

# EH81 – Fuel Cell Stack

Electrical Specs	EH81 - 20kW	EH81 - 40kW	EH81 - 60kW	EH81 - 100kW
Nominal Power [kWe]	20.0	40.0	60.0	100.0
Peak Power [kWe]	22.0	44.0	66.0	110.0
Current Range [A]	0 – 450			
Voltage Range [V]	46 – 103	93 – 206	139 – 308	231 – 513

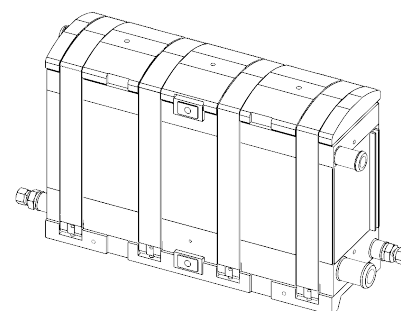
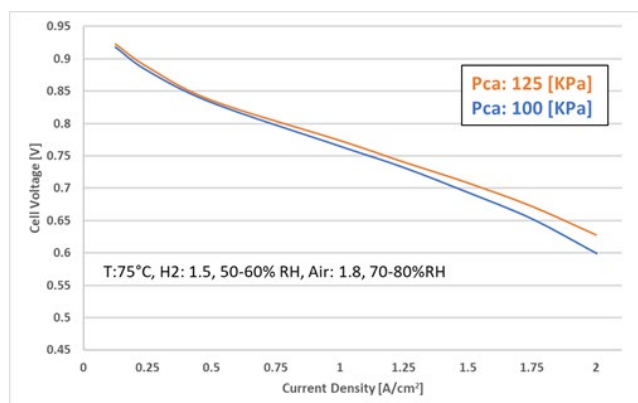
Mechanical Specs	EH81 - 20kW	EH81 - 40kW	EH81 - 60kW	EH81 - 100kW
Dimensions [mm] <i>(with manifolds and connection ports)</i> <sup>1</sup>	400 x 120 x 260	400 x 120 x 320	400 x 120 x 450	400 x 120 x 610
Weight [kg] (with manifolds and connection ports)	~ 32	~ 48	~ 66	~ 78

Operating Conditions - Cathode side	
Quality	Filtered, no impurities
Inlet Temp. [°C]	65 – 70
Outlet Temp. [°C]	76 – 80 (85 short run)
RH [%] – No condensation	35 – 80
Stoichiometry [λ]	1.5 – 2.0
Pressure level [kPa g]	< 150
Pressure drop [kPa] (@ 0.6V operation)	< 35

Operating Conditions - Anode side	
Quality	>99.995 (SAE J2719 or ISO 14687:2019 grade D)
Inlet Temp. [°C]	65 – 70
RH [%] – No condensation	20 – 80
Stoichiometry [λ]	1.2 – 1.8
Pressure level [kPa g]	< 150
Pressure drop [kPa] (@ 0.6V operation)	< 35

Operating Conditions - Coolant side	
Quality	DI water, DI + anti-freeze
Inlet Temp. [°C]	65 – 70
ΔT [°C]	8 – 10
Pressure drop [kPa]	< 100
<i>Maximum dP between Anode/Cathode [kPa]</i>	<b>30</b>

## Example of Performance Curves – Normalised per Cell



- 1 Stacks delivered with integrated gas manifolds
- Performance curves derived using standard MEA from the market
- Values achieved at EH Group test conditions at beginning of life
- Addition of customised CVM is possible

- Connection port of Hydrogen side: Swagelok fitting
- Connection port on Cathode side: Hose or Swagelok fitting
- Connection port of Cooling side: Hose or Swagelok fitting
- Please contact us directly for any customisation