

PEM Fuel Cell Technology

EH Energy Fuel Cell Stacks

Product	Dimensions (mm)	Rated Power (kW)	Peak Power (kW)	Voltage Range (V)	Current Range (A)	Weight (kg)
EH-51 	280 x 145 x 116	4.5	5.1	12-26	0-360	7.5
	280 x 145 x 142	9.2	10	24-53		10.5
	280 x 145 x 195	18	20	48-106		15.5
EH-81 	400 x 145 x 242	39	44	72-158	0-520	23
	400 x 145 x 295	52	59	96-211		29
	400 x 145 x 347	66	74	120-264		34
	400 x 145 x 400	79	89	144-317		39
	400 x 145 x 505	105	119	192-422		50
	400 x 145 x 558	119	134	216-475		55
EH-87 	410 x 350 x 253	158	179	192 - 422	0-780	61
	410 x 350 x 293	198	224	240 - 528		71
	410 x 350 x 372	278	314	336 - 739		93
	410 x 350 x 411	317	359	384 - 845		103
	410 x 350 x 451	357	404	432 - 950		114

EH Fuel Cell Comparison

	EH-51 	EH-81 	EH-87 
Operating Conditions - Cathode			
Quality	Filtered, no impurities		
Inlet Temperature [°C]	65 - 70		
Outlet Temperature [°C]	76 - 80 (85 short run)		
RH [%] - No Condensation	35 - 80		
Stoichiometry [λ]	1.5 - 2.5		
Pressure Level [kPa g]	< 150		
Pressure Drop [kPa] (0.6 [V] operation)	< 30		
Operating Conditions - Anode			
Quality	ISO 14687:2019 grade D with H2 purity > 99.995%		
Inlet Temperature [°C]	65-70		
RH [%] - No Condensation	20-80		
Stoichiometry [λ]	1.2-1.8		
Pressure Level [kPa g]	< 150		
Pressure Drop [kPa] (0.6 [V] operation)	< 30		
Operating Conditions - Coolant			
Quality	DI water, DI + anti - freeze		
Inlet Temperature [°C]	65 - 70		
ΔT [°C]	8-10		
Pressure Drop [kPa] @ 20 [°C]	< 60		

Performance Curve Example

IV curves

Cell voltage vs. current density, normalised to a single cell, at three cathode pressures

