

LCL滤波器 (LCL) LCL Filter

产品概述 (Product Introduction)

LCL 滤波器在现代的可再生能源行业十分普遍，可以有效、经济地确保和提高从能源到电网的馈电质量。滤波器用于过滤逆变器的开关频率。达到目标畸变水平时，滤波器将节约可观的成本。LCL 滤波器的典型特点是损失小、体积小、重量轻、电容大

LCL filters are very commonly used in the modern renewable energy industry, and can efficiently and economically ensure and improve the feed quality from energy sources to the grid. The filters are used for filtration of the switching frequency of the inverter. When reaching the target distortion level, the filters can save considerable costs. LCL filters are typically characterized by small loss, small size, light weight, and high capacitance.

产品特点 (Product Features)

功率半导体开关器件技术的进步，促进了电力电子变流装置技术的迅速发展，出现了以脉宽调制(PWM)控制为基础的各类变流装置，比如逆变电源，变频器等各类变流器，并且这些变流器已经在全国的各个领域中得到了广泛的应用。三相电压型PWM整流器具有着电能双向传输，较快的动态控制响应。当前的PWM整流器采用的功率开关器件多是IGBT，就可以实现很高的开关频率，一般开关频率为2kHz~15kHz。然而功率开关器件的高开通关断频率却会产生高次谐波，注入到电网中，产生谐波污染。为了解决LCL滤波器所碰到的难题，我们一般选择LCL滤波器。LCL滤波器可以选取较小的电感电容值，在千瓦至上百千瓦间实现满意的滤波效果。

The advancement of the technology of the high power semiconductor switching device promotes the rapid development of the technology of power electronic converters, giving birth to various types of converters, such as inverter power supplies, frequency converters, etc. And these converters have been widely used in various fields all over the country. Three-phase voltage-type PWM rectifiers have the functions of bidirectional power transmission and fast dynamic control response. Most PWM rectifiers currently adopt IGBT as the power switch device, which can achieve very high switching frequency compared to the general switching frequency of 2kHz-15kHz. However, the high on/off frequency of power switch device will generate high order harmonics to be injected into the grid, thus causing harmonic pollution. In order to solve the problems encountered by LCL filters, we generally choose LCL filters. Smaller inductance and capacitance values can be selected for the LCL filters to achieve satisfactory filtering effects between one kilowatt to hundreds of kilowatts.

电流范围 Current Range: 10-1600A
电压范围 Voltage Range: 220-1140V

成品识别码 (Product Identification Code)

LCR	-	250	-	0.4SC
LCL滤波器 LCL Filter		额定电流 Rated Current		0.4:Working Voltage 0.2=220V,0.4=380V,0.7=690V,1.1=1140V S: D=Single Phase Reactor S=Three Phase Reactor C: C=Copper A:Aluminium



典型电路图

