Why Hypersol?

Lower LCOE

- Lower balance of systems cost
- Improved value proposition of the product with competitive ROI

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

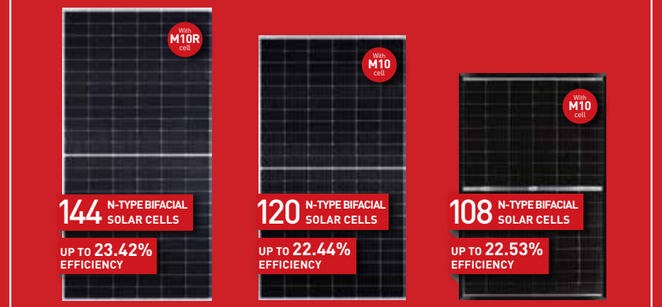
Premium performance parameters

- N-TYPE solar cell up to 80% 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 cell



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SCAN TO REIMAGINE SOLAR

LOCATIONS

India: Kolkata | Gurugram | Chennai

International: USA | Germany | China

VKRM-flyer-Hypersol-Mar_2025_V02

vikramsolar
CREATING CLIMATE FOR CHANGE

FORTUNE INDIA THE NEXT 500

ENGINEERED WITH EXCELLENCE

HYPERSOL

HIGH EFFICIENCY N-TYPE PV MODULES

- Higher efficiency
- Lower degradation rate
- Better low light performance

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

ANNUAL RATED PRODUCTION CAPACITY 4.5 GW

TIER 1 Bloomberg NEW ENERGY FINANCE

TOP PERFORMER 2024 kiwa PVEL PV MODULE RELIABILITY SCORECARD
*As per applicable products

Maximum Effficiency %	Cell Type	Wattage Up to	Cell Number
23.42	M10/M10R	605W	144

HYPERSOL

HIGH EFFICIENCY N-TYPE PV MODULES

Hypersol, the latest PV module from Vikram Solar is powered with N-TYPE cell with higher efficiency.

- Proved to have lower degradation rate, low light performance, higher bi-faciality which contributes to more generation throughout
- Improved longevity, excellent anti-PID performance via optimized process & materials control and lesser susceptibility to LID & LeTID
- Duly customized for utility as well as rooftop solar projects, across geographies & climate conditions

Hypersol modules are an amalgamation of endurance and agility, a fusion of quality and performance, a blend of balance and flexibility.

Manufacturing of N-TYPE module

Highly Automated Production Line

- Multistage EL and digitalized visual inspection resulting in defect free modules
- Implemented engineering excellence ensures top notch quality
- High-capacity stringer with integrated laser cutting and string EL facility
- Double side heating and stacking laminator

Core USPs of N-TYPE cell based modules

Improved bifacial factor

- In comparison to the PERC module which has a bifacial factor of 70%, the N-TYPE module has a modified bifacial factor up to 80%
- The corresponding power boost is around 30% from rear side with suitable albedo

Better low light performance

- N-TYPE modules will have more energy generation hours in a day
- Average energy gain of 1.5-3% as compared to PERC modules

Lower degradation rate

- N-TYPE cell shows low degradation due to absence of Boron which is the main reason of LID and also low Hydrogen solubility in N-TYPE lowers the formation of H-bond which, results in low degradation

Advanced warranty

- First year degradation will be 1%
- Linear annual degradation, of our N-TYPE module is 0.4%, whereas it is 0.50% for PERC counterparts

Improved Temperature Coefficient

Temperature coefficient of N-TYPE cell is approximately 15% lower than PERC cell which will increase power generation and reduce power loss at higher temperature.