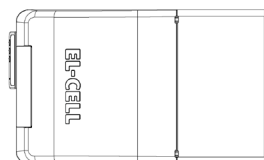
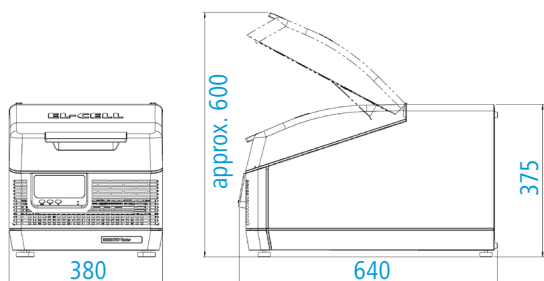


# PAT-Tester-i-16 Specifications

September, 2018



- Width: 380 mm
- Depth: 640 mm
- Height: 375 mm
- Weight: approx. 26 kg (without Cells)

General	
# Channels per device	1 to 16
Voltage	-7 V to +7 V
Current	±100 mA
Cell connection / Electrode connection	3 electrodes plus sense wires, switch matrix
ADC	2 x 24 Bit
DAC	1 x 18 Bit
Bandwidth ranges (Stability Factor)	500 KHz (fast) 50 KHz (medium) 5 KHz (slow)
Acquisition Time (Time Base)	1 ms
Internal Sample Buffer	100 GByte
Computer Interface	1 GBit Ethernet Runs standalone Multiuser

Voltage	
Acquisition of ...	Full cell voltage Both half cell voltages Auxiliary voltage
Measurement Accuracy	±0.02% of FSR
Control Resolution	57 µV (18 Bit)

Current	
Current Ranges	±100 mA ±10 mA ±1 mA ±100 µA Autorange
Measurement Noise floor	<1 µA @ 100mA <100 nA @ 10mA <10 nA @ 1mA <1 nA @ 100µA
Measurement Accuracy	±0.05% of FSR
Control Resolution	1 nA min. (18 Bit)

# PAT-Tester-i-16

## Specifications

Other	
Temperature Chamber	+10°C to +80°C, software controlled
Additional data input (each channel)	Digital (I <sup>2</sup> C) sensor signal, e.g. for cell temperature  Analog sensor signal, e.g. for gas pressure
Calibration	Fully automatic self-calibration with internal voltage reference and three internal calibration cells
Software	EL-Software with <ul style="list-style-type: none"><li>• Experiment designer</li><li>• Cell and material management with database</li><li>• Script editor</li><li>• Live data monitoring</li><li>• Analysing and reporting capabilities</li></ul>
Cell Identification	PAT-Button with unique serial number stored in EEPROM

Impedance (each channel)	
Frequency range	10 µHz to 10 KHz
Impedance mode	PEIS and GEIS (simultaneous measure- ment of full- and half-cell impedances)
Impedance range	0.1 Ω to 1 MΩ

