Intersolar Europe 2022: REC launches new world’s highest-power solar panel for residential installations with G12 HJT cells

With up to 430 Wp packed into less than 21 ft², the new REC Alpha Pure-R hits the sweet spot in terms of its power output, size, weight, and handling.

Munich, Germany, May 12, 2022 – REC Group, an international pioneering solar energy company headquartered in Norway, launched its latest high-efficiency solar panel at Intersolar Europe 2022. With its high-power density innovations, the new REC Alpha Pure-R marks another advancement of the multiple award-winning REC Alpha Series. Featuring heterojunction (HJT) cells in the large G12 format in a patented panel design, REC’s newest product delivers power output of up to 430 Wp, while keeping the module under 21 ft² in area. This makes the new product ideal for residential installations where space is limited. The REC Alpha Pure-R is scheduled to start production in August 2022 at REC’s new production lines in Singapore, doubling REC’s Alpha product line capacity from 600 MW to 1.2 GW.

G12 wafers and cells in a compact form factor
At 210 x 210 mm, the G12 wafers and cells are bigger, meaning they output more power. However, most of the resulting modules are substantially larger, which is why to date G12 solar panels have been deployed mainly in large commercial and utility installations. With REC’s new panel design, the Alpha Pure-R shows that G12 can also work well for residential rooftop installations.

Jan Enno Bicker, CEO at REC Group comments: “The REC Alpha Pure-R really hits the sweet spot in terms of its size, weight, power output and handling. With the new panel, we have managed again to pack more power into a compact panel size, enabling homeowners to be more energy independent, and contributing to the global energy transition.”

Innovations for maximized energy
The REC Alpha Pure-R comes with a 9-amp current, making it compatible with various modern MLPE devices, which gives installers more system design options to maximize power for homeowners. Also new: the four-part junction box takes REC’s iconic Twin Design a step further, dividing the panel into four strings and reducing the size of sections that switch off under shaded conditions. As a result, the panel can generate even more energy when partially shaded.

Hitting the sweet spot
The new REC Alpha Pure-R reaches 430 Wp in a compact panel size of 20.77 ft², which means it comes with a leading power density of 20.7 W/ft² and can be easily handled by installers. Building on the success of the REC Alpha and Alpha Pure Series, the new panel features 80 half-cut HJT cells in a gapless cell layout. This makes it possible to maximize the power generating area of the
panel and ensures an elegant, full black appearance. The advanced cell connection technology improves the current flow and eliminates invasive soldering, adding to the high efficiency and long-lasting performance. Additionally, the low temperature coefficient keeps the solar panel running efficiently even on hotter days, generating more energy for households. This makes it ideal for warmer climates, or for generating as much energy as possible on sunny days. REC’s iconic 30 mm frame with its two support bars, make the panel robust enough to withstand heavy loads – up to 7,000 Pascal snow load and up to 4,000 Pascal wind load.

**Added value also for the environment**
The new panel features many of the standout highlights that have made the REC Alpha family such a success and strengthens REC’s reputation as a company that takes its environmental responsibilities seriously. Like its predecessor, the REC Alpha Pure, the new panel is lead-free and RoHS compliant for less environmental impact.

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**About REC Group:**
REC Group is an international pioneering solar energy company dedicated to empowering consumers with clean, affordable solar power through high-quality solar panels with a leading power density. As Solar's Most Trusted, REC is known for its patented innovations and multiple award-winning products with reliable long-term performance. The cornerstone for REC’s strong reliability is advanced and highly efficient manufacturing using Industry 4.0 practices. Founded in 1996 in Norway, REC has always been committed to a low carbon footprint in its solar materials and panels. REC is headquartered in Norway with operational headquarters in Singapore and regional hubs in North America, Europe, and Asia-Pacific.

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