

ELDORA

HIGH EFFICIENCY SOLAR PV MODULES


vikramsolar
CREATING CLIMATE FOR CHANGE

ELDORA VSP.72.AAA.03.04 | POLYCRYSTALLINE SOLAR PV MODULES | 72 CELLS | 310-330 WATT

ELDORA GRAND ULTIMA SILVER SERIES



HIGHER OUTPUT OF MODULE POWER by reducing cell to module power loss



Designed for very **HIGH AREA EFFICIENCY** ideally suited for roof-top and ground-mounted applications



Up to +2.5 Wp **POSITIVE POWER OUTPUT TOLERANCE GUARANTEED** ensuring better ROI



Extremely **RELIABLE PRODUCT** suiting all environment conditions



Engineered to provide **EXCELLENT LOW LIGHT RESPONSE**



Extremely **NARROW POWER BINNING TOLERANCE** to reduce current mismatch loss in single string



QUALITY AND SAFETY

- ◆ 27 years of linear power output warranty **
- ◆ Rigorous quality control meeting the highest international standards
- ◆ 100% EL tested to ensure micro crack free modules
- ◆ Certified for PID resistance

- ◆ Certified for salt mist corrosion resistance – severity VI
- ◆ Certified for ammonia resistance
- ◆ 3rd Party validated PAN file*

APPLICATIONS

- ◆ On-grid large scale utility systems
- ◆ On-grid rooftop residential, commercial and industrial roof top installations
- ◆ Off-grid residential systems
- ◆ Solar pumping applications

TECHNICAL DATA

ELDORA GRAND ULTIMA SILVER SERIES

THIS DATASHEET IS APPLICABLE FOR: ELDORA VSP.72.AAA.03.04 (AAA=310-330)

Electrical Data¹ All Data refers to STC

Peak Power P_{max} (Wp)	310	312.5	315	317.5	320	322.5	325	327.5	330
Maximum Voltage V_{mpp} (V)	37.4	37.4	37.5	37.6	37.7	37.7	37.8	37.9	38.0
Maximum Current I_{mpp} (A)	8.3	8.35	8.4	8.45	8.5	8.55	8.6	8.65	8.7
Open Circuit Voltage V_{oc} (V)	45.7	45.8	45.8	45.9	46.0	46.1	46.2	46.2	46.3
Short Circuit Current I_{sc} (A)	8.81	8.87	8.92	8.98	9.03	9.08	9.13	9.19	9.24
Module Efficiency η (%)	16.0	16.1	16.2	16.4	16.5	16.6	16.7	16.9	17.0

¹ STC: 1000 W/m² irradiance, 25°C cell temperature, AM 1.5g spectrum according to EN 60904-3. Average relative efficiency reduction of 5% at 200 W/m² according to EN 60904-1.

Electrical Parameters at NOCT²

Power (W)	227.3	229.1	231.2	232.8	234.6	236.5	238.3	240.1	242.0
$V@P_{max}$ (V)	34.2	34.3	34.4	34.4	34.5	34.6	34.6	34.7	34.8
$I@P_{max}$ (A)	6.65	6.69	6.73	6.77	6.80	6.84	6.88	6.92	6.95
V_{oc} (V)	42.4	42.5	42.5	42.5	42.6	42.6	42.7	42.7	42.7
I_{sc} (A)	7.14	7.18	7.22	7.26	7.30	7.34	7.38	7.42	7.46

² 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 (β)	-0.31%/°C
Tc of Short Circuit Current (α)	0.052%/°C
Tc of Power (γ)	-0.41%/°C
Maximum System Voltage	1000 V
NOCT	44°C ± 2°C
Temperature Range	-40°C to + 85°C

Mechanical Data

Length × Width × Height	1956 × 992 × 40 mm (77.01 × 39.06 × 1.57 inches)
Weight	27 kg (59.52 lbs)
Junction Box	IP67, 3 bypass diodes
Cable & Connectors	1200 mm (47.24 inches) length cables, SOLARLOK PV4/MC4 Compatible/MC4 Connectors
Application Class	Class A (Safety class II)
Superstrate	4 mm (0.16 inches) high transmission low iron tempered glass, AR coated
Cells	72 polycrystalline solar cells
Cell Encapsulant	EVA (Ethylene Vinyl Acetate)
Back Sheet	Composite film
Frame	Anodized aluminium frame with twin wall profile
Mechanical Load Test	5400 Pa
Maximum Series Fuse Rating	15 A

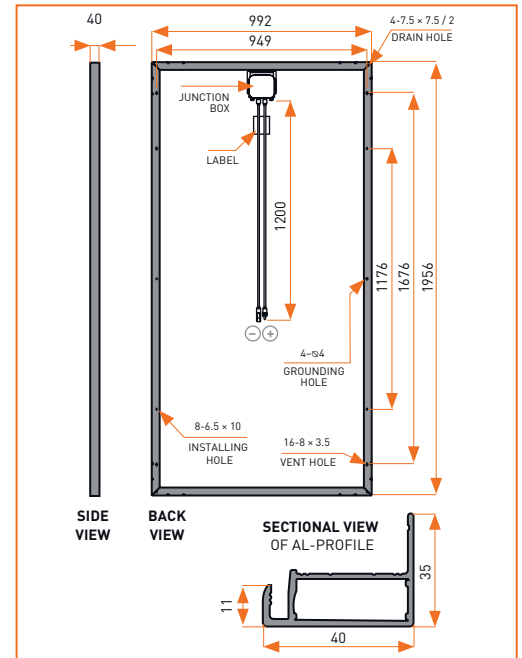
Warranty and Certifications

Product Warranty**	10 years
Performance Warranty**	Linear power warranty for 27 years with 2.5% for 1st year degradation and 0.67% from year 2 to year 27
Approvals and Certificates	IEC 61215 Ed2, IEC 61730, IEC 61701, IEC 62716, UL1703, CE, MCS, CEC*, PV Cycle*, IEC 62804, CAN/CAS 61730

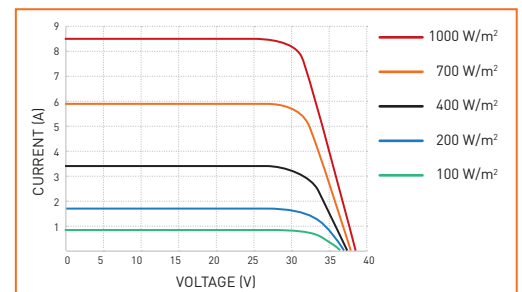
* All (*) certifications under progress.

** Refer to Vikram Solar's warranty document for terms and conditions.

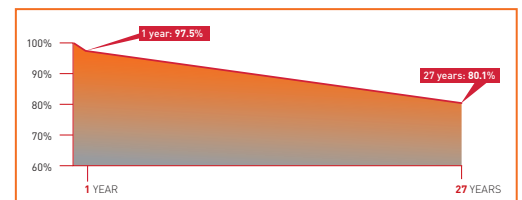
Dimensions in mm



Typical I-V Curves



Performance Warranty



Packaging Information

Quantity/Pallet	25
Pallets/Container (40' HC)	24
Quantity/Container (40' HC)	600