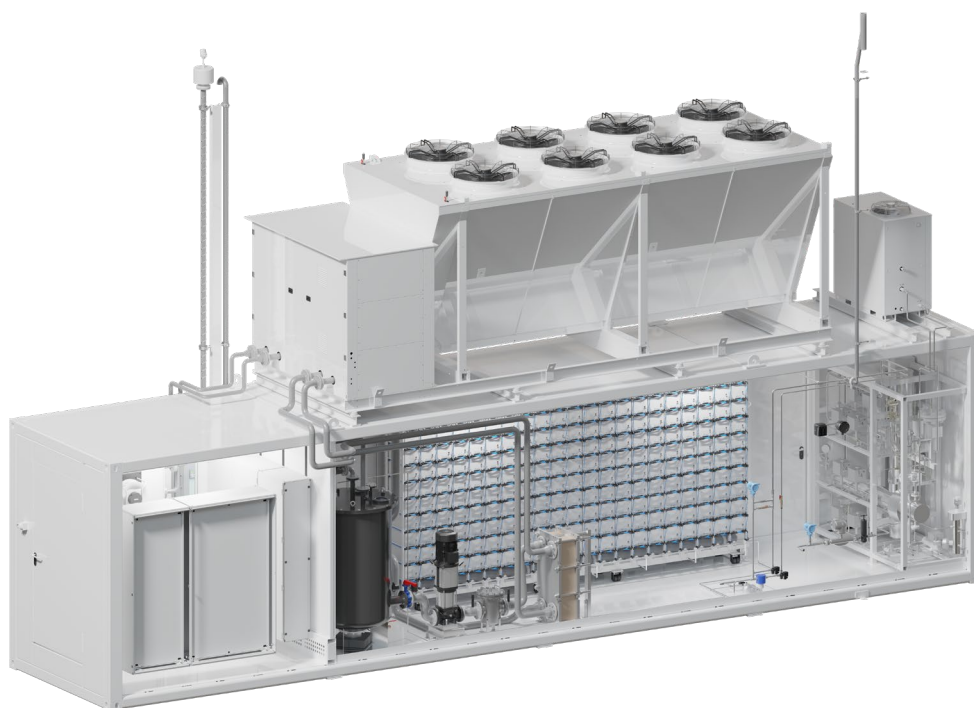


AEM NEXUS 500



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 largely pre-assembled for fast commissioning featuring 210 AEM stack modules around a common balance of plant (BoP).



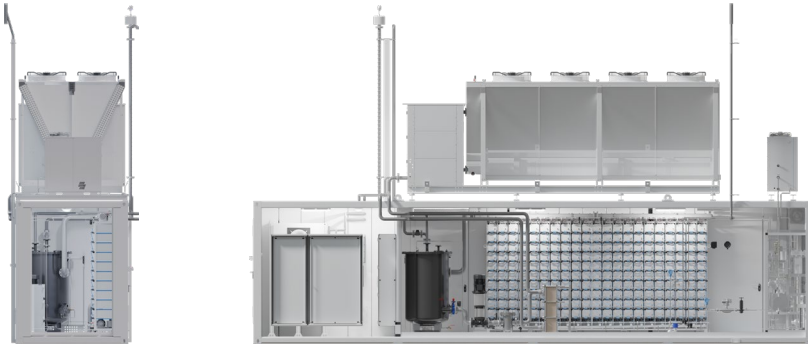
AEM Nexus 500

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 ≈ 5 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 – 35 °C (5 – 95 °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) |

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