

565-590W

SUBSTRATE
GLASS
MESH GLASS

FRAME TYPE
ALUMINIUM
STEEL

FRAME VARIANT
SILVER
BLACK

MAXIMUM EFFICIENCY %

22.87

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



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

- \varnothing 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.72.AAA.05 (AAA=565-590)

ELECTRICAL PARAMETERS | STC^{1,2}

Peak Power P_{max} (Wp)	565	570	575	580	585	590
Maximum Voltage V_{mpp} (V)	42.2	42.4	42.6	42.8	43.0	43.2
Maximum Current I_{mpp} (A)	13.4	13.46	13.51	13.56	13.62	13.67
Open Circuit Voltage V_{oc} (V)	50.3	50.5	50.7	50.9	51.1	51.3
Short Circuit Current I_{sc} (A)	14.03	14.09	14.14	14.20	14.26	14.32
Module Efficiency (%)	21.89	22.09	22.28	22.47	22.67	22.87

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)	426	430	433	437	443	447
Maximum Voltage V_{mpp} (V)	39.6	39.8	40.0	40.2	40.6	40.9
Maximum Current I_{mpp} (A)	10.76	10.78	10.82	10.88	10.91	10.94
Open Circuit Voltage V_{oc} (V)	47.3	47.5	47.7	47.9	48.2	48.5
Short Circuit Current I_{sc} (A)	11.33	11.38	11.42	11.47	11.51	11.55

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)	626	632	637	643	648	654
Maximum Voltage V_{mpp} (V)	42.2	42.4	42.6	42.8	43.0	43.2
Maximum Current I_{mpp} (A)	14.85	14.91	14.97	15.02	15.09	15.15
Open Circuit Voltage V_{oc} (V)	50.3	50.5	50.7	50.9	51.1	51.3
Short Circuit Current I_{sc} (A)	15.55	15.61	15.67	15.73	15.80	15.86

4) BNPI: 1000W/M²±q.135, BIFACILITY COEFF. (q) 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/+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	33.4 Kg (73.63 lbs)
Junction Box	IP 68, Split Junction Box with individual bypass diodes
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) 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

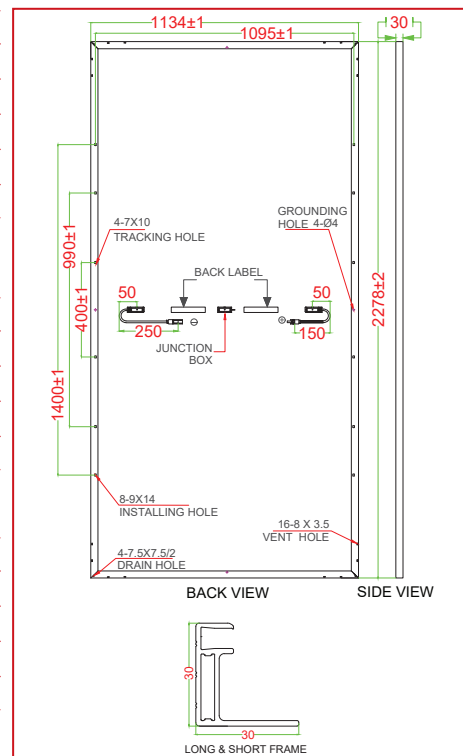
WARRANTY

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

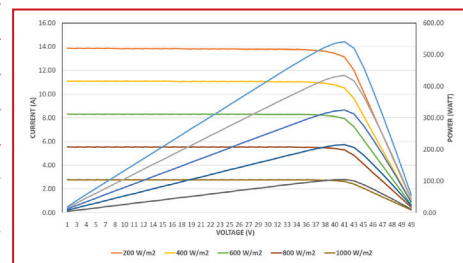
CAUTION: READ SAFETY AND INSTALLATION MANUAL BEFORE USING THE PRODUCT.

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DIMENSIONS IN MM

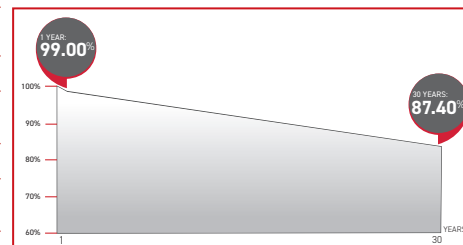


TYPICAL I-V CURVES⁶



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)	20
Quantity/Container (40'HC)	720

[#]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