AVL E-STORAGE SiC™

Join us in exploring new e-horizons

THE CHALLENGE

The increasing demand to electrify powertrains requires flexible (futureproof) equipment for various test and emulation activities. To ensure robust powertrain systems, increase e-drive efficiency or maximize battery performance, the adaptability for both, battery and powertrain applications is essential. Simultaneously bridging the gap between unlimited testing capabilities, achieving good quality and managing a proper testbed utilization is crucial for today's electrification business.

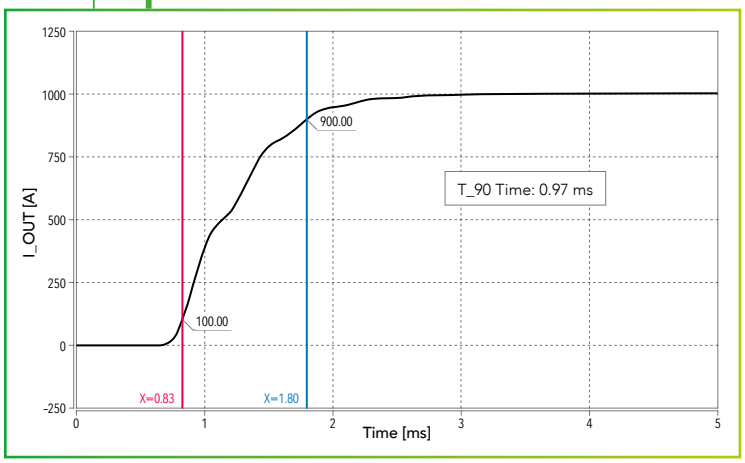
THE AVL SOLUTION

Unleashed SiC power in a new dimension. You can use AVL E-STORAGE SiC™ in your research and development, testing, and validation processes. In the newest generation of our E-STORAGE family, we have reduced the size of the device by 50 %. It can provide 25 % more power compared to previous generation, and it provides you the familiar AVL performance. Following a modular approach, E-STORAGE SiC helps future proof your processes with flexibility.

Combined with our Power Distribution Switch Box (PDSB) a matrix switch box, E-STORAGE SiC provides maximum configuration possibilities to the power and current requriements used at different testbeds.

HIGHLIGHTS

- Extended test range to cover UUTs > 800 V
- High power density with small footprint
- High dynamic performance combined with outstanding control and measurement accuracy
- Modular and scalable design concept
- One device for various testing applications



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For multi-device configurations via PDSB, all relevant signals are switched automatically (power lines, sense lines, communication lines and safety lines). This lets you make configuration changes with minimum effort, increasing the operation-time of the equipment. The PDSB offers a flexible configuration of up to four device channels, furthermore fixed parallelizations are possible without.

The device can detect which kind of testbed it is connected to. Based on this, it loads the optimized control parameters to guarantee the best testing performance. You can easily switch the device between different testbeds.

The AVL Ripple Emulator is fully compatible with the E-STORAGE SiC. Together they build a powerful system that can perform ripple tests or impedance measurements from 0.1 Hz to 200 kHz.

With the addtional water conditioning unit, we provide the integration to your facility.

TECHNICAL DATA

Power rating	275 kW, 550 kW
Max. DC output voltage	1,200 V
Max. DC output current	±1,000 A per channel
DC output channels	Up to 2
AC voltage (standard)	3 × 380 V to 3 × 480 V ±10 % 3 × 690 V ±10 %
AC frequency (standard)	47–63 Hz
Cooling system	Water cooled with optional water conditioning unit
Measurement accuracy	
Voltage and current	±0.1 % RMS of FS ±100 ppm FS (option)
Ambient conditions	
Operating temperature	5–40 °C
Max. installation altitude	2,000 m a.s.l.
Max. relative air humidity (non-condensing)	85 %
Protection class	IP54
Dimensions (incl. 200 mm plinth)	
275 kW 1 Channel	1,400 × 810 × 2,218 mm
275 kW 2 Channel	2,000 × 810 × 2,218 mm
550 kW 2 Channel	2,800 × 810 × 2,218 mm
Conformity to directives and standards	
Directives	2014/30/EU
Standards	EN 61000-6-2 EN 61000-6-4 EN 61000-2-4 KL3 EN55011 A1 > 20 kVA
Variants	
	275 kW 1 Channel 275 kW 2 Channel 550 kW 2 Channel
Water conditioning unit	
Coolent	Water
Cooling water temperature	6 to 25 °C
Cooling water flow rate	• 2 m³/h at 8 °C • 6 m³/h at 25 °C
Dimensions (incl. 200 mm plinth)	607 × 810 × 2,362 mm

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FIND OUT MORE

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