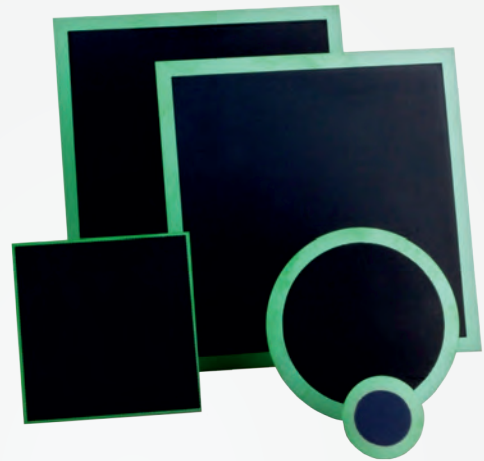


Designed for the highest efficiency in SOFC / SOEC

Highly-efficient, mass-manufactured planar solid oxide cells engineered for high performance at 600 to 750°C. Elcogen's patented elcoCell® technology delivers industry-leading electrochemical activity across multiple operating modes: fuel cell (SOFC), electrolysis (SOEC), co-electrolysis (co-SOEC), and reversible mode (rSOC).

We offer two standard product families (300-C and 400-B) for your stack development and manufacturing needs. Custom sizes and geometries can also be developed to meet specific customer requirements.



Hydrogen production at

30% less than with alternative technologies

33 kWh/kg

Fuel cell max electrical efficiency

About twice as efficiently as a combustion engine

75%

Operating temperature

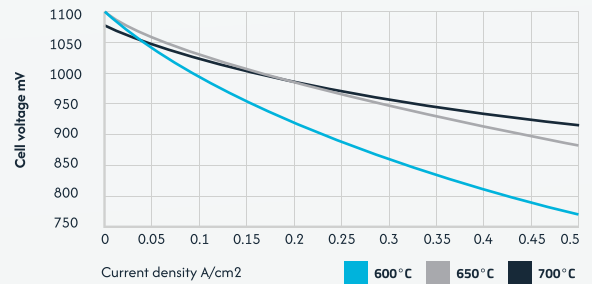
150°C lower than other solid oxide cell technologies

650 °C

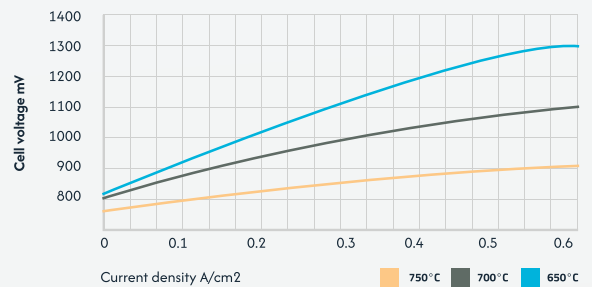


| Technical data | ASC-300C | ASC-400B |
|---|--------------|----------|
| Fuel contact layer | NiO | |
| Fuel electrode support composition | NiO/YSZ | |
| Fuel electrode functional composition | NiO/YSZ | |
| Electrolyte composition | YSZ | |
| Electrolyte thickness | 3 or 6 µm | |
| Half-cell thickness | 300 µm | 400 µm |
| Half-cell tolerance | ±30 µm | ±40 µm |
| Barrier composition | GDC | |
| Oxygen electrode composition | LSC | |
| Thickness of oxygen electrode | 15 µm | |
| Total thickness | 315 µm | 415 µm |
| Thickness tolerance | ±35 µm | ±45 µm |
| Suggested operating temp | 600-750°C | |
| Standard size (cell) | 12 x 12 cm | |
| Standard size of active area | 11 x 11 cm | |
| Different sizes available | 1 - 200+ cm² | |
| Different shapes available | Yes | |
| Half-cells available | Yes | |
| Contact layer of O2 electrode available | Yes | |

Elcogen Single CELL SOFC UI curve comparison
Anode feed: H₂ 902 mlpm; cathode feed: Air 2149 mlpm
Active Area: 103.5 cm² ; FU=0.2; AU=0.2



Elcogen Single Cell SOEC UI curve comparison
H₂ 93 mlpm Air 2149 mlpm
H₂O 835 mlpm RU 0,5



Elcogen's brand new factory, expanding production capacity to 360 MW:

