

MAXIMUM EFFICIENCY %

**21.50**




CELLS

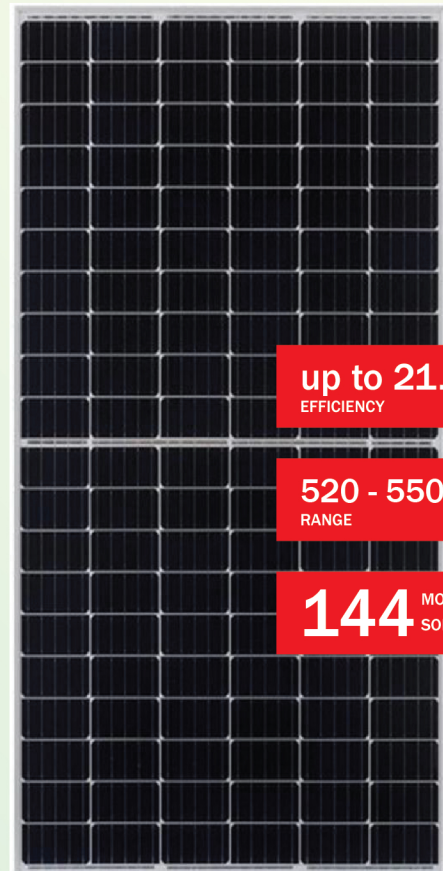
**M10 144**  
Mono

MODULE TECHNOLOGY

**HALF CUT CELLS**  
WITH EXCELLENT QUALITY

## URJA Grand

-  Positive Power Tolerance
-  Higher number of busbars increases tolerance to micro wecks and make modules less prone to loss in efficiency
-  Designed for very high area efficiency ideally suited for roof-top and ground-mounted applications
-  Extremely reliable product suiting harsh environment conditions with high Mechanical Strength.
-  Maximum system voltage 1500V
-  Reduce BOS cost increase ROI



**up to 21.50%**  
EFFICIENCY

**520 - 550 W**  
RANGE

**144** MONO PERC  
SOLAR CELLS

### QUALITY AND SAFETY

- 27 years of linear power output warranty \*\*
- Rigorous quality control meeting the highest international standards
- Certified for salt mist corrosion resistance
- Excellent anti-PID performance
- 100% EL tested to minimise micro crack

### APPLICATIONS

- On-grid large scale utility systems
- On-grid residential, commercial and industrial roof top installations
- Off-grid residential systems

THIS DATASHEET IS APPLICABLE FOR: URJA Grand ASU.144.AAA (AAA=520-550)

### Electrical Data<sup>1,2</sup> All Data refers to STC

	520	525	530	535	540	545	550
Peak Power Pmax (Wp)	520	525	530	535	540	545	550
Maximum Voltage Vmpp (V)	37.60	37.80	38.10	38.50	39.00	40.10	41.02
Maximum Current Impp (A)	11.77	11.89	12.00	12.35	12.82	13.00	13.20
Open Circuit Voltage Voc (V)	47.80	48.00	48.00	48.60	49.00	49.20	49.80
Short Circuit Current Isc (A)	12.70	12.80	13.00	13.20	13.62	13.98	14.02
Module Efficiency η(%)	20.00	20.20	20.50	20.70	20.90	21.20	21.50

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

### Temperature Coefficients (Tc) permissible operating conditions

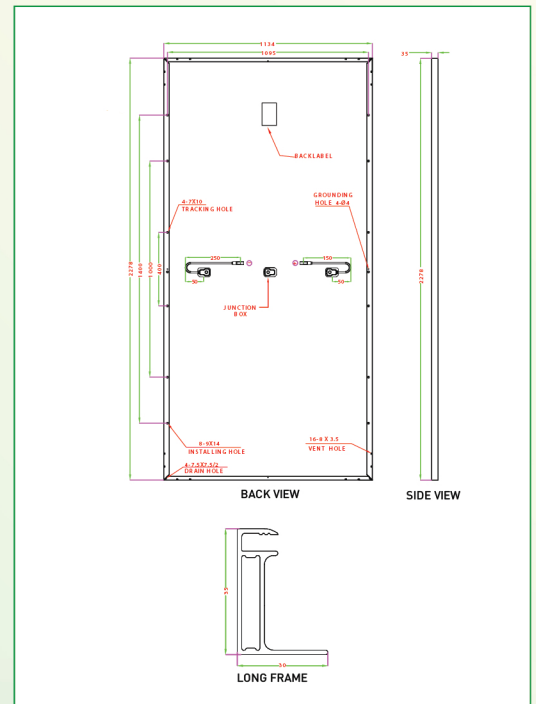
Tc of Open Circuit Voltage (β)	-0.27%/°C
Tc of Short Circuit Current (α)	0.050%/°C
Tc of Power (γ)	-0.35%/°C
Maximum System Voltage	1500 V
NOCT	45°C ± 2°C
Temperature Range	-40°C to + 85°C

### Mechanical Data

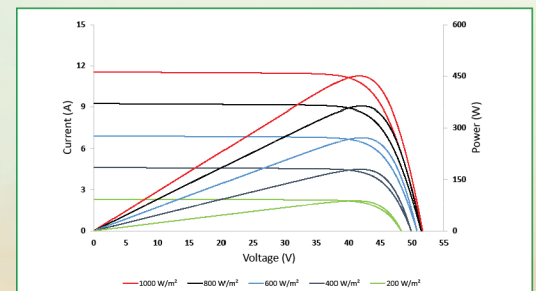
Length × Width × Height	2278 x 1134 x 35 MM
Weight	28.5 kg (62.83 lbs)
Junction Box	IP68, 3 bypass diodes
Cable & Connectors	400 mm (15.74 inches) length cables, MC4 Compatible/MC4 Connectors
Application Class	Class A (Safety class II)
Glass	3.2 mm high transmission low iron tempered glass, AR coated
Cells	72 Mono perc (144 half cut cell)
Cell Encapsulant	EVA (Ethylene Vinyl Acetate)
Back Sheet	Composite film
Frame	Anodized aluminium frame with twin wall profile
Mechanical Load Test	5400 Pa (Snow load), 2400 Pa (Wind load)
Maximum Series Fuse Rating	25 A

Product Warranty**	10 years
Certifications:	IS 14286:2010 / IEC 61215:2005, IEC 61730 (Part 1):2004, IEC 61730 (Part 2): 2004, IEC 61701:2020, IEC TS: 62804-1

### Dimensions in mm



### Typical I-V Curves<sup>4</sup>



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 confirm your exact requirement with the company representative while placing your order.

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