

Highly efficient fuel cell and electrolysis stack technology

elcoStack®

One stack combines the power of 100+ of Elcogen's solid oxide fuel cells called elcoCells. The elcoStack technology is reversible and functions as both an electrolyser or as a fuel cell stack. elcoStack provides world leading efficiencies in both operating modes at low operating temperatures:

Hydrogen production at

33 kWh/kg

30% less than with alternative technologies

Fuel cell electrical efficiency

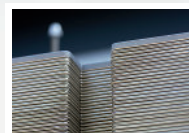
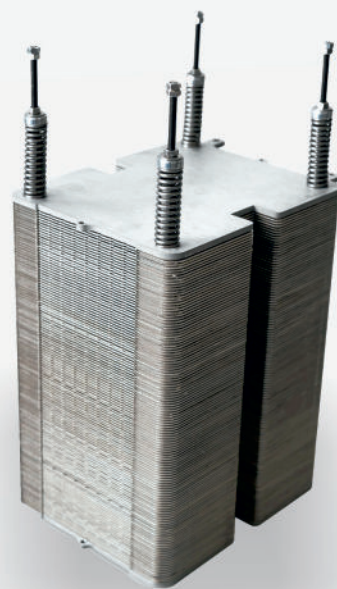
75%

About twice as efficiently as a combustion engine

Operating temperature

650°C

150°C lower than other solid oxide cell technologies



Find out more from elcogen.com



We enable the green energy transition, through our pioneering clean energy technology platform, for a sustainable world.

Technical data

elcoStack E3000	Fuel Cell (SOFC)	Electrolysis (SOEC)
Power	3000 W output	9000 W input
Electrical Efficiency	75%	-
Hydrogen Production Rate	-	3 Nm ³ per hour
Specific Energy Consumption	-	33 kWh/kg
Voltage	81 - 143 V	143 - 214 V
Maximum Current	30 A	60,5 A
Operating Temperature	580 - 720 °C	650 - 720 °C
Size	190(W) x 230(L) x 283(H) mm	
Weight	33 kg	

elcoModule®

To integrate the elcoStack E3000 into your fuel cell or electrolyser as simply as possible, we offer a range of stack modules. These consist of a compression system, gas manifolds and an air distribution structure which enables the elcoStack E3000 to achieve optimum performance. Modules for one and for four stacks are available, customised designs can be developed specifically for your application.



Examples of how our solid oxide technology helps to decarbonize different industries:

Combined heat and power (CHP):

elcoStack technology provides both electricity and heat in fuel cell mode, running on natural gas or renewable fuels like biogas and green hydrogen.

Industrial processes:

elcoStack based electrolyzers are the most efficient way to produce hydrogen for industrial users and can be integrated with high temperature processes.

Maritime:

elcoStack technology is an ideal choice to enable the use of alternative fuels like green ammonia and green methanol in the maritime industry.

Interested? Contact us!

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Elcogen is an Estonian-Finnish innovative fast growing company headquartered in Tallinn.

20+

years solid oxide development experience

150+

customers in 30 countries

100+

people & growing fast!

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Scan for more information

