Thyristor Modules

可控硅开关模块

PART / 01

Low-Voltage
Power Factor Correction
低压功率因数校正

PART / 02

PART / 03

PART / 04



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EOTS Series Thyristor Modules

EOTS series thyristor modules are designed to switch capacitive loads up to 50 kVAr in power factor correction (PFC) applications.

The modules can switch capacitive loads within 10ms of receiving a triggering signal. The microprocessor based architecture and its algorithm switches at the voltage zero crossing, thereby avoiding capacitor abrasion.

EOTS系列可控硅开关模块

EOTS系列可控硅开关模块在功率因数校正系统中,被设计用于切换功率高达50kvar的电容性负载。可控硅开关模块可以在10毫秒内触发信号来切换电容性负载。基于微处理器的体系结构及其算法,在电压过零时投切,从而避免系统高电压对电容器的损坏。

Key Features

Technical specifications presented here are provided for 40°C ambient temperature and 70°C heat sink temperature, unless otherwise specified. Exceeding these guaranteed ratings will significantly reduce module life expectancy.

- Up to 480V, star-or delta-connected symmetrical or asymmetrical loads
- Easy triggering from PFC relays or PLCs
- Longer life expectancy
- Fast switching performance typically below 10ms
- Guaranteed transient free capacitor switching
- Monitors voltage, status and temperature
- Records detected faults, provides a dry contact output and displays faults on front panel
- Can operate with or without a detuned filter reactor
- Provides external thermostat connection which can be used to protect detuned filter reactors
- Maintenance free
- Quiet operation

主要特点

上述提供的技术规范适用于环境温度40°C和在该环境温度下,散热器温度70°C,的情况下,除非另有规定。超过以上的规范要求,这些性能将显著下降且会有缩短模块预期寿命,损害元件的风险。

- 高达480V, 星形或三角形连接对称或不对称负载
- 通过PFC 继电器或PLC触发控制
- 较长的预期寿命
- 快速切换性能-通常低于10ms
- 保证无瞬变电容器切换
- 监测电压、状态和温度
- 记录检测到的故障,提供干触点输出,并在前面板上显示故障
- 可在有或无失谐滤波电抗器的情况下运行。
- 提供可用于保护失谐滤波电抗器的外部恒温器连接
- 免维护
- 静音运行

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Features and Technical Details

技术参数

	Unit	EOTS 40A	EOTS 80A	EOTS 65A-S
Nominal Rating / 额定值				
Nominal votlage 额定电流	V	400	400	400
Maximum operating current 最大工作电流	А	40	80	65
Number of semiconductor modules 半导体数量	-	2	2	3
Auxiliary supply voltage 辅助电源电压	-	-	220	220
Triggering voltage 触发电压	V	12	12	12
Fan power rating 风扇额定功率		-	AC220V/50Hz	AC220V/50Hz
Fan activation temperature 风扇启动温度	°C		45°C	45℃
Absolute Maximum Values / 绝对最大值				
Ambient temperature at full load 满载时的环境温度	$^{\circ}$	45	45	45
Storage temperature 贮存温度	°C	-25~+50	-25~+50	-25~+50
Relative humidity 相对湿度	%	5~95	5~95	5~95
Cabling and Mounting / 布线和安装				
Power cable cross section 电缆截面	mm²	16	16	16
Auxiliary supply cable cross section 辅助线截面	mm²	1.5	1.5	1.5
Trigger cable cross section 触发电缆横截面	mm²	1.5	1.5	1.5
Operation / 操作				
Triggering delay 触发延时		<10ms	<10ms	<10ms
Maximum capacitor rating 最大电容器额定值	kVAr	30	50	15 single phase
Overheating proteciton 过热保护	$^{\circ}$	80	80	80
Cooling 冷却		Natural	Natural	Natural