

# somera

HIGH EFFICIENCY MONO-Si PV MODULES

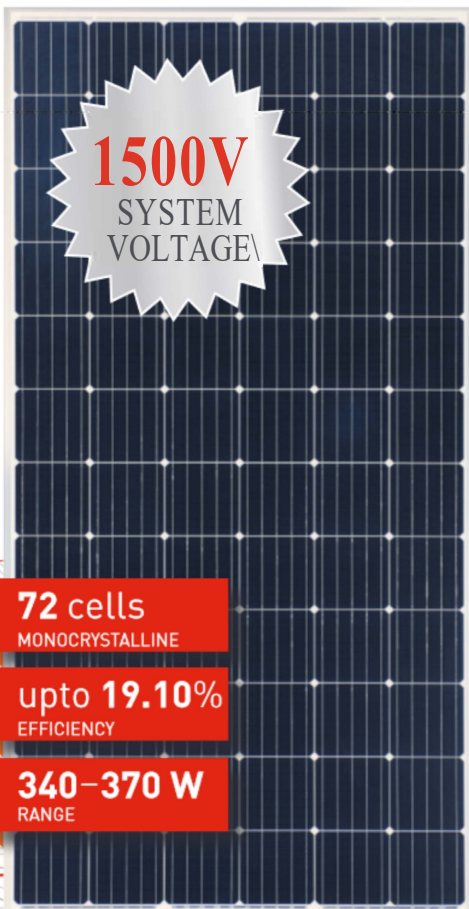
# vlkramsoar

CREATING CLIMATE FOR CHANGE

SOMERA VSM.72.AAA.05 | MONOCRYSTALLINE SOLAR PV MODULES | 72 CELLS | 340-370 WATT

## ALL NEW 72 CELLS MONO

# SOMERA GRAND ULTIMA SILVER 1500V SERIES



10% HIGHER POWER OUTPUT compared to industry average poly crystalline module



Extremely NARROW POWER BINNING TOLERANCE of +2.5 Wp to reduce current mismatch loss in single string



Engineered to provide EXCELLENT LOW LIGHT and LONGER WAVELENGTH RESPONSE



EXTREMELY RELIABLE PRODUCT suiting harsh environment conditions withstanding 2400Pa Wind load, 5400Pa Snow load



Using highly efficient PASSIVATED EMITTER REAR CONTACT TECHNOLOGY IPERC] cells



### QUALITY AND SAFETY

- 27 years of linear power output warranty••
- Rigorous quality control meeting the highest international standards
- 100% EL tested to minimise micro crack
- Excellent anti-PIO performance

- Certified for salt mist corrosion resistance - severity VI
- Certified for ammonia resistance
- 3rd Party validated PAN file
- Certified for sand and dust test

### APPLICATIONS

- On-grid large scale utility systems
- On-grid rooftop residential and commercial systems
- Off-grid residential systems



# v1kramsolar

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# DATA

## SOMERA GRAND ULTIMA SILVER 1500V SERIES

THIS DATASHEET IS APPLICABLE FOR: SOMERA VSM.72.AAA.05 (AAA=340-370)

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

Peak Power P <sub>m</sub> , (Wp)	340	342.5	345	347.5	350	352.5	355	357.5	360	362.5	365	367.5	370
Maximum Voltage V <sub>mp</sub> (V)	38.1	38.1	38.1	38.1	38.1	38.2	38.2	38.2	38.3	38.3	38.4	38.4	38.4
Maximum Current I <sub>m</sub> (A)	8.93	8.99	9.06	9.12	9.18	9.24	9.29	9.35	9.41	9.46	9.52	9.58	9.63
Open Circuit Voltage V <sub>oc</sub> (V)	46.8	46.8	47.2	47.3	47.4	47.4	47.5	47.6	47.7	47.7	47.8	47.9	48
Short Circuit current I <sub>sc</sub> (A)	9.37	9.42	9.44	9.51	9.56	9.61	9.64	9.71	9.78	9.81	9.84	9.85	9.9
Module Efficiency η (%)	17.55	17.68	17.81	17.94	18.07	18.19	18.32	18.45	18.58	18.71	18.84	18.97	19.10

1 STC: 1000W/m<sup>2</sup> h radiance, 25 °C cell temperature, AM1.5 spectrum, 1.5m air mass, 1.5m wind speed, 1.5m humidity.

### Electrical Parameters at NOCT<sup>3</sup>

Power (W)	251.8	253.5	256.0	257.7	259.6	262.0	263.7	265.4	267.1	269.3	272.1	274.7	276.2
V <sub>oc</sub> (V)	35.4	35.4	35.7	35.7	35.8	35.9	35.9	36.0	36.0	36.1	36.3	36.5	36.5
I <sub>sc</sub> (A)	7.12	7.16	7.18	7.22	7.26	7.31	7.34	7.38	7.43	7.47	7.51	7.53	7.57
V <sub>oc</sub> (V)	43.3	43.3	43.6	43.7	43.8	43.8	43.9	44.0	44.1	44.1	44.2	44.2	44.3
I <sub>sc</sub> (A)	7.58	7.62	7.64	7.69	7.73	7.77	7.80	7.86	7.91	7.94	7.96	7.97	8.01

3 NOCT: irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, wind speed 1 m/h, a.

### Temperature Coefficients (Tc) permissible operating conditions

Tc of Open Circuit Voltage (Voc)	-0.28%/°C
Tc of Short Circuit Current (Isc)	0.057%/°C
Tc of Power (P)	-0.39%/°C
Maximum System Voltage	1500 V
NOCT	45 °C ± 2 °C
Temperature Range	-40 °C to +85 °C

### Mechanical Data

Length x Width x Height	1955 x 991 x 40 mm / 76.96 x 39.01 x 1.57 inches
Weight	22 kg / 48.50 lbs
Junction Box	IP68/IP67, 3 Bypass diodes
Cable & Connectors	1200 mm (47.24 inches) length cables, MC4 Compatible/MC4 Connectors/Amphenol
Application Class	Class A / Safety class III
Superstrate	3.2 mm (0.13 inches) high transmission low iron tempered glass, AR coated
Cells	72 Monocrystalline, 5BB 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 (Snow load), 2400 Pa (Wind load)
Maximum Series Fuse Rating	20 A

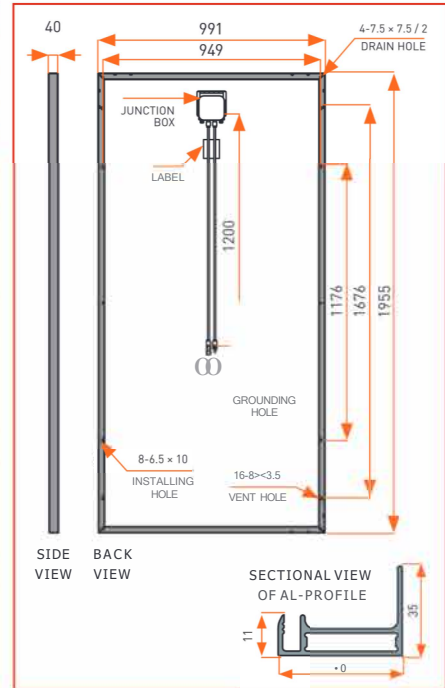
• Abu available in April 2019. • Available from April 2019.

### Warranty and Certifications

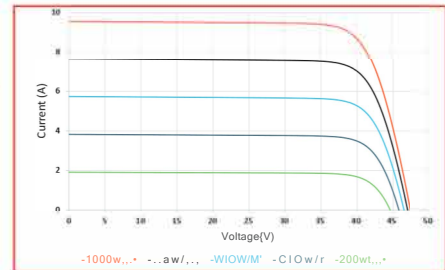
Product Warranty	10 years
Performance Warranty	Linear Power Warranty for 27 years with 3% for 1st year degradation and 0.65% from year 2 to year 27
Approvals and Certificates	IEC 61215 Ed2, IEC 61730, UL 1703, IEC 61701, IEC 62716, IEC 60068-2-68, IEC 62804, MCS, CE, CAN/CSA 61730, CEC/California, PV Cycle, CEC (Australia), S 14286

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### Dimensions in mm

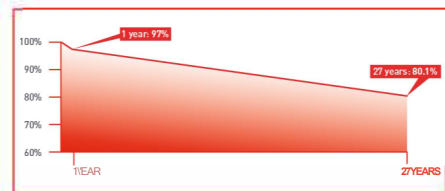


### Typical I-V Curves<sup>4</sup>



4 Average relative efficiency reduction of 5% at 200 W/m<sup>2</sup> irradiance. IEC 60904-1.

### Performance Warranty



### Packaging Information

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

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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