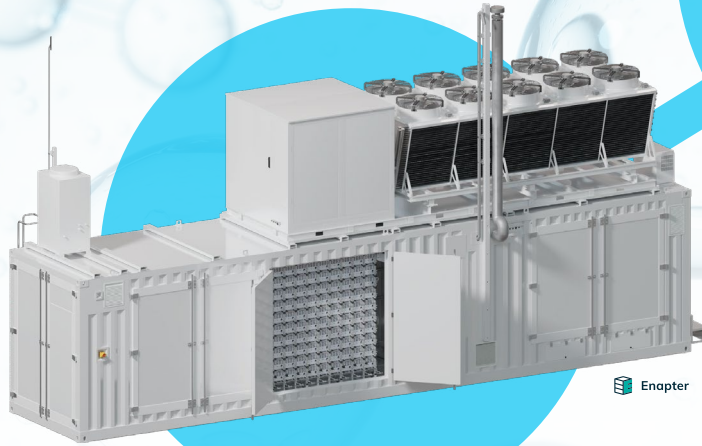




ENAPTER AEM NEXUS™ 1000

OUR FIRST MEGAWATT-SCALE AEM ELECTROLYSER



Enapter

Enapter AEM NEXUS™ 1000

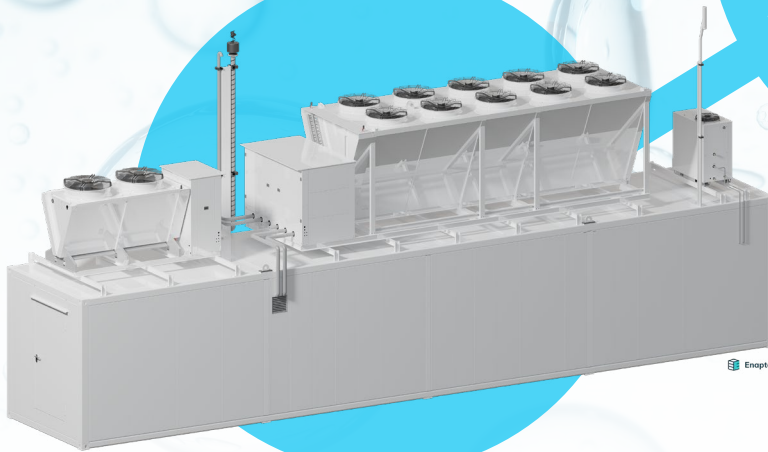
The Enapter AEM Nexus™ 1000 is the first AEM Electrolyser of the megawatt class. A ≈1 MW containerised electrolyser largely pre-assembled for fast commissioning featuring 420 AEM stack modules around a common balance of plant (BoP).

H₂ production rate	210 Nm ³ /h or 453 kg/day	Net volume flow rate
Operational flexibility	3% to 100% (of nominal H ₂ flow rate)	
H₂ output pressure	Up to 35 barg (Up to 507.63 psig)	
H₂ output purity	99,95 % in molar fraction	Impurities: H ₂ O < 500 ppm, O ₂ < 5 ppm
H₂ output 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	105 Nm ³ /h	Vented at atmospheric pressure
Specific power consumption (Efficiency)	4,8 kWh/Nm ³ 53.3 kWh/kgH ₂	Including all utilities inside the battery limits of the AEM Nexus 500 (at BOL)
Operative power consumption	1008 kW	Beginning of life (BOL)
Voltage	3x 400 VAC	+ -10%
Frequency	50/60 Hz	+ -10 % ; THD < 5%
Water consumption	190 L/h (50,19 gal/h)	Purified Water
H₂O inlet quality	Minimum ASTM D1193-06 Type IV or recommended Type II or Type III	
H₂O inlet temperature	5-55 °C (41 – 131 °F)	
Cabinet/enclosure type	Fits in a container	
Outside dimensions (W x D x H) (L x W x H)	12.19 × 2.44 × 2.90 m 40 × 8 × 9.5 ft	only container height, full system height can be significantly taller



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Cooling	Liquid Cooled stacks only	
Process heat output	up to 300kW (at BOL)	
Standby power consumption	Not available	
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
Shut down time	Not available	
Sound Pressure Level	62 db(A) Max.	At 10 m (Including all utilities)
Ambient temperature	-15 – 40 °C (5 – 104 °F) (low ambient version)	Up to 45 °C (113 °F) with hot-ambient version
Ambient humidity	Up to 90% humidity, non-condensing	
Optional	Optional Integration of Water purification system, Dryer, Containerisation, Storage connection is possible	

