

## DC Electronic Loads Are Available Up To 4800 A

[Magna-Power Electronics](#) has expanded its offering of popular MagnaLOAD dc electronic loads to include low-voltage, high-current models up to 4,800 A. The ALx series of MagnaLOADs, which use conventional linear MOSFET-based dissipative elements combined with Magna-Power's latest robust MagnaLINK digital control platform, now features 21 new models up to 20 kW with among the widest voltage-current operating range available, according to the vendor. The ALx series high-current models are well suited for traditional 12-V and plug-in hybrid 48-V automotive applications, with one unit capable of operating at full power at both voltages (see the figure).

The ALx series now spans 27 models at different power levels from 1.25 kW to 20 kW, with voltage ratings ranging up to 1,000 Vdc and current ratings ranging up to 4,800 Adc continuous. Using the same heat management innovations developed for Magna-Power's high-density programmable dc power supplies, the ALx series' conservative cooling ensures long product life in environments up to 50°C ambient operating temperature.

Existing 1.25-kW and 2.5-kW models come in a 3U rack-mount enclosure, while the new 5-kW to 10-kW models come in a 12U enclosure and the new 12.5-kW to 20-kW models come in a 24U enclosure. Enclosure-size upgrades are available up to 36U to allow integration of other rack-mount products in the same enclosure.

To ensure compatibility with a variety of dc sources, the ALx series loads feature five control modes, including voltage control, current control, power control, resistance control, and a new mode called shunt regulator. While in shunt regulator mode, the MagnaLOAD acts like a high-power smart braking resistor, ensuring the dc bus does not exceed the programmed voltage threshold, while providing high-accuracy high-resolution measurements from the dc bus.

All MagnaLOAD products come standard with front and rear full control (host) USB ports, RS485, dual MagnaLINK ports for digital master-slaving, and a 25-pin D-Sub external user I/O connector with configurable pin mappings; LXI TCP/IP Ethernet and IEEE-488 GPIB interfaces are also available. Many different programming environments are supported via Standard Commands for Programmable Instrumentation (SCPI), and provided National Instruments LabVIEW and IVI drivers. For more information, see the ALx series product [page](#).



Figure. The ALx series of MagnaLOAD dc electronic loads features 21 new models with power levels up to 20 kW.