BATTERY TESTING

CELL LEVEL

PEC ACT0550: 80 channels
Voltage: 0 V up to 5 V
Current: 50 A
Parallel: Can be paralleled up to 4000 A

PEC SBT0550: 24 channels
Voltage: 0 V up to 5 V
Current: 50 A
Parallel: Can be paralleled up to 600 A

Digatron MCT 250-06-3 RE: 3 channels
Voltage: −6 V up to 6 V
Current: 250 A / 300 A (peak)
Parallel: Can be paralleled up to 750 A / 900 A (peak)
EIS-Meter: Electrochemical impedance spectroscopy for three channels
Other: Tabletop device, can be moved to other premises

MODULE LEVEL

PEC SBT10050: 12 channels
Voltage: 0 V up to 100 V
Current: 50 A
Power: 3 kW
Parallel: Can be paralleled up to 600 A and 36 kW

PACK LEVEL

AVL E-STORAGE
Voltage: 10 V up to 1000 V
Current: 600 A
Power: 320 kW
Container: Battery pack is placed inside a climate container, which has a temperature range from −32 °C up to +50 °C. It also includes a liquid cooling circuit with 10 kW cooling/heating power and temperature range of −10 °C up to +45 °C.
Mode: Can be used as a battery cycler or a battery emulator
Link: Integrated to the heavy-duty chassis dynamometer infrastructure, can be used to emulate a battery pack

ITECH IT6108C-1500-240, 2 units
Voltage: 1500 V
Current: 240 A
Power: 108 kW
Parallel: Can be paralleled up to 480 A and 216 kW
Container: TBD

OTHER EQUIPMENT

- Two thermal chambers (600 l & 110 l) for cell and module testing
- Two thermal ovens (60 l) for cell testing at high temperatures
- Gamry Reference 3000 potentiostat/galvanostat/ZRA and Reference 30K Booster for EIS measurement up to 20 V and 30 A
- foxBMS development platform for battery management system algorithm development and system integration

Contact:
Ari Hentunen, Senior Scientist
Tel. +358 40 550 0161, ari.hentunen@vtt.fi
Marko Paakkinen, Research Team Leader
Tel. +358 40 183 0255, marko.paakkinen@vtt.fi

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