

EH51 – Fuel Cell Stack

Electrical Specs	EH51 - 5kW	EH51 - 10kW	EH51 -15kW
Nominal Power [kWe]	5.0	10.0	15.0
Peak Power [kWe]	5.5	11.0	16.5
Current Range [A]	0 – 300		
Voltage Range [V]	17 – 37	33 – 74	50 – 110

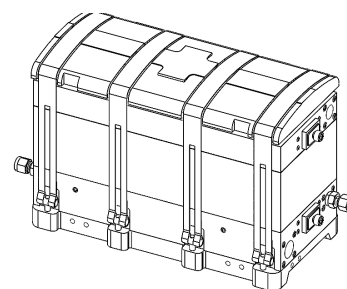
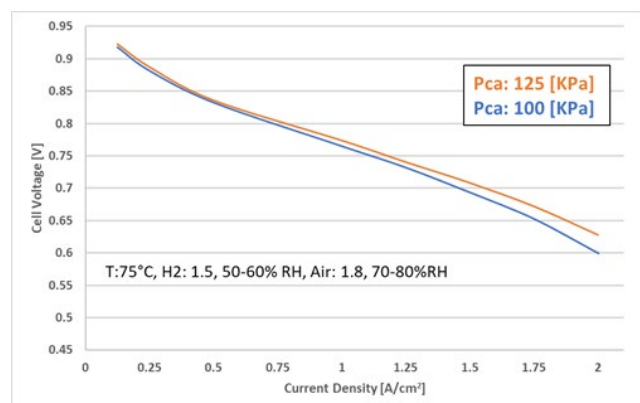
Mechanical Specs			
Dimensions [mm] <i>(with manifolds and connection ports)¹</i>	280 x 120 x 130	280 x 120 x 180	280 x 120 x 230
Weight [kg] (with manifolds and connection ports)	~ 11.0	~16.0	~20.0

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)	< 30

Operating Conditions - Anode side	
Quality	>99.995 (SAE J2719 or ISO 14687:2019 grade D)
Inlet Temp. [°C]	65 – 70
RH [%] – No condensation	< 40
Stoichiometry [λ]	1.2 – 1.8
Pressure level [kPa g]	< 150
Pressure drop [kPa] (@ 0.6V operation)	< 20

Operating Conditions - Coolant side	
Quality	DI water, DI + anti-freeze
Inlet Temp. [°C]	65 – 70
ΔT [°C]	8 – 10
Flow rate [l/min]	3.5 (max)
Pressure drop [kPa]	< 60
<i>Maximum dP between Anode/Cathode [kPa]</i>	<i>30</i>

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