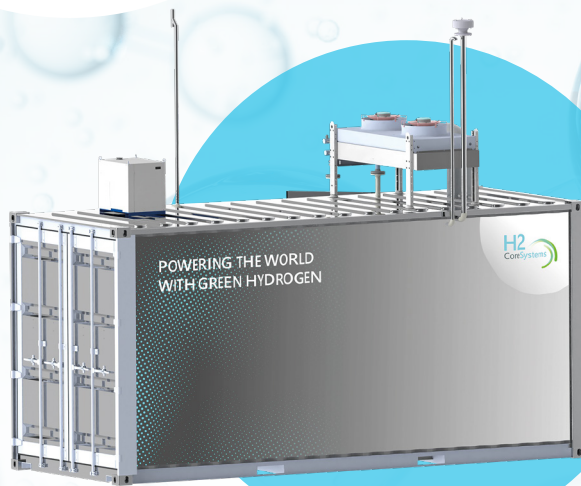




# HYDRO-CLUSTER® 120 OUTDOOR

FACILITATES THE INTRODUCTION OF GREEN HYDROGEN IN PILOT PROJECTS, RANGING FROM INDUSTRIAL PROCESS HEAT TO REFUELING



## HydroCluster® 120 Outdoor

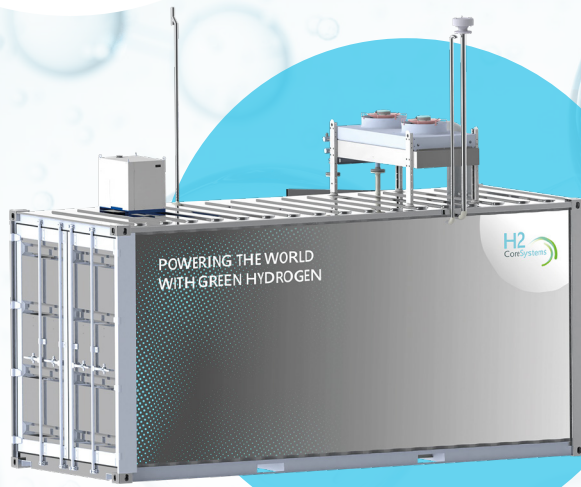
- Extremely high availability and built-in redundancy
- Automated & remote operation with Enapter's EMS
- Quick and easy installation (skid mounted)
- Low maintenance requirements
- Rapid reaction time to intermittent renewables

<b>H<sub>2</sub> production rate</b>	25 Nm <sup>3</sup> /h or 53,9 kg/day	Netvolume flow rate
<b>Operational flexibility</b>	12% to 100% (of nominal H <sub>2</sub> flow rate)	
<b>H<sub>2</sub> output pressure</b>	Up to 35 barg (Up to 507.63 psig)	
<b>H<sub>2</sub> output purity</b>	99,95 %	(< 500 ppm H <sub>2</sub> O , < 5 ppm O <sub>2</sub> ) in molar fraction
<b>H<sub>2</sub> output purity with optional dryer</b>	99,999%	(< 5 ppm H <sub>2</sub> O , < 5 ppm O <sub>2</sub> ) in molar fraction
<b>H<sub>2</sub> outlet temperature</b>	5-55 °C	
<b>O<sub>2</sub> nominal flow</b>	12,5 Nm <sup>3</sup> /h	Vented at atmospheric pressure
<b>Specific power consumption (Efficiency)</b>	4,8 kWh/Nm <sup>3</sup>	Including all the utilities, BOL
<b>Operative power consumption</b>	120 KW	Beginning of life (BOL)
<b>Voltage</b>	3x 400 VAC	+/-10%
<b>Frequency</b>	50/60 Hz	+/-10 % ; THD < 5%
<b>Water consumption</b>	23L/h ( 6,08 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>H<sub>2</sub>O inlet temperature</b>	5-55 °C	
<b>Cabinet/enclosure type</b>	Fits inside 20 ft high cube container	
<b>Outside dimensions (W x D x H)</b>	(L x W x H) 6058 mm x 2438 mm x 5025 mm	



# HYDRO-CLUSTER® 120 OUTDOOR

FACILITATES THE INTRODUCTION OF GREEN HYDROGEN IN PILOT PROJECTS, RANGING FROM INDUSTRIAL PROCESS HEAT TO REFUELING



<b>Cabinet weight</b>	6500 kg approx	
<b>Cooling</b>	Liquid Cooled Stacks Only	
<b>Process heat output</b>	up to 35 kW ( at BOL )	
<b>Standby power consumption</b>	Approx 20 kW	
<b>Hot startup time</b>	0-100% in 100 seconds	(assuming Electrolyte at min 35°C)
<b>Cold startup time</b>	0-100% in 20 minutes	(assuming 15 °C ambient temperature)
<b>Shut down time</b>	In few minutes	
<b>Location of connections and piping</b>	Connection for the H <sub>2</sub> Out, H <sub>2</sub> Vent, Chiller In and Out Mounted on the gas panel. Vent lines for O <sub>2</sub> goes to the roof	
<b>Ambient temperature</b>	Low ambient variant: -20 to 40°C High ambient varinet: -20 to 50°C	
<b>Ambient humidity</b>	Up to 90% humidity, non-condensing	
<b>Optional</b>	Optional Integration of Water purification system, Dryer, Storage connection is possible	

