

500-525W

SUBSTRATE
GLASS ●
MESH GLASS ●

FRAME TYPE
ALUMINIUM ●
STEEL ●

FRAME VARIANT
SILVER ●
BLACK ●

MAXIMUM EFFICIENCY %

23.16

CELL TYPE

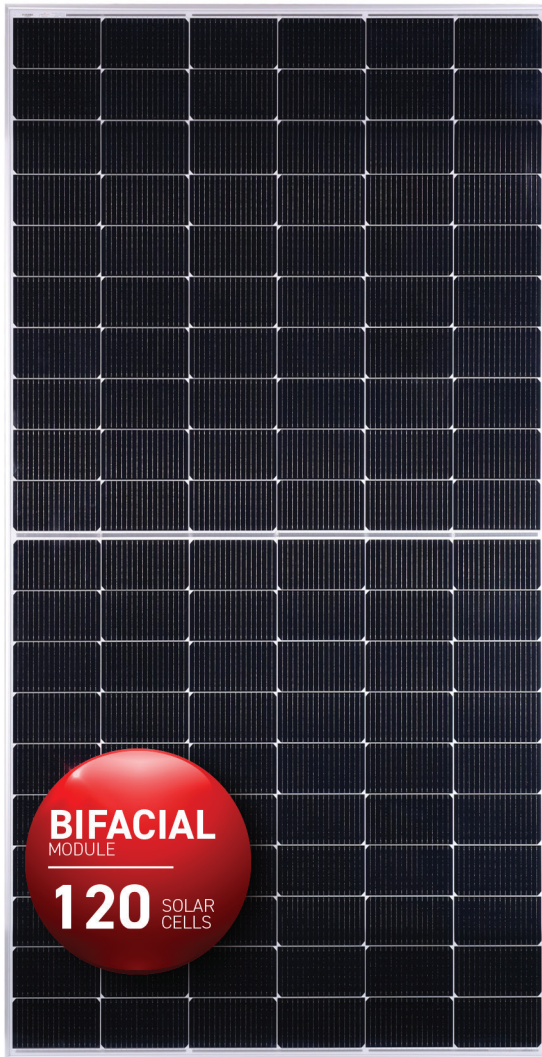
M10R HALF CUT

PRODUCT WARRANTY

12 YEARS

PERFORMANCE WARRANTY

30 YEARS



0% NEGATIVE POWER TOLERANCE

- Positive power tolerance of upto 0 ~ 4.99Wp
- Module I_{mp} binning radically reduces string mismatch losses



IMPROVED LONGEVITY

- Excellent anti-PID performance via optimized process and materials control
- Lower susceptibility to LID & LeTID



LOWER LCOE

- Lower balance of systems cost
- Improves value proposition of the product with competitive ROI



HIGHLY AUTOMATED PRODUCTION LINE

- Multi stage EL and digitalised visual inspection results lower defect rates
- Implemented engineering excellence ensures top notch quality



SUPERIOR HAIL TEST PERFORMANCE

- ø 45mm hail test passed from third party laboratory with impact velocity up to 27m/s

PRODUCT CERTIFICATES



SYSTEM CERTIFICATES

IEC 61215 : 2021, IEC 61730, UL 61215, UL 61730, IS 14286, IS/IEC 61730, IEC 61701, IEC 62716, IEC 60068-2-68, CAN-CSA

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION:

- ISO 9001:2015/ Quality Management System
- ISO 14001:2015/ Environmental Management System
- ISO 45001:2018/ Occupational Health and Safety Management System
- SA 8000 :2014/ Social Accountability International

THIS DATASHEET IS APPLICABLE FOR: HYPERSOL VSM DH.60.AAA.05 (AAA=500-525)

ELECTRICAL PARAMETERS | STC^{1,2}

Peak Power P_{max} (Wp)	500	505	510	515	520	525
Maximum Voltage V_{mpp} (V)	36.5	36.73	36.93	37.13	37.33	37.5
Maximum Current I_{mpp} (A)	13.69	13.75	13.81	13.87	13.93	13.99
Open Circuit Voltage V_{oc} (V)	43	43.2	43.4	43.6	43.8	44
Short Circuit Current I_{sc} (A)	14.52	14.58	14.64	14.7	14.76	14.82
Module Efficiency (%)	22.03	22.27	22.49	22.71	22.93	23.16

1) STC: 1000 W/m² IRRADIANCE, 25°C CELL TEMPERATURE, AM1.5G SPECTRUM ACCORDING TO EN 60904-3 | 2) TOLERANCE OF RATING AT STC (P_{max} / I_{sc} / V_{oc}) (%): 0.3/+10/+10 | ELECTRICAL MEASUREMENT UNCERTAINTY IS WITHIN ± 2%

ELECTRICAL PARAMETERS | NOCT³

Peak Power P_{max} (Wp)	376.4	380.5	384.2	388	391.7	395.6
Maximum Voltage V_{mpp} (V)	33.9	34.1	34.3	34.4	34.6	34.8
Maximum Current I_{mpp} (A)	11.11	11.16	11.21	11.26	11.32	11.37
Open Circuit Voltage V_{oc} (V)	40.4	40.6	40.8	41	41.2	41.4
Short Circuit Current I_{sc} (A)	11.72	11.77	11.82	11.87	11.92	11.97

3) NOCT (IRRADIANCE 800 W/m², AMBIENT TEMPERATURE 20°C, WIND SPEED 1 M/SEC)

ELECTRICAL PARAMETERS | BNPI^{4,5}

Peak Power P_{max} (Wp)	554	559.5	565.1	570.6	576.2	581.7
Maximum Voltage V_{mpp} (V)	36.5	36.73	36.93	37.13	37.33	37.5
Maximum Current I_{mpp} (A)	15.17	15.24	15.3	15.37	15.43	15.5
Open Circuit Voltage V_{oc} (V)	43	43.2	43.4	43.6	43.8	44
Short Circuit Current I_{sc} (A)	16.09	16.15	16.22	16.29	16.35	16.42

4) BNPI: 1000W/m² ± 0.135, BIFACILITY COEFF. (β) AT BNPI P_{max} , I_{sc} IS 80±5% & FOR V_{oc} IS 99±10%, AM 1.5, 25°C | 5) TOLERANCE OF RATING AT BNPI (P_{max} / I_{sc} / V_{oc}) (%): 0.3/+10/+10

TEMPERATURE COEFFICIENTS (Tc) PERMISSIBLE OPERATING CONDITIONS

Tc of Open Circuit Voltage (β)	-0.26%/°C
Tc of Short Circuit Current (α)	0.046%/°C
Tc of Power (γ)	-0.30%/°C
Maximum System Voltage	1500V
NOCT	45°C ± 2°C
Temperature Range	-40°C to + 85°C

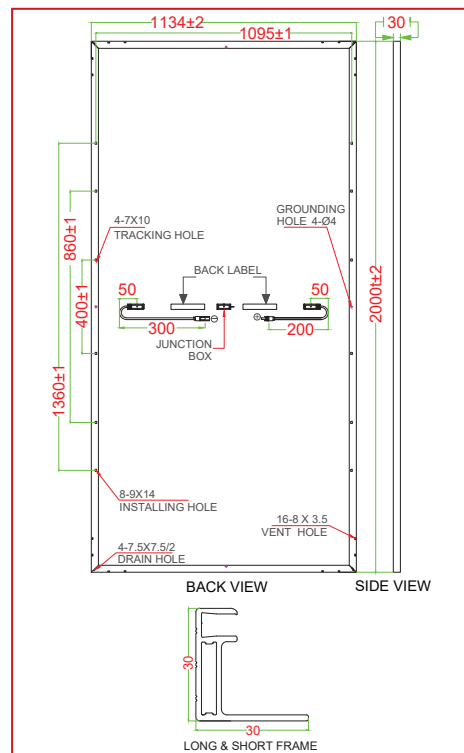
MECHANICAL DATA

Length × Width × Height	2000 X 1134 X 30 mm (78.74 x 44.65 x 1.18 inches)
Weight	29.1 Kg (64.15 lbs)
Junction Box	IP 68, Split Junction Box with individual bypass diodes
Cable & Connectors [#]	250 mm (+ve terminal) and 350 mm (-ve terminal) length cables, MC4 Compatible/MC4 Connectors
Application Class	Class A (Safety class II)
Superstrate ^{**}	2.0 mm (0.098 inches) high transmission ARC Semi-tempered glass (low iron content)
Cells	60 (120 half-cells) TOPCon n-Type bifacial solar cells
Substrate	2.0 mm (0.098 inches) high transmission heat strengthened glass/ mesh glass ^{**} (low iron content)
Frame	Anodized aluminium/ Alloy steel frame ^{**}
Mechanical Load Test	5400 Pa (Snow load), 2400 Pa (Wind load)
Cell Encapsulant	EPE/ EVA/ POE
Maximum Series Fuse Rating	30A
Hail Test	Ø 45mm Impact Velocity up to 27m/s

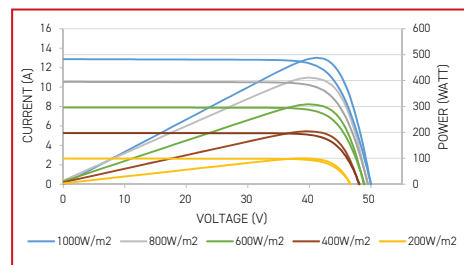
WARRANTY

Product Warranty ^{**}	12 years
Performance Warranty ^{**}	Linear Power Warranty for 30 years with 1% for 1 st year degradation and 0.4% from year 2 to year 30

DIMENSIONS IN MM

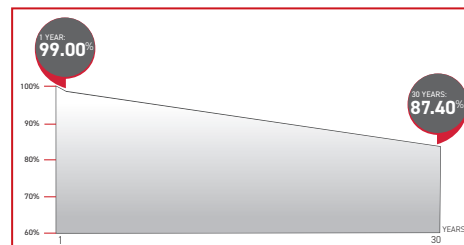


TYPICAL I-V CURVES⁶



6) AVERAGE RELATIVE EFFICIENCY REDUCTION OF 5% AT 200 W/M² ACCORDING TO EN 60904-1

PERFORMANCE WARRANTY



PACKAGING INFORMATION

Quantity /Pallet	36
Pallets/Container (40'HC)	24
Quantity/Container (40'HC)	864

All () certifications under progress. | **Refer to Vikram Solar's warranty document for terms and conditions. | *400mm(15.75 inches), 1000mm(39.37 inches), 1200mm (47.24 inches) cable lengths are also available | **Anti-glare Glass is also available | *As per applicable product | **With additional Cost & Lead Time subject to availability | STC : Standard Testing Condition | BNPI : Bifacial Nameplate Irradiance | NOCT : Nominal Operating Cell Temperature

CAUTION: READ SAFETY AND INSTALLATION MANUAL BEFORE USING THE PRODUCT.

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