RenewSys®
let there be light

BIFACIAL DUAL GLASS

*Module image for representation purpose only

DESERV®

DESERV®EXTREME 156X 610 WP - 650 WP

OUTPUT
Up to 650 Wp

EFFICIENCY
UP TO 23.3%

TEMPERATURE
COEFFICIENT -0.29 %/°C

WARRANTY
12-year of product
30-year of power output

World-class products, Made in India

- **Smart**: High module efficiency with 156X half-cut Mono crystalline Bi-facial TopCon Solar Cell
- **Modern**: Processed on state-of the-art technology production lines
- **Dependable**: Use of highest quality raw materials coupled with rigorous in-house testing
- **Versatile**: Suitable for Utility, Rooftop, and other general applications

Certifications:

- IEC Compliant
- IMS Certified Company - ISO 9001: 2015
- OHSAS 45001: 2018
- EMS - ISO 14001: 2015
- Independently audited by SOLARBUYER

CE Independently Audited by SOLARBUYER

RenewSys is the first integrated manufacturer of Solar PV Modules and its key components - Encapsulants (EVA and POE), Backsheets and Solar PV Cells. We have a global presence with offices in India, Mauritius, Nigeria, South Africa, Singapore, UAE, representatives in Europe, USA, Mexico, and an evolving distributor network.

Registered Office: Unit No. 607, 6th Floor, Trade Center, Bandra-Kurla Complex, Bandra East, Mumbai - 400 051, Maharashtra, India.

Factory: Plot No. E-141, Additional Patalganga MIDC Industrial Area, Village - Karade Khurd, Taluka Panvel, District Raigad - 410 206, Maharashtra, India.

Factory: Plot No.6, Survey # 114/P, Srinagar Village, Maheshwaram Mandal, Dist - Rangareddy, Hyderabad - 501 359, Telangana, India.

RenewSys® let there be light

DESERV®

Performance under standard test conditions (1000w/m², AM 1.5, 25 ºC)

DESERV Extreme 144 Bi-Facial Gain @Different Albedo (%)

	Pm (Wp)	Vmp (V)	Imp (A)	Voc (V)	Isc (A)	Efficiency (%)	Pm (Wp)	Vmp (V)	Imp (A)	Voc (V)	Isc (A)	Efficiency (%)
Front @STC	**610**	46.40	13.16	56.70	13.70	21.87	**615**	46.61	13.20	56.91	13.75	22.05
5%	640.5	46.40	13.80	56.70	14.34	24.83	645.75	46.61	13.85	56.91	14.40	25.03
10%	671	46.40	14.46	56.70	15.00	26.01	676.5	46.61	14.51	56.91	15.06	26.22
20%	732	46.40	15.78	56.70	16.32	28.37	738	46.61	15.83	56.91	16.38	28.61
Front @STC	**620**	46.82	13.25	57.12	13.80	22.23	**625**	47.01	13.30	57.33	13.85	22.41
5%	651	46.82	13.90	57.12	14.45	25.23	656.25	47.01	15.16	57.33	15.71	25.44
10%	682	46.82	14.57	57.12	15.12	26.44	687.5	47.01	15.88	57.33	16.43	26.65
20%	744	46.82	15.89	57.12	16.44	28.84	750	47.01	17.33	57.33	17.88	29.07
Front @STC	**630**	47.21	13.35	57.56	13.90	22.59	**635**	47.40	13.40	57.76	13.95	22.76
5%	661.5	47.21	15.21	57.56	15.76	25.64	666.75	47.40	15.24	57.76	15.79	25.84
10%	693	47.21	15.93	57.56	16.48	26.86	698.5	47.40	15.97	57.76	16.52	27.08
20%	756	47.21	17.38	57.56	17.93	29.30	762	47.40	17.42	57.76	17.97	29.54
Front @STC	**640**	47.57	13.46	57.97	14.00	22.94	**645**	47.72	13.52	58.15	14.05	23.12
5%	672	47.57	15.30	57.97	15.84	26.05	677.25	47.72	15.34	58.15	15.87	26.25
10%	704	47.57	16.03	57.97	16.57	27.29	709.5	47.72	16.07	58.15	16.60	27.50
20%	768	47.57	17.48	57.97	18.02	29.77	774	47.72	17.53	58.15	18.06	30.00

	Pm (Wp)	Vmp (V)	Imp (A)	Voc (V)	Isc (A)	Efficiency (%)
Front @STC	**650**	47.93	13.57	58.34	14.11	23.32
5%	682.5	47.93	15.38	58.34	15.92	26.46
10%	715	47.93	16.11	58.34	16.65	27.71
20%	780	47.93	17.58	58.34	18.12	30.23

Physical Parameters

No. of cells	156
Module dimension (mm)	2469 X 1133 (± 2)
Module thickness (mm)	35
Approximate weight (kg)	34.5

Operating Conditions

Temperature, ºC	-40 to +85
Max. system voltage, Vdc	1500
Hail impact velocity, m/sec	23
Max. surface load capacity, Pa	5400
Max. wind speed capacity, Pa	2400
Series fuse rating, A	30

Mechanical Characteristics

Cable	No. 12 AWG, 4mm², (300mm Standard)
PV Connectors	MC4 Compatible
Frame	Anodized Aluminum Alloy
Junction box	IP68 Split junction box with 3 bypass diodes
Glass (front)	2.0mm AR coated low iron heat strengthened
Glass (back)	2.0 mm Low iron heat strengthened

NOCT (Wp) at 45 ± 2 ºC @800 W/m²	610	615	620	625	630	635	640	645	650
Pmax (W)	453.98	457.70	461.42	465.14	468.87	472.59	476.31	480.03	483.75
Max. power voltage (Vmp), V	42.44	42.63	42.82	42.99	43.18	43.35	43.51	43.64	43.84
Max. power current (Imp), A	10.71	10.74	10.78	10.83	10.87	10.91	10.96	11.00	11.04
Open circuit voltage (Voc), V	52.72	52.92	53.11	53.31	53.52	53.71	53.90	54.07	54.25
Short circuit current (Isc), A	11.19	11.23	11.27	11.31	11.36	11.40	11.44	11.48	11.53

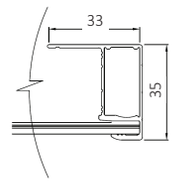
Bi-faciality factor: 70 ± 5%

Cell Temperature Coefficient	Bi-Facial
Open circuit voltage	- 0.25 % / ºC
Short circuit current	+ 0.05 % / ºC
Peak power	- 0.29 % / ºC

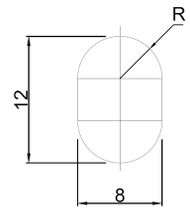
Test uncertainty for Pmax ± 3%

Bi-facial gain subject to mounting structure specifications and albedo % of ground

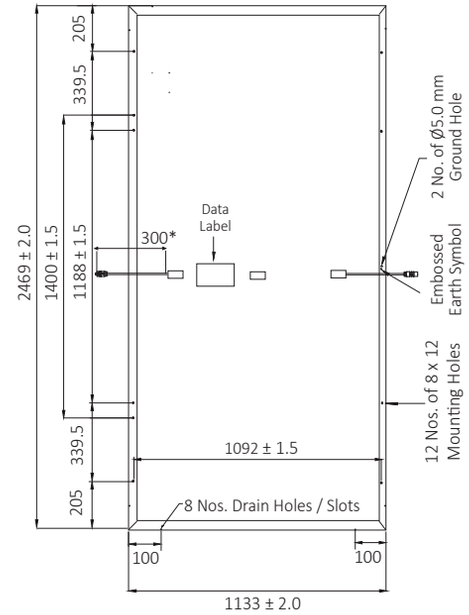
Frame Cross Section



Mounting Hole

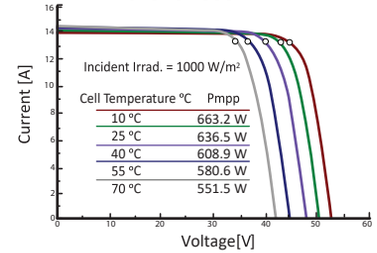


Module Dimension Diagram (mm)

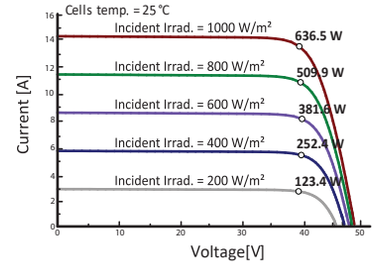


IV Curves

Cell temperature sensitivity chart are for 635 WP



Incident irradiance sensitivity chart are for 635 WP



-Please refer to the installation manual for detailed information.

*Due to continuous product updation, specifications may change without notice. Kindly refer to the website for latest information: www.renewsysworld.com

*Recycle Responsibily/RenewSys recommends recycling in accordance with local government e-waste notifications.