

# 585-610W

SUBSTRATE  
**GLASS** ●  
MESH GLASS ●

FRAME TYPE  
**ALUMINIUM** ●  
STEEL ●

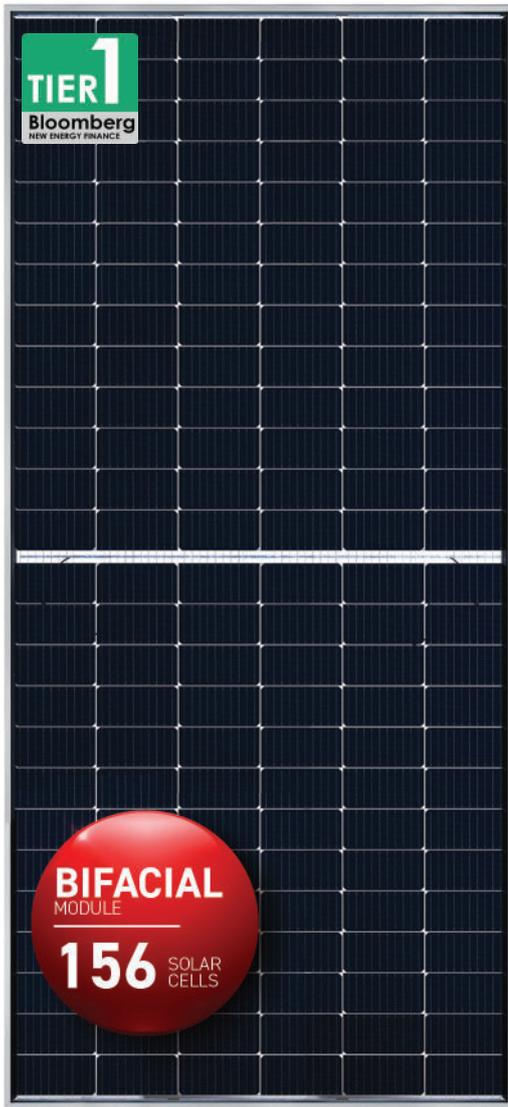
FRAME VARIANT  
**SILVER** ●  
BLACK ●

MAXIMUM EFFICIENCY %  
**22.01**

CELL TYPE  
**M10 HALF CUT**

PRODUCT WARRANTY  
**12** YEARS

PERFORMANCE WARRANTY  
**30** YEARS



### PROLONGED SAFETY ASSURANCE

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



### OPTIMIZED FRAME DESIGN

- Anodized aluminium frame with twin wall structure for higher strength
- Packaging capacity improved with more modules per container



### RELIABILITY IS IMPROVED

- Higher corrosion resistance to severe conditions of sand dust, concentrated ammonia and salt mist
- Low risk of module warping & micro cracking



### LOWER LCOE

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



### SUPERIOR HAIL TEST PERFORMANCE

- ø 40mm hail test passed from third party laboratory

#### PRODUCT CERTIFICATES



#### SYSTEM CERTIFICATES

IEC 61701, IEC 62716, IEC 60068-2-68, IS/IEC 61730, 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: PARADEA VSMDH.78.AAA.05 (AAA=585-610)

### ELECTRICAL PARAMETERS | STC<sup>1,2</sup>

Peak Power P <sub>max</sub> (Wp)	585	590	595	600	605	610
Maximum Voltage V <sub>mpp</sub> (V)	45.2	45.3	45.4	45.5	45.6	45.7
Maximum Current I <sub>mpp</sub> (A)	12.96	13.05	13.14	13.23	13.32	13.41
Open Circuit Voltage V <sub>oc</sub> (V)	53.6	53.7	53.8	54.0	54.1	54.2
Short Circuit Current I <sub>sc</sub> (A)	13.64	13.73	13.82	13.91	13.99	14.08
Module Efficiency (%)	21.02	21.22	21.41	21.61	21.81	22.01

1)STC:1000 W/M<sup>2</sup> IRRADIANCE, 25°C CELL TEMPERATURE, AM1.5G SPECTRUM ACCORDING TO EN 60904-3 | 2) TOLERANCE OF RATING AT STC (P<sub>max</sub> / I<sub>sc</sub> / V<sub>oc</sub>) [%]: 0-3/+10/±10

### ELECTRICAL PARAMETERS | NOCT<sup>3</sup>

Peak Power P <sub>max</sub> (Wp)	436	441	445	449	454	458
Maximum Voltage V <sub>mpp</sub> (V)	41.8	41.9	42	42.1	42.2	42.3
Maximum Current I <sub>mpp</sub> (A)	10.44	10.51	10.58	10.65	10.72	10.79
Open Circuit Voltage V <sub>oc</sub> (V)	49.9	50	50.1	50.2	50.3	50.4
Short Circuit Current I <sub>sc</sub> (A)	11.03	11.1	11.17	11.24	11.31	11.38

3)NOCT IRRADIANCE 800 W/M<sup>2</sup>, AMBIENT TEMPERATURE 20°C, WIND SPEED 1 M/SEC

### ELECTRICAL PARAMETERS | BNPI<sup>4,5</sup>

Peak Power P <sub>max</sub> (Wp)	640	646	651	657	662	668
Maximum Voltage V <sub>mpp</sub> (V)	45.2	45.3	45.4	45.5	45.6	45.7
Maximum Current I <sub>mpp</sub> (A)	14.18	14.28	14.38	14.48	14.58	14.68
Open Circuit Voltage V <sub>oc</sub> (V)	53.6	53.7	53.8	54	54.1	54.2
Short Circuit Current I <sub>sc</sub> (A)	14.93	15.03	15.13	15.22	15.31	15.41

4) BNPI: 1000W/M<sup>2</sup>±135, BIFACILITY COEFF. (β) AT BNPI P<sub>max</sub>, I<sub>sc</sub> IS 70±10% & FOR V<sub>oc</sub> IS 99±10%, AM 1.5, 25°C | 5) TOLERANCE OF RATING AT BNPI (P<sub>max</sub> / I<sub>sc</sub> / V<sub>oc</sub>) [%]: 0-3/+5/±5

### TEMPERATURE COEFFICIENTS (T<sub>c</sub>)

T <sub>c</sub> of Open Circuit Voltage (β)	-0.27%/°C
T <sub>c</sub> of Short Circuit Current (α)	0.050%/°C
T <sub>c</sub> of Power (γ)	-0.35%/°C
Maximum System Voltage	1500V
NOCT	45°C ± 2°C
Temperature Range	-40°C to + 85°C

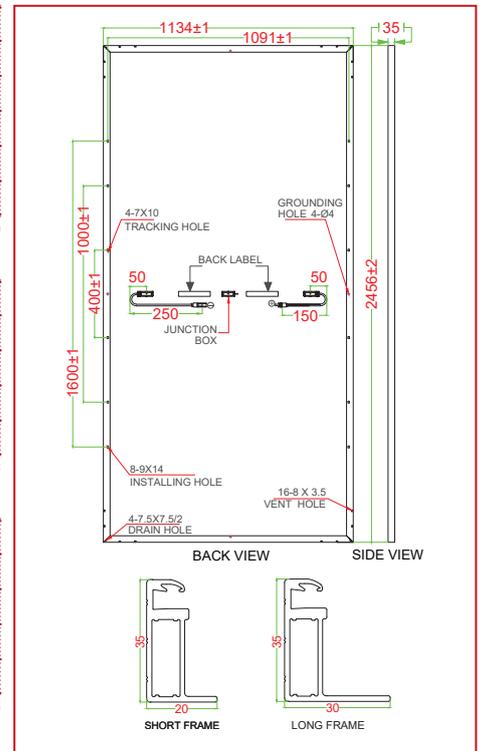
### MECHANICAL DATA

Length × Width × Height	2456 × 1134 × 35mm (96.69 × 44.65 × 1.38 inches)
Weight	36.5 Kg (80.47 lbs)
Junction Box	IP68, Split Junction Box with individual bypass diodes
Cable & Connectors <sup>#</sup>	200 mm (+ve terminal) and 300 mm (-ve terminal) length cables, MC4 Compatible/ MC4 Connectors
Application Class	Class A (Safety class II)
Superstrate <sup>##</sup>	2.0 mm (0.098 inches) High transmission ARC Semi-tempered glass (low iron content)
Cells	78 Mono PERC (156 half-cells) P-Type Bifacial solar cells
Substrate	2.0 mm (0.098 inches) High transmission Heat strengthened glass/ mesh glass <sup>##</sup> (low iron content)
Frame	Anodized aluminium/ Alloy steel frame <sup>##</sup>
Mechanical Load Test	5400 Pa (Snow load), 2400 Pa (Wind load)
Cell Encapsulant	EPE/ EVA
Maximum Series Fuse Rating	25 A

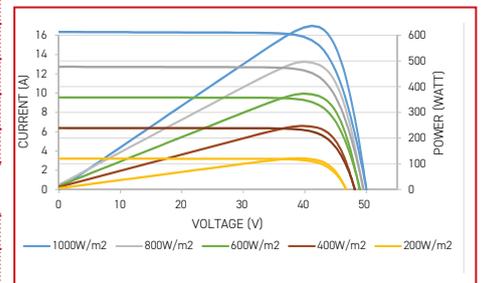
### WARRANTY

Product Warranty <sup>**</sup>	12 years
Performance Warranty <sup>**</sup>	Linear Power Warranty for 30 years with 2% for 1st year degradation and 0.5% from year 2 to year 30

### DIMENSIONS IN MM

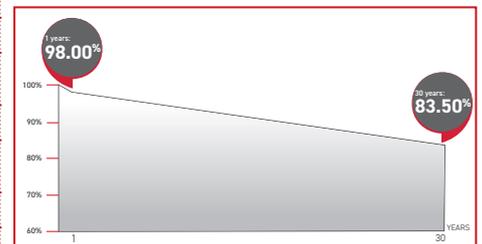


### TYPICAL I-V CURVES<sup>7</sup>



7) AVERAGE RELATIVE EFFICIENCY REDUCTION OF 5% AT 200 W/M<sup>2</sup> ACCORDING TO EN 60904-1

### PERFORMANCE WARRANTY



### PACKAGING INFORMATION

Quantity /Pallet	31
Pallets/Container (40'HC)	16
Quantity/Container (40'HC)	496

\*All (\*) certifications under progress. \*\*Refer to Vikram Solar's warranty document for terms and conditions. | #4000mm(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

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

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