Trinasolar

Trina Solar n-type TOPCon Advanced technology steps onto the world stage, with efficiency reaching 26% in mass production and 700W+ in module power

The industry-leading solar manufacturer also announced new manufacturing facility development and the establishment of a net-zero system for the company's Vertex N modules.

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SHANGHAI, June 7, 2023 – Trina Solar, a global leader in solar energy innovation, unveiled its new n-type TOPCon Advanced technology on the first day of the International Solar Photovoltaic Power Generation and Smart Energy Conference and Exhibition in Shanghai on May 24. The company also announced upgrades for the Vertex n-type series beginning next year, with the most powerful module in the series generating more than 700W.

Trina Solar announced that work has begun on Phase II of its 15GW monocrystalline silicon ingot project at its factory in Xining, Qinghai province and its 10GW n-type high-efficiency cell and 10GW n-type module project in Yangzhou, Jiangsu province. In addition, the company announced the establishment of a net-zero system by initiating the Environmental Product Declaration and carbon footprint certification for its Vertex N modules.

"The 210R rectangular cell, the selective boron emitter, the backside microstructure reflector, and the highly doped TOPCon structure with PECVD are four innovations key to the new-generation TOPCon Advanced technology," said Dr. Chen Yifeng, associate vice president of technology at Trina Solar. "These have enabled the delivery of potential production efficiency of 26%, with a modular power output of up to 700W."

"The Vertex N modules further reduce the levelized cost of energy for utility-scale solar development and will come to mass production next year," he added.

At the conference, Trina Solar highlighted the company's Vertex N 605W modules, designed for power stations in complex terrain and C&I solar stations, and their Vertex S+ modules capable of delivering 450W of power. Compared with regular n-type residential modules in the industry, these modules provide 5.88% more installation capacity for rooftops of the same area.

With the application of front-side full passivation contact cell technology, the mass production efficiency of Trina Solar's n-type cells with TOPCon Ultra technology is forecast to exceed 27%. Implementing TOPCon tandem technology is expected to cause cell efficiency to surpass 30%.

In addition, Trina Solar's Vertex n-type modules have drawn the accolades of third-party organizations such as China General Certification, RETC and PVEL for their reliability. The company's projects in Qinghai and Jiangsu provinces are anticipated to serve as a foundation for continuous material supply for the company's n-type

About Trina Solar

Trina Solar is a leading manufacturer of solar panels and energy storage solutions committed to delivering top-quality products to global customers and has supplied the world with more than 140GW of solar modules and has a presence in more than 150 countries and regions as of March. As a reliable and valuable partner for net-zero solutions in industries worldwide, Trina Solar attaches great importance to controlling carbon emissions and has been awarded a Carbon Footprint Certificate and LCA for its industry-leading low-carbon emissions.

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23.Trina Solar awarded first Zero Carbon Factory Certificate in the PV industry

21.Trina Solar awarded “2023 Top Performer” for ninth year in a row by PVEL in annual Module Reliability Scorecard

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