

1.5 kW To 8 kW Programmable Power Supplies Are Up To 95% Efficient

[Magna-Power Electronics](#) has announced an upgrade to its 1U SL series, now offering up to 95% efficiency and carrying a Nationally Recognized Testing Laboratory (NRTL) safety listing. With 99 different models, the SL series combines the latest power semiconductor technology with Magna-Power's signature robust current-fed power processing topology to deliver programmable power levels up to 8 kW.

With its advanced microprocessor control and feature set, the SL series provides the performance and functionality necessary to address cutting-edge applications, including aerospace test and measurement, automotive component testing, particle acceleration, semiconductor fabrication and component test, industrial and renewable energy, as well as general laboratory research and development.

According to the vendor, the upgraded SL series now boasts among the industry's highest efficiency in its class. Up to 95% efficient across a wide range of models, these power supplies provide significant energy savings for automated test equipment (ATE) product validation and burn-in, as well as reduced enclosure cooling requirements. With its carefully planned internal cooling layout, air flows only across heatsinks via side air intakes with rear exhaust, not across sensitive electronics.

This layout, along with the SL series efficiency gains, have allowed the product line to be expanded to higher power levels than are conventionally offered in a 1U package, while still maintaining continuous full power operation at a 50°C maximum ambient operating temperature.

Since the product line's initial introduction in 2015, and subsequent expansion in power range, the SL series quickly became Magna-Power's most popular product line. "The SL Series is proof that power density is king for rack-mount programmable power supplies," said Adam Pitel, chief executive officer of Magna-Power Electronics. He continued "the SL Series efficiency gains and NRTL listing directly support Magna-Power's strong OEM customer-base, providing significant savings in energy costs and regulatory approvals for our customer's products."

In addition to the CE Mark the product line has carried since its introduction, the SL series now carries an NRTL safety listing, meeting the relevant electrical safety standards testing requirements set forth by the U.S. Occupational Safety and Health Administration (OSHA). The SL series is now rated by Intertek to conform to UL61010-1:2012 Ed.3+R:29Apr2016 and certified to meet CSA C22.2#61010-1-12:2012 Ed.3. The SL series Gen 2 is also released with all new HTML-based user documentation, now available from Magna-Power's website.

SL series models are available at power levels of 1.5 kW, 2.6 kW, 4 kW, 6 kW and 8 kW with three-phase ac input options, including: 208 Vac, 240 Vac, 380/400 Vac, 415 Vac, 440 Vac, or 480 Vac. In addition, 1.5-kW and 2.6-kW models are also available with a single-phase active PFC universal input (UI/UI2).

All models come standard with monitoring and control from a variety of sources, including front panel, computer interface and an isolated analog-digital user I/O connector for PLC and high-speed power in the loop (PIL) integration. A Standard Commands for Programmable Instrumentation (SCPI) command set is supported, allowing easy ASCII text programming over any available 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. All SL series products come standard with a rack-mount kit for rear support when installed into a rack enclosure.

The upgraded SL Series Gen 2 is now shipping for all existing and future orders. For more information, see the [website](#).