

Suitable for test systems

Electronic Power Supplies (EPS) provides the ELR-9000-HP electronic load with CAN and CANopen connectivity. It features TFT resistive touch panel.

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The electronic load comes in a 19-inch enclosure (Source: EPS)

Apart from basic functions of electronic loads, set point curves can be produced in the integrated function generator (sine, rectangular, triangular). The FPGA/DSP- based control circuit provides additional features such as a function and arbitrary generator, and a table-based regulation circuit for the control of dynamic load profiles. Additionally, the device can simulate non-linear internal resistances like the ones of batteries or LED chains.

The DC input range features voltages up to 1500 V, currents up to 510 A at power rating with 15 kW. The energy recovery function converts the supplied DC energy into a synchronous sine current and feeds it back into the 400 V or optional 208 V mains. Here an efficiency of up to 94,5 % will be reached. In common system, the energy from burn-in and battery-capacity tests is radiated into the environment. This energy can be recovered with this unit. In the battery test mode, even a battery can be discharged with a constant current. If the resistance of the battery voltage reaches an adjustable final discharge voltage, the load input is automatically switched off (deep discharge protection). The discharge time and consumed charge (Ah) are measured and displayed or alternatively recorded on a USB stick.

The CAN/CANopen interface can be used for remote control. It does not comply with a CiA-specified device profile. According to the German supplier the configuration is simple. Thus the loads may, for example, be operated with other loads or even other types of equipment using the digital interfaces. In addition, the devices offer the possibility to connect compatible power supplies via CAN/CANopen, in order to create a so-called two-quadrant system. This operation mode uses the source-sink principle for testing devices, components, and other parts. Operating in a master/slave connection allows the units to be combined to a single system with a total power of 240 kW at 10 000 A.

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