



Enapter

CORPORATE NEWS

Enapter AG presents new “Stack 250” stack generation for hydrogen production in the multi-megawatt range

- Tenfold increase in output: Stack 250 produces around 100 kg of high-purity hydrogen per day
- Modular design enables AEM electrolyzers with capacities of 100 MW and more
- Stack 250 is fully compatible with alkaline electrolysis systems, enabling highly efficient hybrid hydrogen production plants

Hamburg, 11 May 2026 – Enapter AG (ISIN: DE000A255G02) is further expanding its product offering in the multi-megawatt segment with the new “Stack 250”, an innovative solution for large-scale hydrogen plants in the 100 MW range. With this powerful further development of its patent-protected AEM technology, Enapter is opening up new markets and customer groups for industrial-scale hydrogen production plants, for example in steel production, cement manufacturing, ammonia production and aluminium production, as well as for hydrogen-based power plants and large-scale power-to-heat applications.

The Stack 250 can produce around 100 kg of high-purity hydrogen per day, ten times more than the previous stack generation, “Stack 25”. Like all hydrogen-producing units developed by Enapter, the Stack 250 can be easily combined into larger units. The corresponding patent applications for the Stack 250 have been filed. Enapter already holds more than 100 different patents relating to AEM technology.

In addition to the proven containerised design, skid-mounted models for indoor installation are also feasible. The Stack 250 also applies Enapter’s established modular approach to increasing electrolyser efficiency. Each stack installed in a large-scale plant can be ramped up or down independently. This allows input power from renewable energy sources, which may fluctuate throughout the day and depending on weather conditions, to be used optimally. This makes Enapter’s Multicore electrolyzers particularly attractive for hydrogen production from solar and wind energy. In Asia in particular, corresponding large-scale plants are currently being planned in order to significantly reduce existing dependencies on fossil energy sources.

With the Stack 250, another AEM technology device type is now available that is suitable for use in hybrid plants of more than 100 megawatts and up to the gigawatt range. In such plants, different hydrogen production technologies are combined in order to optimise efficiency: if the electricity generated from renewable energy sources is not sufficient for full-load operation, Enapter’s flexible AEM stacks take over hydrogen production. When full-load operation is reached, alkaline electrolysis systems are added. In such a combined

system, highly efficient hydrogen production can be achieved across varying levels of available renewable power.

The Stack 250 units are controlled by CoreKraft, Enapter's intelligent energy management system. CoreKraft is capable of using AI-supported control not only to operate AEM electrolyzers efficiently, but also to manage the connected energy infrastructure consisting of solar and wind power plants, battery systems and other hydrogen systems and components.

Dr. Jürgen Laakmann, CEO of Enapter, comments: "The majority of electrolyser enquiries we receive are now in the megawatt range. In Asia in particular, demand is growing for plants with capacities reaching into the gigawatt range. With the Stack 250, we are ideally positioned for this scale-up. It enables us to realise pure AEM systems in the double-digit megawatt range. Even more importantly, however, it enables use in hybrid plants combining our AEM technology with alkaline electrolysis systems. This creates an entirely new class of industrial hydrogen factories with unprecedented efficiency in the use of green energy sources, at a scale comparable to conventional power plants. We are closing a scaling gap and can help replace conventional power plant concepts worldwide with renewable energy supply."

About Enapter

Enapter is a global greentech company that develops and offers AEM electrolyzers for the production of green hydrogen as well as the digital platform CoreKraft.

The patented Anion Exchange Membrane, or AEM, technology avoids the use of expensive and rare raw materials such as iridium and enables the efficient and scalable production of green hydrogen through a modular design, even when using fluctuating renewable energy sources such as solar and wind.

With CoreKraft, Enapter offers a manufacturer-independent digital platform for controlling, monitoring and optimising hydrogen and energy systems. CoreKraft enables the integration of different electrolyser technologies and energy components within a unified architecture and supports partners in implementing technology-open hybrid system concepts.

Thousands of Enapter AEM electrolyzers are already in use at more than 360 customers in over 55 countries. The Enapter Group is headquartered in Germany, operates a research and production site in Italy and maintains a joint venture with the Wolong Group in China.

Enapter AG (H2O) is listed on the regulated markets of the Frankfurt and Hamburg stock exchanges (ISIN: DE000A255G02).

Further information:

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