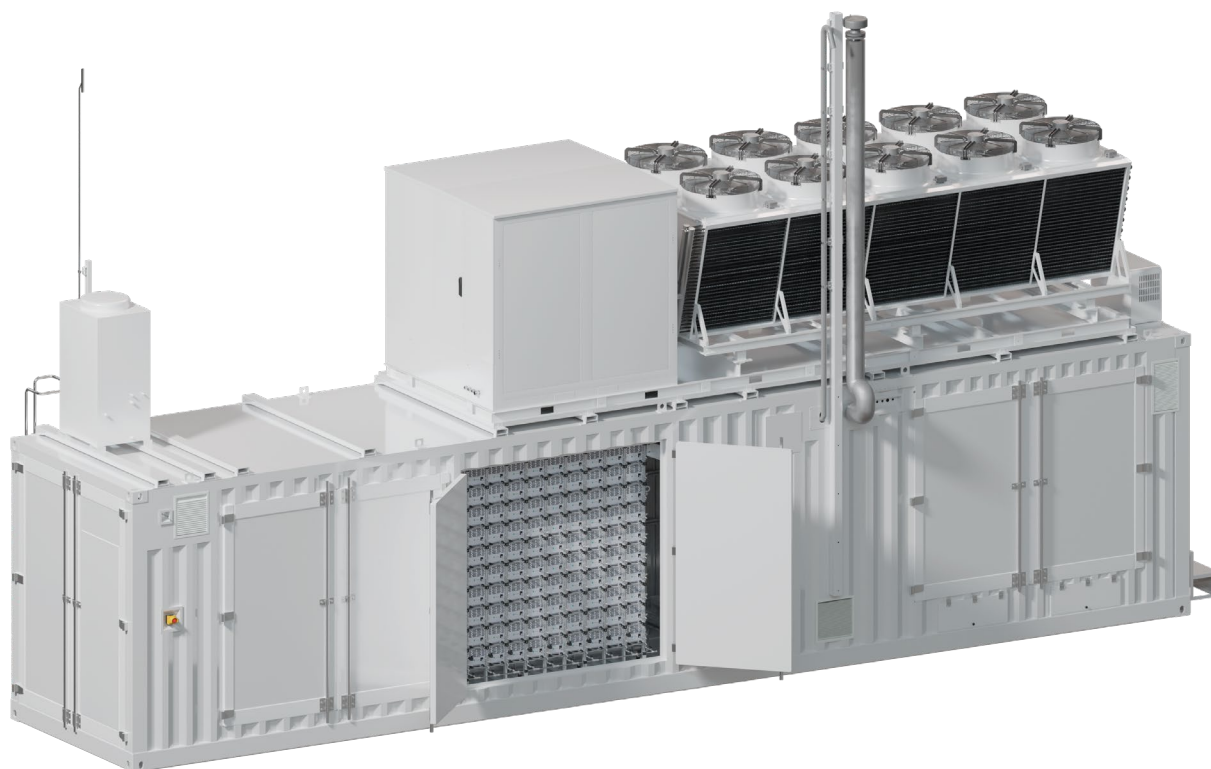


# AEM NEXUS 1000



## Key features

- ≡ H<sub>2</sub> Output: 210 Nm<sup>3</sup>/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

The AEM Nexus 1000 is the first AEM Electrolyser of the megawatt class. A ≈ 1 MW containerised electrolyser largely pre-assembled for fast commissioning featuring 420 AEM stack modules around a common balance of plant (BoP).



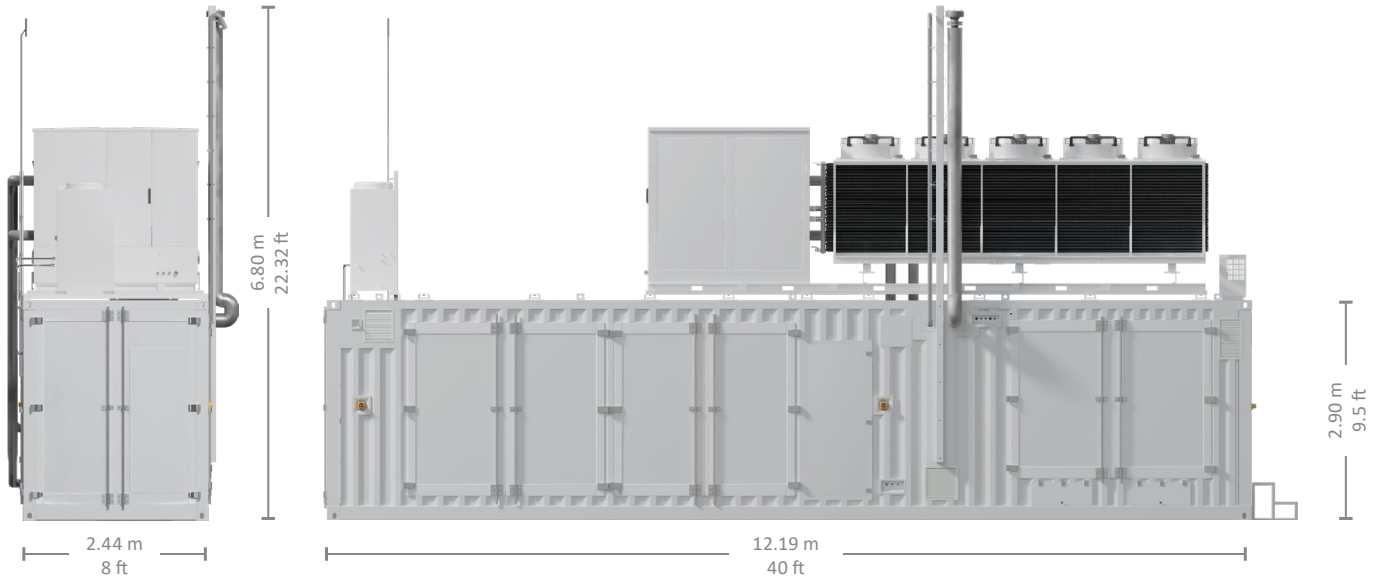
AEM Nexus 1000

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

# Specifications

Enapter

**AEM Nexus 1000**



<b>H<sub>2</sub> nominal flow</b>	210 Nm <sup>3</sup> /h 453 kg/24h	Net volume flow rate
<b>H<sub>2</sub> outlet pressure</b>	Up to 35 barg (507.63 psig)	
<b>H<sub>2</sub> purity</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 ≈ 6 kW consumption during regeneration
<b>H<sub>2</sub> outlet temperature</b>	5 – 55 °C (41 – 131 °F)	
<b>O<sub>2</sub> nominal flow</b>	105 Nm <sup>3</sup> /h	Vented at atmospheric pressure
<b>Nominal power consumption</b>	1,008 kW	Beginning of life (BOL)
<b>Voltage</b>	3 × 400 VAC	± 10 %
<b>Frequency</b>	50/60 Hz	± 10 %; THD < 5 %
<b>H<sub>2</sub>O nominal consumption</b>	190 L/h (50.19 gal/h)	Purified water
<b>H<sub>2</sub>O inlet quality</b>	Minimum ASTM D1193-06 Type IV or recommended Type II or Type III	
<b>Operational flexibility</b>	3% – 100%	Of nominal H <sub>2</sub> flow rate
<b>Specific power consumption (Efficiency)</b>	4.8 kWh/Nm <sup>3</sup> H <sub>2</sub> 53.3 kWh/kgH <sub>2</sub>	Including all utilities inside the battery limits of the AEM Nexus 1000 (at BOL)
<b>Hot startup time</b>	0 – 100% in 100 seconds	Electrolyte is at min. 35 °C (95 °F)
<b>Cold startup time</b>	0 – 100% in 20 minutes	Assuming 15 °C (59 °F) ambient temperature
<b>Ambient operating temperature</b>	-15 – 40 °C (5 – 104 °F)	Up to 45 °C (113 °F) with hot-ambient version
<b>Sound Pressure Level</b>	62 db(A) Max.	At 10 m (Including all utilities)
<b>Process heat output</b>	300 kW	BOL; ≈ 50 °C (≈ 122 °F)
<b>Dimensions (L × W × H)</b>	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.