

◀ BIFACIAL ▶



# DESERV<sup>®</sup> EXTREME 144 525 WP - 550 WP



\*Module image for representation purpose only



## SAFE

- IP68 Junction box
- 10 YEARS 10 years of product warranty
- 25 YEARS 25 Years of 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 materials coupled with rigorous in-house testing
- **Versatile:** Suitable for Utility, Rooftop, and other general applications

### Certifications:

- IEC 61215: 2016 (525 Wp-540 Wp)
- IEC 61730: 2016 (525 Wp-540 Wp)
- IEC 61701: 2020 (525 Wp-540 Wp)
- IEC 62716 (525 Wp-540 Wp)
- IEC 60068-2-68 (525 Wp-540 Wp)
- IEC TS 62804-1 (490 Wp-545 Wp)
- IEC 61853-1 (525 Wp & 535 Wp)
- IEC 61853-2 (535 Wp)
- LeTID (490 Wp-545 Wp)
- CAN/CSA: 61730 (525 Wp-540 Wp)
- UL 61730 (520 Wp)
- OHSAS 45001: 2018
- EMS - ISO 14001: 2015
- Listed in DEWA
- IMS Certified Company - ISO 9001: 2015
- Independently audited by SOLARBUYER
- BIS Number R-71018970 (525 Wp-545 Wp)



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 (%) | Pm (Wp)    | Vmp (V) | Imp (A) | Voc (V) | Isc (A) | Efficiency (%) |
| Front @STC  | <b>525</b> | 41.34   | 12.72   | 49.21   | 13.46   | 20.22          | <b>530</b> | 41.49   | 12.79   | 49.40   | 13.53   | 20.41          |
| 5%  | 551.2      | 41.34   | 13.33   | 49.21   | 14.07   | 21.23          | 556.5      | 41.49   | 13.41   | 49.40   | 14.15   | 21.43          |
| 10%   | 577.5      | 41.34   | 13.97   | 49.21   | 14.71   | 22.24          | 583.0      | 41.49   | 14.05   | 49.40   | 14.79   | 22.45          |
| 20%   | 630.0      | 41.34   | 15.24   | 49.21   | 15.98   | 24.26          | 636.0      | 41.49   | 15.33   | 49.40   | 16.07   | 24.49          |
| Front @STC  | <b>535</b> | 41.68   | 12.85   | 49.61   | 13.61   | 20.60          | <b>540</b> | 41.84   | 12.92   | 49.82   | 13.68   | 20.79          |
| 5%  | 561.7      | 41.68   | 13.48   | 49.61   | 14.24   | 21.63          | 567.0      | 41.84   | 13.55   | 49.82   | 14.31   | 21.83          |
| 10%   | 588.5      | 41.68   | 14.12   | 49.61   | 14.88   | 22.66          | 594.0      | 41.84   | 14.20   | 49.82   | 14.96   | 22.87          |
| 20%   | 642.0      | 41.68   | 15.40   | 49.61   | 16.16   | 24.72          | 648.0      | 41.84   | 15.49   | 49.82   | 16.25   | 24.95          |
| Front @STC  | <b>545</b> | 41.98   | 12.99   | 49.97   | 13.74   | 20.99          | <b>550</b> | 42.15   | 13.06   | 50.12   | 13.81   | 21.18          |
| 5%  | 572.2      | 41.98   | 13.63   | 49.97   | 14.38   | 22.04          | 577.5      | 42.15   | 13.70   | 50.12   | 14.45   | 22.23          |
| 10%   | 599.5      | 41.98   | 14.28   | 49.97   | 15.03   | 23.09          | 605.0      | 42.15   | 14.35   | 50.12   | 15.10   | 23.29          |
| 20%   | 654.0      | 41.98   | 15.58   | 49.97   | 16.33   | 25.18          | 660.0      | 42.15   | 15.65   | 50.12   | 16.40   | 25.41          |

| NOCT (Wp) at 45 ± 2 °C @800 W/m <sup>2</sup> | 525    | 530    | 535    | 540    | 545    | 550    |
|--|--------|--------|--------|--------|--------|--------|
| Pmax (W)                                     | 390.72 | 394.44 | 398.16 | 401.88 | 405.61 | 409.32 |
| Max. power voltage (Vmp), V                  | 37.81  | 37.95  | 38.12  | 38.27  | 38.39  | 38.55  |
| Max. power current (Imp), A                  | 10.35  | 10.41  | 10.46  | 10.52  | 10.57  | 10.63  |
| Open circuit voltage (Voc), V                | 45.76  | 45.93  | 46.13  | 46.32  | 46.46  | 46.60  |
| Short circuit current (Isc), A               | 11.00  | 11.05  | 11.12  | 11.18  | 11.22  | 11.28  |

Bi-faciality factor: 70 ± 5%

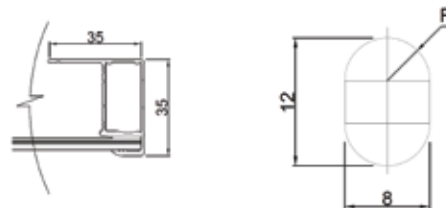
| Mechanical Characteristics |   |
|----------------------------|---|
| Cable                      | No. 12 AWG, 4mm <sup>2</sup> , (300mm Standard) |
| PV Connectors              | MC4 Compatible                                  |
| Frame                      | Anodized Aluminum Alloy                         |
| Junction box               | IP68 Split junction box with 3 bypass diodes    |
| Glass                      | 3.2mm Thick low iron tempered                   |

| 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         |

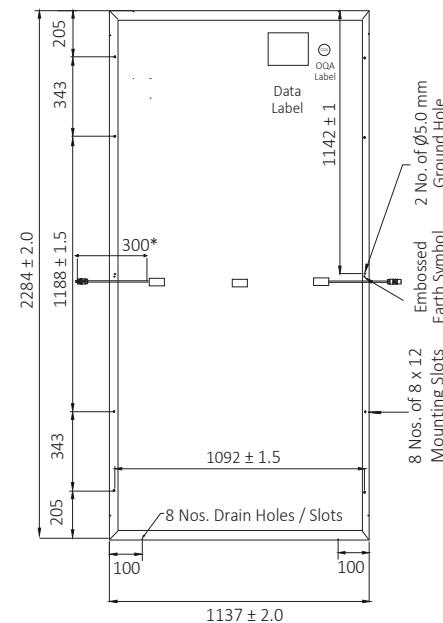
| Physical Parameters     |                    |
|-------------------------|--------------------|
| No. of cells            | 144                |
| Module dimension (mm)   | 2284 X 1137 ( ± 2) |
| Module thickness (mm)   | 35                 |
| Approximate weight (kg) | 28.7               |

| Cell Temperature Coefficient |                |
|------------------------------|----------------|
| Open circuit voltage         | -0.2588 % / °C |
| Short circuit current        | +0.0733 % / °C |
| Peak power                   | -0.3287 % / °C |

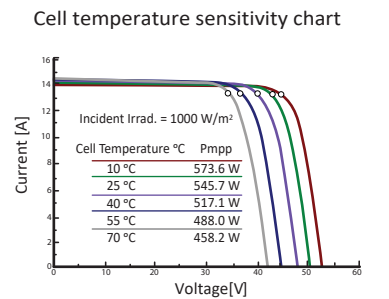
Frame Cross Section      Mounting Hole



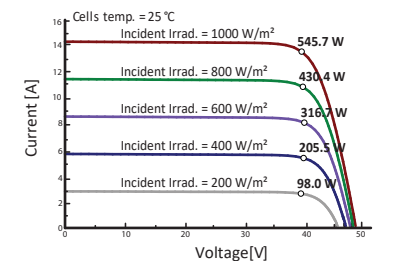
Module Dimension Diagram (mm)



IV Curves



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](http://www.renewsysworld.com)