ML 系列

Programmable DC Power Supply

认证



功率	电压	电流	型号
500 kW to **10** MW+	**100** Vdc to **6000** Vdc	**83** Adc to **5000** Adc (per unit)	**38**

1 描述

Magna-Power Electronics 的 ML 系列从头开始设计，旨在设定功率密度和性能的新标准。利用先进的水冷技术，500 kW 和 1,000 kW ML 系列型号的功率密度比 Magna-Power 的其他空气冷却型号增加了近四倍。通过在主从并联配置中连接，ML 系列可以达到超过 10 MW 的功率水平。基于 Magna-Power 标志性的可靠电流馈电功率处理拓扑和创新的谐波中和技术，ML 系列电源提供可靠且高效的电能转换，具有低谐波失真。这些电源在新泽西州 Flemington 设计和制造，体现了 Magna-Power 对质量、可靠性和先进工程的承诺。

2 主要特点

- 500 kW 和 1,000 kW 型号；可扩展至 10 MW
- 12 位精度控制
- 使用 SCPI 命令进行远程编程
- 可编程保护功能
- 用于外部紧急停止的安全联锁
- LabVIEW 驱动程序
- 环境温度高达 50°C 的连续全功率操作
- 37 针模拟-数字用户 I/O 端口
- 集成电磁阀用于冷凝控制
- 高性能主从控制
- 本地、远程和无引线电压感应
- 提供标准 RS232 和 LAN TCP/IP 以太网通信选项
- 包括 RIS Panel 软件平台
- 美国制造

3 可用集成选件

+ISO	High Isolation Output
+HS	High Slew Rate Output
+GPIB	IEEE-488 GPIB
+BD	Integrated Blocking Diode
+LXI	LXI TCP/IP Ethernet

4 产品规格

规格如有变更，恕不另行通知。除非另有说明，所有规格均在产品的最大额定值下测量。

4.1 AC Input Specifications

参数	值	条件
Input Voltages Available	440 Vac, 3-phase 480 Vac, 3-phase	AC Input voltage specified at time of order and cannot be modified
Input Voltage Tolerance	± 10%	
Input Voltage Frequency	50-60 Hz	
Power Factor	> 0.96	Measured at max power
Input Isolation	± 2000 Vdc	Measured line-to-ground
AC Circuit Protection	UL/CSA listed circuit breaker	

4.2 DC Output Specifications

参数	值	条件
Voltage Ripple	Model specific. Refer to models table.	
Line Regulation	Voltage control: ± 0.04% of rated voltage Current control: ± 0.03% of rated current	
Load Regulation	Voltage control: ± 0.02% of rated voltage Current control: ± 0.06% of rated current	
Stability	± 0.10%	FWHM, measured at 25ºC over 8 hrs after 30 min warm-up
Temperature Coefficient	Voltage control: 0.04%/°C of rated voltage Current control: 0.06%/ºC of rated current	
Efficiency	Up to 96%. Model specific. Refer to Models table.	
Slew Rate	< 170 ms, output voltage change from 0 to 63% < 200 ms, output current change from 0 to 63%	Standard Models
Slew Rate	< 5 ms, output voltage change from 0 to 63% < 10 ms, output current change from 0 to 63%	Models with High Slew Rate (+HS) Option
Output Isolation	± 1500 Vdc	Measured output-to-ground, models rated ≤ 1000 Vdc
Output Isolation	± 6000 Vdc	Measured output-to-ground, models rated > 1000 Vdc or models with High Isolation Output (+ISO) option

4.3 Programming Specifications

参数	值	条件
Resolution, Digital Programming	12-bit, 0.025% of rated voltage, current or power	Front panel or communication interfaces
Accuracy, Programming	Voltage: ± 0.075% of rated voltage Current: ± 0.075% of rated current	Output value to set point value
Accuracy, Measurement	Voltage: ± 0.20% of rated voltage Current: ± 0.20% of rated current	Output value to returned value
Trip Settings Range	Over Voltage: 10% to 110% of rated voltage Over Current: 10% to 110% of rated current	
Computer Command Protocol	Standard Commands for Programmable Instruments (SCPI) (ASCII-based commands)	
Remote Sense Limits	3% maximum voltage drop from output to load	Wired; Available on Models Rated ≤ 1000 Vdc

4.3 Programming Specifications

参数	值	条件
Analog I/O	Analog programming inputs: 0-10 V Analog programming impedance: 10 kΩ Analog measurement outputs: 0-10V, 5 mA capacity Analog measurement impedance: 100 Ω Analog reference signal: 10 V, 5 mA capacity, 1 Ω	4 analog programming inputs, 2 analog measurement outputs, Reference signal provided
Digital I/O	Digital control inputs: 5 V Digital control inputs impedance: 10 kΩ Digital monitoring outputs: 5 V, 5 mA capacity Digital reference signal: 5 V, 25 mA capacity	5 digital control inputs, 15 digital monitoring outputs, Reference signal provided

4.4 Interace Specifications

参数	值	条件
Front Panel Programming	Two machined aluminum 10-turn knobs and keypad	
Communication Interfaces	RS232: D-sub DB-9, Female	Standard
Communication Interfaces	LXI TCP/IP Ethernet (+LXI): RJ-45	Optional
External User I/O Port	37-pin D-sub DB-37, female Referenced to ground; isolated from the DC output See User Manual for pin layout	Standard

4.5 Physical Specifications

参数	值	条件
Size & Weight	76.4” H x 72” W x 31.5” D (194.1 x 182.9 x 80.0 cm) 6800 lbs (3084 kg)	500 kW models
Size & Weight	Ships as two components: 1000 kW Power Supply 76.4” H x 72” W x 31.5” D (194.1 x 182.9 x 80.0 cm) 4750 lbs (2155 kg) 1000 kW Harmonic Neutralizer 76.4” H x 48” W x 31.5” D (194.1 x 121.9 x 80.0 cm) 4350 lbs (1973 kg)	1000 kW Models

4.6 Environmental Specifications

参数	值	条件
Ambient Operating Temperature	0°C to 50°C	
Storage Temperature	-40°C to +85°C	
Humidity	Relative humidity up to 95% non-condensing	
Air Flow	Bottom air inlet, top exhaust	To ensure even heat distribution for water cooling system
Water Coolant Supply	Maximum inlet temperature: 25ºC Maximum inlet pressure: 80 psi Inlet and outlet fittings provided: 1” Female NPT Materials in coolant path: Copper pipe, PEX tubing, brass solenoid & fittings	Requirement for supplied coolant
Minimum Coolant Flow Rate	9 GPM	500 kW models
Minimum Coolant Flow Rate	15 GPM	1000 kW models

4.7 Regulatory Specifications

参数	值	条件
EMC	Complies with 2014/30/EU (EMC Directive) CISPR 22 / EN 55022 Class A	
Safety	Complies with EN61010-1 and 2014/35/EU (Low Voltage Directive)	
CE Mark	Yes	

5 型号订购指南

MLD1250-800/480+LXI

- LXI — Integrated Options
- 480 — AC Input Voltage (Vac)
- 800 — Maximum DC Output Current (Adc)
- 1250 — Maximum DC Output Voltage (Vdc)
- D — Front Panel Type
- MLD — Product Series

6 型号

Max Voltage Vdc	500 kW Max Current Adc	1000 kW Max Current Adc	Ripple mVrms	Efficiency
100	5000	–	100	91%
125	4000	–	100	91%
160	3125	–	120	92%
200	2500	5000	125	92%
250	2000	4000	130	92%
300	1666	3333	160	93%
375	1333	2666	170	93%
400	1250	2500	180	95%
500	1000	2000	220	95%
600	833	1666	300	95%
800	625	1250	400	96%
1000	500	1000	500	96%
1250	400	800	500	96%
1600	312	625	600	96%
2000	250	500	800	96%
2500	200	400	900	96%
3000	166	333	1000	96%
4000	125	250	1100	96%
5000	100	200	1500	96%
6000	83	166.6	2000	96%

7 特点

High power density, water cooled megawatt-scale DC power systems

高密度水冷性能

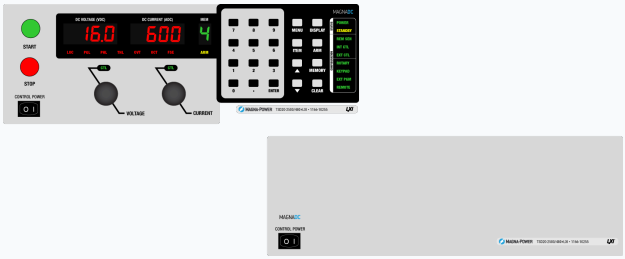
从 500 kW 到 10 MW+ 的清洁、精确输出。



ML 系列可编程 DC 电源利用先进的水冷冷板和内部歧管，在每个机柜中实现 500 kW 和 1,000 kW 的输出功率，效率高达 96%，功率密度比同类风冷机型高出近四倍，且在 50°C 环境温度下仍可满额定功率运行。ML 系列基于 MagnaDC 的电流馈电拓扑结构，提供 12 位（0.025%）编程分辨率、严格的线路/负载调节，以及 ±0.075% 的电压和电流编程精度和低纹波——为多兆瓦级测试和工艺系统带来实验室级性能。

无级前面板控制，可选空白面板

需要操控时触手可及，无需时隐于无形。



The standard SL front panel provides rotary and key-based control, bright digital metering, and clear status indicators, so operators can configure setpoints, start and stop the supply, and see system health at a glance. For OEMs and production tools, the optional blank (C-version) front panel removes local controls altogether while retaining full control via communication interfaces and rear 37-pin user I/O, keeping systems secure, clean, and operator-proof.

按需配置，集成选项

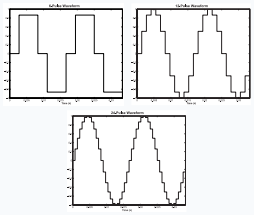
丰富的标准功能，按需扩展。



Like the rest of the MagnaDC line, MT Series supplies start with a strong control base: SCPI over RS232, isolated rear User I/O, LabVIEW and IVI drivers, and Remote Interface Software included. From there, integrated options let you tailor each system for its role—High Isolation Output (+ISO) for extended series stacking, High Slew Rate Output (+HS) for faster dynamics, LXI TCP/IP Ethernet (+LXI) and IEEE-488 GPIB (+GPIB) for additional communications, plus protection and mechanical options such as an Integrated Blocking Diode (+BD) and Pedestal Base (+PB) for fixed installations.

谐波中和器，打造更纯净的大功率系统

从源头降低 THD，更轻松地满足电能质量合规要求。



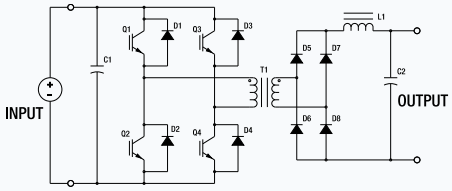
输入电流谐波是三相整流器的固有副产物：标准 6 脉波前端会在基波的 1、5、7、11、13……倍频处产生谐波电流，其中仅 5 次和 7 次谐波分量就分别约占基波的 20% 和 14%。这些电流可能激励敏感负载（如带有串联电容器/电感器的照明镇流器），并使满足 IEEE 519 等电能质量标准变得更加困难。减少谐波问题最可靠的方法是从源头消除谐波电流。

针对大功率系统，Magna-Power 制造了特殊绕制的谐波中和器，可增加输入相数并以无源方式大幅降低输入电流 THD。标准 1.5–150 kW 的 Magna-Power 电源采用 6 脉波波形，而 250 kW MT Series 和 500 kW ML Series 型号内置 12 脉波谐波中和器，1000 kW ML Series 型号内置 24 脉波谐波中和器——对用户完全透明。

Rugged by design: safety + reliability, as you'd expect from Magna-Power.

可靠的电流馈电功率处理

坚固耐用的设计：自保护拓扑结构，确保持续运行。



The SLx Series uses a high-frequency, current-fed architecture that adds a control stage beyond conventional voltage-fed designs. This topology inherently limits fault energy—avoiding fast-rising current spikes and magnetic core saturation so the supply self-protects and your load stays safe. Paired with state-of-the-art SiC power semiconductors, SLx delivers class-leading power density, efficiency, and reliability, including continuous full-power operation up to 50°C ambient.

- Current-fed architecture with an added control stage vs. voltage-fed.
- Inherent surge immunity—no current spikes or core saturation.
- Self-protecting behavior under fault conditions.
- SiC devices for high density and efficiency; full power to 50°C.

安全功能与互锁

软启动、可编程保护以及机械线路断开装置，提供真正的安全保障。



MagnaDC supplies start gently and watch continuously. A soft-start stage keeps inrush below steady-state draw, while built-in diagnostics monitor line, thermal, and control conditions. In standby or on a diagnostic fault, an embedded AC contactor mechanically disconnects the mains, assuring the unit only processes power when intended. Faults are shown on the front-panel status display, through 5V digital outputs, and are queryable via SCPI.

- Programmable trips: Over voltage (OVT) and over current (OCT)/
- Control integrity: Program-line over-voltage detection.
- Thermal protection: Over temperature on internal heatsinks.
- Interlock/E-stop fault monitoring as a standard diagnostic.
- Field integration: 5V interlock input (with 5V reference) for a dry-contact, latching inhibit with control power maintained.

From lab scripts to factory PLCs, flexible programming & integration.

轻松实现软件集成

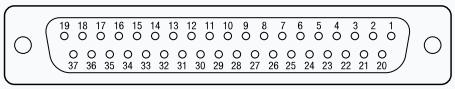
可读命令，快速响应——兼容任何编程语言。

MagnaDC 电源提供清晰的文本 API 接口，支持原生 SCPI———一种通过套接字通信发送的 ASCII 命令语言。超过 40 条详细文档化的命令涵盖启动/停止、电压和电流设定值、高精度测量以及完整配置——让您的脚本和系统从概念验证快速迈向生产部署。

- SCPI 命令集，行为一致可靠。
- 启动/停止与保护功能：启用输出、设置跳闸限值、查询状态。
- 高精度读取：电压、电流、功率及检测反馈。
- 面向开发者的文档与示例。

用于 PLC 控制或 PHIL 仿真的外部用户 I/O

像 I/O 模块一样接线——无需额外隔离。



Via the included rear 37-pin User I/O connector, MagnaDC supplies can be fully driven and monitored by external signals or a PLC. Voltage, current, OVT, and OCT set points are programmed with 0–10 V analog inputs, while each diagnostic condition has its own +5V digital status pin. Built-in +2.5V, +5V, and +10V reference rails let you use dry contacts without adding external supplies. All I/O is isolated from the output and referenced to earth ground as standard.

- 0–10 V analog programming for V, I, OVT, and OCT.
- Per-fault digital outputs: each diagnostic has its own +5V pin.
- Isolated user I/O referenced to earth ground—no extra isolators.
- With High Slew Rate Output (+HS), high-bandwidth response and fast rise times support HIL/PHIL simulation applications.

高性能主从操作

在不牺牲性能的前提下扩展电压或电流。

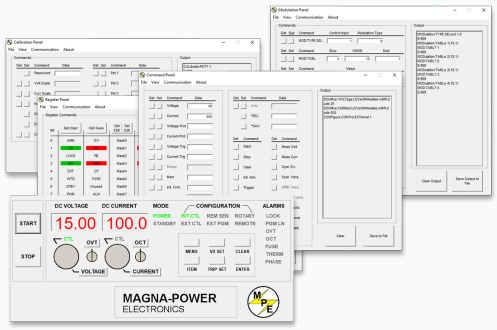


All MagnaDC supplies support master-slave operation, using gate-drive signals from the master when configured for parallel, so the whole stack behaves like a single supply—with one control loop and no noisy long analog references. The optional UID47 accessory simplifies wiring for series or parallel sets with near-equal sharing.

- Single control loop parallel operation: Master gate-drive to slaves for consistent dynamics.
- Plug & play with the UID47, enabling parallel or series stacks with current/voltage sharing.
- Series up to the DC isolation rating without added hardware.
- No additional ORing diodes required for parallel operation.

Magna-Power 软件、LabVIEW 和 IVI 驱动程序

从虚拟前面板到全自动化——开箱即用。



每台 MagnaDC 电源均包含 IVI 驱动程序和 NI LabVIEW 驱动程序，提供完整的 VI 集以及示例程序，让您在几分钟内即可与硬件通信。如需通过 PC 进行直接的前面板式控制，Magna-Power 远程接口软件可提供电源的全面视图——从命令和寄存器到校准和固件。

- 随附 IVI 和 NI LabVIEW 驱动程序及完整 VI 集。
- 示例程序助您快速启动集成和测试。
- 远程接口软件包含：
  - 虚拟前面板，用于手动控制
  - 命令面板，用于浏览和发送命令
  - 寄存器面板，用于实时状态监控
  - 校准面板，用于内部数字电位器
  - 固件面板，用于就地升级
  - 调制面板，用于模拟非线性曲线
- 所有通信接口在软件和驱动程序中均受支持，提供一致的编程体验。

State-of-the-art USA manufacturing with worldwide support

美国制造

垂直整合制造，实现全面质量管控。

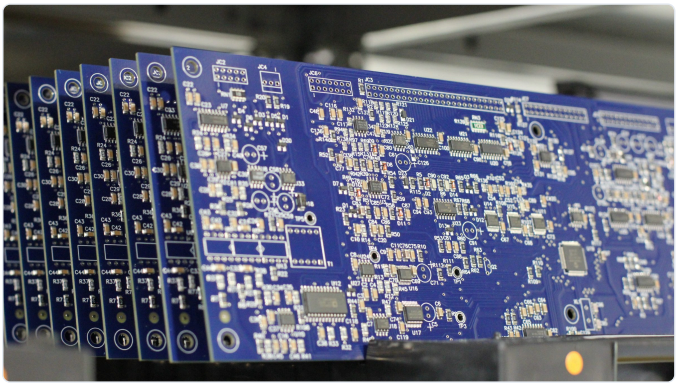


Magna-Power 产品的设计、制造、测试和售后服务均在位于新泽西州弗莱明顿的 Magna-Power 总部完成，总部面积达 73,500 平方英尺。金属加工、磁性元件制造、PCB 组装和老化测试均在内部完成，从而严格把控质量、成本和交货周期。

- 美国制造：工程设计、生产制造和售后服务集于一处。
- 内部生产：金属加工、磁性元件、SMT PCB 和表面处理。
- 可靠性验证：每台设备均经过全面测试、校准和老化试验。

全球服务与 OEM 零部件支持

工厂级专业技术，本地化响应。



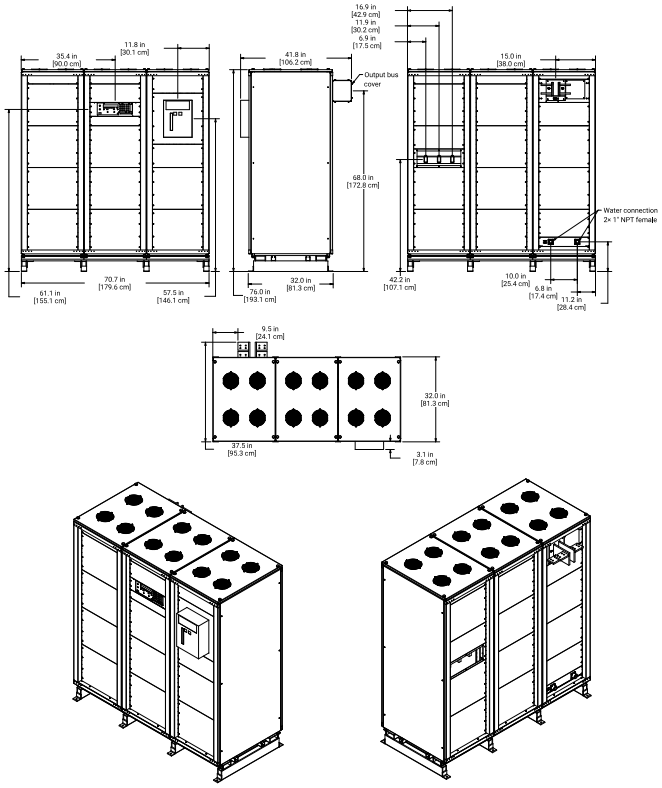
Magna-Power 以工厂及授权服务中心为其产品提供全面支持，服务网络覆盖北美、欧洲、英国、亚太、东亚及南美地区。无论是否在保修期内，均采用工厂标准流程和原厂零部件，将设备恢复至出厂规格。

- 全球覆盖：总部位于新泽西州，并设有多个区域授权服务中心。
- 一致的维修标准：采用工厂诊断流程、作业指导书和系统图纸。
- 原厂 OEM 零部件：经过测试的替换组件，确保可靠、高效的维修服务，最大限度减少停机时间。

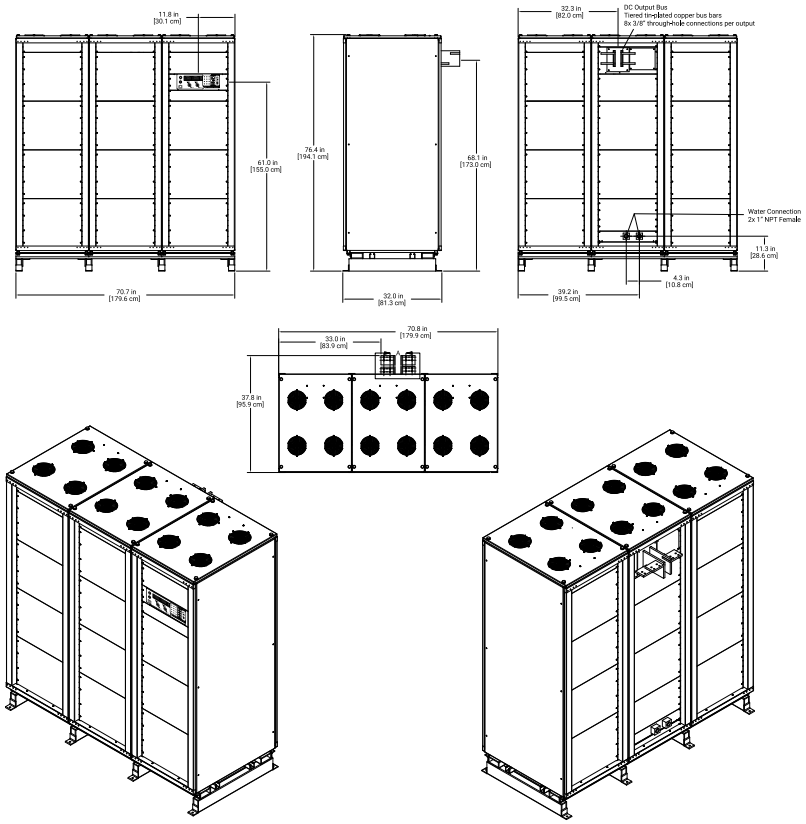
8 图纸

500 kW Power Supply

12-pulse harmonic neutralizer integrated

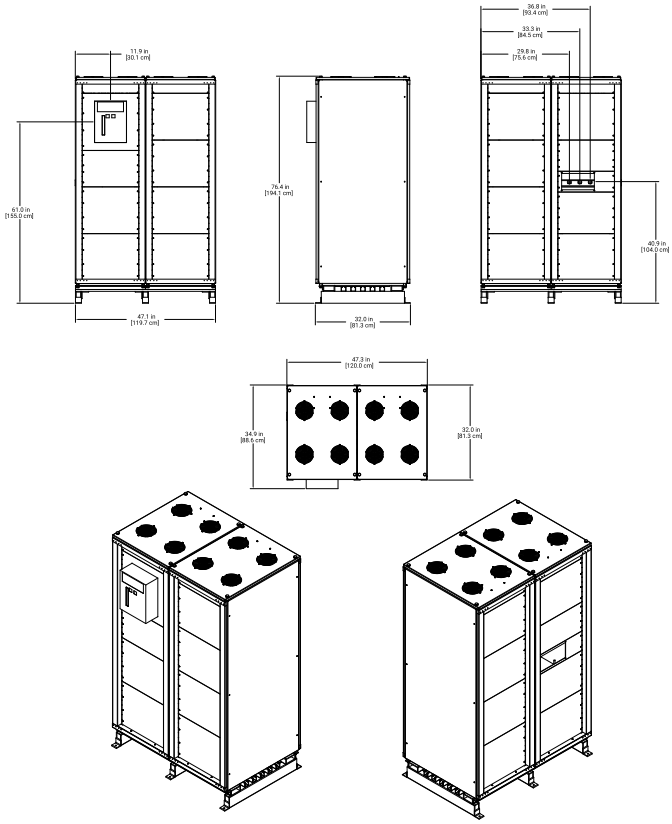


1000 kW Power Supply

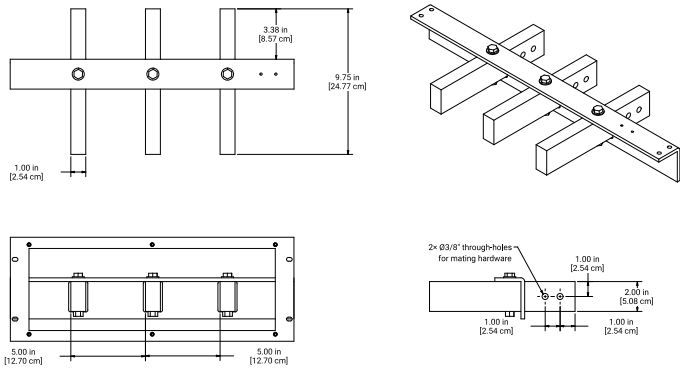


1000 kW Harmonic Neutralizer

24-pulse, integrated with power supply at install

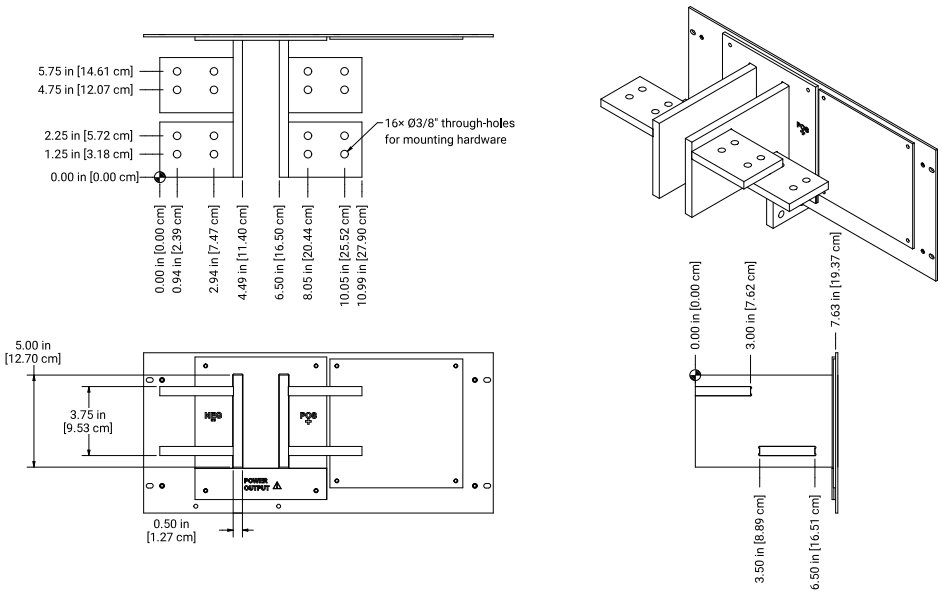


AC Input Bus



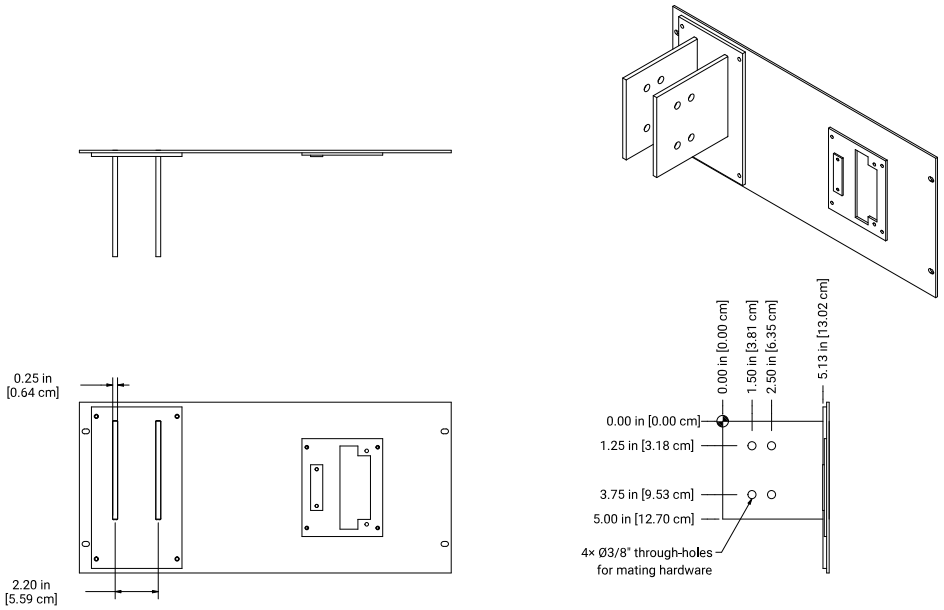
DC Output Bus

Models with Maximum DC Output Voltage ≤ 500 Vdc



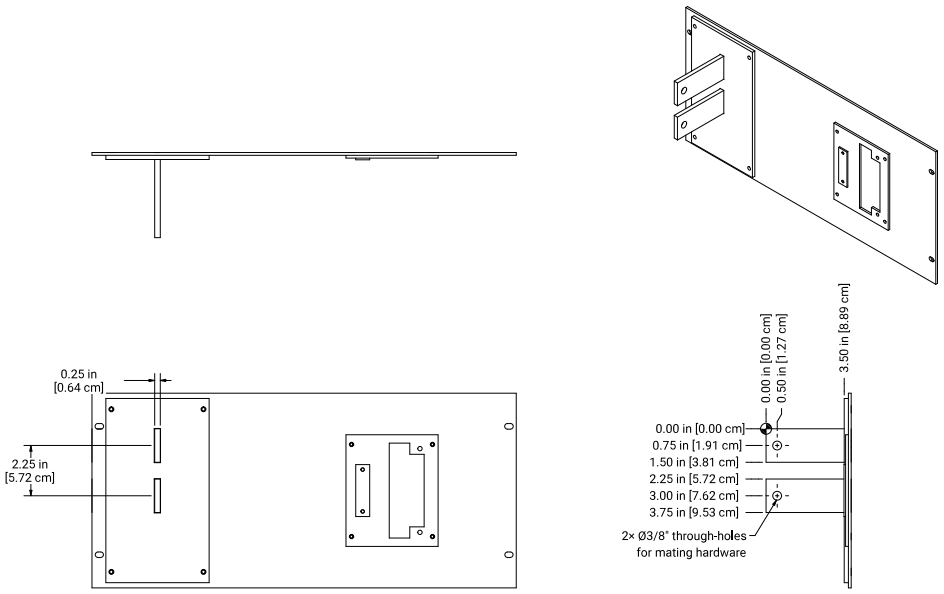
DC Output Bus

Models with Maximum DC Output Voltage > 500 Vdc, ≤ 2000 Vdc



DC Output Bus

Models with Maximum DC Output Voltage > 2000 Vdc, ≤ 6000 Vdc



9 可用集成选件

+ISO High Isolation Output

适用于额定电压为 250 Vdc 至 1000 Vdc 的型号，+ISO 选项可大幅提升输出隔离性能，适用于应用需要浮地连接或将设备串联且超出标准 ±1000 Vdc 输出隔离额定值的情况。

Certain applications require floating the output voltage to values beyond the power supply isolation rating. Magna-Power's High Isolation Output Option (+ISO) enables any TS Series or MT Series model with a peak output voltage rating of 250 Vdc through 1000 Vdc to be rated for a higher voltage output isolation. Improved isolation is achieved by a novel output stage with improved controller isolation. In addition to being able to float the power supply to a higher output voltage, this option also enables lower voltage units to be tied together in series up to its new higher isolation rating, in accordance with the table below.

Availability

The +ISO option is available for models with maximum output voltage rating from 250 Vdc to 1000 Vdc from the following product series:

- TS Series

- MT Series
- ML Series

The +ISO option cannot be combined with the +BD or +WC options. Addition of the +ISO option will cause the product's wired remote sense feature to be removed.

Specifications

The output isolation for Magna-Power Electronics TS Series and MT Series programmable DC power supplies is as follows, where Vo is output voltage rating of the particular model:

Product Series	DC Output Isolation (Standard) (Models Rated Up to 1000 Vdc)	DC Output Isolation (With +ISO Option) (Models Rated Up to 1000 Vdc)
TS Series	±1000 Vdc, max output voltage to ground	±(3000 Vdc + Vo/2), max output voltage to ground, where Vo is the max rated voltage
MT Series	±1000 Vdc, max output voltage to ground	±6000 Vdc
ML Series	±1500 Vdc, max output voltage to ground	±6000 Vdc

+HS High Slew Rate Output

一种硬件和控制修改方案，将标准输出级替换为低电容薄膜电容器和/或高均方根电流额定铝电解电容器。此选项可提供更高带宽以及更快的输出上升和下降时间。

The high slew rate option solves several limitations inherent in switching power supply design. Rapid voltage transitions require internal electronics to supply the energy to charge and discharge output capacitors. Peak currents internal to the power supply define slew rate; utilizing less capacitance enables voltage transitions in shorter time periods. Additionally, less capacitance reduces requirements for discharge demands during open circuit conditions.

The standard output stage Magna-Power Electronics power supplies has been designed to provide the lowest possible output ripple voltage within the constraints of available components, size, and cost. Part of the output stage consists of a bank of aluminum electrolytic capacitors which has the desired electrical properties to provide this function. These components require bleed resistors to discharge any voltage when the power supply has no load and is disabled. While the presence of these components and the resulting performance are normally industry accepted, there are applications where lower output capacitance and lower loss bleed resistors are extremely desirable and higher ripple voltage is acceptable. To meet this need, a high-slew rate option is available which has an output stage consisting of low capacitance film and aluminum electrolytic capacitors and lower loss bleed resistors. Applications for the high-slew rate option include battery charging, photovoltaic emulation, power waveform generation, and medium speed power pulsing. These applications all benefit from higher bandwidth and in many cases, can tolerate increased ripple voltage.

Key Applications

For **battery charger applications**, output capacitance and internal bleed resistors present themselves as a load to the connecting batteries. One common practice is to use a series diode to block reverse current flow with the sacrifice of increased cost and lower efficiency. The high slew rate option, with its lower output capacitance and lower loss bleed resistors, enables direct connection to batteries without series blocking diodes.

For **photovoltaic emulation applications**, higher bandwidth and lower output capacitance enable improved performance with higher speed, maximum power tracker algorithms. Maximum power tracker circuitry deviates the operating point of photovoltaic arrays to determine maximum power output. Slow responding emulation sources can present a problem when the speed of the algorithm exceeds that of the source. Furthermore, with lower output capacitance, changes in the operating point and transients, caused by shorting the solar inverter input, produce lower unwanted input currents.

The high-slew rate option enables the power supply to operate as a **low frequency, power pulse generator**. With the special capacitors selected for this option, it is possible to superimpose waveforms or produce a medium speed pulse on top of the dc output and expect normal capacitor life. It is important to note that the power supply output is single quadrant; that is, the output voltage or current cannot reverse.

Specifications

SL Series Output Stage Ratings with the High Slew Rate Output Option Integrated

Voltage Maximum Rating (Vdc)	Output Capacitance (uF)	Output Voltage Ripple (Vrms)
5	4235	0.5
10	1740	0.6
16	1740	0.6
20	775	0.6
25	775	0.8
32	775	0.8
40	760	1.5
50	760	1.5
60	760	2.0
80	110	1.5
100	110	1.6
125	70	1.7
160	70	1.8
200	70	1.8
250	70	1.8
300	70	1.8
375	70	1.8
400	70	1.8
500	40	2.0
600	40	2.2
800	30	2.5
1000	30	3.4
1250	–	3.4
1500	–	4.0

XR Series Output Stage Ratings with the High Slew Rate Output Option Integrated

Voltage Maximum Rating (Vdc)	Output Capacitance (uF)	Output Voltage Ripple (Vrms)
5	13200	1.5
10	4080	1.6
16	4080	1.7

Voltage Maximum Rating (Vdc)	Output Capacitance (uF)	Output Voltage Ripple (Vrms)
20	2340	1.8
25	1170	1.8
32	1170	1.8
40	240	1.8
50	240	1.8
60	240	2.0
80	240	2.2
100	160	2.5
125	160	3.0
160	160	2.8
200	160	4.0
250	160	1.6
300	160	1.8
375	160	1.8
400	160	1.8
500	56	3.0
600	56	3.0
800	52	3.0
1000	52	3.0
1250	18	3.5
1500	18	3.5
2000	18	5.0
3000-10000	—	—

TS Series Output Stage Ratings with the High Slew Rate Output Option Integrated

Voltage Maximum Rating (Vdc)	Output Capacitance (uF)	Output Voltage Ripple (Vrms)
5	13200	0.5
8	9000	0.5
10	9000	0.5
16	4080	0.5
20	2340	0.8
25	2340	0.8
32	1170	0.8
40	1170	0.8
50	1170	0.8
60	300	1.2
80	300	1.2
100	200	1.6
125	200	1.6
160	200	1.6
200	200	2.0
250	200	2.0
300	200	2.2
375	200	2.2
400	200	2.4
500	200	2.7
600	120	2.6
800	70	2.6
1000	60	3.5
1250	18	3.5
1500	18	4.3
2000	18	3.8
3000	9	7.2
4000	9	4.0

Voltage Maximum Rating (Vdc)	Output Capacitance (uF)	Output Voltage Ripple (Vrms)

Note:
For 20 to 30 kW models, multiply capacitance by 2
For 40, 50, 75, and 100 kW models, contact Magna-Power support

For MT Series and ML Series output stage ratings with the high slew rate output option, please inquire with your local sales partner regarding the specific model.

+GPIB IEEE-488 GPIB

IEEE-488 通用接口总线（GPIB）通信接口，提供完整的命令支持，并与其他 GPIB 设备兼容

The IEEE-488 interface, sometimes called the General Purpose Interface Bus (GPIB), is a general purpose digital interface system that can be used to transfer data between two or more devices. It is particularly well-suited for interconnecting computers and instruments. Some of its key features are:

- Up to 15 devices may be connected to one bus
- Total bus length may be up to 20 m and the distance between devices may be up to 2 m
- Communication is digital and messages are sent one byte (8 bits) at a time
- Message transactions are hardware handshaked
- Data rates may be up to 1 Mbyte/sec

The IEEE-488 GPIB interface in integrated with the power supply's rear communication ports. The IEEE 488 interface offers full compatibility with Magna-Power provided drivers, software and SCPI command set.

+BD Integrated Blocking Diode

在 MagnaDC 可编程直流电源的正极输出端内置散热片保护二极管，保护产品输出免受远超产品额定输出电压的反向电压损害。

The Integrated Blocking Diode Option (+BD) provides an internally heat-sunk protection diode on the positive output terminal of a MagnaDC programmable DC power supply. This diode protects the product's output from reverse voltage up to 1200 Vdc. All voltage sensing is performed after the protection diode—at the product's output terminals—making the diode's operation completely transparent to the performance of the power supply.

The +BD option is recommended for applications where there is significant back-emf or the possibility of a DC output voltage that could exceed the power supply's output voltage rating, such as:

- DC motor drives
- Battery and capacitor charging
- Large electromagnets

In these applications, the integrated blocking diode can be used to prevent back-emf from the energy stored in the load into the power supply's output. Furthermore, the integrated blocking diode will prevent the power supply's internal bleed resistance from discharging the energy storaged in the load when the power supply is off or in standby.

Availability

The +BD option is available for models with maximum output voltage rating as specified for the following product series:

- TS Series, models rated from 40 Vdc to 1000 Vdc
- MT Series, models rated from 125 Vdc to 1000 Vdc
- ML Series, models rated from 250 Vdc to 1000 Vdc

The +BD option cannot be combined with the +ISO option.

Specifications

Table 1. Specification for Integrated Blocking Diode (+BD) option

Reverse Voltage Rating Models Rated 125 Vdc to 1000 Vdc	1200 Vdc
Reverse Voltage Rating Models Rated Below 125 Vdc	200 Vdc
Additional Losses Models Rated 125 Vdc to 1000 Vdc	Up to 1.4%
Additional Losses Models Rated Below 125 Vdc	Up to 2.5%

+LXI LXI TCP/IP Ethernet

TCP/IP 以太网通信协议及单个 RJ-45 接口，符合 LXI C 类标准认证，适用于通过传统计算机网络进行套接字通信

Certified to the LXI Standard (Class C), version 1.4, this option allows the product to be fully controlled over an integrated TCP/IP Ethernet interface. LXI is an instrumentation platform based on industry standard Ethernet technology designed to provide modularity, flexibility, and performance to small- and medium-sized systems. All of the product's standard SCPI commands are supported over the +LXI option, along with all provided software and drivers.

LXI's advantages are exemplified in its compact, flexible package providing high-speed I/O and reliable measurements. The Magna-Power Electronics LXI TCP/IP Ethernet option includes an embedded web-server, allowing web browser power supply control and monitoring from virtually anywhere.

Note: For xGen products, only the SCPI command protocol is available when LXI TCP/IP Ethernet interface is installed. Modbus communication protocol is not available through any interface when the LXI TCP/IP Ethernet interface is installed.

10 产品图片









1 MW ML Series programmable DC power supply

11 下载

https://magna-power.com/zh/products/magnadc/ml#downloads

12 联系

Magna-Power Electronics, Inc.
39 Royal Road, Flemington, NJ 08822, United States of America
电话 +1 908-237-2200 电子邮件 sales@magna-power.com