Energy America unveils TOPCon-N-Type solar module

SAN FRANCISCO, CALIFORNIA, UNITED STATES, April 14, 2023 /EINPresswire.com/ -- Energy America has unveiled several modules based on n-type technology.

“The new module will be produced at our USA based manufacturing facility.

“The modules have a glass-glass bill of materials with polyolefin elastomer (POE) as encapsulation material. This makes the module highly durable and perfect not only for moderate climates but also for extreme climates such as deserts or tropical areas. The modules show relatively higher durability against wind and snow compared to typical single-glass modules.”

Modules will range from 430-660 watts, increasing efficiency by 3%
The mid-size series consists of five products with wattage spanning from 460 W to 480 W and efficiency comprised between 21.26% and 22.18%. The open-circuit voltage is between 42.05 V and 42.71 V and the short-circuit current is between 13.99 A and 14.33 A. The modules measure 1,910 mm x 1,133 mm x 30 mm and weigh 29 kg.

The smallest series features five modules with a power output ranging from 410 W to 430 W and an efficiency of 20.99% to 22.01%. These panels measure 1,724 mm x 1,133 mm x 30 mm and weigh 26 kg. Their open-circuit voltage is between 37.45 V and 38.26 V and the short-circuit current is between 13.88 A and 14.17A.

All panels have an operating temperature between -40 C and 85 C and a temperature coefficient of -0.35% per degree Celsius. They all feature junction boxes with IP 68 ratings, 20 mm solar glass, and 30 mm anodized aluminum alloy frames.

“The TOPCon modules have a very close efficiency to heterojunction (HTJ) and interdigitated back contact (IBC) solar cells with a positive factor of a better price and higher stability in the supply chain,” said the company.

The manufacturer offers a 30-year product warranty and a 30-year power output guarantee for 87.4% of the initial yield. It said the TOPCon technology offers advantages over conventional monocrystalline PERC products, including lower degradation rates in the first year due to light-induced degradation (LID) or light-elevated temperature-induced degradation (LeTID).

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