

570-595W

SUBSTRATE
GLASS ●
MESH GLASS ●

FRAME TYPE
ALUMINIUM ●
STEEL ●

FRAME VARIANT
SILVER ●
BLACK ●

MAXIMUM EFFICIENCY %

23.03

CELL TYPE

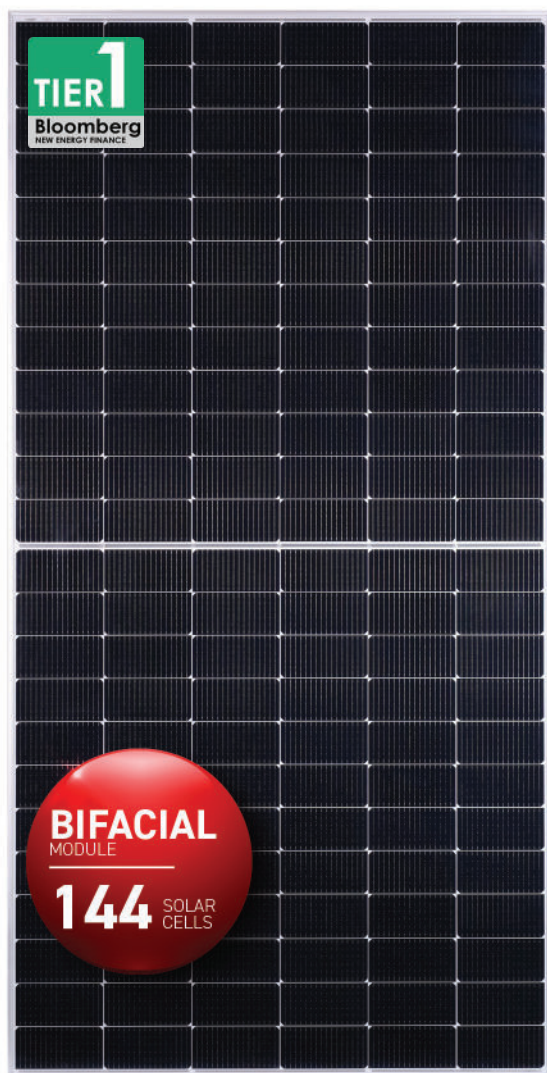
M10 HALF CUT

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



ENHANCED RELIABILITY WITH INTEGRATED BLOCKING DIODE

- Protects the solar module from reverse current, ensuring uninterrupted and safe operation
- Shields the system from electrical surges, reducing the risk of damage to components



SUPERIOR HAIL TEST PERFORMANCE

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



OPTIMIZED PERFORMANCE

- Reduces the occurrence of local overheating and hotspots for consistent energy output
- Lowers maintenance requirements, extending the module's operational life

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: HYPER SOL VSM DH.72.AAA.05 (AAA=570-595)

ELECTRICAL PARAMETERS | STC^{1,2}

Peak Power P_{max} (Wp)	570	575	580	585	590	595
Maximum Voltage V_{mpp} (V)	42.4	42.6	42.8	43	43.2	43.4
Maximum Current I_{mpp} (A)	13.46	13.51	13.56	13.62	13.67	13.72
Open Circuit Voltage V_{oc} (V)	50.5	50.7	50.9	51.1	51.3	51.5
Short Circuit Current I_{sc} (A)	14.09	14.14	14.2	14.26	14.32	14.37
Module Efficiency (%)	22.07	22.26	22.45	22.65	22.84	23.03

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/+5/+5 | ELECTRICAL MEASUREMENT UNCERTAINTY IS WITHIN ± 2%

ELECTRICAL PARAMETERS | NOCT³

Peak Power P_{max} (Wp)	430	433	437	443	447	452
Maximum Voltage V_{mpp} (V)	39.8	40	40.2	40.6	40.9	41.1
Maximum Current I_{mpp} (A)	10.78	10.82	10.88	10.91	10.94	10.99
Open Circuit Voltage V_{oc} (V)	47.5	47.7	47.9	48.2	48.5	48.7
Short Circuit Current I_{sc} (A)	11.38	11.42	11.47	11.51	11.55	11.59

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)	632	637	643	648	654	659
Maximum Voltage V_{mpp} (V)	42.4	42.6	42.8	43	43.2	43.4
Maximum Current I_{mpp} (A)	14.91	14.97	15.02	15.09	15.15	15.2
Open Circuit Voltage V_{oc} (V)	50.5	50.7	50.9	51.1	51.3	51.5
Short Circuit Current I_{sc} (A)	15.61	15.67	15.73	15.8	15.86	15.92

4) BNPI: 1000W/M²±q.135, BIFACILITY COEFF. (q) AT BNPI P_{max} , I_{sc} IS 75±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/+5/+5

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	2278 X 1134 X 30 mm (89.68 x 44.65 x 1.18 inches)
Weight	32.5 ± 2% Kg (71.65 lbs)
Junction Box	IP 68, Split Junction Box with three bypass diodes and one blocking diode ^{1*}
Cable & Connectors ^{**}	200 mm (+ve terminal) and 300 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	72 (144 half-cells) 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
Maximum Series Fuse Rating	30A
Hail Test [†]	Ø 45mm Impact Velocity up to 27m/s

WARRANTY

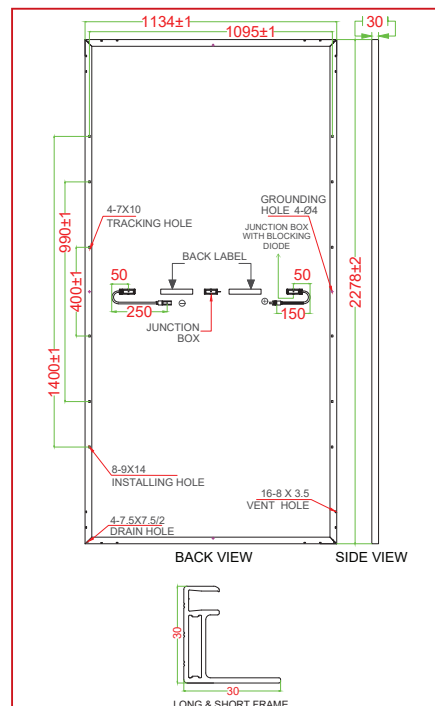
Product Warranty ^{**}	12 years
Performance Warranty ^{**}	Linear Power Warranty for 30 years with 1% for 1 st year degradation and 0.4% from year 2 to year 30

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

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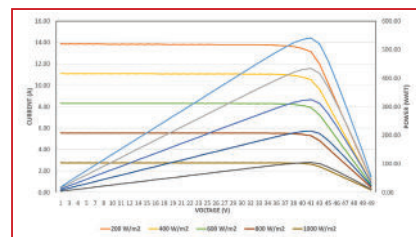
DIMENSIONS IN MM

FIG. 1



TYPICAL I-V CURVES⁶

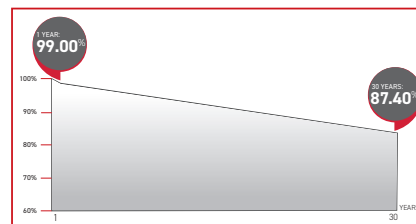
FIG. 2



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

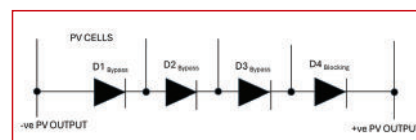
PERFORMANCE WARRANTY

FIG. 3



DIODE CIRCUIT DIAGRAM

FIG. 4



PACKAGING INFORMATION

Quantity /Pallet	36
Pallets/Container (40'HC)	20
Quantity/Container (40'HC)	720

All () certifications under progress. | **Refer to Vikram Solar's warranty document for terms and conditions. | ***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 | *Refer diode circuit diagram (Fig. 4)