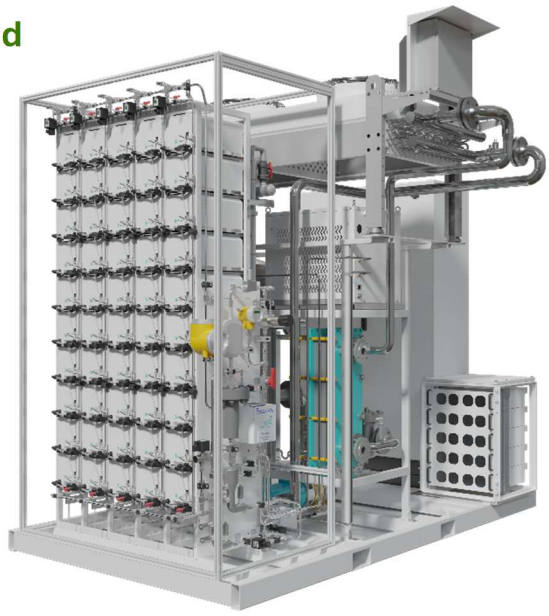
Hy-Pro® Flex 120

The AEM string based Electrolyser meeting your needs

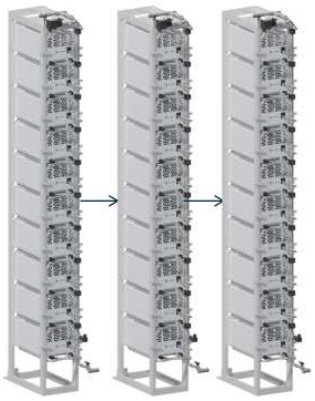
Our Hy-Pro Flex 120 enables your streamlined launch of green hydrogen in pilots ranging from industrial process heat to refuelling.

Flexible configuration from 70kW to 480kW guarantees a match with your budget and hydrogen production requirements. The modular design ensures reactivity to intermittent renewable energy, built-in redundancy and freedom to scale when you need it.



MBR's Indoor or Outdoor HyPro® Flex120 is our container-free, skid-mounted electrolyser rapidly and seamlessly integrates into your existing energy projects, allowing you to add hydrogen production capabilities without extensive site or system modifications.

Tailored Production. Choose the number of AEM Stack strings to get the exact amount of hydrogen production you need – between 70kW and 480kW. If you start small, you will have the possibility to later upgrade your electrolyser production capacity.

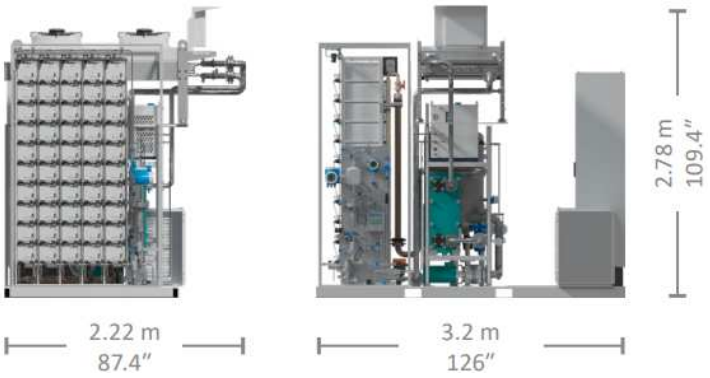


Low Lead times. Receive your electrolyser and start your green hydrogen production within just a few months. We stand for plug-&-play products, not engineering projects; simple planning and low lead times means your green hydrogen pilot comes first

- ✓ Extremely high availability and built-in redundancy
- ✓ Automated & remote operation with our EMS
- ✓ Quick & Easy installation (skid mounted)
- ✓ Ideal for on-site hydrogen production
- ✓ Low maintenance requirements
- ✓ Rapid reaction time to intermittent renewables

Production rate	25 Nm^3/h | 53.9 kg/24h
Hydrogen purity	99.95% (or 99.999% with optional Dryer)
Outlet pressure	up to 35 barg
Module dimensions	L: 3.2 × W: 2.5 × H: 3 m
Module weight (without water)	3,700 kg

Specifications



H_2 nominal flow	25 Nm^3/h 53.9 kg/24h	Net volume flow rate
H_2 outlet pressure	Up to 35 barg (507.63 psig)	
H_2 purity	99.95% in molar fraction	Impure H_2O < 500 ppm, O_2 < 5 ppm
H_2 purity with optional dryer	99.999% in molar fraction	Impure H_2O < 5 ppm, O_2 < 5 ppm
H_2 outlet temperature	5 – 55 °C (41 – 131 °F)	
O_2 nominal flow	12.5 Nm^3/h	Vented at atmospheric pressure
Nominal power consumption	120 kW	Beginning of life (BOL)
Voltage	3 × 400 VAC	±10 %
Frequency	50/60 Hz	±10 %; THD < 5%
H_2O nominal consumption	23 L/h (6.08 gal/h)	Purified water
H_2O inlet quality	ASTM D1193-06 Type IV or recommended Type II or Type III[1]	
Operational flexibility	12% – 100 %	Of nominal H_2 flowrate
Efficiency	4.8 kWh/Nm^3H_2 53.3 kWh/kg H_2	Incl. all utilities inside the battery limits of the AEM Flex (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	Assum 15 °C (59 °F) ambient temp
Process heat output	35 kW	BOL ≈ 50 °C (≈ 122 °F)
Dimensions	3.2 × 2.22 × 2.78 m	(L × W × H)
Weight	≈ 3,700 kg (8157 lbs)	

AEM Flex 120 green hydrogen applications

Process heat: Companies using natural gas for process heat are swapping to green hydrogen to fire up their furnaces. The AEM Flex 120 lets brick, ceramics and plastics makers reduce operational costs over time via gas blending, work towards eliminating fossil fuels dependency and establish their sustainability leadership.

on-site hydrogen production from fluctuating renewable energy, meeting the demands of pilot projects and the next stages of growth. Reduce reliance on external suppliers, and pave the way for a sustainable hydrogen-driven future.

Energy storage: From peak shaving to long-term storage strategies, this electrolyser offers a versatile solution harnessing excess energy to produce hydrogen. Companies are empowered to put their decarbonisation and self-sufficiency plans into action; energy developers get the most value for grids and communities.

Industrial use: Green hydrogen is replacing grey hydrogen as an industrial feedstock to make foodstuffs, chemicals like ammonia and methane, and more. Our AEM Flex 120 helps industrial firms to rapidly pilot their green hydrogen production and use, opening the door to rapid scaling and full replacement of grey H2