

580-605W

MAXIMUM EFFICIENCY %

POSITIVE POWER TOLERANCE WP

21.38

0~+4.99

CELLS G12 120 MODULE TECHNOLOGY **HALF CUT & MICRO**





RELIABILITY IS IMPROVED with minimum exposure to corrosion from sand & salt mist with low risk of module warping & micro cracking



Bifacial gain of UP TO 25% with dual glass module, capable of energy generation with both direct and reflected sunlight



Additional Power yield with 30 YEARS OF PRODUCT LIFETIME with 0.5% annual power degradation



LCOE IS CUT BACK with LESS BOS COST which improves value proposition of the product with

competitive ROI



TWO PEAK PERFORMANCE TIME, during sun rise and sun set with optimum utilization of dual facial generation



Hassle-free installation with ability to INSTALL **VERTICALLY IN EAST WEST DIRECTION**, with improved soiling resistant



Implementation of bypass diodes in split JB seriesparallel connections enable the module to perform in PARTIAL SHADOW CONDITIONS with respect to fullcell module



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



















SUPERSTRATE



SUBSTRATE

APPLICATIONS

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





TECHNICAL DATA

PARADEA 580-605W

THIS DATASHEET IS APPLICABLE FOR: PARADEA VSMDH.60.AAA.05 (AAA= 580-605)

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

Peak Power P _{max} (Wp)	580	585	590	595	600	605
Maximum Voltage V _{mpp} (V)	36.7	36.8	36.9	37	37.1	37.2
Maximum Current I _{mpp} (A)	15.81	15.9	15.99	16.09	16.18	16.27
Open Circuit Voltage V _{oc} (V)	43.1	43.2	43.3	43.4	43.5	43.6
Short Circuit Current I _{sc} (A)	16.99	17.07	17.16	17.25	17.34	17.4
Module Efficiency (%)	20.49	20.67	20.85	21.02	21.20	21.38

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)	434.7	438.1	441.7	445.4	449	452.3
V@P _{max} (V)	33.4	33.5	33.6	33.7	33.8	33.9
I@P _{max} (A)	13.02	13.09	13.16	13.23	13.3	13.34
V _{oc} (V)	40.1	40.2	40.3	40.4	40.5	40.5
I _{sc} (A)	13.74	13.81	13.88	13.95	14.02	14.07

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

Equivalent Bifacial Output

Bifacial Gain		Overall Power output (W)				
5%	609	614	620	625	630	635
10%	638	644	649	655	660	666
15%	667	673	679	684	690	696
20%	696	702	708	714	720	726
25%	725	731	738	744	750	756

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

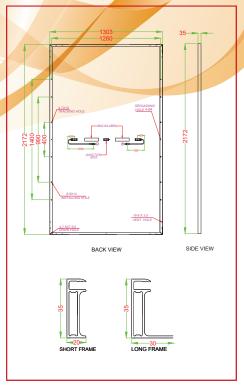
Mechanical Data

Length × Width × Height	2172 X 1303 X 35 mm (85.51 x 51.30 x 1.38 inches)		
Weight	36.3 Kg (80.03 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 low iron content, semi-tempered glass, AR coated		
Cells	60 Mono PERC (120 half-cells) P-Type Bifacial solar cells		
Substrate	2.0 mm (0.098 inches) high transmission low iron content, heat strengthened glass		
Frame	Anodized aluminium frame with twin wall profile		
Mechanical Load Test	5400 Pa (Snow load), 2400 Pa (Wind load)		
Encapsulant	Polyolefin (POE)/ EPE		
Maximum Series Fuse Rating	30 A		

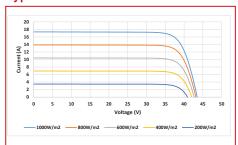
Warranty and Certifications

Product Warranty**	12 years
Performance Warranty**	Linear Power Warranty for 30 years with 2% for 1st year degradation and 0.5% from year 2 to year 30
	IEC 61215 : 2016, IEC 61730 : 2016, IEC 61701, IEC 62716, IEC 60068-2-68, IS/IEC 61730-1, IS/IEC 61730-2, IS 14286, IEC 62804, CE, CEC (California), UL 61215 , UL 61730, CAN-CSA

Dimensions in mm

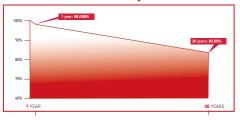


Typical I-V Curves⁴



4) Average relative efficiency reduction of 5% at 200 W/m 2 according to EN 60904-1.

Performance Warranty



Packaging Information

Quantity /Pallet	31
Pallets/Container (40'HC)	17
Quantity/Container (40'HC)	527

^ All (^) certifications under progress. | ** Refer to Vikram Solar's warranty document for terms and conditions. | * 4,00mm (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

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

Specifications included in this datasheet are subject to change without notice. Electrical data without guarantee. Please confirm your exact requirement with the company representative while placing your order.

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