Tiger Neo N-Type TOPCon Module

Product Whitepaper

www.jinkosolar.com
Best Advantage of N-Type Solar Panels

Highest Average Cell Efficiency of Jinkosolar’s N-type TOPCon Cell:
> 25.1%

N-type TOPCon cell can achieve even 28.2-28.7% thematically while Jinkosolar mass-produced N-type TOPCon cell with 25.1% efficiency.

Highest Average Module Efficiency of Jinkosolar’s N-type TOPCon Panel:
> 22%

Jinkosolar N-type TOPCon Tiger Neo panels have the best efficiency in serial production, scoping between 22%-23.23%. N-type Tiger Neo module has the best generation performance and reliable characteristic resistance for common fail from all over solar technology.

More Power Productivity per Watt

Higher power, bifaciality, efficient production under extreme conditions, combined with the lower degradation, no LID and LeTID effects and a glass-glass structure of Jinkosolar’s N-type Tiger Neo allows you to generate significantly more power per watt (kWh/kW) over 30 years of use compared to PERC panels.

Longer Generation Time of Tiger Neo

Jinkosolar’s N-type TOPCon Tiger Neo panels demonstrate better power generation characteristics than conventional P-type modules under low light condition. Therefore, the effective power generation time of Tiger Neo is 11.07% more than that of conventional solar modules.
Jinkosolar’s N-Type Panel Power?

Jinkosolar’s Tiger Neo with N-type TOPCon technology solar panels with 144 cells(182’ wafer) have a scope of power between 575W-610W and for 156 cells 605W – 630W. Residential standard 108 cells has standard 430W-450W.

Low Temperature Coefficient

Low temperature coefficient of Tiger Neo -0.29%/°C (other N-type producers provide -0.3%/°C) panel allows it to bring more energy yield particularly in hot climates conditions which account for 80% market. It demonstrates unique advantages in high temperature/high irradiance areas. Compared to the PERC module, Tiger Neo features a lower power temperature coefficient and higher output power. It is about 4.5% more efficient in power output than the PERC module under 60°C operation temperature which is not unusual in tropic and desert regions: between 575W-610W and for 156 cells 605W – 630W. Residential standard 108 cells has standard 430W-450W.

Temperature Coefficient what is it?

The temperature coefficient in PV refers to the change in the output power of a photovoltaic (PV) module or cell as the temperature changes. It is usually expressed as a percentage change in power output per degree Celsius. For example, a PV module with a temperature coefficient of -0.5%/°C will have a 0.5% decrease in power output for every 1°C increase in temperature. The temperature coefficient can vary depending on the type of PV technology used and the materials used in the module or cell.
Tiger Neo’s Low Degradation:

- **Initial Year**: <1%
- **Yearly**: 0.4%
- **After 30 years**: 87.4%

Tiger Neo modules work with TOPCon cells, which have much lower degradation than PERC panels, more stable and long-lasting power generation. N-type promises to provide the best quality assurance to ensure maximum customer value. Degradation is only 1% in the first year and after 0.4% yearly in 30 years, allowing 87.4% of rated power after 30 years.

Jinkosolar’s N-Type Tiger Neo Panels Warranty?

Long Warranty for Jinkosolar’s N-Type Tiger Neo Panels: 30 years for linear power loss and at least 15 years for product (other N-type producers provide 12 years for product) give Tiger Neo modules Top positions in the PV market.

Why Higher Bifacility of Tiger Neo Matters?

N-type TOPCon is considered one of the top cell technologies with higher bifacility. Higher bifacility allows more energy yield on the back. Jinkosolar’s N-type Tiger Neo bifacial solar modules with bifacility of up to 85% can catch and convert solar light fully, generating 15-30% more power.

Due to the technical production and properties of N-type TOPCon cells as well as the optical dual glass design, the bifacility of Jinkosolar’s Tiger Neo N-type panel is the highest commercialized available today at 75%-85% compared to PERC average of 65%-70%. Glass-glass structure is the best solution for N-type bifacial module since it maximize the advantage of N-type cells as well as better reinforce and protect the cells externally.