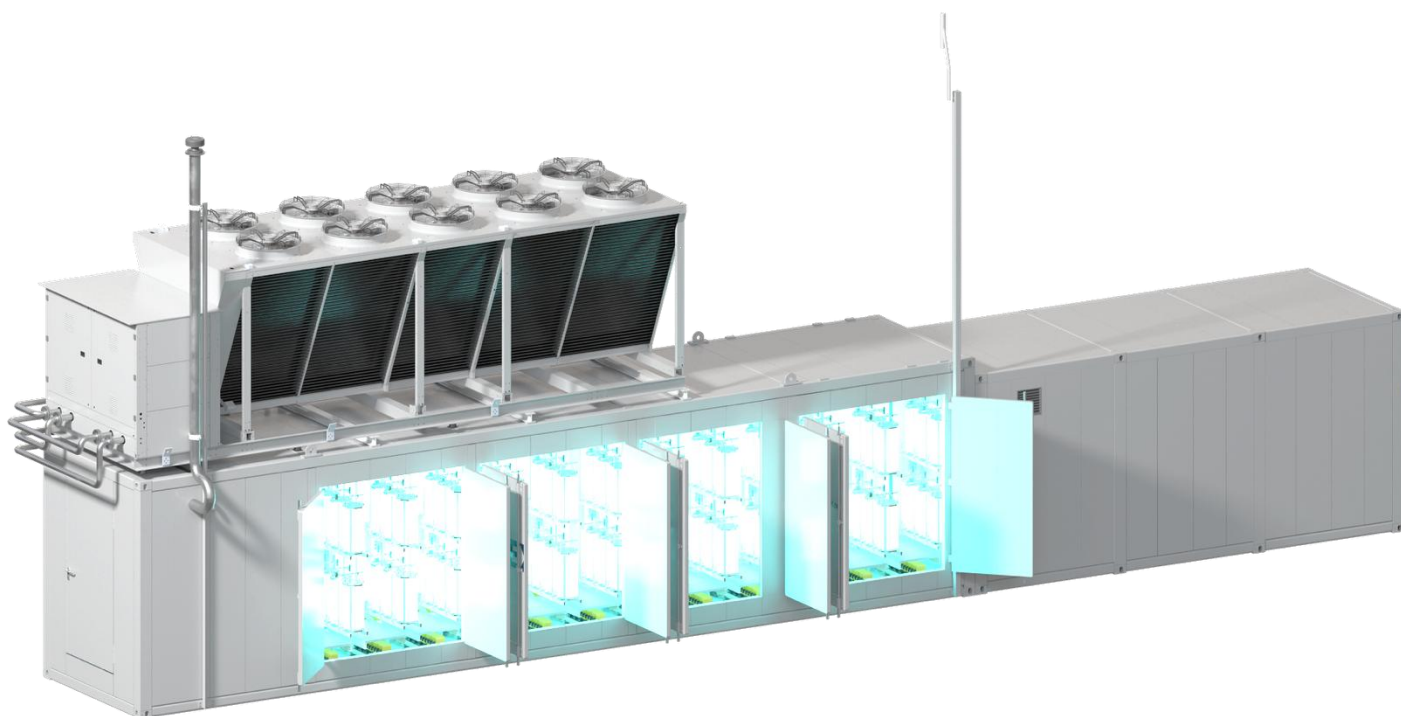


# AEM NEXUS 2500



## Key features

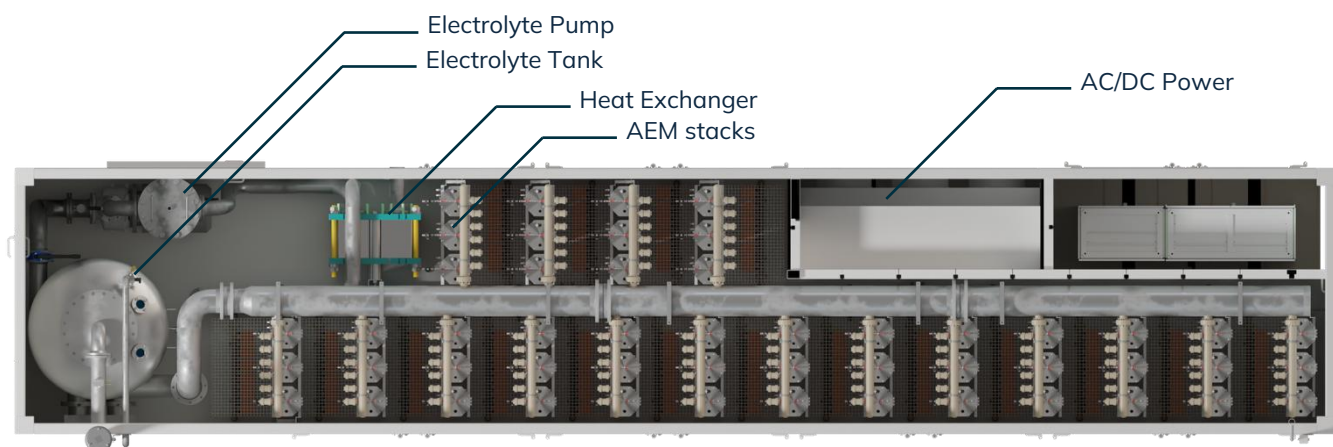
- ≡ Unmatched system efficiency: <52 kWh/kg
- ≡ Fully automatic operation, AI optimized
- ≡ **Modular** architecture for max. redundancy
- ≡ Rapid reaction times to variable renewables
- ≡ Low maintenance requirements

The AEM Nexus 2500 is a megawatt class containerized AEM Electrolyser featuring many AEM stacks around a common balance of plant (BoP) that includes rectifiers, safety system, cooling/heating and electrolyte loop.



AEM Nexus 2500

[www.enapter.com/aem-nexus](http://www.enapter.com/aem-nexus)



|                                                   |                                                                       |                                                                                                                                                                     |
|---------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>H<sub>2</sub> nominal flow</b>                 | 491.6 Nm <sup>3</sup> /h (44.2 kg/h)                                  | Net volume flow rate                                                                                                                                                |
| <b>H<sub>2</sub> outlet pressure</b>              | Up to 31 barg                                                         |                                                                                                                                                                     |
| <b>H<sub>2</sub> purity</b>                       | 99.5% in molar fraction                                               | Impurities: H <sub>2</sub> O < 5000 ppm, O <sub>2</sub> < 5 ppm                                                                                                     |
| <b>H<sub>2</sub> purity with optional chiller</b> | 99.95% in molar fraction                                              | Impurities: H <sub>2</sub> O < 500 ppm, O <sub>2</sub> < 5 ppm                                                                                                      |
| <b>H<sub>2</sub> purity with optional dryer</b>   | 99.999% in molar fraction                                             | Impurities: H <sub>2</sub> O < 5 ppm, O <sub>2</sub> < 5 ppm                                                                                                        |
| <b>Specific power consumption</b><br>(Efficiency) | 4.61 kWh/Nm <sup>3</sup> H <sub>2</sub><br>51.3 kWh/kg H <sub>2</sub> | Including all utilities inside the battery limits<br>@standard conditions*, 99.5% configuration.                                                                    |
| <b>Nominal power consumption</b>                  | 2266 kW                                                               | Including all utilities inside the battery limits,<br>@standard conditions*, 99.5% configuration.<br>99.95% configuration + ~6 kW<br>99.999% configuration + ~18 kW |
| <b>Voltage</b>                                    | 400 Vac 3ph+N+PE<br>230 Vac 1ph+N+PE                                  | ± 10 %<br>± 10 %                                                                                                                                                    |
| <b>Frequency</b>                                  | 50 Hz                                                                 | ± 10 %                                                                                                                                                              |
| <b>H<sub>2</sub>O nominal consumption</b>         | 396 L/h                                                               | Purified water                                                                                                                                                      |
| <b>H<sub>2</sub>O inlet purity</b> (recommended)  | Type II water<br>Acidity < 0.1 meq/l                                  | According to ASTM D1193-06<br>According to ASTM D1067                                                                                                               |
| <b>Operational flexibility</b>                    | 3.5% – 100%                                                           | Of nominal H <sub>2</sub> flow rate (for a continuous time of max 24h. Then 10% - 100%)                                                                             |
| <b>Hot startup time</b>                           | 0 – 100% in 225 seconds                                               | Electrolyte valve open, solution circulating at ≥45°C                                                                                                               |
| <b>Dimensions of Process container</b>            | 12.19 × 2.44 × 5.13 m                                                 | L x W x H (H= 5.13 m including equipment on the roof)                                                                                                               |
| <b>Dimensions of Electrical container</b>         | 6.06 x 2.46 x 2.59 m                                                  | L x W x H                                                                                                                                                           |

*\*at full load, normal operation, BoL, 55°C electrolyte temperature and 15°C ambient temperature*