

PL506 Key Specifications

- Up to 6 independent, floating DC outputs at 600 W each
- Total output power up to 3 kW in a 3U chassis
- Remote control and monitoring via USB, Ethernet, Web interface, SNMP
- Master-Slave mode for current boosting by paralleling channels
- Programmable voltage, current, temperature, ramp rate, and protection limits
- Auto-ranging AC input (94–265 VAC) with PFC and high efficiency (up to 90%)

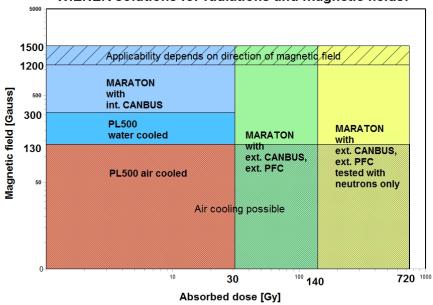


Technical Information

Form Factor	3U rack-mountable 19" chassis
Dimensions (Power Box)	430 mm (W) × 133 mm (H) × 325 mm (D)
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Weight	Approx. 9.6 kg to 19 kg depending on module configuration
Operating Temperature	0 °C to +50 °C (without derating)
Storage Temperature	-30 °C to +85 °C
Input Voltage Range	94–265 VAC, 50/60 Hz, active power factor correction
Efficiency	Up to 90% depending on voltage and load
Maximum Output Power	Up to 600 W per channel; total output power up to 3 kW
Output Voltage Range (per module) Output Current Range	Configurable; typical range from 2 V up to 48 V depending on module type Up to approx. 100 A per channel
Voltage Rise Time	Default 50 ms monotonic ramp; fully programmable
Ripple & Noise	<10–15 mVpp with short cables; <3 mVpp with 10 m cabling
Regulation Accuracy (Static)	Typically <0.1% static, depending on module type
Recovery Time (Dynamic Load)	Approx. 1 ms under dynamic load
Isolation (Floating Range)	Standard ±100 V floating; optional configurations up to ±500 V
Temperature Shutdown Limits	90 °C (AC input), 110 °C (heat sink), 70 °C (internal ambient)
Overvoltage Protection	Factory default: 125% of nominal output voltage
MTBF	>100,000 h (electronics); >65,000 h (cooling blower) at 40 °C ambient
Interfaces	USB, Ethernet, Web interface, SNMP for control and monitoring
Cooling Method	Integrated air cooling; optional direct water cooling available
Number of Channels	Up to 6 independently programmable floating DC outputs
Sense Compensation Range	Regulation with remote sense feedback; compensation range depends on configuration
Voltage Regulation Modes	Per channel: voltage-controlled or current-controlled operation
Cable Distance Adaptation	Dynamic behavior adjustable via software (short, medium, long)
Output Connection Type	M6 threaded bolts (150 A rating); 9-pin Sub-D for sense and temperature monitoring
Overcurrent Protection	Programmable Ilim (constant current) and Imax (trip threshold) per channel
Trip-Off Logic	Programmable; fault conditions trigger shutdown within 3 ms
Interlock Function	Optional digital interlock disables all outputs when active

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