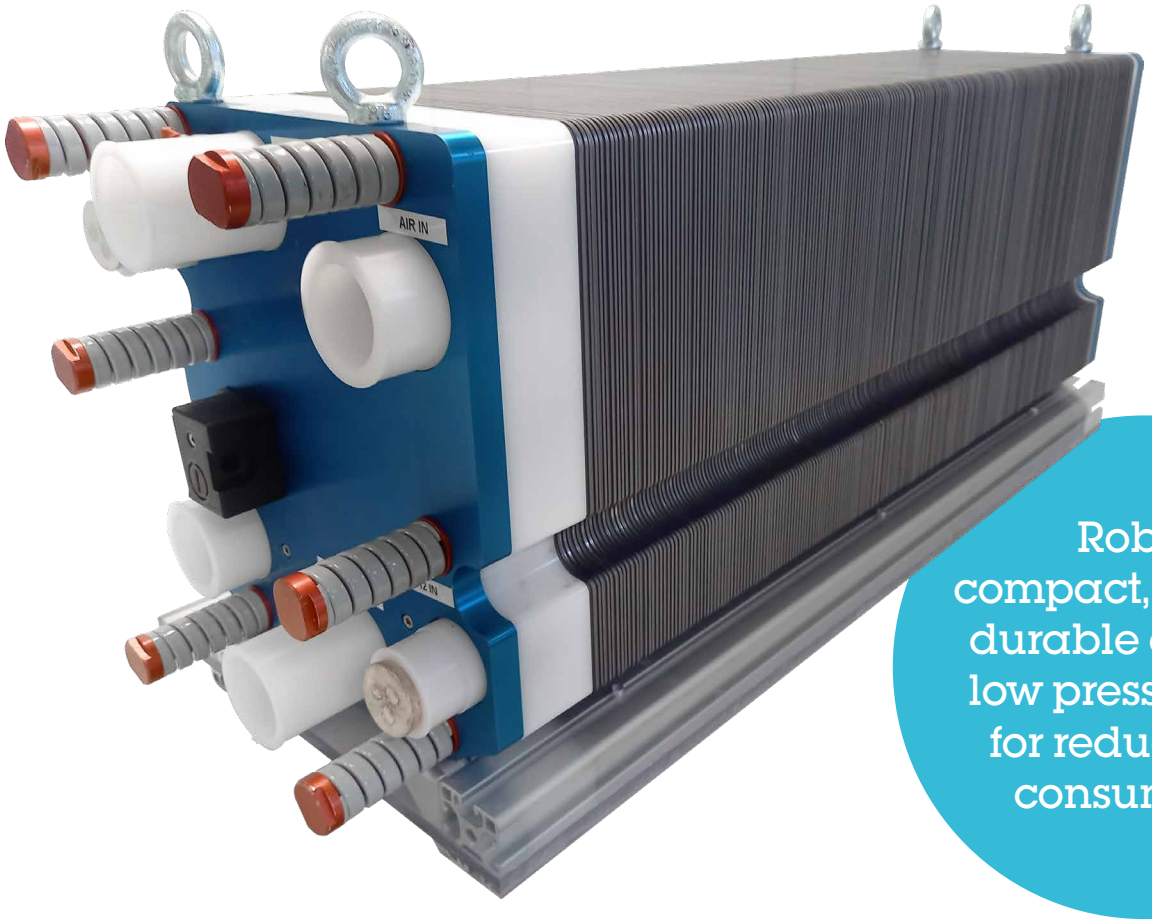
PEM* fuel cell stack C260

Heavy duty / stationary carbon stack, 260 cm², 10–120 kW



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

- Best-in-class max. = 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)	235 x 275		
Length (mm)	225	550	684
Cell pitch	2.25 mm		

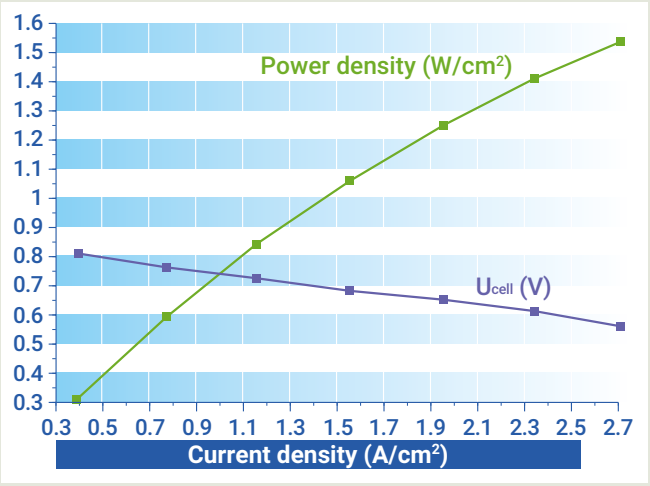
Calculated with cell volume only (0.65 V, 1 barg, Air stoich 2.0, 75°C, 40% RH).

Operational range

Air (or pure O_2)	Pressure: between atmospheric and 2 barg
H_2	$PH_2 = P_{air} \pm 1{,}000$ mbar, dead-end or recirculation
Coolant	ΔT<10°C, DI water or anti frost: typically BASF Glysantin®

C-260 polarization curve

ST_{air} 2.0, HR_{air} = 40%, T° = 75°C, P = 1 barg



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

Flexible integration

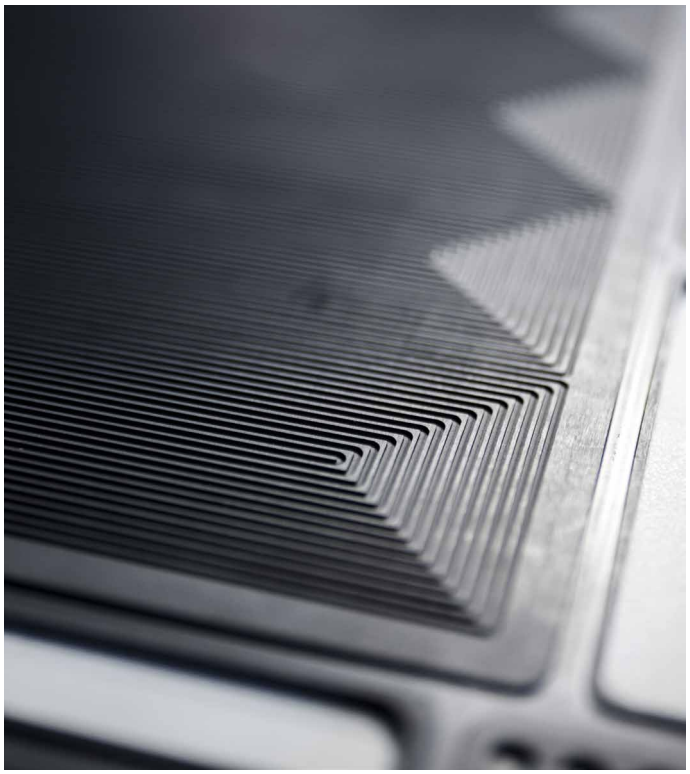
- Horizontal or vertical
- Fluid ports located on 1 or 2 sides
- Ready for CVM (Cell Voltage Measurement)

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



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