

# AEM NEXUS 2500



## Key features

- ≡ Unmatched system efficiency: <math><52 \text{ kWh/kg}</math>
- ≡ 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.



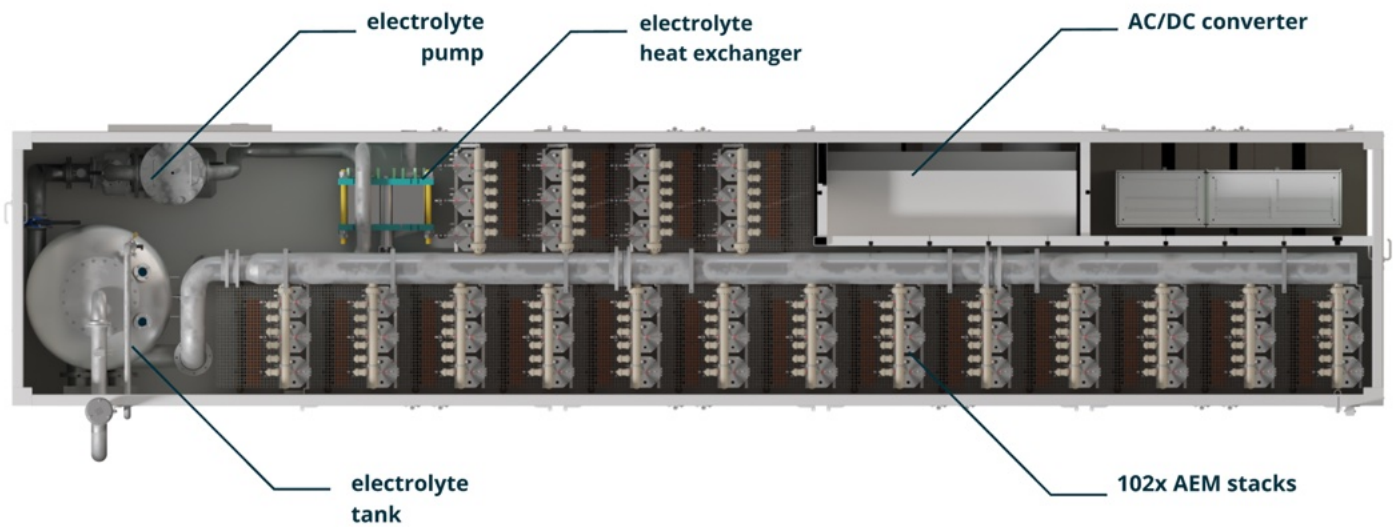
AEM Nexus 2500

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

# Specifications

Enapter

**AEM Nexus 2500**



<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 (Efficiency)</b>	4.61 kWh/Nm <sup>3</sup> H <sub>2</sub> 51.3 kWh/kgH <sub>2</sub>	Including all utilities inside the battery limits @standard conditions*, 99.5% configuration.
<b>Nominal power consumption</b>	2266 kW	Including all utilities inside the battery limits, @standard conditions*, 99.5% configuration. 99.95% configuration + ~6kW 99.999% configuration + ~18kW
<b>Voltage</b>	400Vac 3ph+N+PE 230Vac 1ph+N+PE	± 10 % ± 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 (recommended)</b>	Type II water Acidity < 0.1 meq/l	According to ASTM D1193-06 According to ASTM D1067 See Annex II – Detailed Process Description for details
<b>Operational flexibility</b>	3.5% – 100%	Of nominal H <sub>2</sub> flow rate (with optional dryer: 3% - 100% 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