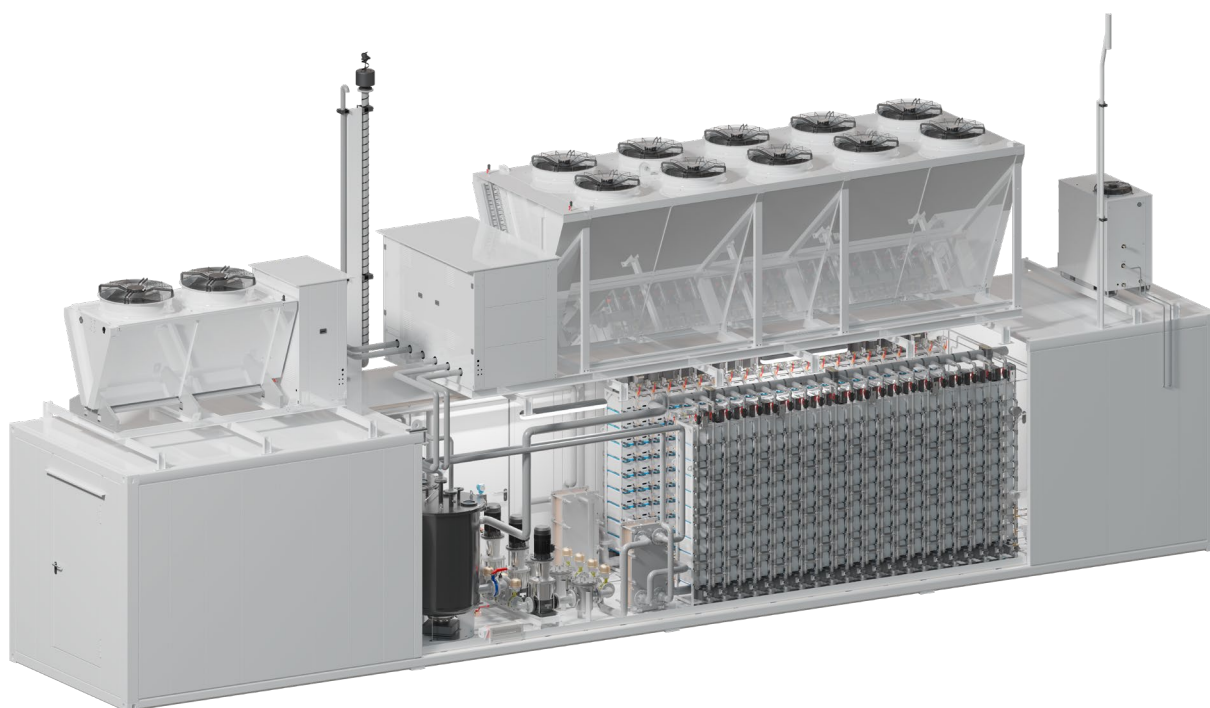


AEM Multicore™

~ 450 kg/24 h



Key features

- ≡ H₂ Output: 210 Nm³/h, up to 35 barg, 99.9% purity (99.999% with optional dryer)
- ≡ Cost-efficiency
- ≡ High degree of redundancy
- ≡ Rapid reaction times to variable renewables
- ≡ Compressed air not needed for operation
- ≡ N₂ or other gasses not needed for purging

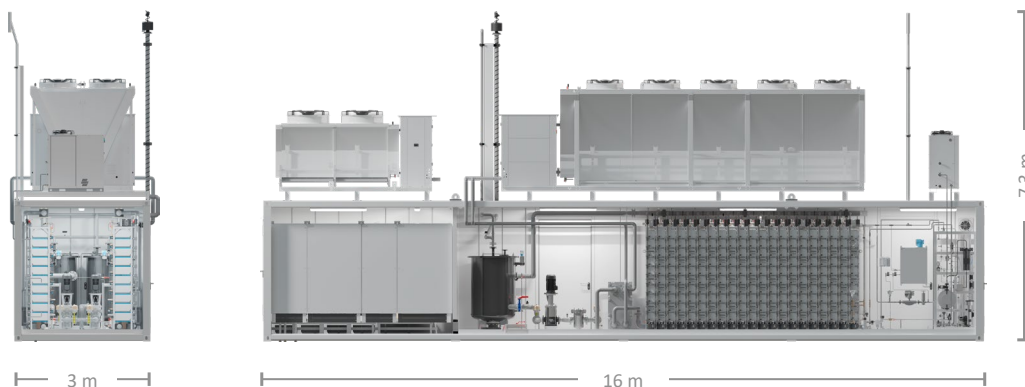
The AEM Multicore™ is the first AEM Electrolyser of the megawatt class. A ~ 1 MW containerised electrolyser largely pre-assembled for fast commissioning featuring 420 AEM stack modules around a common balance of plant (BoP).



AEM Multicore™
www.enapter.com/multicore

Specifications

Enapter
AEM Multicore™
 ~ 450 kg/24 h



Nominal H₂ flow	210 Nm ³ /h ~ 450 kg/24 h	Net volume flow rate
H₂ outlet pressure	Up to 35 barg	
H₂ purity without optional dryer	99.9% in molar fraction, equals dew point of -30 °C	Impurities only H ₂ O and O ₂
H₂ purity with optional dryer	99.999% in molar fraction, equals dew point of -65 °C	Impurities only H ₂ O and O ₂ Additional ~ 5 kW power consumption
Nominal O₂ flow	105 Nm ³ /h	Net volume flow rate
O₂ outlet pressure	Atmospheric	
Sound pressure level	< 62 db(A)	at 10 m
Flexibility	3% – 105%	Of nominal production rate
Nominal electrical power consumption	1,008 kW 1,200 kW	Beginning of life (BOL) Near end of life (EOL) Optional dryer excluded
Specific power consumption (efficiency)	4.8 kWh/Nm ³ H ₂ 53.3 kWh/kgH ₂ 62.5%	Including all utilities inside the battery limits of the electrolyser container (at beginning of life) Optional dryer excluded
System efficiency over different loads	60 – 100%: 4.8 kWh/Nm ³ 30 – 60%: 5.0 kWh/Nm ³ 3 – 30%: 5.2 kWh/Nm ³	Optional dryer excluded
Ambient operating temperature	-15 – 35 °C	Up to 45 °C with hot-ambient version
Nominal water consumption	190 L/h	Purified water
Water inlet conductivity	< 5 μS/cm	
Water inlet temperature	5 – 55 °C	
Hot startup time	0 – 100% in 100 seconds	
Hot standby power consumption	Max. 200 kW	Stacks are hydrated and electrolyte solution is in circulation at minimum temperature
Cold startup time	0 – 100% in 30 minutes	Depending on ambient temperature
Cold standby power consumption	Max. 30 kW	All components are in standby and container heating is on
Shut down time	From 100% in 3 minutes	
Shut down period	Max. 12 weeks	
Voltage	3 × 400 VAC	Three-phase grid
Frequency	50/60 Hz	
Dimensions	L: 16 m × W: 3 m × H: 7.3 m	
Weight	< 40 tons	
Stack lifetime	> 35,000 operation hours	