BIFACIAL

RenewSys®
let there be light

DESERV®
EXTREME 144
520 WP - 545 WP

*Module image for representation purpose only

DESERV®

SAFE

- IP68 Junction box
- 10 years of product warranty
- 25 Years of linear power output warranty
- 1500 Vdc

RELIABLE

- Extreme weather resilience
- Windspeed - 2400 Pa, Snowload - 5400 Pa
- Highly reliable anti-reflective coated glass

HIGH PERFORMANCE

- PID resistant
- Superlative performance in low light
- High power density
- Positive power tolerance

World-class products, Made in India

- **Smart**: High module efficiency with 144X half-cut Mono crystalline Bi-facial PERC Solar Cells
- **Modern**: Processed on state-of the-art technology production lines
- **Dependable**: Use of highest quality raw material coupled with rigorous in-house testing
- **Versatile**: Suitable for Utility, Rooftop, and other general applications

IMS Certified Company - ISO 9001: 2015 | OHSAS 45001: 2018 | EMS - ISO 14001: 2015

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 Brazil, 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.

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

DESERV

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	**520**	41.16	12.65	48.92	13.39	20.02	**525**	41.34	12.72	49.21	13.46	20.22
5%	546.0	41.16	13.27	48.92	14.01	21.03	551.2	41.34	13.33	49.21	14.07	21.23
10%	572.0	41.16	13.90	48.92	14.64	22.03	577.5	41.34	13.97	49.21	14.71	22.24
20%	624.0	41.16	15.16	48.92	15.90	24.03	630.0	41.34	15.24	49.21	15.98	24.26
Front @STC	**530**	41.49	12.79	49.40	13.53	20.41	**535**	41.68	12.85	49.61	13.61	20.60
5%	556.5	41.49	13.41	49.40	14.15	21.43	561.7	41.68	13.48	49.61	14.24	21.63
10%	583.0	41.49	14.05	49.40	14.79	22.45	588.5	41.68	14.12	49.61	14.88	22.66
20%	636.0	41.49	15.33	49.40	16.07	24.49	642.0	41.68	15.40	49.61	16.16	24.72
Front @STC	**540**	41.84	12.92	49.82	13.68	20.79	**545**	41.98	12.99	49.97	13.74	20.99
5%	567.0	41.84	13.55	49.82	14.31	21.83	572.2	41.98	13.63	49.97	14.38	22.04
10%	594.0	41.84	14.20	49.82	14.96	22.87	599.5	41.98	14.28	49.97	15.03	23.09
20%	648.0	41.84	15.49	49.82	16.25	24.95	654.0	41.98	15.58	49.97	16.33	25.18

NOCT (Wp) at 45 ± 2 ºC @800 W/m²	520	525	530	535	540	545
Pmax (W)	387.00	390.72	394.44	398.16	401.88	405.61
Max. power voltage (Vmp), V	37.64	37.81	37.95	38.12	38.27	38.39
Max. power current (Imp), A	10.30	10.35	10.41	10.46	10.52	10.57
Open circuit voltage (Voc), V	45.49	45.76	45.93	46.13	46.32	46.46
Short circuit current (Isc), A	10.94	11.00	11.05	11.12	11.18	11.22

Bi-faciality factor: 70 ± 5%

Mechanical Characteristics

Cable	No. 12 AWG, 4mm², (1.0m Standard)
PV Connectors	MC4 Compatible
Frame	Anodized Aluminum Alloy
Junction box	IP68 Split junction box with 3 bypass diodes
Glass	3.2mm Thick low iron tempered

Operating Conditions

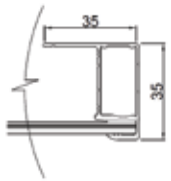
Temperature, ºC	-40 to +85
Max. system voltage, Vdc	1500
Hail impact velocity, m/sec	23
Max. surface load capacity, Pa	5400
Max. wind speed capacity, Pa	2400

Physical Parameters

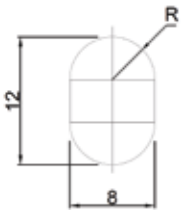
No. of cells	144
Module dimension (mm)	2284 X 1137 (± 2)
Module thickness (mm)	35
Approximate weight (kg)	28.7

Cell Temperature Coefficient	Bi-Facial
Open circuit voltage	-0.2917 % / ºC
Short circuit current	+0.045 % / ºC
Peak power	-0.3845 % / ºC

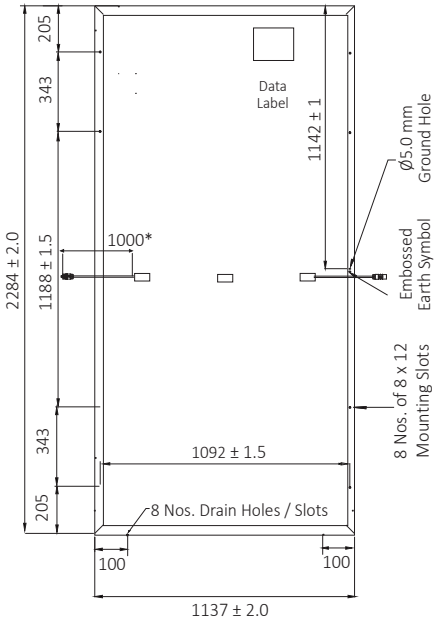
Frame Cross Section



Mounting Hole

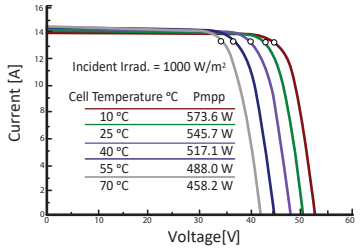


Module Dimension Diagram (mm)

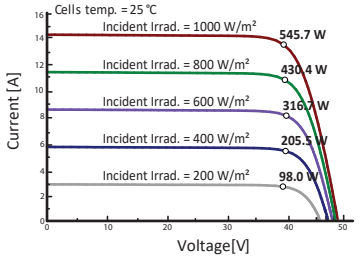


IV Curves

Cell temperature sensitivity chart



Incident irradiance sensitivity chart



Test uncertainty for Pmax ± 3%

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

- 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