

Power Supply System for the LNLS Magnets,
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LNLS, Campinas, Brazil - The light source of the LNLS includes a linac, a transport line and a booster-storage ring. A total of 182 magnets are used, requiring 49 dc current power supplies for the storage ring, 26 for the transport line and 28 for the linac. This results in a large variety of very precise, highly stable average current, low ripple and large dynamic range set of power supplies. Current stability and ripple must, in general, be better than 10^{-3} and, for the 300 A/300 kW power supply, smaller than $7 \cdot 10^{-5}$. Other requirements are: computer controlled set point and status surveillance, high efficiency, reliable continuous operation, low maintenance, long lifetime. This paper describes the development, construction, testing, performance and operation of the LNLS dc power supplies system.

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