

High precision DC CURRENT power supplies

LTM 600 LTM 3000 LTM 6000 LTM 12000



EPOWER SYS LTM power supplies provide DC current with the high stability and precision that the most demanding applications require. Power conversion systems in high technology facilities such as particle accelerators and research laboratories need to be extremely accurate.

When it comes to magnet power supplies, there are features like long term stability, reproducibility and accuracy, that strongly affect the magnets performance, differentiating them from conventional power converters. Optimized electronics for this type of high DC current applications are offered by LTM series:

- Current control loop with DCCT technology for long term stability and low temperature drifts

- High quality components, minimizing imprecisions, errors and aging
- Numerous temperature checks, since high-precision electronics need special precautions with temperature, not only considering the room conditions but also the internal self-heating of the components, which may create temperature gradients
- High resolution converters allowing for accurate current setting and measuring

Key features of LTM series

- Programmable regulated output current up to 300A
- DCCT technology: <10 ppm long term stability
- Fast and highly repeatable set point. Output is accurately set, regardless of the temperature conditions in the room and without warm-up times, thanks to a Peltier cooler and controller.
- Extremely low ripple and noise: <5 mVpp
- Real high resolution of current setting and read back (24 bits)
- Outstanding reliability and robustness with numerous alarms and temperature controls
- Versatility: CC and CV operation modes are possible. Four series with different combination of outputs
- Friendly user interface and control (touch screen)

Specifications summary

LTM series ¹	LTM 600	LTM 3000	LTM 6000	LTM 12000
Maximum output current (A)	20	80	200	300
Maximum output voltage (V)	100	100	40	80
Maximum output power (W)	640	3200	6000	12000
Line input voltage	360 - 440VAC (400V ± 10%) 50Hz 198-242 VAC (220V ± 10%) 50 Hz (LTM 600)			
Current stability over 8 hours	±10 ppm			
Output ripple and noise	< 5mVpp			
Current setting resolution	24 bits			
Current readback resolution	24 bits			
Ambient temperature	0 - 50°C			
Storage temperature	-20 - 50°C			
Size (W x D x H)	482mm x 562mm x 9U max			

¹ See "Standard model list" section for available current and voltage combination

Test and control

- Fully graphic interface with 7" touch screen
- Internal temperature control and monitoring at ten different points
- Fans speed control and monitoring
- Numerous errors and signals checks, with internal and external hardware interlocks and protections
- Ground fault detection circuit

Communication interfaces

- RS-232
- RS-485
- Ethernet

Other remarkable characteristics and options

- Unlike other power supplies of their class, LTM series do not have warm-up times to set the working conditions, and these are independent of the room temperature, which make them outstanding in terms of reproducibility
- LTM 6000 and upward are water cooled, allowing for noise reduction and smaller size of the power supply. Air cooling is possible on request.
- PVS (Precision Voltage Sensing) option for measuring the real voltage on the load without the influence of the wires
- Floating or grounded system option, with monitoring of the state

Standard Models List

LTM 600

Model	LTM600-6	LTM600-8	LTM600-15	LTM600-15	LTM600-20
Nominal output current (A)	6	8	10	15	20
Nominal output voltage (V)	100	80	60	40	30
Nominal output power (W)	600	640	600	600	600

LTM 3000

Model	LTM3000-30	LTM3000-40	LTM3000-50	LTM3000-60	LTM600-15
Nominal output current (A)	30	40	50	60	80
Nominal output voltage (V)	100	80	60	50	40
Nominal output power (W)	3000	3200	3000	3000	3200

LTM 6000 & LTM 12000

Model	LTM6000-100	LTM600-200	LTM 12000-150	LTM12000-200	LTM12000-300
Nominal output current (A)	100	200	150	200	300
Nominal output voltage (V)	60	30	80	60	40
Nominal output power (W)	6000	6000	12000	12000	12000

Other options on request

For any other request not included in our specifications, do not hesitate to contact us