41.4	41.48	41.56	41.65	41.77	41.88
Maximum Current I_{mpp} (A)	12.69	12.78	12.88	12.97	13.05	13.14
Open Circuit Voltage V_{oc} (V)	49.20	49.30	49.42	49.51	49.61	49.70
Short Circuit Current I_{sc} (A)	13.40	13.50	13.56	13.63	13.73	13.82
Module Efficiency (%)	20.37	20.56	20.76	20.95	21.14	21.29

1) STC:1000 W/m2 irradiance, 25°C cell temperature, AM1.5g spectrum according to EN 60904-3. | 2) Power measurement uncertainty is within +/- 2%.

Electrical Parameters at NOCT3

Power (W) at NOCT	393.2	397.9	401.7	405.5	408.8	410.97
V@P_{max} (V) at NOCT	38.29	38.49	38.70	38.80	38.85	38.94
I@P_{max} (A) at NOCT	10.27	10.34	10.38	10.45	10.52	10.56
V_{oc} (V) at NOCT	45.94	46.19	46.42	46.56	46.59	46.95
I_{sc} (A) at NOCT	10.78	13.44	10.92	10.97	11.17	11.22

3) NOCT irradiance 800 W/m2, ambient temperature 20°C, wind speed 1 m/sec

Temperature Coefficients (Tc)

permissible operating conditions

Tc of Open Circuit Voltage	-0.264%/°C
Tc of Short Circuit Current	0.048%/°C
Tc of Power	-0.31%/°C
Maximum System Voltage	1500V
NOCT	45°C ± 2°C
Temperature Range	-40°C to +85°C

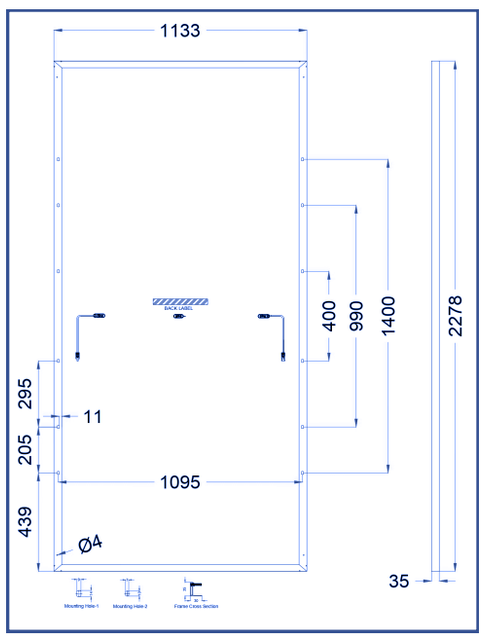
Mechanical Data

Length × Width × Height	2278 × 1133 × 35mm (89.68 × 44.65 × 1.38 inches)
Weight	28.2 Kg (62.17 lbs)
Junction Box	IP68, Split Junction Box with individual bypass diodes
Cable & Connectors#	300 mm (+ve terminal) and 300 mm (-ve terminal) length cables, MC4 Compati-ble/MC4 Connectors
Application Class	Class A (Safety class II)
Fire Class	Class C
Superstrate##	3.2 mm (0.125 inches) high transmission low iron tempered glass, AR coated
Cells	72 Mono PERC (144 half-cells)
Back Sheet	Composite film
Frame	Anodized aluminium frame
Mechanical Load Test	5400 Pa (Snow load), 2400 Pa (Wind load)
Maximum Series Fuse Rating	25A

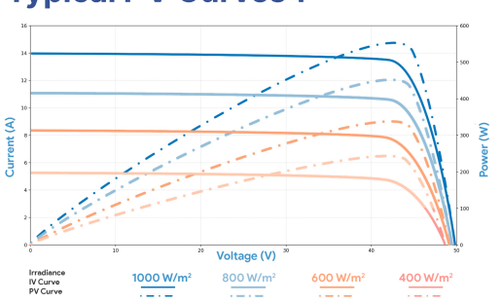
Warranty and Certifications

Product Warranty**	12 Years
Performance Warranty**	Linear Power Warranty for 27 years with 2% for 1st year degradation and 0.55% from year 2 to year 27
Approvals and Certifi cates^	IS14286:2010/IEC61215:2005, IS IEC61730-1:2004+A1:2017+A2:2017, IS/ IEC61730-2:2004+A1:2017, IEC61701(Sev.6), IEC62804,IEC62716

Dimensions in mm

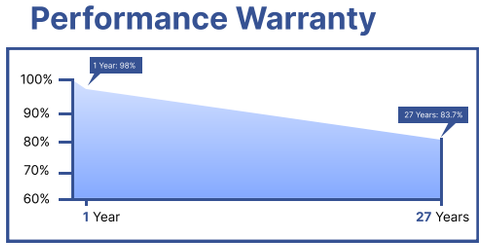


Typical I-V Curves4



4) Average relative effi ciency reduction of 5% at 200 W/m2 according to EN 60904-1.

Performance Warranty



Packaging Information

Quantity /Pallet	31
Pallets/Container (40'HC)	20
Quantity/Container (40'HC)	620

CAUTION: READ SAFETY AND INSTALLATION MANUAL BEFORE USING THE PRODUCT.

Specifications included in this datasheet are subject to change without notice. Electrical data without guarantee. Please confi rm your exact requirement with the company representative while placing your order.
Everest Solar and all its logos are trademark of Avco Power Private Limited.

+91 9830011400 www.everestpv.com linkedin.com/in/everestsolar/ info@everestpv.com