

PREXOS

HIGH EFFICIENCY BI-FACIAL GLASS TO TRANSPARENT BACKSHEET PV MODULES

340-375W

MAXIMUM EFFICIENCY %

20.22

POSITIVE POWER TOLERANCE WP

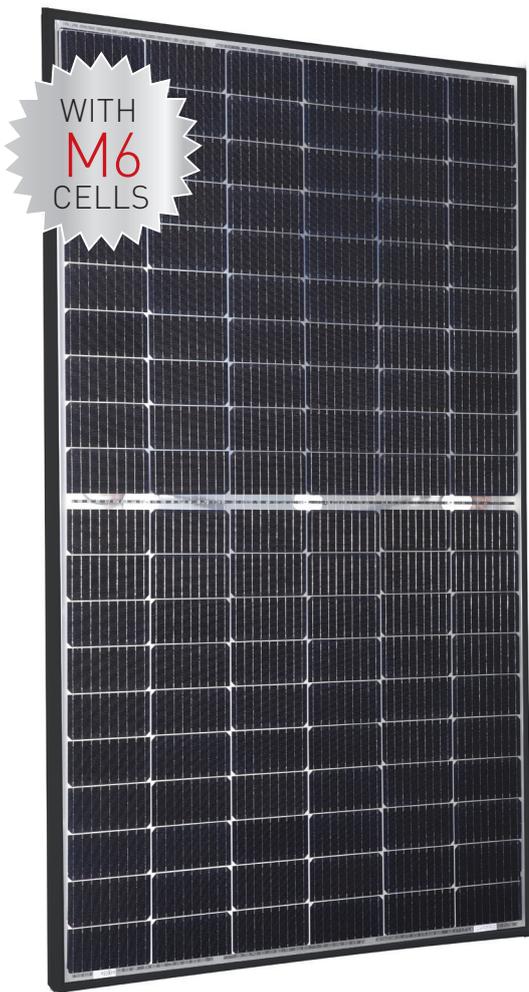
0~+4.99

CELLS

M6 120

MODULE TECHNOLOGY

HALF CUT DESIGN
WITH IMPROVED SHADE TOLERANCE



CYLINDRICAL TABBING WIRE is used to reduce the shadow on cell active area



Implementation of bypass diodes in split JB series-parallel connections enable the module to perform in **PARTIAL SHADOW CONDITIONS** with respect to full-cell module



HIGHER NUMBER OF BUSBAR makes the PV modules less prone to loss in efficiency and increase tolerance to micro cracks



FIELD RELIABILITY is improved due to multiple contact points on the cell which lowers the cell stress during module fabrication



LCOE IS CUT BACK by using M6 size solar cell with adding more power output than lower size cell module



UP TO 15% POWER GAIN from ground facing side depending upon the albedo of the ground surface



LOWER INTERNAL RESISTANCE boosts module power helping to achieve minimal power loss with respect to previous variant modules



Enlisted as a **TOP PERFORMER IN PVEL'S 2021** module reliability scorecard in terms of Potential Induced Degradation reliability test



FRAME SUPERSTRATE SUBSTRATE

BLACK

GLASS

**BACKSHEET
TRANSPARENT**

APPLICATIONS

- ♦ On-grid large scale utility systems
- ♦ On-grid rooftop industrial and commercial systems
- ♦ Rooftop residential systems



THIS DATASHEET IS APPLICABLE FOR: PREXOS VSMDHT.60.AAA.05 (AAA=340-375)

Electrical Data^{1,2} All data refers to STC (AM 1.5, 1000 W/m², 25°C)

Peak Power P _{max} (0 ~ +4.99Wp)	340	345	350	355	360	365	370	375
Maximum Voltage V _{mpp} (V)	34.5	34.6	34.6	34.7	34.7	34.8	34.9	34.9
Maximum Current I _{mpp} (A)	9.88	10.01	10.13	10.27	10.41	10.53	10.65	10.75
Open Circuit Voltage V _{oc} (V)	40.6	40.7	40.8	40.8	40.9	41	41.1	41.1
Short Circuit Current I _{sc} (A)	10.9	11.01	11.13	11.25	11.35	11.45	11.55	11.65
Module Efficiency η[%]	18.34	18.61	18.88	19.14	19.41	19.68	19.95	20.22

1) STC:1000 W/m² irradiance, 25°C cell temperature, AM1.5g spectrum according to EN 60904-3. | 2) Power measurement uncertainty is within +/- 2%.

Electrical Parameters at NOCT³

Power (W)	251.6	255.3	259	262.7	266.4	270.1	273.8	277.5
V@P _{max} (V)	31.9	32	32	32.1	32.1	32.2	32.2	32.2
I@P _{max} (A)	7.9	8.01	8.1	8.22	8.33	8.42	8.52	8.6
V _{oc} (V)	37.9	38	38.1	38.1	38.2	38.3	38.4	38.4
I _{sc} (A)	9.93	10.03	10.14	10.25	10.34	10.43	10.52	10.61

3) NOCT irradiance 800 W/m², ambient temperature 20°C, wind speed 1 m/sec

Equivalent Bifacial Output

Bifacial Gain								
5%	357	362.25	367.5	372.75	378	383.25	388.5	393.75
10%	374	379.5	385	390.5	396	401.5	407	412.5
15%	391	396.75	402.5	408.25	414	419.75	425.5	431.25

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	1766 × 1050 × 35mm (69.53 × 41.34 × 1.38 inches)
Weight	20.3 Kg (44.75 lbs)
Junction Box	IP68, 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 ^{##}	3.2 mm (0.125 inches) high transmission low iron tempered glass, AR coated
Cells	60 Mono-PERC (120 half-cells)
Back Sheet	High Transmittance Composite film with Clear Tedlar® from Dupont®
Frame	Anodized aluminium frame with twin wall profile
Encapsulant	Polyolefin (POE)
Mechanical Load Test	5400 Pa (Snow load), 2400 Pa (Wind load)
Maximum Series Fuse Rating	20 A

Warranty and Certifications

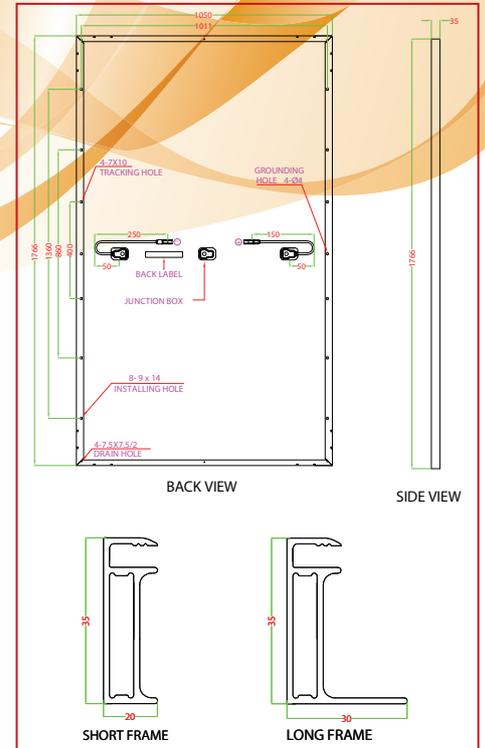
Product Warranty ^{**}	12 years
Performance Warranty ^{**}	Linear Power Warranty for 27 years with 2% for 1st year degradation and 0.55% from year 2 to year 27
Approvals and Certificates	IEC 61215 : 2016, IEC 61730 : 2016, IEC 61701, IEC 62716, IEC 60068-2-68 [^] , IEC 62804, CEC (California), UL 61215, UL61730, CAN-CSA, CE

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

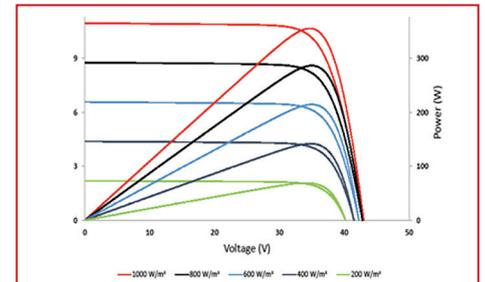
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Dimensions in mm

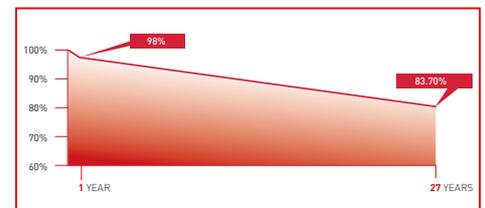


Typical I-V Curves⁴



4) 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)	26
Quantity/Container (40'HC)	806

[^] 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. 1" Anti-glare Glass is also available