

# BREAKING THE TECHNOLOGY CEILING



Lower susceptibility to LID & LeTID



Lower temperature coefficient



Excellent low light performance



Up to 90% bifaciality factor



**Superior hail test performance**  
ø 45mm hail test passed from third party laboratory with impact velocity up to 27m/s  
Applicable with Glass (2mm) to Glass (2mm) Module and Glass (3.2mm) to Backsheet Module



Maximum Efficiency%

**23.34**

Cell Type

**G12 HJT**

Wattage Up to

**725W**

Cell Number

**132**



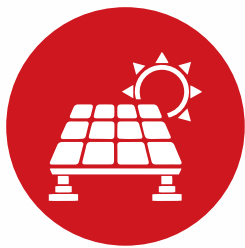
**Suryava**, module with Heterojunction technology increases efficiency, performance, and durability to the next level.

HJT is the combination of two technologies into a single PV cell- a crystalline silicon cell sandwiched between two layers of amorphous thin-film silicon.

- The top layer of amorphous silicon catches higher spectrum of sunlight before it hits the crystalline layer
- The monocrystalline silicon, the middle layer, is responsible for turning most of the sunlight into electricity
- The final amorphous silicon layer captures the remaining photons that surpass the first two layers

This combined process allows more energy to be harvested as opposed to using them individually, resulting in efficiencies of 23% or higher.

## Why Suryava?



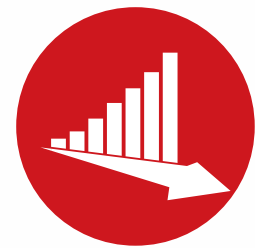
### Prolonged safety assurance

- IP68 with potting JB provides higher level of water ingress protection
- High insulation resistance ensuring electrical safety



### Excellent low-light performance

- Superior generation with wide spectral response
- Higher performance under low light scenarios



### 0% negative power tolerance

- Positive power tolerance of up to 0 ~ 4.99Wp
- Module Imp binning radically reduces string mismatch losses

## Advantages of HJT solar cell & modules



### Longer lifetime

- Modules sustain less than 0.4% YoY degradation
- Modules have top grade encapsulation and double side lamination, increasing overall resistance to harsh weather condition



### Superior power generation

- Modules maintain an average of 23% efficiency on commercial label
- HJT modules having low temperature coefficient are capable to perform better at high temperatures



### Best-in-class bifaciality factor

- Modules having bifaciality factor up to 90%
- Up to 30% generation gain can be achieved from rear side at suitable albedo

## Manufacturing of HJT module - Suryava

Highly automated production line

- Multi stage EL and digitalized visual inspection lowers defect rates
- Implemented engineering excellence ensures top notch quality
- High-capacity stringer with integrated laser cutting and string EL facility
- Double side heating and stacking laminator

# Why Suryava?

## 0% negative power tolerance

- Positive power tolerance of up to 0 ~ 4.99Wp
- Module Imp binning radically reduces string mismatch losses

## Improved longevity

- Excellent anti-PID performance via optimized process and materials control
- Lower susceptibility to LID & LeTID

## Premium performance parameters



- HJT solar cell up to 90% bifaciality, brings higher energy yield from rear side
- Lower temperature coefficient minimizing generation losses at high temperature

## Suited for rooftop installation\*

- Light weight modules
- Aesthetically appealing with higher efficiency

\*Modules with 108, 120 cell



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## LOCATIONS

India: Kolkata | Gurugram | Mumbai | Chennai | International: USA | Germany | China