

540-565W

SUBSTRATE
WHITE BACKSHEET ●
 BLACK BACKSHEET ●

FRAME TYPE
ALUMINIUM ●
 STEEL ●

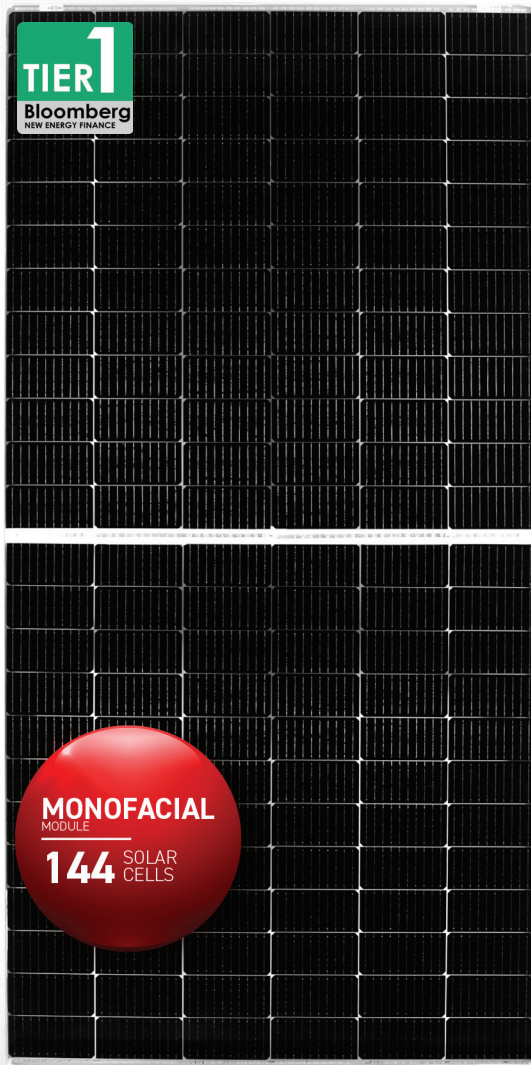
FRAME VARIANT
SILVER ●
 BLACK ●

MAXIMUM EFFICIENCY %
21.87

CELL TYPE
M10 HALF CUT

PRODUCT WARRANTY
12 YEARS

PERFORMANCE WARRANTY
27 YEARS



PROLONGED SAFETY ASSURANCE

- IP68 with potting JB provides higher level of water ingress protection
- High Insulation resistance for ensuring electrical safety



RELIABILITY IS IMPROVED

- Higher corrosion resistance to severe conditions of sand dust, concentrated ammonia and salt mist



LOWER LCOE

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



HIGHLY AUTOMATED PRODUCTION LINE

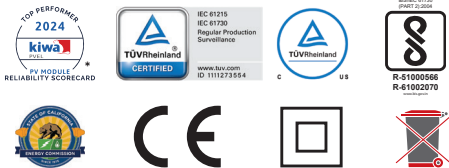
- Multi stage EL and digitalised visual inspection results in lower defect rates
- Implemented engineering excellence ensures top notch quality



0% NEGATIVE POWER TOLERANCE

- Positive power tolerance of upto 0 ~ 4.99Wp
- Module current binning radically reduces string mismatch losses

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: SOMERA VSMH.72.AAA.05 (AAA=540-565)

ELECTRICAL PARAMETERS | STC^{1,2}

Peak Power P _{max} (Wp)	540	545	550	555	560	565
Maximum Voltage V _{mpp} (V)	41.7	41.8	41.9	42	42.1	42.2
Maximum Current I _{mpp} (A)	12.96	13.05	13.14	13.23	13.32	13.41
Open Circuit Voltage V _{oc} (V)	49.5	49.6	49.7	49.8	49.9	50
Short Circuit Current I _{sc} (A)	13.64	13.73	13.82	13.91	14.0	14.08
Module Efficiency (%)	20.90	21.10	21.29	21.48	21.68	21.87

¹STC: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)	403	407	410	414	417	420
Maximum Voltage V _{mpp} (V)	38.60	38.70	38.80	38.90	39.00	39.1
Maximum Current I _{mpp} (A)	10.44	10.50	10.56	10.62	10.68	10.74
Open Circuit Voltage V _{oc} (V)	46.10	46.20	46.30	46.40	46.50	46.6
Short Circuit Current I _{sc} (A)	11.02	11.08	11.14	11.20	11.26	11.32

³NOCT 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)	0.050%/°C
Tc of Power (γ)	-0.35%/°C
Maximum System Voltage	1500V
NOCT	45°C ± 2°C
Temperature Range	-40°C to + 85°C

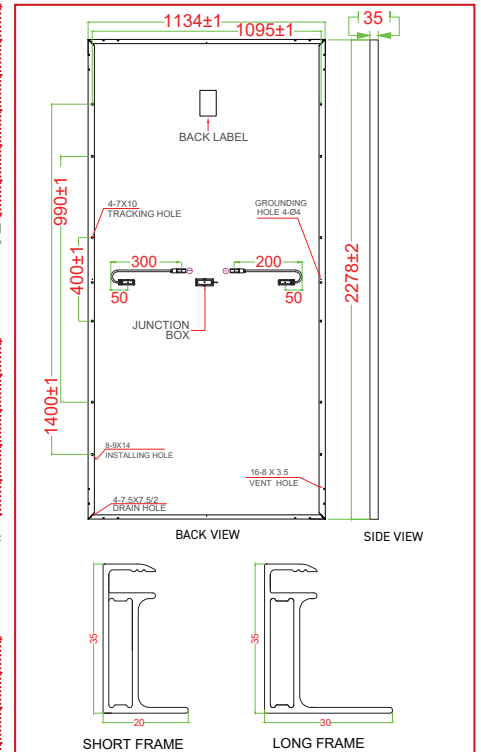
MECHANICAL DATA

Length × Width × Height	2278 × 1134 × 35mm (89.68 × 44.65 × 1.38 inches)
Weight	28.25 Kg (62.28 lbs)
Junction Box	IP68, 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 ^{##}	3.2 mm (0.125 inches) high transmission low iron tempered glass, AR coated
Cells	72 Mono PERC (144 half-cells) P-Type solar cells
Substrate	Composite film
Frame	Anodized aluminium frame with twin wall profile
Mechanical Load Test	5400 Pa (Snow load), 2400 Pa (Wind load)
Cell Encapsulant	EVA
Maximum Series Fuse Rating	25 A
Hail Test	∅ 45mm Impact Velocity up to 27m/s

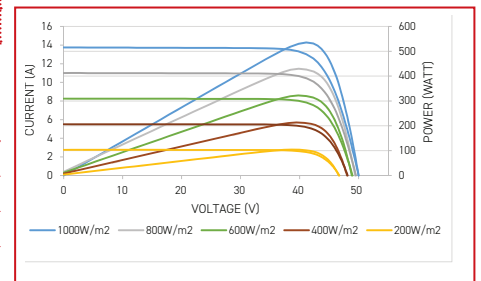
WARRANTY

Product Warranty ^{**}	12 years
Performance Warranty ^{**}	Linear Power Warranty for 27 years with 2% for 1st year degradation and 0.55% from year 2 to year 27

DIMENSIONS IN MM

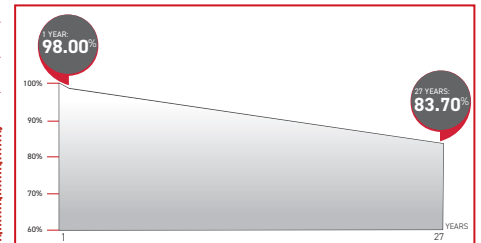


TYPICAL I-V CURVES⁷



⁷ AVERAGE RELATIVE EFFICIENCY REDUCTION OF 5% AT 200 W/M² ACCORDING TO EN 60904-1

PERFORMANCE WARRANTY



PACKAGING INFORMATION

Quantity /Pallet	31
Pallets/Container (40'HC)	20
Quantity/Container (40'HC)	620

[#]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 | BNP : Bifacial Nameplate Irradiance | NOCT : Nominal Operating Cell Temperature

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

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