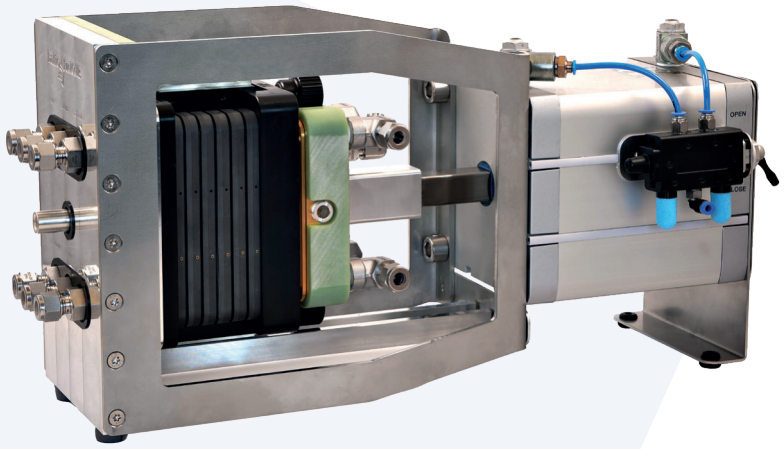
qCf short stack 5.25/125 LC

test equipment for fuel cells

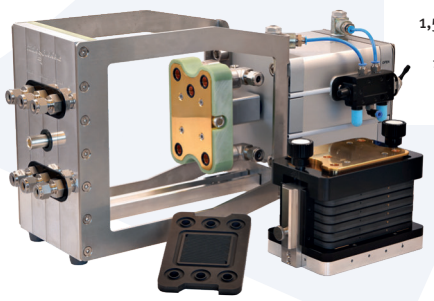
- quick and easy assembly thanks to stacking guide
- variable number of cells up to 5 cells
- 25 cm² active area per cell
- measurement of voltage and temperature per cell
- variable media flow possible
- temperatures up to 140 °C
- high reproducibility of measurement results



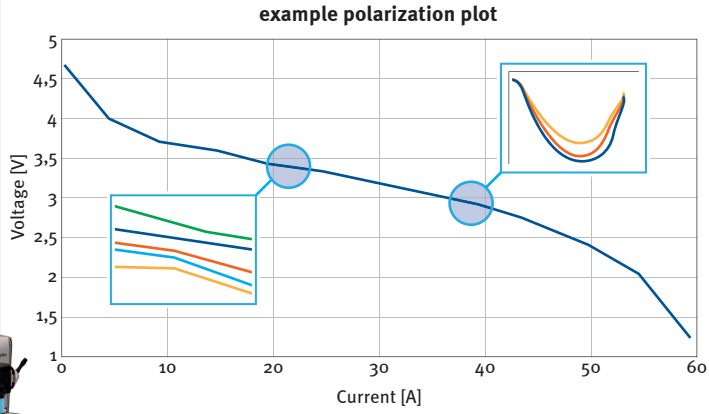
qCf short stack 5.25/125 LC	
number of cells	variable for 2 to 5 graphite cells; 25 cm² per cell, with stacking guide, each cell has a sensor for temperature and voltage
thickness of testing components	up to 0.9 mm per single cell
dimensions (LxWxH)	465 mm x 175 mm x 242 mm
weight (empty)	13.5 kg
temperature control	cooling/heating liquids (external thermostat)
operating temperature	up to 140 °C
maximum force	6.28 kN / 616 kg / 1412 lbf/ 2.5 N/mm² (at 8 bar/116 psi air supply)
air supply	Ø 4 mm; pneumatic 5/2-way valve
media supply (fuel/air)	Ø 8 mm (Swagelok-compatible)
electrical connections	sockets 1 mm for measuring lines (sense), sockets 8 mm for load lines (electronic load)
article no.	12800

The **quickCONNECTfixture (qCf) short stack test system** is an indispensable tool for the research and development of PEM fuel cell stacks with up to 5 cells. It fulfills the highest requirements and enables easy testing of various internal components such as membranes, electrodes, CCMs, MEAs and GDLs. The qCf short stack test system with its stacking device enables direct regulation of the contact pressure on the short stack with up to 5 cells per 25 cm² active area via a pneumatic actuator, creating fully reproducible test conditions. Flow fields and MEA components can be easily exchanged and tested under different operating conditions.

- operation with variable media flow, e.g. in U- or Z-configuration
- voltage and temperature measurement per single cell
- Stacking is carried out using a stacking guide
- continuously adjustable contact pressure assures full reproducibility of test conditions
- variable thickness of the internal fuel cell components
- no hose coupling and electrical wiring for replacement of cellFixture required
- quick and easy clamping/mounting of the cellFixture without tools required



example polarization plot



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