

# 615-640W

SUBSTRATE  
 GLASS ●  
**MESH GLASS ●**

FRAME TYPE  
**ALUMINIUM ●**

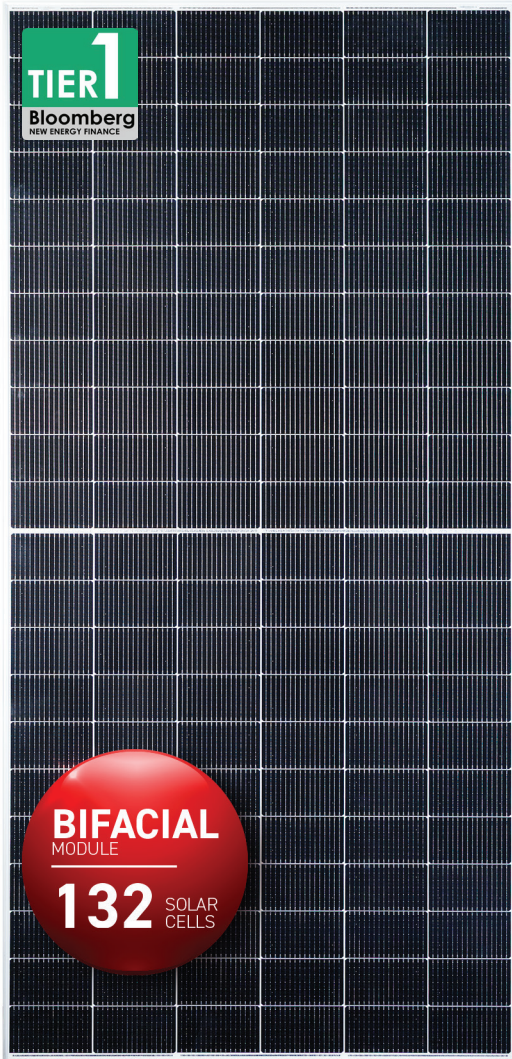
FRAME VARIANT  
**SILVER ●**  
 BLACK ●

MAXIMUM EFFICIENCY %  
**23.69**

CELL TYPE  
**G12R HALF CUT**

PRODUCT WARRANTY  
**12 YEARS**

PERFORMANCE WARRANTY  
**30 YEARS**



### LOWER LCOE

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



### 0% NEGATIVE POWER TOLERANCE

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



### IMPROVED LONGEVITY

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



### PREMIUM PERFORMANCE PARAMETERS

- N-TYPE solar cell upto 80% bifaciality, brings higher energy yield from rear side
- Lower temperature coefficient minimizing generation losses at high temperature



### SUPERIOR HAIL TEST PERFORMANCE

- ø 40mm hail test passed from third party laboratory

#### 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 VSMDDH.66.AAA.05 (AAA=615-640)

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

Parameter	615	620	625	630	635	640
Peak Power $P_{max}$ (Wp)	615	620	625	630	635	640
Maximum Voltage $V_{mpp}$ (V)	41	41.2	41.4	41.6	41.8	42
Maximum Current $I_{mpp}$ (A)	15.00	15.05	15.10	15.15	15.20	15.25
Open Circuit Voltage $V_{oc}$ (V)	48.9	49.1	49.3	49.5	49.7	49.9
Short Circuit Current $I_{sc}$ (A)	15.89	15.95	16.00	16.05	16.11	16.16
Module Efficiency (%)	22.77	22.95	23.14	23.32	23.51	23.69

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 ( $P_{max} / I_{sc} / V_{oc}$ ) [%]: 0-3/±5/±5 | ELECTRICAL MEASUREMENT UNCERTAINTY IS WITHIN ± 2%

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

Parameter	465.8	469.7	473.4	477.3	481.1	484.9
Peak Power $P_{max}$ (Wp)	465.8	469.7	473.4	477.3	481.1	484.9
Maximum Voltage $V_{mpp}$ (V)	38.2	38.4	38.6	38.8	39.0	39.2
Maximum Current $I_{mpp}$ (A)	12.19	12.23	12.28	12.33	12.37	12.42
Open Circuit Voltage $V_{oc}$ (V)	46.1	46.3	46.5	46.7	46.9	47.1
Short Circuit Current $I_{sc}$ (A)	12.84	12.89	12.93	12.98	13.02	13.06

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>

Parameter	681.4	687.0	692.5	698.0	703.6	709.1
Peak Power $P_{max}$ (Wp)	681.4	687.0	692.5	698.0	703.6	709.1
Maximum Voltage $V_{mpp}$ (V)	41	41.2	41.4	41.6	41.8	42
Maximum Current $I_{mpp}$ (A)	16.62	16.67	16.73	16.78	16.84	16.89
Open Circuit Voltage $V_{oc}$ (V)	48.9	49.1	49.3	49.5	49.7	49.9
Short Circuit Current $I_{sc}$ (A)	17.61	17.67	17.72	17.79	17.85	17.91

4) BNPI: 1000W/M<sup>2</sup>+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 ( $\beta$ )	-0.24%/°C
Tc of Short Circuit Current ( $\alpha$ )	0.04%/°C
Tc of Power ( $\gamma$ )	-0.29%/°C
Maximum System Voltage	1500V
NOCT	45°C ± 2°C
Temperature Range	-40°C to + 85°C

### MECHANICAL DATA

Length × Width × Height	2382 X 1134 X 30 mm (93.78 x 44.65 x 1.18 inches)
Weight	32.1Kg ±5% (71.65 lbs)
Junction Box	IP 68, Split Junction Box with individual bypass diodes
Cable & Connectors <sup>#</sup>	400 mm (+ve terminal) and 400 mm (-ve terminal) length cables, MC4 Compatible/Staubli EVO 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	66 (132 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
Mechanical Load Test	5400 Pa (Snow load), 2400 Pa (Wind load)
Cell Encapsulant	EPE/ EVA or EPE/EPE
Maximum Series Fuse Rating	30 A
Hail Test	Ø 40mm

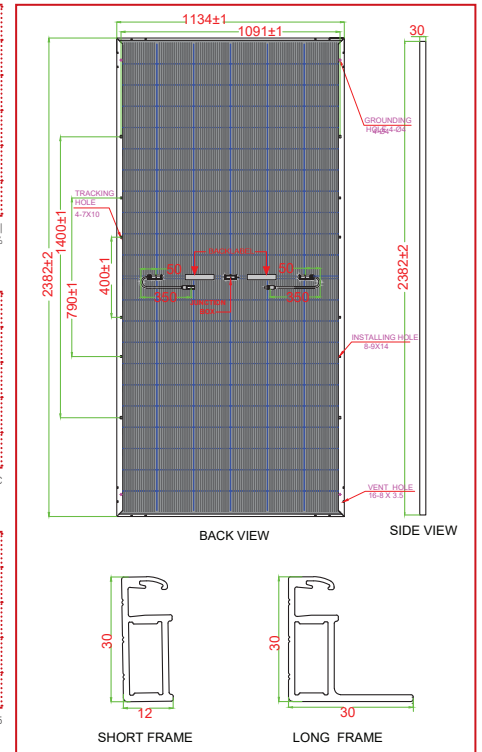
### WARRANTY

Product Warranty <sup>**</sup>	12 years
Performance Warranty <sup>**</sup>	Linear Power Warranty for 30 years with 1% for 1 <sup>st</sup> year degradation and 0.4% from year 2 to year 30

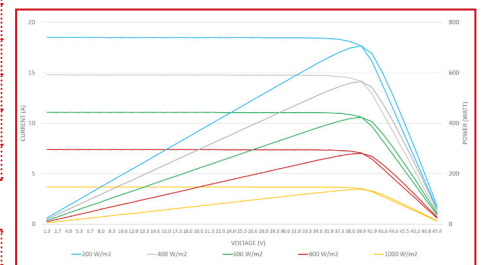
CAUTION: READ SAFETY AND INSTALLATION MANUAL BEFORE USING THE PRODUCT.

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### DIMENSIONS IN MM

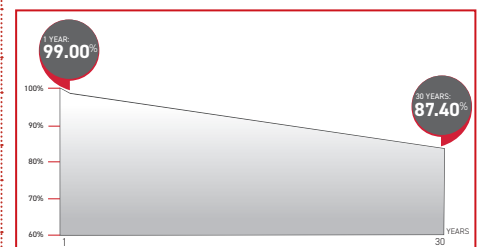


### TYPICAL I-V CURVES<sup>6</sup>



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

### PERFORMANCE WARRANTY



### PACKAGING INFORMATION

Quantity /Pallet	37
Pallets/Container (40'HC)	20
Quantity/Container (40'HC)	740

\*All (\*) certifications under progress. | \*\*Refer to Vikram Solar's warranty document for terms and conditions. | #1400mm (55.12 inches), 1600mm (62.99 inches) cable lengths are also available | ##Anti-glare Glass is also available | #As per applicable product | STC: Standard Testing Condition | BNPI: Bifacial Nameplate Irradiance | NOCT: Nominal Operating Cell Temperature