

**DESERV<sup>®</sup> EXTREME 144X**  
**565 WP - 610 WP**



**OUTPUT**  
Up to 610 Wp



**EFFICIENCY**  
UP TO 23.64%



**TEMPERATURE**  
COEFFICIENT -0.29 %/°C



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

\*Module image for representation purpose only **DESERV<sup>®</sup>**

**World-class products, Made in India**

- **Smart:** High module efficiency with 144X M10R 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



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.

Performance under standard test conditions (1000w/m<sup>2</sup>, AM 1.5, 25 °C)

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

	Pm (Wp)	Vmp (V)	Imp (A)	Voc (V)	Isc (A)	Efficiency (%)
Front @STC	565	42.49	13.30	51.56	13.95	21.71
Bi-Facial Gain 5%	588	42.49	13.84	51.56	14.50	22.79
Bi-Facial Gain 10%	616	42.49	14.50	51.56	15.16	23.88
Bi-Facial Gain 20%	672	42.49	15.82	51.56	16.48	26.05

	Pm (Wp)	Vmp (V)	Imp (A)	Voc (V)	Isc (A)	Efficiency (%)
Front @STC	570	42.64	13.38	51.76	14.04	22.09
Bi-Facial Gain 5%	598.5	42.64	14.04	51.76	14.70	23.20
Bi-Facial Gain 10%	627	42.64	14.70	51.76	15.36	24.30
Bi-Facial Gain 20%	684	42.64	16.04	51.76	16.70	26.51

	Pm (Wp)	Vmp (V)	Imp (A)	Voc (V)	Isc (A)	Efficiency (%)
Front @STC	605	43.63	13.88	53.03	14.54	23.45
Bi-Facial Gain 5%	635.25	43.63	14.56	53.03	15.22	24.62
Bi-Facial Gain 10%	665.5	43.63	15.25	53.03	15.91	25.80
Bi-Facial Gain 20%	726	43.63	16.64	53.03	17.30	28.14

	Pm (Wp)	Vmp (V)	Imp (A)	Voc (V)	Isc (A)	Efficiency (%)
Front @STC	610	43.85	13.93	53.29	14.59	23.64
Bi-Facial Gain 5%	640.5	43.85	14.61	53.29	15.27	24.83
Bi-Facial Gain 10%	671	43.85	15.30	53.29	15.96	26.01
Bi-Facial Gain 20%	732	43.85	16.69	53.29	17.35	28.37

	Pm (Wp)	Vmp (V)	Imp (A)	Voc (V)	Isc (A)	Efficiency (%)
Front @STC	575	42.79	13.46	51.95	14.12	22.29
Bi-Facial Gain 5%	603.75	42.79	14.11	51.95	14.77	23.40
Bi-Facial Gain 10%	632.5	42.79	14.78	51.95	15.44	24.52
Bi-Facial Gain 20%	690	42.79	16.13	51.95	16.79	26.75

	Pm (Wp)	Vmp (V)	Imp (A)	Voc (V)	Isc (A)	Efficiency (%)
Front @STC	580	42.93	13.53	52.13	14.19	22.48
Bi-Facial Gain 5%	609	42.93	14.19	52.13	14.85	23.61
Bi-Facial Gain 10%	638	42.93	14.86	52.13	15.52	24.73
Bi-Facial Gain 20%	696	42.93	16.21	52.13	16.87	26.98

	Pm (Wp)	Vmp (V)	Imp (A)	Voc (V)	Isc (A)	Efficiency (%)
Front @STC	585	43.07	13.60	52.31	14.26	22.68
Bi-Facial Gain 5%	614.25	43.07	14.26	52.31	14.92	23.81
Bi-Facial Gain 10%	643.5	43.07	14.94	52.31	15.60	24.94
Bi-Facial Gain 20%	702	43.07	16.30	52.31	16.96	27.21

	Pm (Wp)	Vmp (V)	Imp (A)	Voc (V)	Isc (A)	Efficiency (%)
Front @STC	590	43.21	13.67	52.49	14.33	22.87
Bi-Facial Gain 5%	619.5	43.21	14.34	52.49	15.00	24.01
Bi-Facial Gain 10%	649	43.21	15.02	52.49	15.68	25.16
Bi-Facial Gain 20%	708	43.21	16.39	52.49	17.05	27.44

	Pm (Wp)	Vmp (V)	Imp (A)	Voc (V)	Isc (A)	Efficiency (%)
Front @STC	595	43.35	13.74	52.67	14.40	23.06
Bi-Facial Gain 5%	624.75	43.35	14.41	52.67	15.07	24.22
Bi-Facial Gain 10%	654.5	43.35	15.10	52.67	15.76	25.37
Bi-Facial Gain 20%	714	43.35	16.47	52.67	17.13	27.68

	Pm (Wp)	Vmp (V)	Imp (A)	Voc (V)	Isc (A)	Efficiency (%)
Front @STC	600	43.49	13.81	52.85	14.47	23.26
Bi-Facial Gain 5%	630	43.49	14.49	52.85	15.15	24.42
Bi-Facial Gain 10%	660	43.49	15.81	52.85	15.84	25.58
Bi-Facial Gain 20%	720	43.49	16.56	52.85	17.22	27.91

### Operating Conditions

Temperature, °C	-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, 4mm <sup>2</sup> , (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 Semi Tempered Glass
Glass (back)	2.0mm Semi Tempered Glass.

### Physical Parameters

No. of cells	144
Module dimension (mm)	2277 X 1133 ( ± 2)
Module thickness (mm)	35
Approximate weight (kg)	31.5

### NOCT (Wp) at 45 ± 2 °C @800 W/m<sup>2</sup>

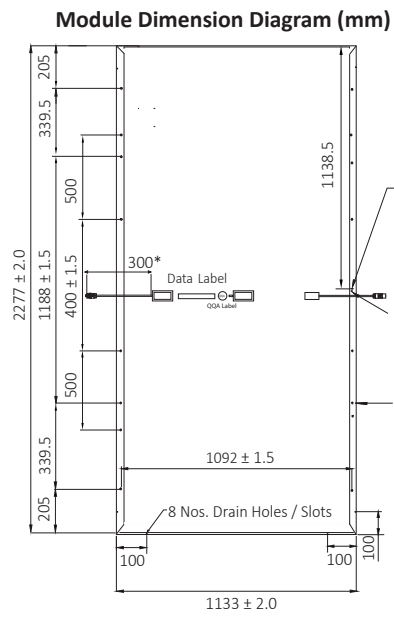
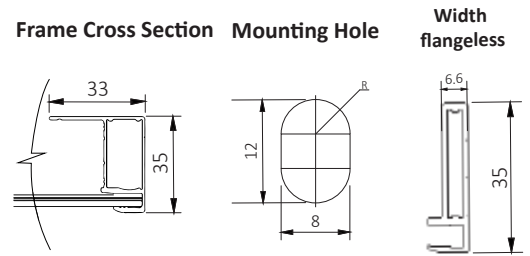
	565	570	575	580	585	590	595	600	605	610
Pmax (W)	416.77	424.21	427.93	431.65	435.38	439.10	442.82	446.54	450.26	453.98
Max. power voltage (Vmp), V	38.85	39.00	39.13	39.26	39.39	39.52	39.65	39.77	39.90	40.10
Max. power current (Imp), A	10.82	10.89	10.96	11.01	11.07	11.13	11.18	11.24	11.30	11.34
Open circuit voltage (Voc), V	47.94	48.13	48.30	48.47	48.64	48.81	48.97	49.14	49.31	49.55
Short circuit current (Isc), A	11.40	11.47	11.54	11.59	11.65	11.71	11.76	11.82	11.88	11.92

Bi-faciality factor: 70 ± 5%

### Cell Temperature Coefficient

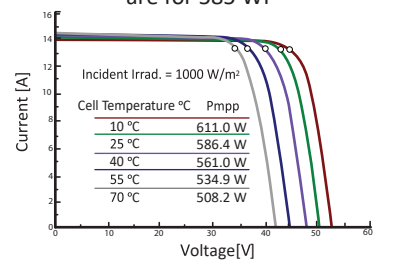
	Bi-Facial
Open circuit voltage	-0.2764 % / °C
Short circuit current	+0.0572 % / °C
Peak power	-0.2915 % / °C

Test uncertainty for Pmax ± 3%  
Bi-facial gain subject to mounting structure specifications and albedo % of ground

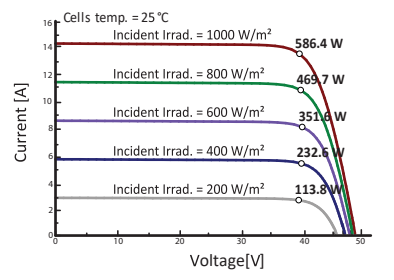


### IV Curves

Cell temperature sensitivity chart are for 585 WP



### Incident irradiance sensitivity chart are for 585 WP



-Please refer to the installation manual for detailed information.  
 \*Standard frame : Width side frame cross section is flange less, Flange is available on request.  
 \*Recycle Responsibly/RenewSys recommends recycling in accordance with local government e-waste notifications.  
 \*Due to continuous product updation, specifions may change without notice. Available for sale at Loop Solar.