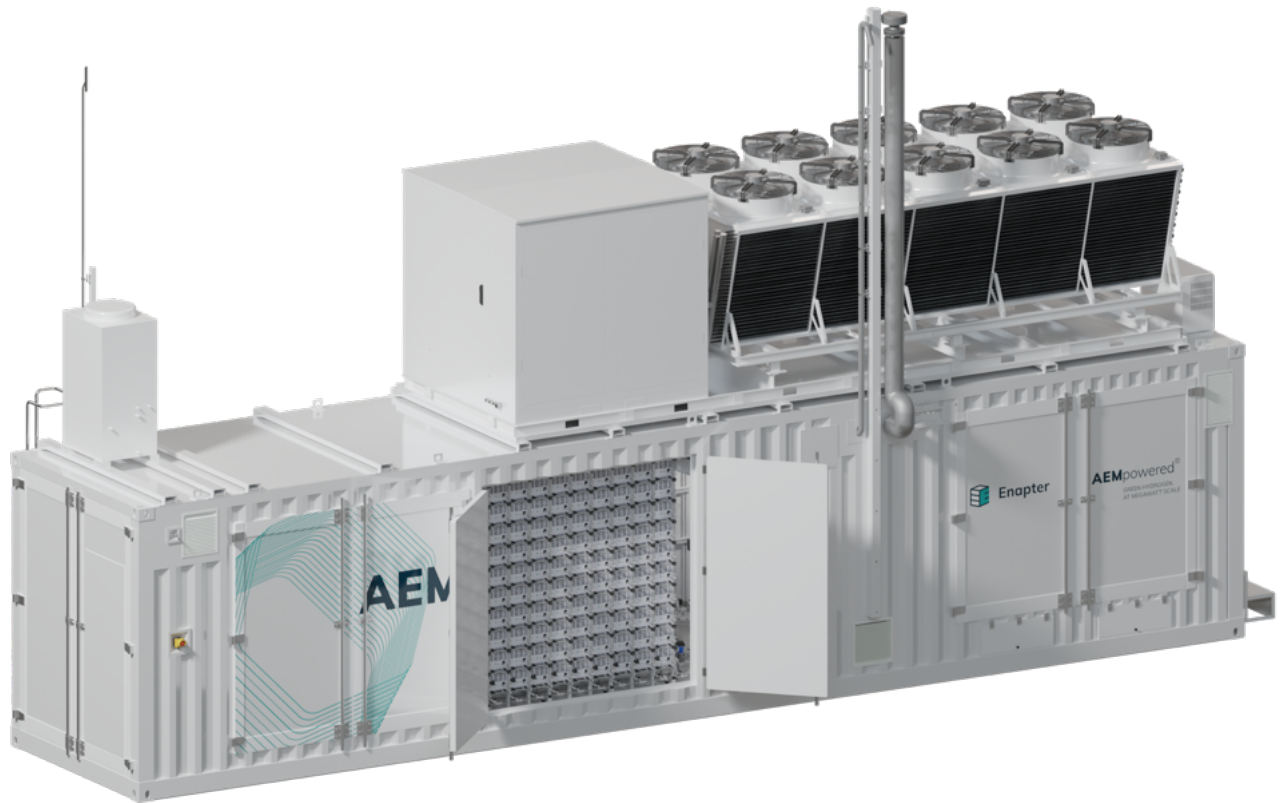


AEM NEXUS 500



Key features

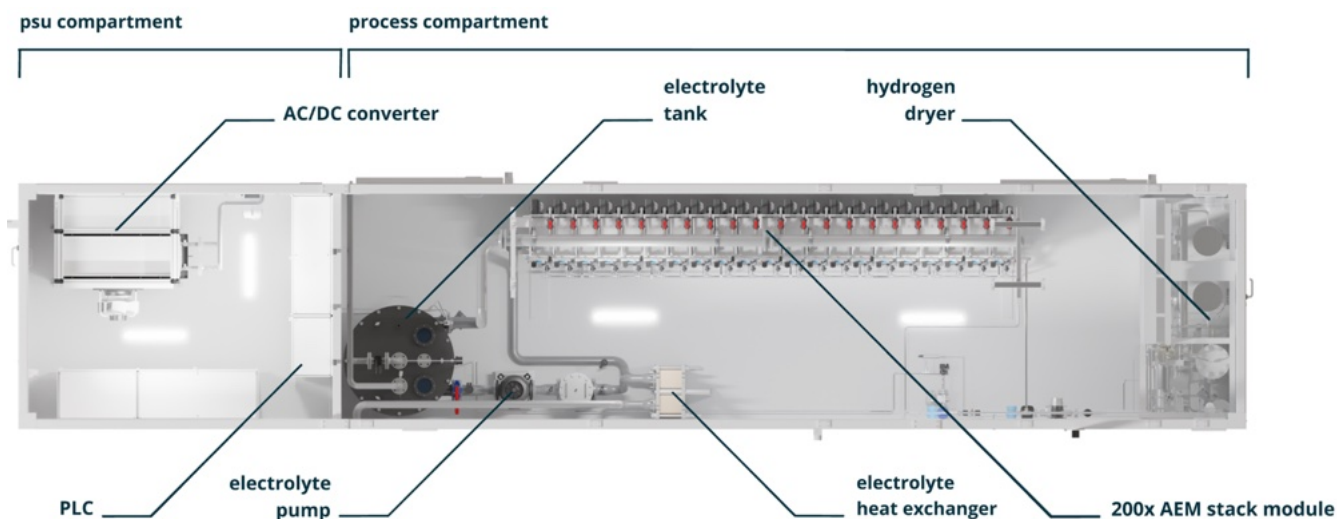
- ≡ Unmatched system efficiency: <math><52 \text{ kWh/kg}</math>
- ≡ Fully automatic operation, AI optimized
- ≡ **Modular** architecture for max. redundancy
- ≡ Rapid reaction times to variable renewables
- ≡ Low maintenance requirements

The AEM Nexus 500 is a containerized AEM Electrolyser featuring many AEM stacks around a common balance of plant (BoP) that includes rectifiers, control/safety system, cooling/heating and electrolyte loop.



AEM Nexus 5000

www.enapter.com/aem-nexus



H₂ nominal flow	100 Nm ³ /h (9 kg/h)	Net volume flow rate
H₂ outlet pressure	Up to 35 barg	Max. system output pressure with dryer 34 barg.
H₂ purity	99.5% in molar fraction	Impurities: H ₂ O < 5000 ppm, O ₂ < 5 ppm
H₂ purity with optional chiller	99.95% in molar fraction	Impurities: H ₂ O < 500 ppm, O ₂ < 5 ppm
H₂ purity with optional dryer	99.999% in molar fraction	Impurities: H ₂ O < 5 ppm, O ₂ < 5 ppm
Specific power consumption (Efficiency)	4.61 kWh/Nm ³ H ₂ 51.3 kWh/kgH ₂	Including all utilities inside the battery limits @standard conditions*, 99.5% configuration.
Nominal power consumption	461 kW	Including all utilities inside the battery limits @standard conditions*, 99.5% configuration. 99.95% configuration + ~6kW 99.999% configuration + ~12kW
Voltage	400Vac 3ph+N+PE 230Vac 1ph+N+PE	± 10 % ± 10 %
Frequency	50 Hz	± 10 %
H₂O nominal consumption	90,5 L/h	Purified water
H₂O inlet purity (recommended)	Type II water Acidity < 0.1 meq/l	According to ASTM D1193-06 According to ASTM D1067
Operational flexibility	3% – 100%	Of nominal H ₂ flow rate (with optional dryer: 3% - 100% for a continuous time of max 24h. Then 10% - 100%)
Hot startup time	0 – 100% in 220 seconds	Electrolyte valve open, solution circulating at ≥45°C
Dimensions	12.19 × 2.44 × 5.13 m	L x W x H (H= 8.98 m including standard vent lines)

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