somera

HIGH EFFICIENCY MONO-Si PV MODULES

vikramsolar

CREATING CLIMATE FOR CHANGE

SOMERA VSMH.75.AAA.05 | MONOCRYSTALLINE SOLAR PV MODULES | 150 CELLS | 375-400 WATT

SOMERA GRAND ULTIMA MAX

up to **19.35**% EFFICIENCY

375-400 W RANGE

150 MONO PERC SOLAR CELLS

SUPERIOR PRICE PERFORMANCE of half-cell improves module output without adding much to the cost

Half-cell generates only half the current, lowering heat production and **LESS HOT SPOT**, increasing module reliability

Low interconnect resistance between the cells **REDUCES POWER LOSS,** increases overall power output

Three separate junction boxes reduce internal resistance and **IMPROVE HEAT DISSIPATION**

TÜVRheinland CERTIFIED

IEC 61215
IEC 61730
Regular Production Surveillance
www.tuv.com
ID 1111219735

QUALITY AND SAFETY

- 27 years of linear power output warranty **
- Rigorous quality control meeting the highest standards
- 100% EL tested to minimise micro crack
- 100% EL tested to minimise micro crack

APPLICATIONS

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

TECHNICAL DATA

SOMERA GRAND ULTIMA MAX

vikramsolar
CREATING CLIMATE FOR CHANGE

THIS DATASHEET IS APPLICABLE FOR: SOMERA VSMH.75.AAA.05 (AAA=375-400)

Electrical Data[1,2]

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

Peak Power P_{max} (Wp) Power Tolerance : 0 ~ +4.99Wp	375	380	385	390	395	400
Maximum Voltage V_{mpp} (V)	41.4	41.4	41.6	41.8	41.8	42.2
Maximum Current I_{mpp} (A)	9.06	9.18	9.25	9.33	9.45	9.48
Open Circuit Voltage V_{oc} (V)	50.4	50.6	50.6	51.2	51.2	51.3
Short Circuit Current I_{sc} (A)	9.78	9.81	9.83	9.86	9.92	9.94
Module Efficiency η(%)	18.14	18.38	18.63	18.87	19.11	19.35

1) STC:1000 W/m² irradiance, 25°C cell temperature, AM1.5G Spectrum according to EN 60904-3. | 2) Measurement Tolerance at STC : P_{max} : ± 3%Voc : ± 5%Isc : ± 5%

Electrical Parameters at NOCT[3]

Power (W)	267.9	271.4	275.0	278.6	282.1	285.7
V@P_{max} (V)	37.0	37.0	37.1	37.3	37.3	37.7
I@P_{max} (A)	7.25	7.34	7.40	7.46	7.56	7.58
V_{oc} (V)	46.7	46.9	46.9	47.4	47.4	47.5
I_{sc} (A)	7.82	7.85	7.86	7.89	7.94	7.95

3) NOCT Irradiance 800 W/m² , ambient temperature 20°C , AM 1.5G Spectrum, Wind Speed 1m/sec
Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.

Temperature Coefficients (Tc) permissible operating conditions

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

Mechanical Data

Length × Width × Height	2065 ± 2mm × 1001± 2mm × 40 ± 1mm
Weight	22.6 kg +/- 3%
Junction Box	IP68/IP67, Split Junction Box with individual bypass diodes
Cable Cross Section Size	4mm²
Connectors	PVKST4-EVO2/xy_UR/PVKBT4-EVO 2/xy_UR , PV-JM608 , 05-8.
Application Class	Class A (Safety class II)
Superstrate	3.2 mm (0.13 inches) high transmission low iron tempered glass, AR coated
Cells	150 (25 × 6) Mono PERC 5BB solar cells
Cell Encapsulant	EVA (Ethylene Vinyl Acetate)
Back Sheet	Composite film
Frame	Anodized aluminium frame with twin wall profile
Maximum Static Load, Front	3600Pa, 1.5
Maximum Static Load, Back	1600Pa, 1.5
Maximum Series Fuse Rating	20 A

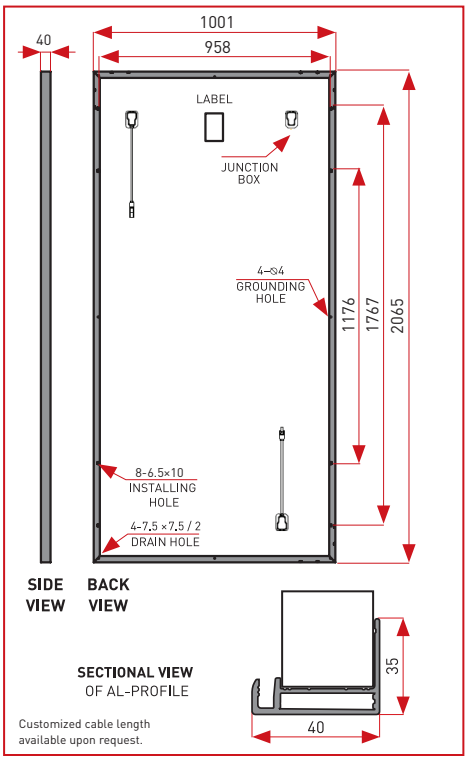
Warranty and Certifications

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^	UL1703, IEC 61215:2016, IEC 61730:2016, IS14286, IS/IEC 61730

Packaging Information

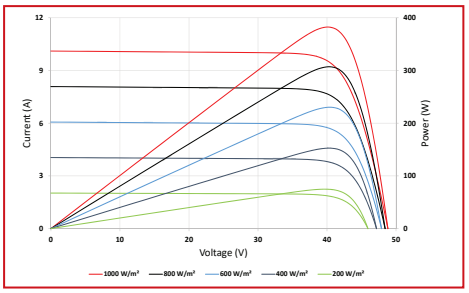
Quantity /Pallet: 26	Pallets/Container (40'HC): 22	Quantity/Container (40'HC): 572

Dimensions in mm



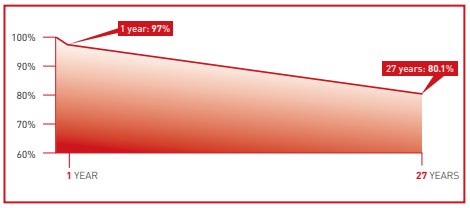
Customized cable length available upon request.

Typical Electrical Curves[4]



[4] Average relative efficiency reduction of 5% at 200 W/m² according to EN 60904-1.

Performance Warranty



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

CAUTION: READ SAFETY AND INSTALLATION MANUAL BEFORE USING THE PRODUCT.
Electrical data without guarantee. Please confirm your exact requirement with the company representative while placing your order.

sales@vikramsolar.com www.vikramsolar.com