somera

SERIES 6

Monocrystalline Solar PV Modules, Monofacial, MBB, M6 Half-Cell, SOMERA VSMHBB.60.AAA.03.04

POWER OUTPUT WATT	MAXIMUM EFFICIENCY %	POSITIVE POWER TOLERANCE WP	CELLS (HALF CUT)
340-370	19.95	0~+4.99	M6 120

EFFECTIVE GAIN OF 1% OF CELL ACTIVE AREA by using cylindrical tabbing wire

Bypass diodes and innovative series-parallel connections enable the module to perform better in **PARTIAL SHADOW CONDITIONS**

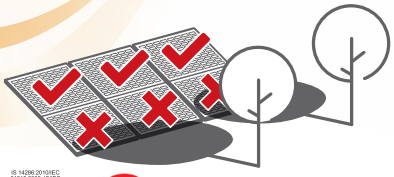
BETTER TOLERANCE TO MICRO CRACK
Higher number of busbar makes the PV modules less prone to loss in efficiency due to micro-cracks.

IMPROVED FIELD RELIABILITY due to multiple contact points on the cell.

SUPERIOR PRICE PERFORMANCE
half-cut improves modules output without adding much to cost

GREAT AESTHETICS FOR DARK ROOFS
ALL BLACK module can increase the aesthetic value of your home with a more modern design

INCREASED SHADE TOLERANCE



HALF-CELL MODULE

Functions like two parallel modules, enabling the half-cell string to work in partial shading

APPLICATIONS

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

FRAME

BLACK | SILVER

BACKSHEET

BLACK | WHITE | TRANS-PARANET

vikramsolar
CREATING CLIMATE FOR CHANGE

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TECHNICAL DATA

SOMERA SERIES 6 120CELLS - ALL BLACK MBB

THIS DATASHEET IS APPLICABLE FOR: SOMERA VSMHBB.60.AAA.03.04 (AAA=340-370)

Electrical Data[1,2] All data refers to STC (AM 1.5, 1000 W/m², 25°C)

Peak Power P_{max} (Wp)	340	345	350	355	360	365	370
Maximum Voltage V_{mpp} (V)	34.5	34.6	34.6	34.7	34.7	34.8	34.9
Maximum Current I_{mpp} (A)	9.88	10.01	10.13	10.27	10.41	10.53	10.65
Open Circuit Voltage V_{oc} (V)	40.6	40.7	40.8	40.8	40.9	41	41.1
Short Circuit Current I_{sc} (A)	10.9	11.01	11.13	11.25	11.35	11.45	11.55
Module Efficiency η(%)	18.34	18.61	18.88	19.14	19.41	19.68	19.95

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

Electrical Parameters at NOCT[3]

Power (W)	251.6	255.3	259.0	262.7	266.4	270.1	273.8
V@P_{max} (V)	31.9	32.0	32.0	32.1	32.1	32.2	32.2
I@P_{max} (A)	7.9	8.01	8.10	8.22	8.33	8.42	8.52
V_{oc} (V)	37.9	38.0	38.1	38.1	38.2	38.3	38.4
I_{sc} (A)	9.93	10.03	10.14	10.25	10.34	10.43	10.52

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 (β)	-0.27%/°C
Tc of Short Circuit Current (α)	0.065%/°C
Tc of Power (γ)	-0.35%/°C
Maximum System Voltage	1000V
NOCT	45°C ± 2°C
Temperature Range	-40°C to + 85°C

Mechanical Data

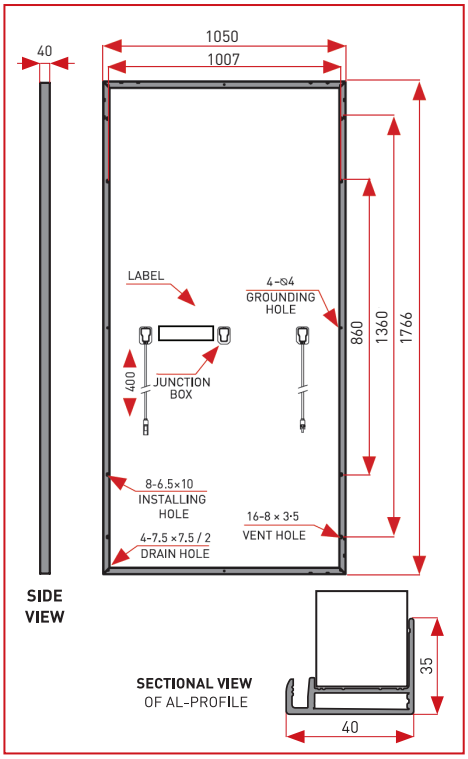
Length × Width × Height	1766 × 1050 × 40mm (69.52 × 41.33 × 1.57 inches)
Weight	20.8 Kg (45.8 lbs)
Junction Box	IP68/IP67, Split Junction Box with individual bypass diodes
Cable & Connectors#	400 mm length cables,MC4 Compatible/MC4 Connectors
Application Class	Class A (Safety class II)
Superstrate	3.2 mm (0.125 inches) high transmission low iron tempered glass, AR coated
Cells	60 Mono PERC (120 half-cells) solar cells
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

Warranty and Certifications

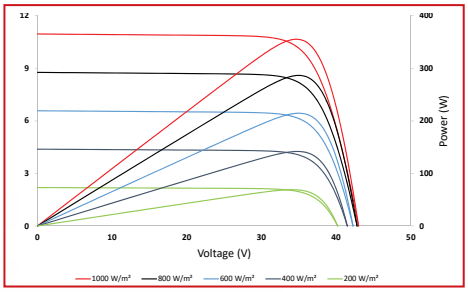
Product Warranty**	10 years
Performance Warranty**	Linear Power Warranty for 27 years with 3% for 1st year degradation and 0.65% from year 2 to year 27
Approvals and Certificates^	IEC 61215 : 2016, IEC 61730 : 2016, IEC 61701, IEC 62716, IEC 60068-2-68, IEC 62804, CE, CEC (California), UL 1703

^ All (^) certifications under progress. | ** Refer to Vikram Solar's warranty document for terms and conditions. | # 1200mm (47.24 inches) cable length is also available

Dimensions in mm

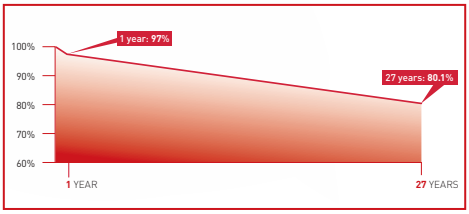


Typical I-V Curves[4]



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

Performance Warranty



Packaging Information

Quantity /Pallet	27
Pallets/Container (40'HC)	26
Quantity/Container (40'HC)	702

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