PEM ELECTROLYZER by HIAT

Storager

General Information	
Number of Cells	45
Active Electrode Area (Single cell)	490.9 cm^2
Active Electrode Area (Total)	22,089.3 cm^2
Maximum Current Density	2.1 A $\cdot cm^{-2}$
Hydrogen Production Rate	323,344 ml $\cdot min^{-1}$ | 19.40 $m^3 \cdot h^{-1}$
Oxygen Production Rate	161,672 ml $\cdot min^{-1}$ | 9.70 $m^3 \cdot h^{-1}$
Length x Width x Height @ Weight	approx. 990 x 575 x 535 mm @ 510 kg
Water Quality	DIN ISO 3696 type 1
Control	Current controlled and voltage limited

General Operating Parameters	
Maximum Operating Temperature	80 °C
Maximum Temperature Difference (H_2O_{IN} & H_2O_{OUT})	5 K
Minimum Flow Rate	approx. 78.75 l $\cdot min^{-1}$
Maximum H_2 - Outlet Pressure	40 Bar
Maximum O_2 - Outlet Pressure	Ambient
Maximum H_2O - Inlet Pressure	2.5 Bar

Electrical Operating Parameters @ 40 bar @ 70 °C	
Stack Voltage	approx. 73.5 - 98.9 V
Current (DC)	49.1 - 1,030.8 A
Connected Load	approx. 3.61 - 101.97 kW

Connections	
H_2 - Connection	2x 1 in Compression fitting
H_2O - Connection	1 in Compression fitting
$H_2O + O_2$ - Connection	1 in Compression fitting
Power Connection Anode	8x ø11
Current Connection Cathode	8x ø11

Other Information	
Maximum Water Consumption	272 ml $\cdot min^{-1}$
Maximum Amount of Water on Cathode Side	1,442 ml $\cdot min^{-1}$
Cell Degradation (Under Optimal Conditions)	10 µV $\cdot h^{-1}$
Expected Lifetime	approx. 40,000 h
Hydrogen Quality	H_2O saturated
Oxygen Quality	H_2O saturated

The data given is the maximum configuration. The stacks are available with a cell count from 1 to 45. Individual data sheets can be obtained on request.

Flow rate, stack voltage and connected load data are calculated values at BOL[1] of the electrolysis stack and may differ slightly after commissioning.
The electrolysis stack does NOT contain any other system peripherals.

The indicated production rates with the units ml $\cdot min^{-1}$ or $m^3 \cdot h^{-1}$ are valid according to DIN 1343 under standard conditions at 273.15 K and 101,325 Pa.

[1]BOL - Beginning of Life (Time after first commissioning and function validation)