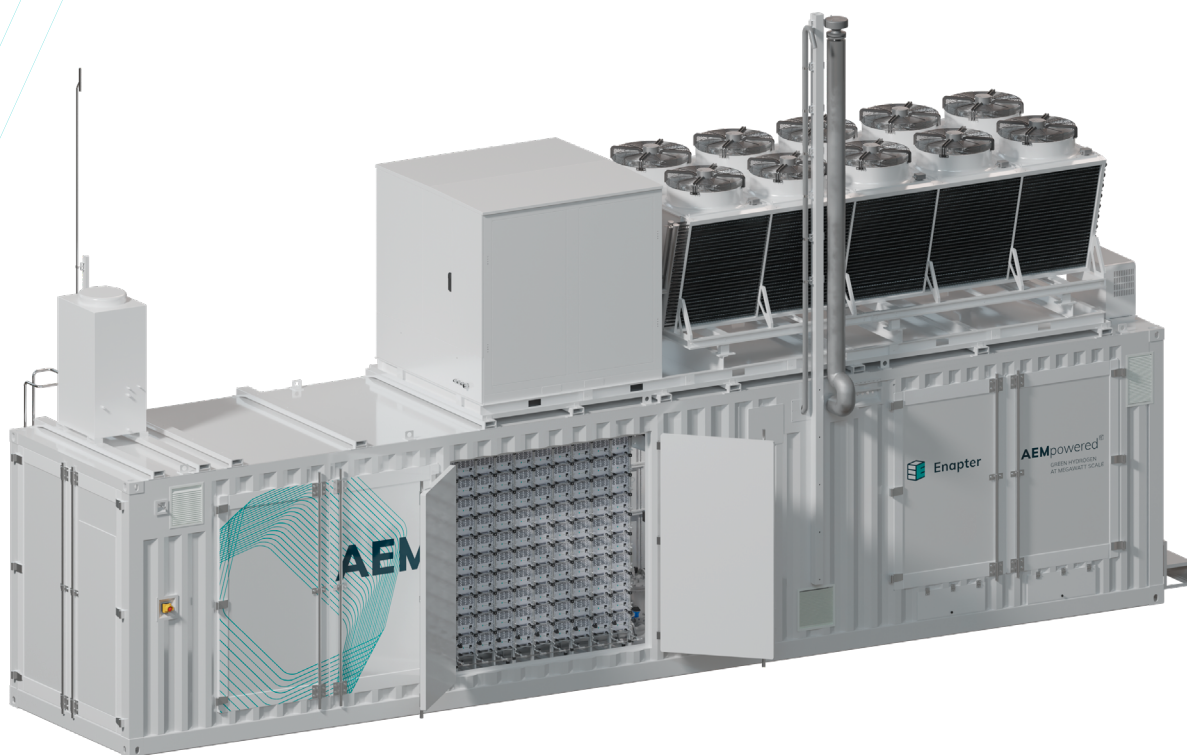


AEM NEXUS 1000



Key features

- Unmatched system efficiency: 51.3 kWh/kg
- Fully automatic operation, AI optimized
- Modular architecture for max. redundancy
- Rapid reaction times to variable renewables
- Low maintenance requirements

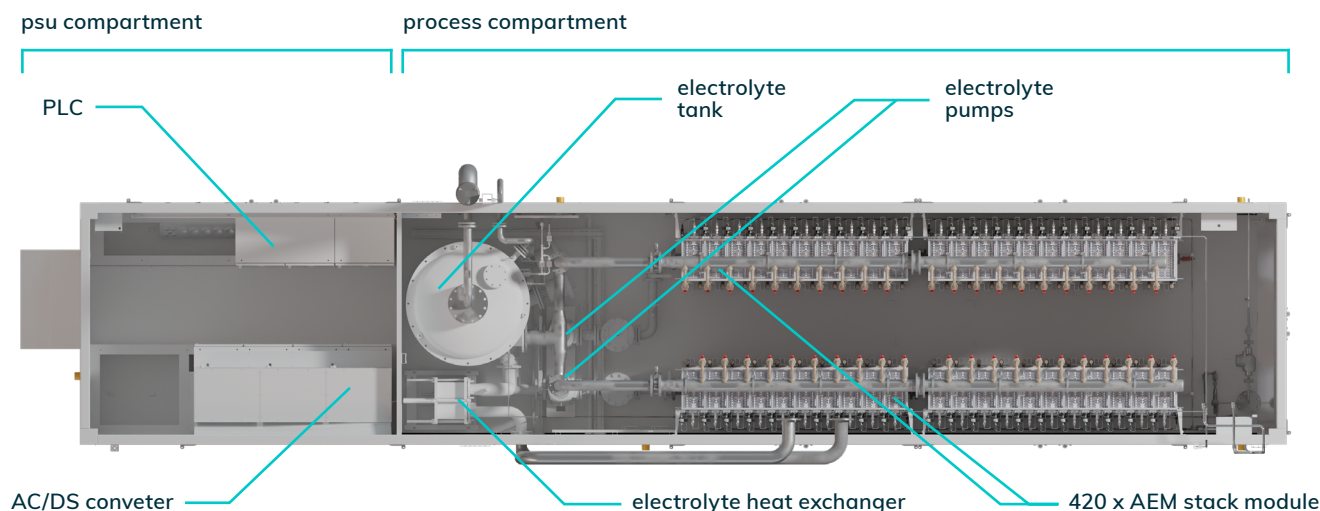
The AEM Nexus 1000 is a megawatt class containerized AEM Electrolyser featuring many AEM stacks around a common balance of plant (BoP) that includes rectifiers, control/safety system, cooling/heating and electrolyte loop.



AEM Nexus 1000
www.enapter.com/aem-nexus

Specifications

Enapter
AEM Nexus 1000



H₂ nominal flow	210 Nm ³ /h 453 kg/24h	Net volume flow rate
H₂ outlet pressure	Up to 35 barg	(507.63 psig)
H₂ purity	99.95% in molar fraction	Impurities: H ₂ O < 500 ppm, O ₂ < 5 ppm
H₂ outlet temperature	5 – 55 °C (41 – 131 °F)	
O₂ nominal flow	105 Nm ³ /h	Vented at atmospheric pressure
Specific power consumption (Efficiency)	4.61 kWh/Nm ³ H ₂ 51.3 kWh/kgH ₂	Including all utilities inside the battery limits of the AEM Nexus 1000 (excluding optional H ₂ dryer). Beginning of life (BOL) at 15 °C ambient temperature, nominal conditions and full load.
Nominal power consumption	968 kW	Including all utilities inside the battery limits of the AEM Nexus 1000 (excluding optional H ₂ dryer). Beginning of life (BOL) at 15 °C ambient temperature, nominal conditions and full load.
Voltage	3 × 400 VAC	± 10 %
Frequency	50	± 10 %; THD < 5 % (60 Hz available)
H₂O nominal consumption	190 L/h	(50.19 gal/h) purified water
H₂O inlet purity (recommended)	Type II Water Acidity < 0.1 meq/l	According to ASTM D193-06 According to ASTM D1067
Operational flexibility	1% – 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 135 seconds	Electrolyte is at min. 38 °C (95 °F)
Cold startup time	0 – 100% in ≈ 25 minutes	Assuming 15 °C (59 °F) ambient temperature
Ambient operating temperature	-15 – 40 °C	(5 – 104 °F) Up to 45 °C (113 °F) with optional hot-ambient version
Sound Pressure Level	85 db(A) Max.	At 1 m (Including all utilities)
Container coating	C3 High as per ISO 12944-2 C5-M as per ISO 12944-2	Standard version Marine version (optional)
Dimensions (L × W × H)	12.19 × 2.44 × 5.13 m 40 × 8 × 17.3 ft	L × W × H (H= 8.98 mor 29 ft including standard vent lines)

Note: The product is under continuous improvement and the technical specifications might be subject to change.