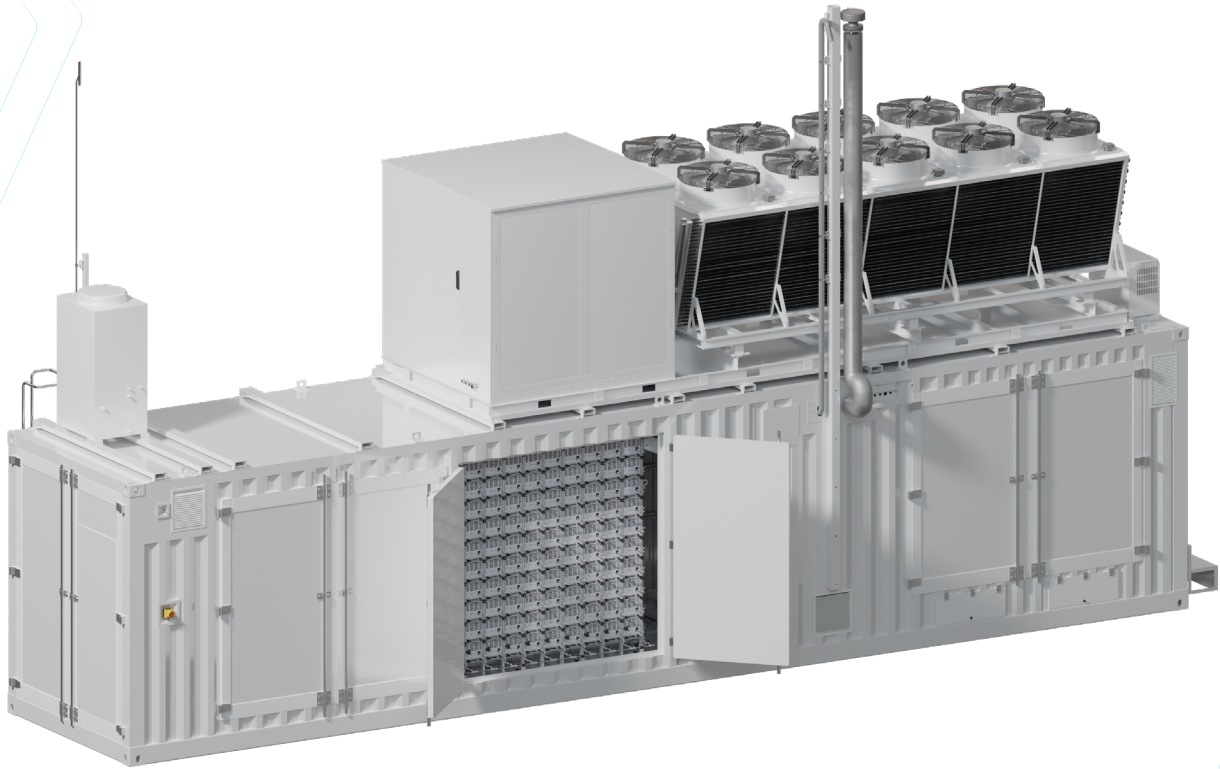


AEM NEXUS 500



Key features

- H₂ Output: 105 Nm³/h, up to 35 barg,
- 99.95% purity (99.999% with optional dryer)
- Cost-efficiency
- High degree of redundancy
- Rapid reaction times to variable renewables
- Containerised in 40 ft container

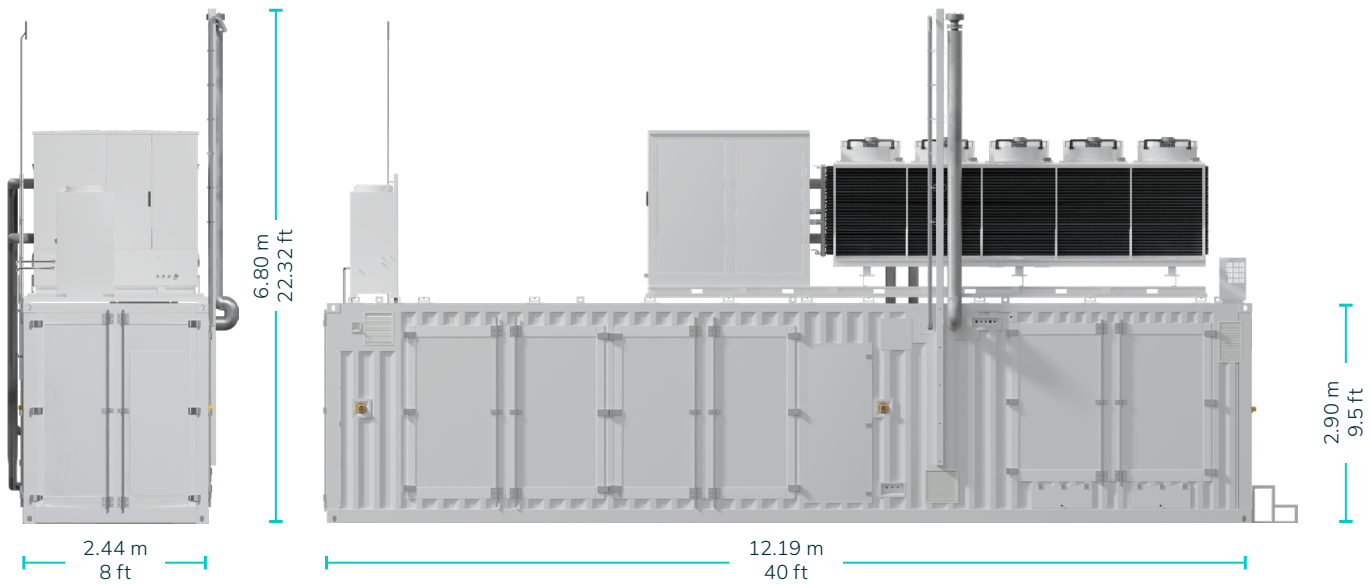
This AEM Nexus 500 is a 500 kW containerised electrolyser large pre-assembled for fast commissioning featuring 210 AEM stack modules around a common balance of plant (BoP).



AEM Nexus 500
www.enapter.com/aem-nexus

Specifications

Enapter
AEM Nexus 500



H₂ nominal flow	105 Nm ³ /h 226.5 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 purity with optional dryer	99.999% in molar fraction	Impurities: H ₂ O < 5 ppm, O ₂ < 5 ppm ≈ 6 kW consumption during regeneration
H₂ outlet temperature	5 – 55 °C (41 – 131 °F)	
O₂ nominal flow	52.5 Nm ³ /h	Vented at atmospheric pressure
Nominal power consumption	504 kW	Beginning of life (BOL)
Voltage	3 × 400 VAC	± 10 %
Frequency	50/60 Hz	± 10 %; THD < 5 %
H₂O nominal consumption	95 L/h (25.1 gal/h)	Purified water
H₂O inlet quality	Minimum ASTM D1193-06 Type IV or recommended Type II or Type III	
Operational flexibility	3 – 100%	Of nominal H ₂ flow rate
Specific power consumption (Efficiency)	4.8 kWh/Nm ³ H ₂ 53.3 kWh/kgH ₂	Including all utilities inside the battery limits of the AEM Nexus 500 (at BOL)
Hot startup time	0 – 100% in 100 seconds	Electrolyte is at min. 35 °C (95 °F)
Cold startup time	0 – 100% in 20 minutes	Assuming 15 °C (59 °F) ambient temperature
Ambient operating temperature	-15 – 40 °C (5 – 104 °F)	Up to 45 °C (113 °F) with hot-ambient version
Sound Pressure Level	62 db(A) Max.	At 10 m (Including all utilities)
Process heat output	150 kW	BOL; ≈ 50 °C (≈ 122 °F)
Dimensions (L × W × H)	12.19 × 2.44 × 2.90 m 40 × 8 × 9.5 ft	only container height, full system height can be significantly taller

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