

# PEM\* fuel cell stack

Heavy duty / stationary carbon stack, 260 cm<sup>2</sup>, 10–120 kW



Robust, compact, scalable, durable and very low pressure drop for reduced BoP consumption



Best-in-class performance  
= 3.1 kW/L & 3.2 kW/kg



Long lifetime  
> 20,000 h



Operates from  
atmospheric pressure



Robust: freeze-start  
& unlimited start-stops



Cost killing < 250 €/kW  
for 1,000 stacks



Manufacturing  
can be licensed



Easy assembly with  
reduced parts count



IP shareable for product  
development

\* PEM: Proton Exchange Membrane

# Technical characteristics

## Configuration

# of cells	100	200	300
Power (kW)	34	68	102
Voltage (V)	65	130	195
Power density (kW/L)	2.2		Nominal
Volume (L)	14	28	42
Weight (kg)	14	28	42
Width x height (mm)	275 x 235		
Length (mm)	225	550	684
Cell pitch	2.25 mm		

Calculated with cell volume only (0.65 V, 1 barg, Air stoich 2.0, 75°C, 40% RH).

## Flexible integration

- Horizontal or vertical
- Fluid ports located on 1 or 2 sides
- Ready for CVM (Cell Voltage Measurement)

## Compliant with:

- Air or oxygen cathodic feed
- Multiple stacks within one system

## Strength of a Group

- Axane is the fuel cell division of Air Liquide group
- Air Liquide hydrogen solutions can be handled globally and worldwide
- Patented technologies



## Contacts

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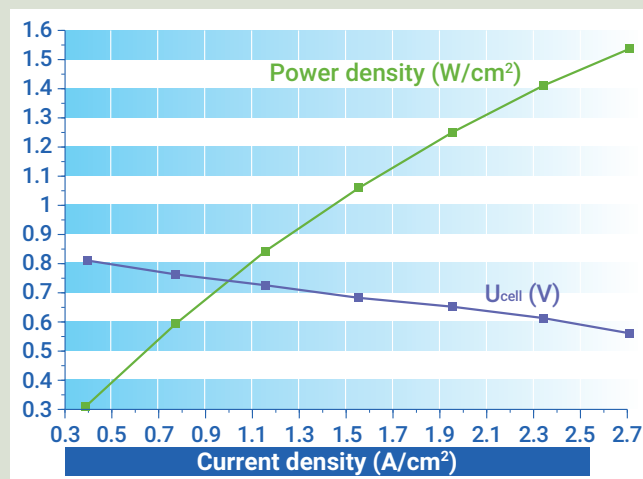


## Operational range

Air (or pure O <sub>2</sub> )	Pressure: between atmospheric and 2 barg
H <sub>2</sub>	PH <sub>2</sub> = P <sub>air</sub> ± 1,000 mbar, dead-end or recirculation
Coolant	ΔT < 10°C, DI water or anti frost: typically BASF Glycantin®

### C-260 polarization curve

ST<sub>air</sub> 2.0, HR<sub>air</sub> = 40%, T° = 75°C, P = 1 barg



More data on request (dry air, lower air stoich, etc.)



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