

Programmable Power Supplies Offer Ruggedized MIL-STD-810G Option

[Magna-Power Electronics](#), has announced a military-standard (MIL-STD) rated ruggedized option for its popular SL series and XR series programmable dc power supplies. Tested to MIL-STD-810G functional shock and vibration specifications, the new Ruggedized Option (+RUG) is now available on 235 models spanning power levels 1.5 kW to 10 kW, voltage levels from 5 Vdc to 10,000 Vdc and current levels from 0.2 Adc to 600 Adc (see the figure).

“Magna-Power products are designed for a broad range of applications. An assortment of build options are configured at time of order that tailor a product's performance and functionality to best satisfy customer requirements” said Grant Pitel, Magna-Power’s vice president of engineering. “The new ruggedization option continues Magna-Power’s design trend, in this case, by allowing the company’s economical commercial off-the-shelf (COTS) power supplies to be applied in high shock and vibration applications that have historically required specialized solutions.”

With the Ruggedized Option, the 1U SL Series spanning 1.5 kW to 8 kW and the 2U XR Series, spanning 2 kW to 10 kW are rated to comply the following standards:

- MIL-STD-810G CHG1 Method 516.7 Functional Shock, Procedure I; which subjects the product to 40G, 11-ms terminal sawtooth pulse; three shocks in each direction along three mutually perpendicular axes, and
- MIL-STD-810G CHG1 Method 514.7 Vibration; which subjects the product to two hours per axis along three mutually perpendicular axes.

All SL series and XR series models come standard with monitoring and control from a variety of sources, including: front panel, computer interface and an isolated analog-digital I/O connector. A Standard Commands for Programmable Instrumentation (SCPI) command set is supported, allowing easy ASCII text programming over a computer interface.

In addition, an IVI driver is included for the Visual Studio programming environment along with a dedicated National Instruments LabVIEW and LabWindows driver. Additional computer interface options include LXI TCP/IP Ethernet (+LXI), IEEE-488 GPIB (+GPIB), USB and RS-485.

SL series and XR series models are available with three-phase input, including 208 Vac, 240 Vac, 380 Vac, 415 Vac, 440 Vac, or 480 Vac. In addition, 1.5-kW models are also available with a single-phase active PFC universal input spanning 85 Vac to 265 Vac.

All Magna-Power products are designed and manufactured at the company’s vertically integrated headquarters in Flemington, New Jersey. For more information, see the product [page](#).



Figure. Tested to MIL-STD-810G, the Ruggedized Option allows Magna-Power’s SL series and XR series commercial programmable dc power supplies to be integrated in applications that have high levels of shock and vibration.