固特电气®
GOLD ELECTRIC

包装印刷印染 设备手册

固态继电器行业定制专家

销售专线：400-000-7337　0510-85166001　　网址：www.chinassr.com/ ssr.com.cn/ goldssr.com

邮箱：sales@goldssr.com

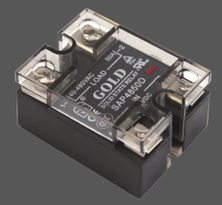
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SAP48(单灯)交流固态继电器

SAP48 (Single Lamp) AC Solid State Relay

该系列产品获得实用新型与外观专利 专利号:2015204886030 2015204816220 2018205206108
专利号:2018303861232 2018302231936

- 控制回路与负载回路之间光电隔离
- 过零输出或随机导通可选择
- 国际标准化安装尺寸
- 工程塑料外壳和配备阻燃安全透明罩
- LED指示工作状态
- 内置RC吸收回路，抗干扰能力强
- 环氧树脂灌胶，抗腐蚀、抗爆能力强
- 直流4-32VDC或交流90-280VAC输入控制



常规款



防滑款

产品命名规则

S	A	P	48	**	**	**
SSR（固态继电器）	A:交流输出	P:方型	负载电压 48:40-480VAC	负载电流 05:5A … 120:120A	控制信号 D:4-32VDC A:90-280VAC	R: 随机型 无:过零型

产品选型 Product Selection

产品型号	负载电压	负载电流	控制信号	隔离电压	绝缘电压	动作状态指示
SAP4805D	40-480VAC	5A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED灯指示
SAP4810D	40-480VAC	10A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED灯指示
SAP4815D	40-480VAC	15A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED灯指示
SAP4820D	40-480VAC	20A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED灯指示
SAP4825D	40-480VAC	25A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED灯指示
SAP4840D	40-480VAC	40A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED灯指示
SAP4850D	40-480VAC	50A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED灯指示
SAP4860D	40-480VAC	60A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED灯指示

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固特电气 GOLD ELECTRIC

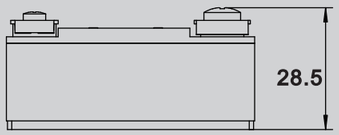
产品型号	负载电压	负载电流	控制信号	隔离电压	绝缘电压	动作状态指示
SAP4870D	40-480VAC	70A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED灯指示
SAP4880D	40-480VAC	80A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED灯指示
SAP4890D	40-480VAC	90A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED灯指示
SAP48100D	40-480VAC	100A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED灯指示
SAP48120D	40-480VAC	120A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED灯指示

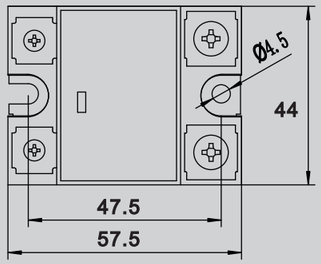
产品参数 Product parameters

输入参数		
控制电压	4-32VDC	
关断电压	1VDC	
导通电压	4VDC	
控制电流	6-25mA(内置恒流电路)	
输出参数		
负载电压范围	SAP48系列	
	40-480VAC	
最小导通电流	0.10A	
最大通态压降	1.5VAC	
最大断态电流	10mA	
断态电压临界上升率	500V/us	
最大导通时间	随机型	2ms
	过零型	1/2周期+1ms
	交流控制	40ms
最大关断时间	直流控制	10ms
	交流控制	40ms
工作频率	45-65HZ	
输出参数		
最小隔离电压	输入与输出之间≥2500VAC	
最小绝缘电压	输入与输出于底板≥2500VAC	
绝缘电阻	1000MΩ(500VDC)	
工作环境温度	-40~80°C	

产品尺寸图 Product dimension diagram

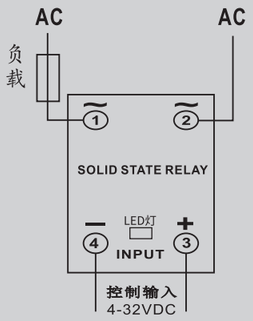
单位(mm)

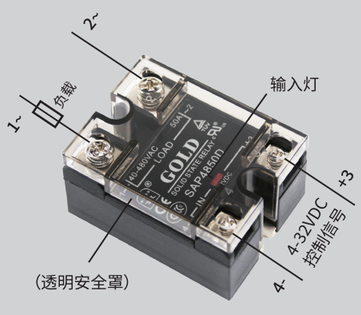


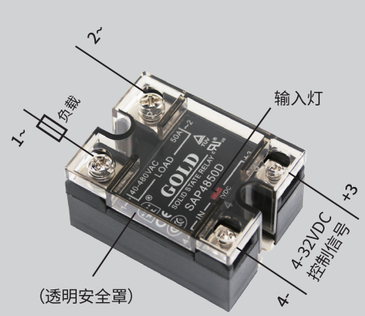


长宽高:57.5mm*44mm*28.5mm

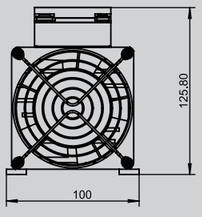
产品接线图 Product wiring diagram

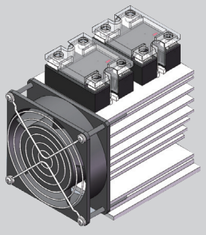




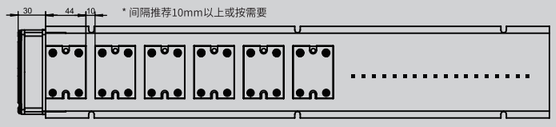


推荐散热器 Recommended radiator





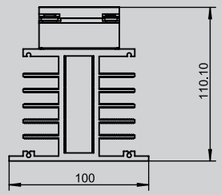
固态继电器额定电流≥10A需配装散热器

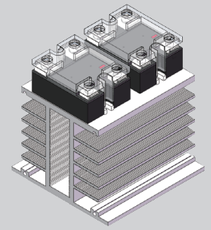


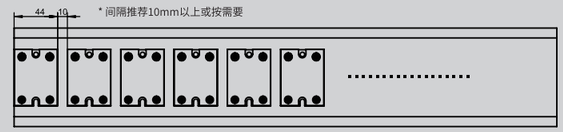
T型散热器 额定电流≥30A,推荐选用T型散热器

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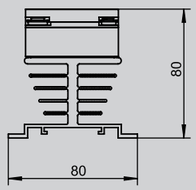
推荐散热器 Recommended radiator

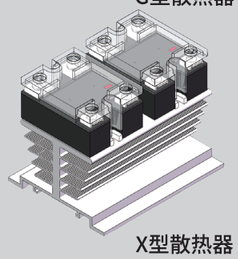


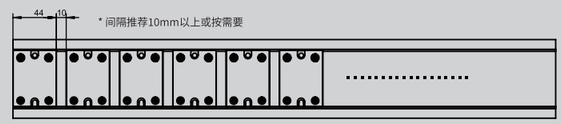




G型散热器 额定电流20-30A,推荐选用G型散热器

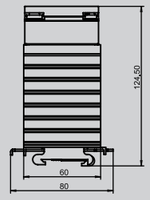


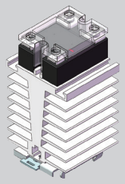




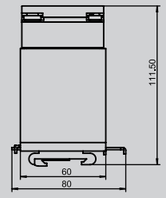
X型散热器 额定电流5-10A,推荐选用X型散热器

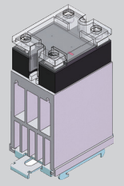
备注:风扇可选装,另提供其他规格散热器组装可与我司业务联系沟通。





CH型卡座式散热器





CR型卡座式散热器

使用注意事项 Precautions for use

1、我司已就产品品质和可靠性做了很大努力,若应用在固态继电器内部的半导体功率器件选型或使用不当还是会导致不可恢复的损坏。由于电网电压波动(通常±10%)以及感抗、容抗的不同,在选型时需考虑一定的安全系数。例如:电加热长期工作电流不能超过60%的SSR电流额定标称值,电机工作电流不应超过1/7 SSR的电流额定标称值。

2、在长期工作电流>5A时必须加装与之配套的散热器,工作中散热器底板温度不得超过80°C。若环境温度过高应采取风冷以加速空气流动获得更好的散热效果。

3、为确保安装过程中固态继电器与散热器表面紧密接触而达到更理想的散热效果,可根据不同电流等级使用专用导热膜或导热硅脂,在安装时请将导热膜平行置于固态继电器底板与散热器接触面之间并紧固安装固定螺丝;配备导热硅脂的在安装时请在固态继电器底板均匀涂抹适量导热硅脂,并紧固安装固定螺丝(M4螺丝和弹簧垫片)。

4、为防止使用中负载短路或者电流、电压超负荷工作造成的固态继电器击穿损坏,强烈推荐安装使用与之匹配的快速熔断器。

对感性类负载还需要在固态输出端加装压敏电阻、RC吸收回路。

5、固态继电器工作时必须保证有足够而又不超出标称触发电压和电流值,例如:控制端为“4-32VDC”,即最小的输入电压不得小于4VDC,最大不得超过32VDC,因此在串联或并联使用中需特别注意满足固态继电器的触发要求。

6、固态继电器应存放于通风、干燥、无腐蚀性气体的环境中,避免潮湿、雨淋、跌落及剧烈摔碰。

SAM模块式/大电流压接式固态继电器

SAM Modular/High Current Crimp Solid State Relay

CE
产品具备欧盟CE认证

该系列产品获得实用新型与外观专利 专利号:2012206519899 2018303861251

- 控制回路与负载回路之间光电隔离
- 过零导通或随机导通可选择
- 国际标准化安装尺寸
- 工程塑料外壳和配备阻燃安全透明罩
- LED指示工作状态
- 内置RC吸收回路，抗干扰能力强
- 环氧树脂灌胶，抗腐蚀、抗爆能力强
- 使用时需配适当散热器,必要时加风冷



1 25mm宽 cULus



2 34mm宽 cULus

3 80系列



产品命名规则

S	A	M	**	**	**
SSR(固态继电器)	A:交流输出	M:条型	负载电压 40:24-530VAC 60:24-660VAC 80:40-800VAC	负载电流 40:40A … 1600:1600A	控制信号 D:4-32VDC/ A:90-280VAC/ 80系列无交流控制

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固特电气 GOLD ELECTRIC

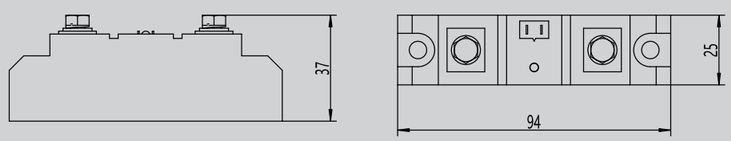
产品选型 Product Selection

产品型号	负载电压	负载电流	控制信号	隔离电压	绝缘电压	动作状态指示	图示
SAM4040D	24-530VAC	40A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入输出双LED指示	图1
SAM4060D	24-530VAC	60A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入输出双LED指示	图1
SAM4080D	24-530VAC	80A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入输出双LED指示	图1
SAM40100D	24-480VAC	100A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入输出双LED指示	图1
SAM40120D	24-480VAC	120A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入输出双LED指示	图1
SAM40150D	24-480VAC	150A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入LED指示	图2
SAM40200D	24-480VAC	200A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入LED指示	图2
SAM40250D	24-530VAC	250A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入LED指示	图2
SAM40300D	24-480VAC	300A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入LED指示	图2
SAM40400D	24-530VAC	400A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入LED指示	图2
SAM6060D	24-660VAC	60A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入LED指示	图1
SAM6080D	24-660VAC	80A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入LED指示	图1
SAM60100D	24-660VAC	100A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入LED指示	图1
SAM60120D	24-660VAC	120A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入LED指示	图1
SAM60150D	24-660VAC	150A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入LED指示	图2
SAM60200D	24-660VAC	20A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入LED指示	图2
SAM60250D	24-660VAC	260A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入LED指示	图2
SAM60300D	24-660VAC	300A	4-32VDC or 90-280VAC	≥2000VAC	≥2000VAC	输入LED指示	图2
SAM80500D	40-800VAC	500A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED指示	图3a
SAM80600D	40-800VAC	600A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED指示	图3a
SAM80800D	40-800VAC	800A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED指示	图3b
SAM801200D	40-800VAC	1200A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED指示	图3c
SAM801600D	40-800VAC	1600A	4-32VDC or 90-280VAC	≥2500VAC	≥2500VAC	输入LED指示	图3d

产品尺寸图 Product dimension diagram

1

单位(mm)

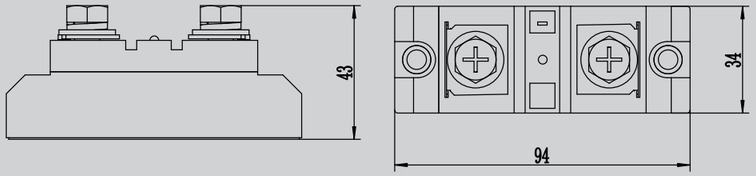


(SAM4040D-120D/SAM6060D-120D尺寸图如图1所示)

产品尺寸图 Product dimension diagram

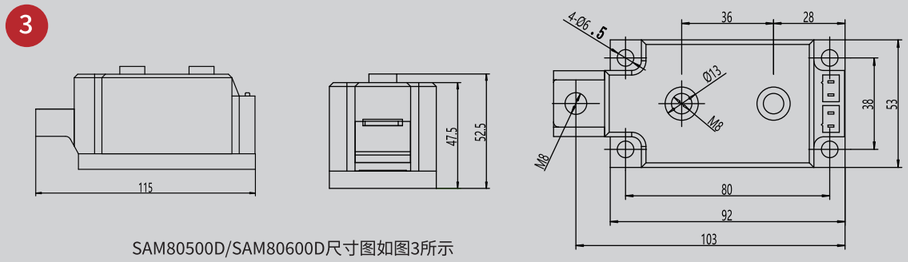
单位(mm)

2

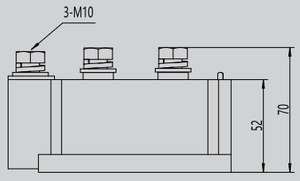


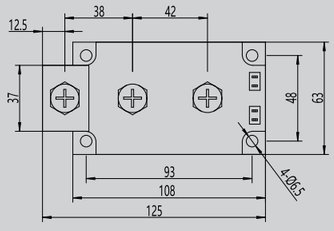
（SAM40150-404000/SAM60150D-60300D尺寸图如图2所示）

3

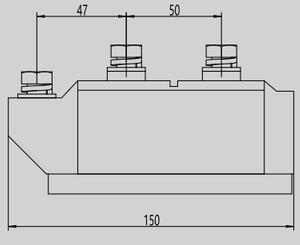


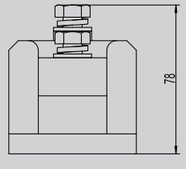
SAM80500D/SAM80600D尺寸图如图3所示

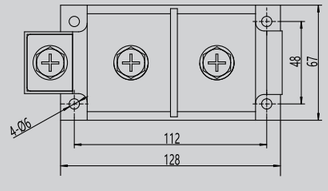




SAM80800D
SAM801000D尺寸图

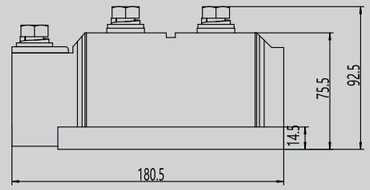


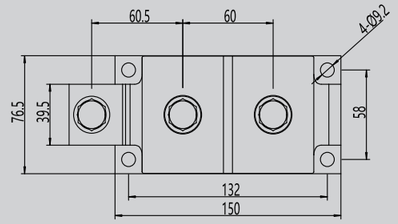




SAM801200D尺寸图

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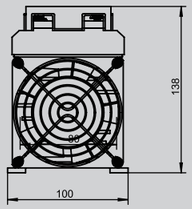
SAM801600D尺寸图

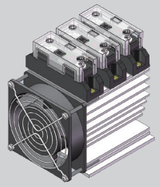
产品参数 Product parameters

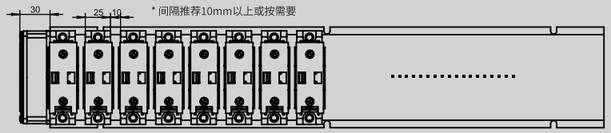
输入参数			
控制电压	4-32VDC		90-280VAC
关断电压	1VDC		15VAC
导通电压	4VDC		90VAC
控制电流	6-25mA(内置恒流电路)		无
输出参数			
负载电压范围	SAM40系列	SAM60系列	SAM80系列
	24-480VAC/24-530VAC	24-660VAC	24-8000VAC
最小导通电流	10mA		
最大通态压降	1.5VAC		
最大断态电流	10mA		
断态电压临界上升率	500V/us		
最大导通时间	直流控制	随机型	1ms
		过零型	1/2周期+1ms
	交流控制		10ms
最大关断时间	直流控制	随机型	1ms
		过零型	1/2周期+1ms
	交流控制		10ms
工作频率	45-65HZ		
输出参数			
最小隔离电压	输入与输出之间≥2000VAC		
最小绝缘电压	输入与输出于底板≥2000VAC		
绝缘电阻	1000MΩ(500VDC)		
工作环境温度	-40~80℃		

推荐散热器 Recommended radiator

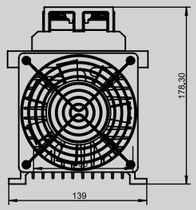
固态继电器额定电流≥10A需配装散热器

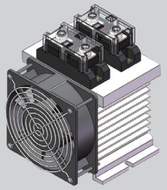


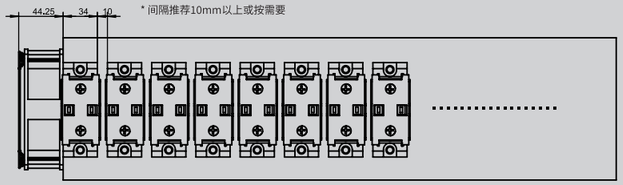




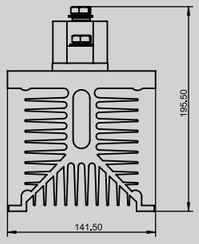
25mm宽--T型散热器

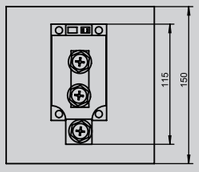


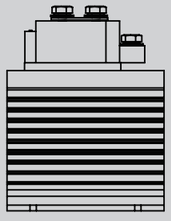


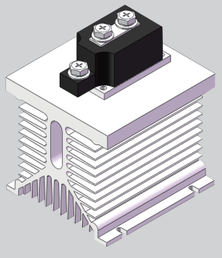


34mm宽--W型散热器







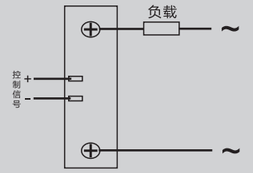


80系列--W型散热器

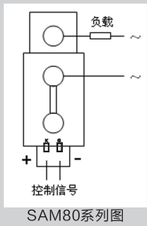
备注:风扇可选装,另提供其他规格散热器组装可与我司业务联系沟通。

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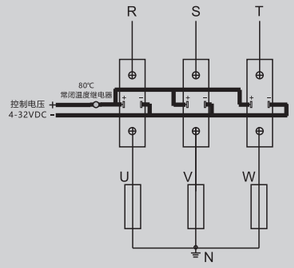
产品接线图 Product wiring diagram



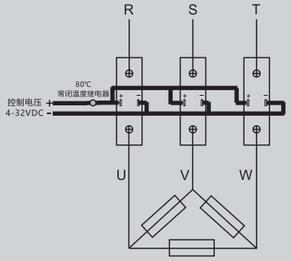
SAM40/60系列接线图



SAM80系列图



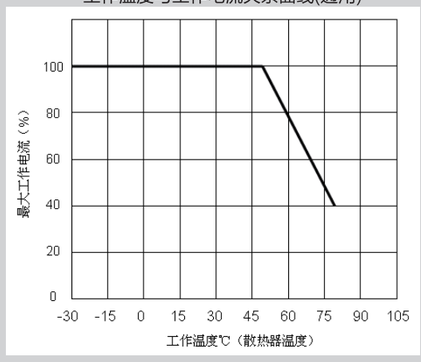
负载星型接线示意图(可选择接零或不接零)



负载三角型接线示意图

产品曲线图 Product curve chart

工作温度与工作电流关系曲线(通用)



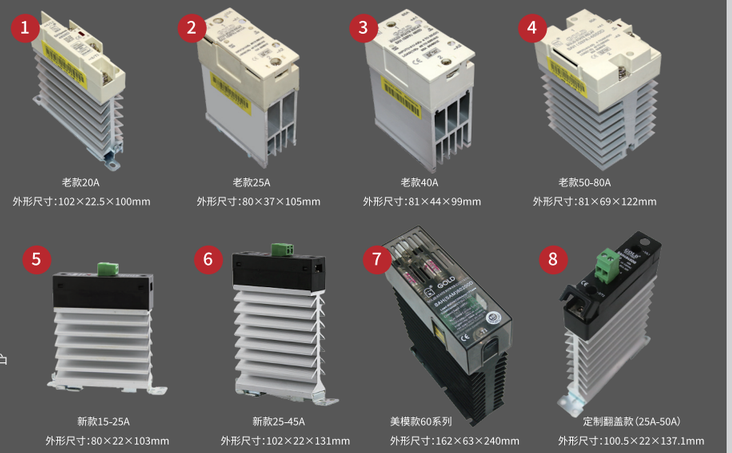
SAH散热一体化固态继电器

SAH integrated heat dissipation solid-state relay

CE
产品具备欧盟CE认证

- 控制回路与负载回路之间光电隔离
- 过零导通或随机导通可选择
- 散热一体化设计，提高散热效率导轨安装或螺丝定位安装方式
- 简单方便LED指示工作状态
- 内置RC吸收回路，抗干扰能力强
- 输出端子采用铜牌倒卡结构，既稳固又增大接触面
- 使用时需配适当散热器,必要时加强制风冷
- SAH60系列自带保险丝，过流保护和负载短路保护
- 4-32VDC或90-280VAC控制

该系列产品获得发明专利/实用新型专利/外观专利　专利号:2020111468788　2022234465882　2015205059143　2023303081693



产品命名规则

S	A	H	**	**	**	G
SSR(固态继电器)	A:交流输出	H:一体化	负载电压 48:40-530VAC 66:40-660VAC	负载电流 15:15A … 200:200A	控制信号 D:4-32VDC A:90-280VAC	G:加高款

产品用途　Product purpose

该系列产品广泛应用于电炉加热恒温系统、数控机械、塑料机械、食品机械、包装机械、纺织机械、石油化工仪器设备、娱乐设施等自动化控制领域。

This series of products is widely used in automation control fields such as electric furnace heating constant temperature systems, CNC machinery, plastic machinery, food machinery, packaging machinery, textile machinery, petrochemical equipment, entertainment facilities, etc.

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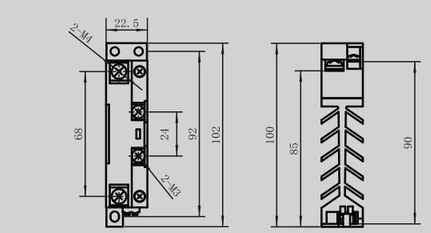
产品选型　Product Selection

产品型号	负载电压	负载电流	控制信号	隔离电压	绝缘电压	动作状态指示	图示
SAH4820D	40-530VAC	20A	4-32VDC	≥2500VAC	≥2500VAC	输入LED指示	图1
SAH4825D	40-530VAC	25A	4-32VDC	≥2500VAC	≥2500VAC	输入输出LED指示	图2
SAH4840D	40-530VAC	40A	4-32VDC	≥2500VAC	≥2500VAC	输入输出LED指示	图3
SAH4850D	40-530VAC	50A	4-32VDC	≥2500VAC	≥2500VAC	输入LED指示	图4
SAH4860D	40-530VAC	60A	4-32VDC	≥2500VAC	≥2500VAC	输入LED指示	图4
SAH4880D	40-530VAC	80A	4-32VDC	≥2500VAC	≥2500VAC	输入LED指示	图4
SAH4815D(新)	40-530VAC	15A	4-32VDC	≥2500VAC	≥2500VAC	输入LED指示	图5
SAH4820D(新)	40-530VAC	20A	4-32VDC	≥2500VAC	≥2500VAC	输入LED指示	图5
SAH4825DG(新)	40-530VAC	25A	4-32VDC	≥2500VAC	≥2500VAC	输入LED指示	图6、图8
SAH4840DG(新)	40-530VAC	40A	4-32VDC	≥2500VAC	≥2500VAC	输入LED指示	图6、图8
SAH4845DG(新)	40-530VAC	45A	4-32VDC	≥2500VAC	≥2500VAC	输入LED指示	图6、图8
SAH60100D	40-660VAC	100A	4-32VDC	≥2500VAC	≥2500VAC	输入LED指示	图7
SAH60130D	40-660VAC	130A	4-32VDC	≥2500VAC	≥2500VAC	输入LED指示	图7
SAH60150D	40-660VAC	150A	4-32VDC	≥2500VAC	≥2500VAC	输入LED指示	图7
SAH60200D	40-660VAC	200A	4-32VDC	≥2500VAC	≥2500VAC	输入LED指示	图7

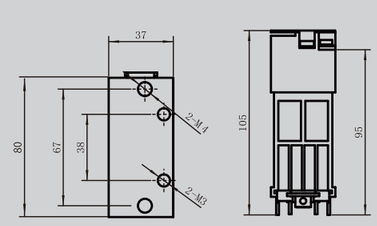
新款　新款(外观专利)

产品尺寸图　Product dimension diagram

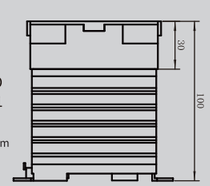
单位(mm)

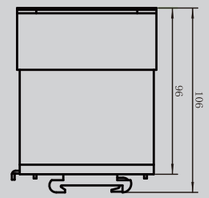


SAH4820D
（老款）图1
外形尺寸:102×22.5×100mm



SAH4825D
（老款）图2
外形尺寸:80×37×105mm

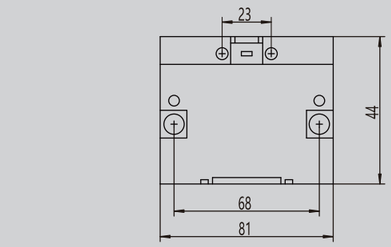




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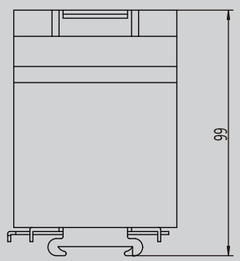
产品尺寸图 Product dimension diagram

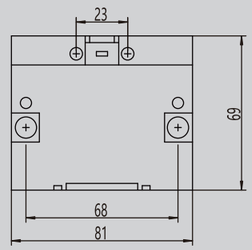
单位(mm)



SAH4840D
（老款）图3

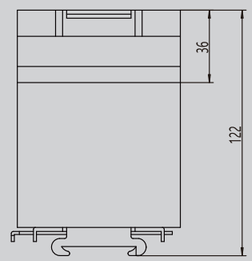
外形尺寸:81×44×99mm

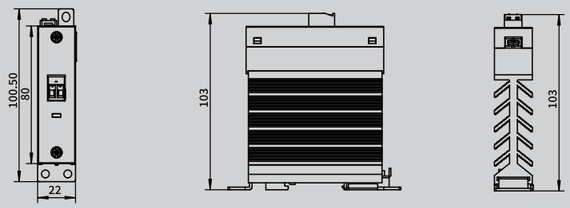




SAH4850D-80D
（老款）图4

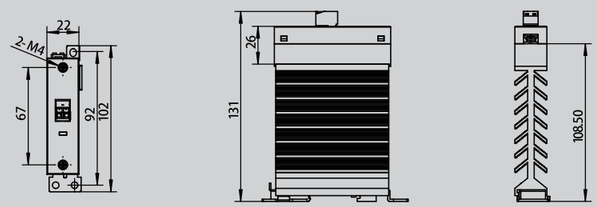
外形尺寸:81×69×122mm





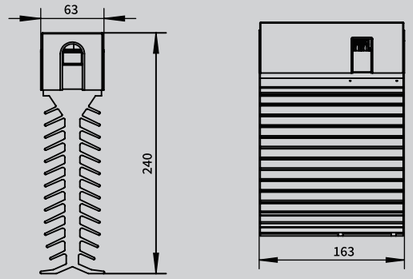
SAH4815D-20D
（新款）图5

外形尺寸:80×22×103mm



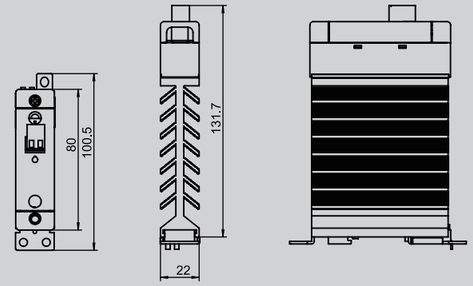
SAH4825DG-45DG
（新款）图6

外形尺寸:102×22×131mm



外形尺寸:163×63×240mm

SAH66系列
图7



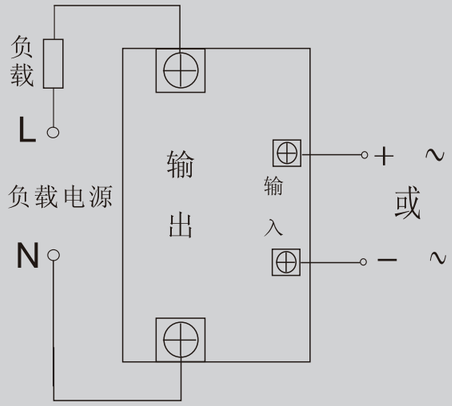
外形尺寸:100.5×22×131.7mm

定制翻盖款（25A-50A）
图8

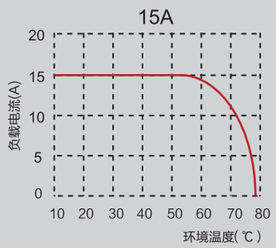
产品参数 Product parameters

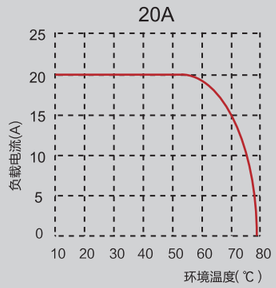
输入参数		
控制电压	4-32VDC	90-280VAC
关断电压	1VDC	15VAC
导通电压	4VDC	90VAC
控制电流	6-25mA(内置恒流电路)	无
输出参数		
负载电压范围	SAH-40系列	SAH-60系列
	40-530VAC	40-660VAC
最小导通电流	10mA	
最大通态压降	1.5VAC	
最大断态电流	2mA	
断态电压临界上升率	500V/us	
最大导通时间	直流控制	过零型:1/2周期+1ms 随机型:2ms
	交流控制	40ms
最大关断时间	直流控制	10ms
	交流控制	40ms
工作频率	45-65HZ	
其他参数		
最小隔离电压	输入与输出之间≥2500VAC	
最小绝缘电压	输入与输出于底板≥2500VAC	
绝缘电阻	1000MΩ(500VDC)	
工作环境温度	-40~80°C	

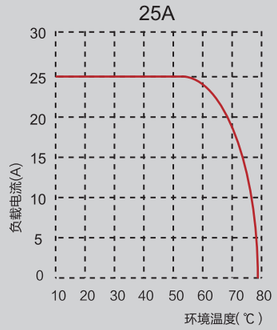
产品接线图 Product wiring diagram



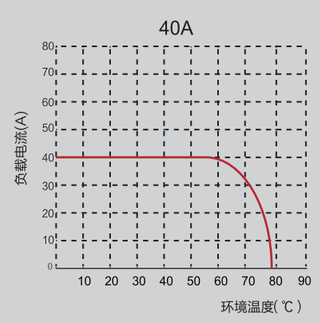
产品曲线图 Product curve chart

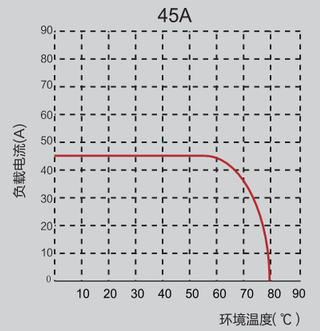


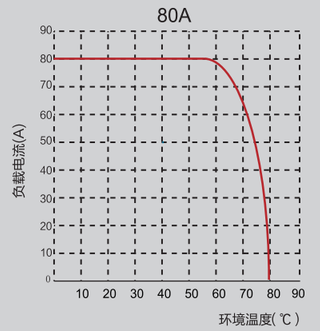




产品曲线图 Product curve chart







使用注意事项 Precautions for use

1、我司已就产品品质和可靠性做了很大努力，若应用在固态继电器内部的半导体功率器件选型或使用不当还是会导致不可恢复的损坏。由于电网电压波动(通常+10%)以及感抗、容抗的不同，在选型时需考虑一定的安全系数。例如: 电加热长期工作电流不能超过60%的SSR电流额定标称值，电机工作电流不应超过1/7 SSR的电流额定标称值。

2、在长期工作中散热器底板温度不得超过80度。若环境温度过高应采取风冷以加速空气流动获得更好的散热效果。

3、为防止使用中负载短路或者电流、电压超负荷工作造成的固态继电器击穿损坏,强烈推荐安装使用与之匹配的快速熔断器。对感性类负载还需要在固态输出端加装压敏电阻、定制时内部可以加装压敏电阻。

4、固态继电器工作时必须保证有足够而又不超出标称触发电压和电流值，例如: 控制端为“4-32VDC”，即最小的输入电压不得小于4VDC，最大不得超过32VDC。因此在串联或并联使用中需特别注意满足固态继电器的触发要求。

5、固态继电器应存放于通风、干燥、无腐蚀性气体的环境中，避免潮湿、雨淋、跌落及剧烈摔碰。

CTH系列三相调压控制器

CTH series voltage regulating controller

产品具备欧盟CE认证

实用新型专利号
2015204810332

- 面板多只LED指示灯，显示调压控制器的工作状态及故障原因
- PC板采用SMD贴片原件，抗干扰性佳，故障率低
- 内含缓启动功能，急速变化时更平稳，使元器件更耐用
- 比例式线性输出，控温精确，精度0.3%符合各种负载要求
- 整机采用铝合金外壳，散热效果佳，100%的引导风扇气流散热
- 输入方式:4-20mA、1-5VDC、2-10VDC三种方式
  由P1JUMP自由切换选择无需更换主机。
- 全系列内置快速保险丝及过热停止输出保护开关
  保护调压控制器和负载。
- PC板AC1 AC2端子输入电源电压200-240VAC
- 主电源与PC板工作电压无相序先后关系，
  使用方便(50HZ-60HZ自动辩识)。



产品选型 Product Selection

产品型号	额定电压	每相额定电流	内置模块	散热器	安装孔距(mm)	外形尺寸(mm) (长*宽*高)	保险丝 规格(A)	负载最小电阻
CTH-F-10KW	380VAC	18A	MDTX55A	F150	100*100	180×110×161	20	43.3Ω
CTH-F-15KW	380VAC	26A	MDTX70A	F180	130*100	210×110×161	32	28.9Ω
CTH-F-20KW	380VAC	35A	MDTX90A	F180	130*100	210×110×161	40	21.6Ω
CTH-F-25KW	380VAC	45A	MDTX110A	F210	160*100	240×110×161	50	17.4Ω

产品型号	额定电压	每相额定电流	内置模块	散热器	安装孔距(mm)	外形尺寸(mm) (长*宽*高)	保险丝 规格(A)	负载最小电阻
CTH-E-30KW	380VAC	53A	MTDX140A	E210	160*128	255×139×191	63	14.4Ω
CTH-E-50KW	380VAC	90A	MTDX220A	E250	200*128	295×139×191	100	8.7Ω
CTH-E-70KW	380VAC	125A	MTDX260A	E300	250*128	345×139×191	140	6.2Ω
CTH-E-90KW	380VAC	160A	MTDX320A	E350	300*128	395×139×191	180	4.8Ω
CTH-E-110KW	380VAC	195A	MTDX400A	E400	350*128	490×139×191	200	3.9Ω

固特电气 GOLD ELECTRIC
坚持更高标准 追求卓越品质

产品型号	额定电压	每相额定电流	内置模块	散热器	安装孔距(mm)	外形尺寸(mm) (长*宽*高)	保险丝 规格(A)	负载最小电阻
CTH-K-70KW	380VAC	140A	MDTX260A	K300	250*200	345×210×210	140	5.4Ω
CTH-K-90KW	380VAC	175A	MDTX320A	K350	300*200	395×210×210	175	4.3Ω
CTH-K-110KW	380VAC	210A	MDTX400A	K400	350*200	490×210×210	200	3.6Ω
CTH-K-130KW	380VAC	230A	MDTX500A	K400	350*200	490×210×210	250	3.3Ω

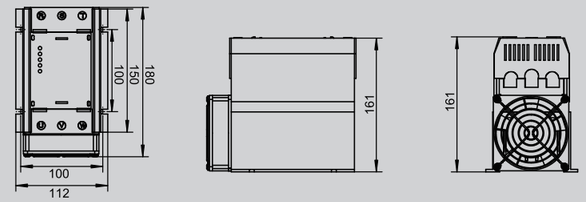
注:本产品仅适用电加热负载，选型时只要小于额定值均可选择。表格中额定电流一项已包括15%的过载设计余量。用户在选购时应说明控制方式，以便出厂时调整到最佳状态。控制方式为4-20mA电流调节、1-5VDC电压调节、2-10VDC电压调节等三种控制方式可供选择。110KW所配保险丝因外型结构问题，控制器内无法安装，发货时可提供给用户安装外接使用。

产品尺寸图 Product dimension diagram

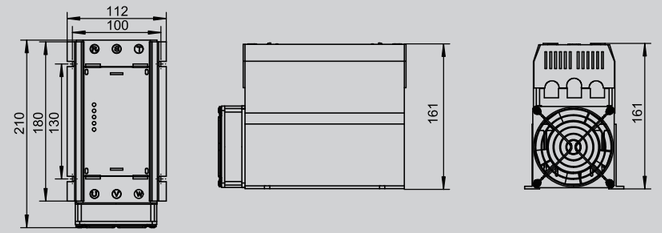
单位(mm)

CTH-F-型

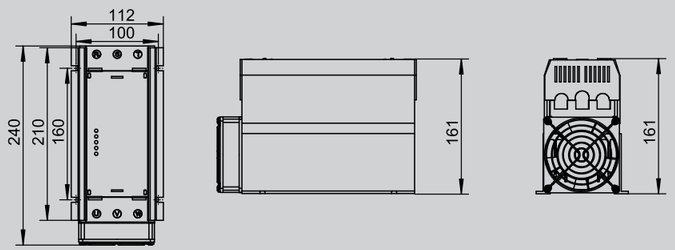
长宽高:180mm*110mm*161mm
CTH-F-10KW



长宽高:210mm*110mm*161mm
CTH-F-15KW/20KW



长宽高:240mm*110mm*161mm
CTH-F-25KW

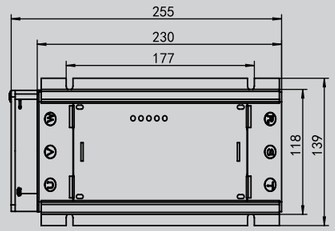


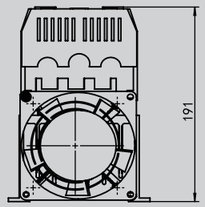
产品尺寸图 Product dimension diagram

CTH-E-型

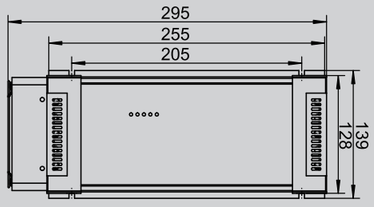
单位(mm)

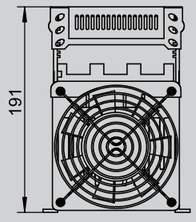
长宽高:255mm*139mm*191mm
CTH-E-30KW



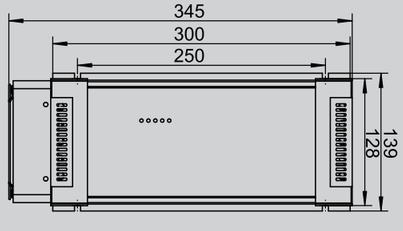


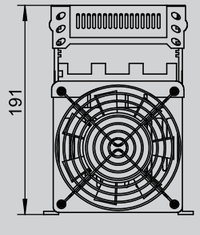
长宽高:295mm*139mm*191mm
CTH-E-50KW



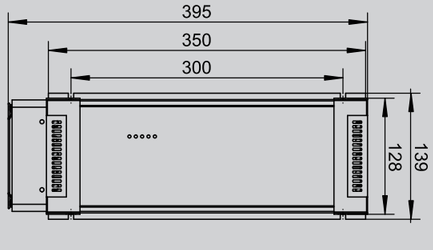


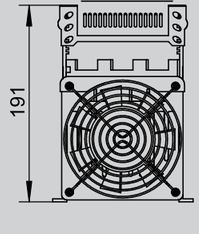
长宽高:345mm*139mm*191mm
CTH-E-70KW





长宽高:395mm*139mm*191mm
CTH-E-90KW



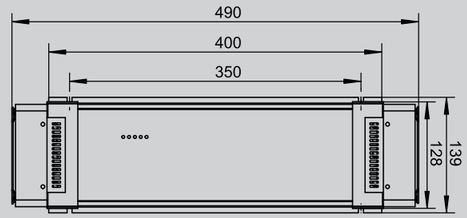


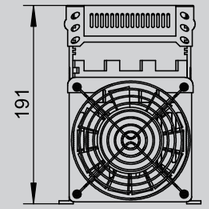
固特电气 GOLD ELECTRIC
坚持更高标准 追求卓越品质

产品尺寸图 Product dimension diagram

单位(mm)

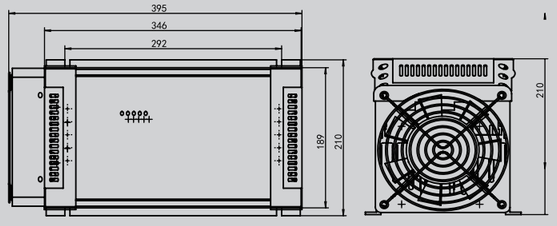
长宽高:490mm*139mm*191mm
CTH-E-110KW



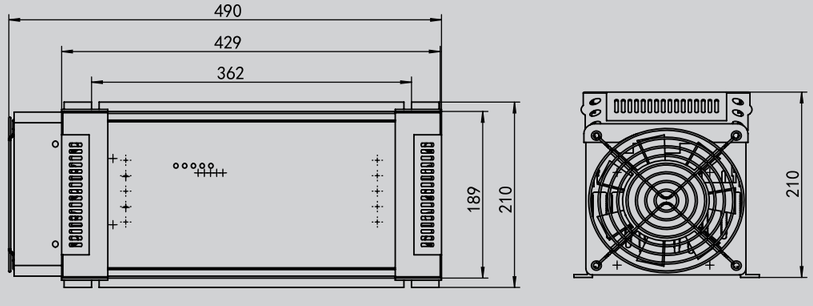


CTH-K-型

长宽高:345mm*210mm*210mm
CTH-K-70KW



长宽高:395mm*210mm*210mm
CTH-K-90KW



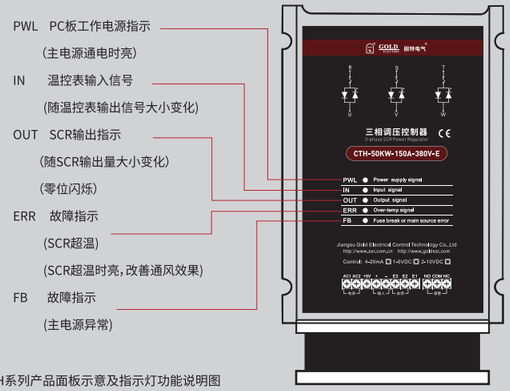
长宽高:490mm*210mm*210mm
CTH-K-110/130KW

产品用途 Product purpose

CTH系列功率控制器体积小、操作简单。主要应用于烧结炉、辊道炉、钢化炉、纤维炉、网带炉、烘干箱等电加热行业领域，实现电压、电流、功率的控制和调节。

The CTH series power controller has a small size and simple operation. Mainly used in the electric heating industry such as sintering furnaces, roller furnaces, tempering furnaces, fiber furnaces, mesh belt furnaces, drying boxes, etc., to achieve control and adjustment of voltage, current, and power.

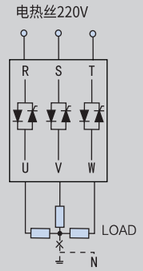
面板说明 Panel Description



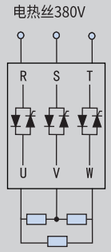
CTH系列产品面板示意及指示灯功能说明图

产品接线图 Product wiring diagram

1、电压380V输入
电热丝220V



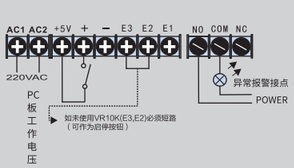
2、电压380V输入
电热丝380V

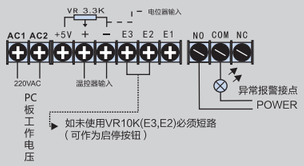


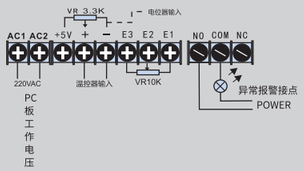
负载共线不可接零线或者地线
否则会造成SCR无法关断而失去控制

输入信号INPUT(使用万用表测量+-端子电阻):
4-20mA 输入阻抗250Ω
1-5VDC 输入阻抗30KΩ
2-10VDC 输入阻抗12KΩ

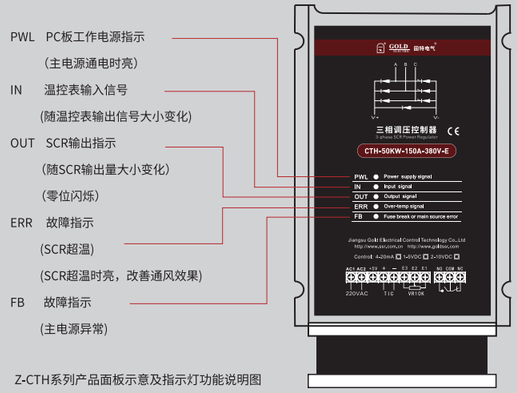
功能调整:
BIAS（VR4） 最小输出量
MAX（VR5） 最大输出量
VR1 VR2 VR3 不需做调整







面板说明 Panel Description



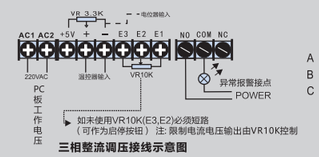
Z-CTH系列产品面板示意及指示灯功能说明图

产品接线图 Product wiring diagram

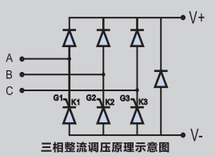
附加型:Z-CTH三相整流调压接线示意图

输入信号INPUT:
使用万用表测量+,-端子电阻
4-20mA 输入阻抗250Ω
1-5VDC 输入阻抗30KΩ
2-10VDC 输入阻抗12KΩ

功能调整:
BIAS（VR4）最小输出量
MAX（VR5）最大输出量
VR1 VR2 VR3 不需做调整



三相整流调压接线示意图



三相整流调压原理示意图

使用注意事项 Precautions for use

选型前注意事项

用户订货时须说明: (半控调压不适用于电机)

- 负载额定功率 1、额定输入电压 2、额定工作电流
- 控制方式选择:(可自由切换,无需更换主机)

1、手动电位器调节：2.2-4.7K
2、电流自动控制型号：4-20mA
3、电压自动控制型号：1-5VDC、2-10VDC



CTH系列三相数显调压控制器(485通讯)

three-phase digital voltage regulator controller (485 communication)

CE 产品具备欧盟CE认证

- 面板多只LED指示灯，显示调压控制器的工作状态及故障原因
- PC板采用SMD贴片原件，抗干扰性佳，故障率低
- 内含缓启动功能，急速变化时更平稳，使元器件更耐用
- 比例式线性输出，控温精确，精度0.3%符合各种负载要求
- 整机采用铝合金外壳，散热效果佳，100%的引导风扇气流散热
- 输入方式:4-20mA、1-5VDC、2-10VDC三种方式
- 由P1JUMP自由切换选择无需更换主机。
- 配置数显显示输出百分比，设置最大输出百分比(0-100%)及软启动时间
- 全系列内置快速保险丝及过热停止输出保护开关保护调压控制器和负载。
- PC板AC1 AC2端子输入电源电压200-240VAC
- 主电源与PC板工作电压无相序先后关系，使用方便(50HZ-60HZ自动辩识)。



可选黑色散热器

产品选型 Product Selection

产品型号	额定电压	每相额定电流	内置模块	散热器	安装孔距(mm)	外形尺寸(mm) (长*宽*高)	保险丝 规格(A)	负载最小电阻
CTH-50KW-E	380V	90A	MTDX220A	E250	200*128	295×139×191	100	8.7Ω
CTH-70KW-E	380V	125A	MTDX260A	E300	250*128	345×139×191	140	6.2Ω
CTH-90KW-E	380V	160A	MTDX320A	E350	300*128	395×139×191	180	4.8Ω

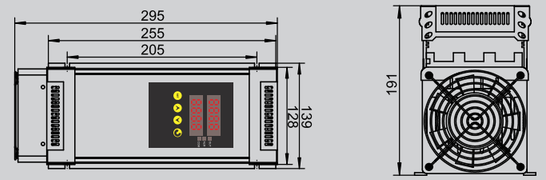
产品用途 Product purpose

CTH系列功率控制器体积小、操作简单。主要应用于烧结炉、辊道炉、钢化炉、纤维炉、网带炉、烘干箱等电加热行业领域，实现电压、电流、功率的控制和调节。

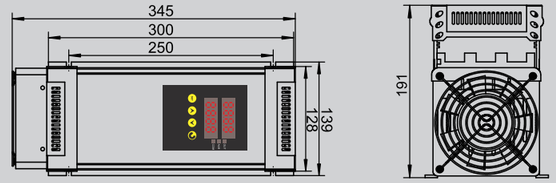
The CTH series power controller has a small size and simple operation. Mainly used in the electric heating industry such as sintering furnaces, roller furnaces, tempering furnaces, fiber furnaces, mesh belt furnaces, drying boxes, etc., to achieve control and adjustment of voltage, current, and power.

产品尺寸图 Product dimension diagram

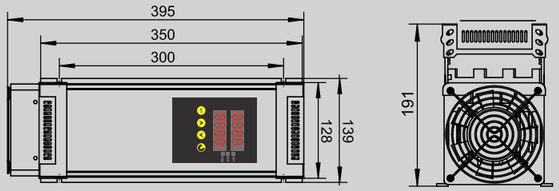
长宽高:295mm*139mm*191mm
CTH-50KW-E



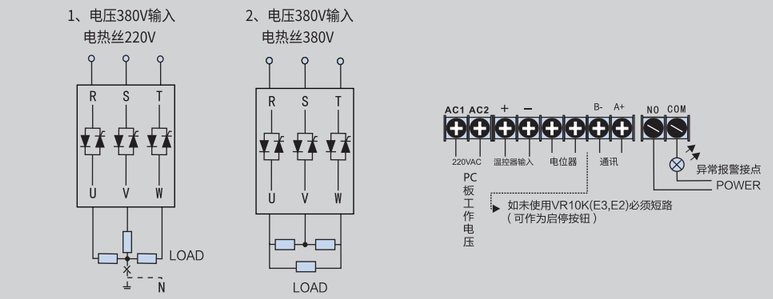
长宽高:345mm*139mm*191mm
CTH-70KW-E



长宽高:395mm*139mm*191mm
CTH-90KW-E

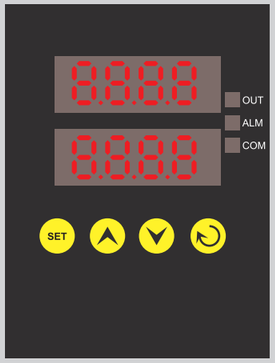


产品接线图 Product wiring diagram



负载共线不可接零线或者地线
否则会造成SCR无法关断而失去控制

面板说明 Panel Description



数显表

上排数码管:当前输入百分比显示/参数名显示
下排数码管:当前输入、输出功率显示/参数表显示
OUT指示灯:绿色,当电力调整器工作时,此灯亮
ALM指示灯:红色,当电力调整器发生异常报警时,此灯亮
COM指示灯:黄色,当通讯联机时,此灯闪烁

SET 按键:按2秒进入参数设定菜单

按键:参数往后切换/数据增加键

按键:参数往千切换/数据减少键

:数据修改确认键在初始画面可切换查看P参数

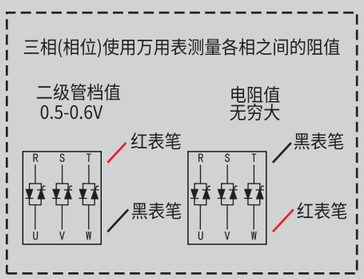
F100:限幅值
t005 :软启动
PPN2:输入信号切换
BAUD:波特率
PART:校验位
PCOL:通讯站号
Ct:互感器匝数比
PN1:厂家预留(出厂为0)
LCK:厂家预留(出厂为0)

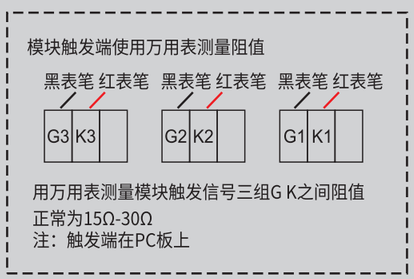
其他说明 Product wiring diagram

1、负载测试

负载未接或者负载电流小于0.6A以下,SCR无法正常工作。(负载务必大于0.6A)

2、模块组正常判断(确认保险丝是正常状态下将负载拆除)





坚持更高标准 追求卓越品质
固特电气 GOLD ELECTRIC

其他说明 Product wiring diagram

3、三相电压电流不平衡

(1)、关断电源，测量负载电阻，三相是否平衡。如果负载三相不平衡就会造成电流不平衡。
(2)、三相电源电压不平衡，是否是使用电尖端或是发电机电源的原因造成。
(3)、SCR内部故障，可能有某一相晶闸管直通或者是无触发原因造成。遇此情况请与本公司联系。
(4)、PC板元器件损坏等其它原因。

4、人为疏忽造成故障现象

(1)、负载短路造成保险丝烧断。安装完成请先用万用表测试负载是否平衡，无短路现象、电压是否正确再送电测试。
(2)、三相（RST）及负载（UVW）端子未拧紧造成故障。因为SCR为大电流产品，如果端子螺丝未拧紧导致的大电流拉弧将使电流增加数倍，从而造成端子、保险丝、模块等烧毁。

GOLDEN.S.E ™
Supreme Electric

GOLDEN
ELECTRICTECH

FROM USA *American brand | American Technology | American Patent*

更好的产品 更优的选择

Better products
Better choices

GSP48XXDA/$^{AA}_{DD}$-C

Horizontal AC Solid State Relay (Flip Version)

GOLDEN solid-state relay



Appearance patent

- Exclusive flip design
- High temperature flame-retardant material
- Imported high-performance chips
- Running indicator light display

Product purpose

Widely used in automation control fields such as electric furnace heating constant temperature systems, CNC machinery, plastic machinery, food machinery, packaging machinery, textile machinery, petrochemical equipment, entertainment facilities, etc., suitable for various resistive, inductive, and capacitive loads.

Product Advantages

VO grade flame retardant - safer and more reliable, stronger isolation - high-precision imported optocoupler, no sparking - no mechanical electric shock action, silent and noiseless - no noise interference during operation, built-in MOV clamp for high-frequency voltage - safe and worry free, first-line brand thyristor - reduces power consumption.

Product Naming Rules

G	S	P	**	**	A/D	A/D	–	C
GOLDEN	Solid State Relay	P: Square shape	Load voltage 24:40-240VAC 48:40-530VAC 66:40-660VAC	LOAD 05:5A … 80:80A	Control signal D:4-32VDC A:90-280VAC	A:AC output D:DC output		C:Clamshell

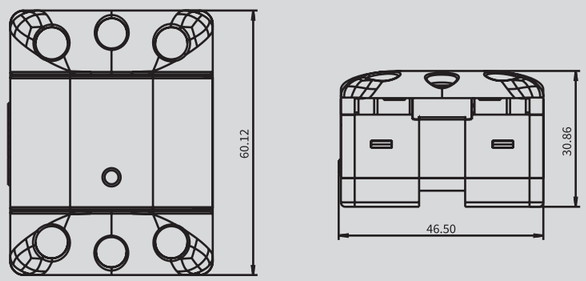
Product Selection Table

Product model	Load voltage	LOAD	Isolation Voltage	Insulation voltage	Control voltage	Action status indication
GSP4805DA-C	40-530VAC	05A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4810DA-C	40-530VAC	10A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4815DA-C	40-530VAC	15A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4820DA-C	40-530VAC	20A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4825DA-C	40-530VAC	25A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4840DA-C	40-530VAC	40A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4860DA-C	40-530VAC	60A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4880DA-C	40-530VAC	80A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication

Product parameters

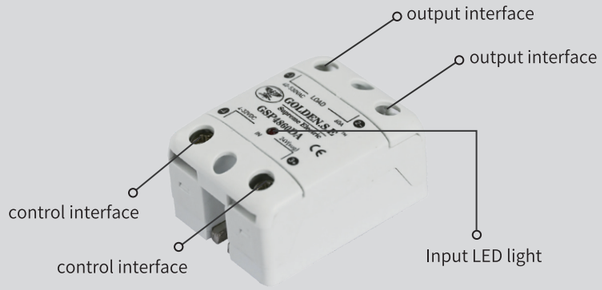
Product wiring diagram	
Control voltage: 4-32VDC	Turn-off voltage: 1VDC
Turn-on voltage: 4VDC	Control Current: 6-25mA (built-in constant current circuit)
Minimum conduction current: 0.1A	Maximum on state pressure drop: 1.5VAC
Maximum off state current: 10mA	Critical rise rate of off state voltage: 500V/us
Maximum conduction time: Random type 10ms Zero crossing type 1/2周期+1ms AC control 40ms	
Maximum shutdown time: DC control 10ms AC control 40ms	
Operating Frequency: 45-65HZ	Minimum isolation voltage: Between input and output ≥ 2500VAC
Minimum insulation voltage: Input and output on the motherboard ≥ 2500VAC	
Insulation resistance: 1000MΩ(500VDC)	Ambient Temperature: -40~80℃

Product dimension diagram

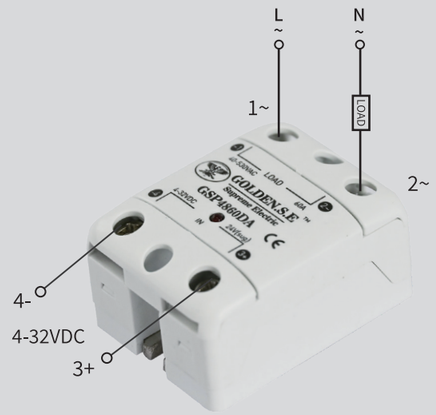


Dimensions (unit: mm)

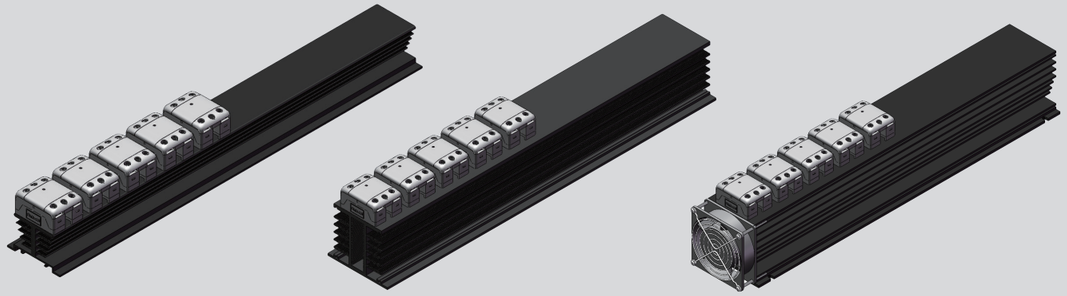
60.12mm*46.5mm*30.95mm



Product wiring diagram



Recommended radiator model



X-shaped radiator

Rated current 5-10A
it is recommended to use X-type radiator

G-type radiator

Rated current 20-30A
it is recommended to use G-type radiator

T-shaped radiator

Rated current > 30A
it is recommended to use a T-shaped radiator

Note: Fans can be optionally installed, and other specifications of heat sinks can be assembled by contacting our business for communication.

Scan now to delve into the advanced technology and extensive applications of Golden Electric in the USA. Instant access to our official website for more up-to-date product information!

GSP48XXDA/AA DD

Anti slip solid-state relay

GOLDEN solid-state relay



Appearance patent

- Configure anti misoperation transparent cover
- High temperature flame-retardant material
- Imported high-performance chips
- Running indicator light display

Product purpose

Widely used in automation control fields such as electric furnace heating constant temperature systems, CNC machinery, plastic machinery, food machinery, packaging machinery, textile machinery, petrochemical equipment, entertainment facilities, etc., suitable for various resistive, inductive, and capacitive loads.

Product Advantages

VO grade flame retardant - safer and more reliable, stronger isolation - high-precision imported optocoupler, no sparking - no mechanical electric shock action, silent and noiseless - no noise interference during operation, built-in MOV clamp for high-frequency voltage - safe and worry free, first-line brand thyristor - reduces power consumption.

Product Naming Rules

G	S	P	**	**	A/D	A/D
GOLDEN	Solid State Relay	P: Square shape	Load voltage 24:40-240VAC 48:40-530VAC 66:40-660VAC	LOAD 05:5A … 80:80A	Control signal D:4-32VDC A:90-280VAC	A:AC output D:DC output

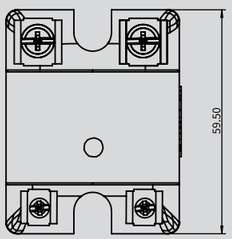
Product Selection Table

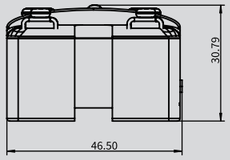
Product model	Load voltage	LOAD	Isolation Voltage	Insulation voltage	Control voltage	Action status indication
GSP4805DA	40-530VAC	05A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4810DA	40-530VAC	10A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4815DA	40-530VAC	15A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4820DA	40-530VAC	20A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4825DA	40-530VAC	25A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4840DA	40-530VAC	40A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4860DA	40-530VAC	60A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4880DA	40-530VAC	80A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication

Product parameters

Product wiring diagram	
Control voltage: 4-32VDC	Turn-off voltage: 1VDC
Turn-on voltage: 4VDC	Control Current: 6-25mA (built-in constant current circuit)
Minimum conduction current: 0.1A	Maximum on state pressure drop: 1.5VAC
Maximum off state current: 10mA	Critical rise rate of off state voltage: 500V/us
Maximum conduction time: Random type 10ms Zero crossing type 1/2周期+1ms AC control 40ms	
Maximum shutdown time: DC control 10ms AC control 40ms	
Operating Frequency: 45-65HZ	Minimum isolation voltage: Between input and output ≥ 2500VAC
Minimum insulation voltage: Input and output on the motherboard ≥ 2500VAC	
Insulation resistance: 1000MΩ(500VDC)	Ambient Temperature: -40~80℃

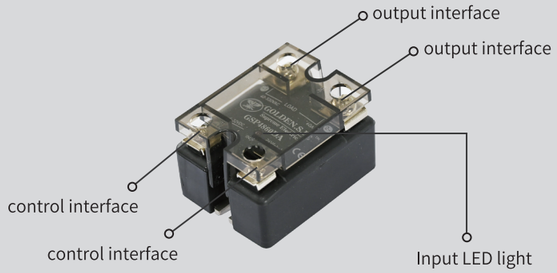
Product dimension diagram



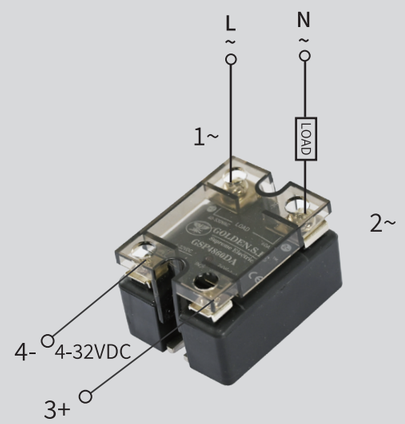


Dimensions (unit: mm)

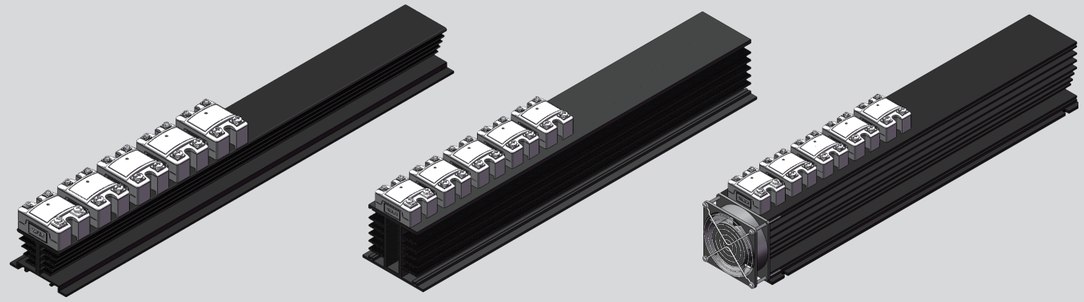
59.5mm*46.5mm*30.79mm



Product wiring diagram



Recommended radiator model



X-shaped radiator

Rated current 5-10A
it is recommended to use X-type radiator

G-type radiator

Rated current 20-30A
it is recommended to use G-type radiator

T-shaped radiator

Rated current > 30A
it is recommended to use a T-shaped radiator

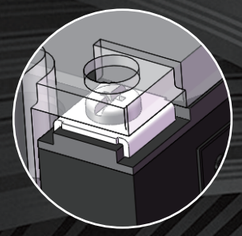
Note: Fans can be optionally installed, and other specifications of heat sinks can be assembled by contacting our business for communication.

Scan now to delve into the advanced technology and extensive applications of Golden Electric in the USA. Instant access to our official website for more up-to-date product information!

GSP48XXDA/AA DD

Anti slip solid-state relay

GOLDEN solid-state relay



Anti slip design



Appearance patent

- Configure anti misoperation transparent cover
- High temperature flame-retardant material
- Imported high-performance chips
- Running indicator light display

Product purpose

Widely used in automation control fields such as electric furnace heating constant temperature systems, CNC machinery, plastic machinery, food machinery, packaging machinery, textile machinery, petrochemical equipment, entertainment facilities, etc., suitable for various resistive, inductive, and capacitive loads.

Product Advantages

VO grade flame retardant - safer and more reliable, stronger isolation - high-precision imported optocoupler, no sparking - no mechanical electric shock action, silent and noiseless - no noise interference during operation, built-in MOV clamp for high-frequency voltage - safe and worry free, first-line brand thyristor - reduces power consumption.

Product Naming Rules

G	S	P	**	**	A/D	A/D
GOLDEN	Solid State Relay	P: Square shape	Load voltage 24:40-240VAC 48:40-530VAC 66:40-660VAC	LOAD 05:5A … 80:80A	Control signal D:4-32VDC A:90-280VAC	A:AC output D:DC output

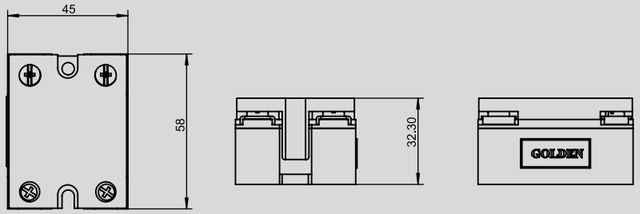
Product Selection Table

Product model	Load voltage	LOAD	Isolation Voltage	Insulation voltage	Control voltage	Action status indication
GSP4805DA	40-530VAC	05A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4810DA	40-530VAC	10A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4815DA	40-530VAC	15A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4820DA	40-530VAC	20A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4825DA	40-530VAC	25A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4840DA	40-530VAC	40A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4860DA	40-530VAC	60A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSP4880DA	40-530VAC	80A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication

Product parameters

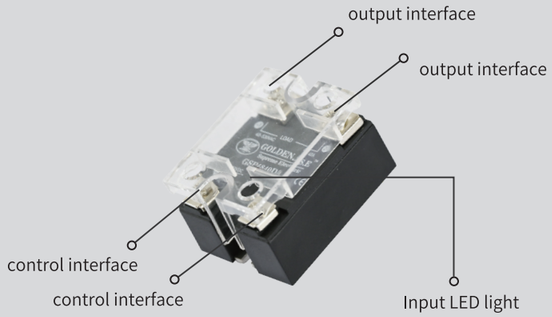
Product wiring diagram	
Control voltage: 4-32VDC	Turn-off voltage: 1VDC
Turn-on voltage: 4VDC	Control Current: 6-25mA (built-in constant current circuit)
Minimum conduction current: 0.1A	Maximum on state pressure drop: 1.5VAC
Maximum off state current: 10mA	Critical rise rate of off state voltage: 500V/us
Maximum conduction time: Random type 10ms Zero crossing type 1/2周期+1ms AC control 40ms	
Maximum shutdown time: DC control 10ms AC control 40ms	
Operating Frequency: 45-65HZ	Minimum isolation voltage: Between input and output ≥ 2500VAC
Minimum insulation voltage: Input and output on the motherboard ≥ 2500VAC	
Insulation resistance: 1000MΩ(500VDC)	Ambient Temperature: -40~80℃

Product dimension diagram

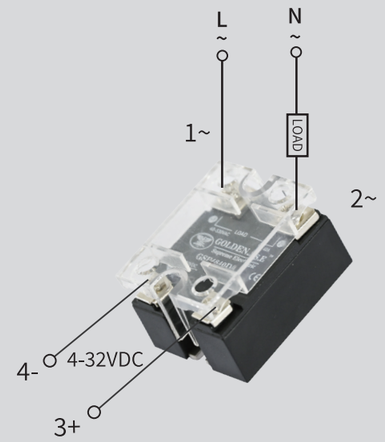


Dimensions (unit: mm)

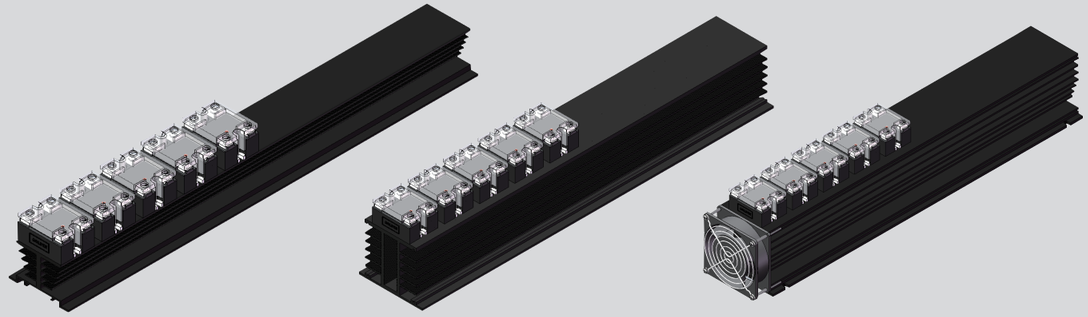
58mm*45mm*32.3mm



Product wiring diagram



Recommended radiator model



X-shaped radiator

Rated current 5-10A
it is recommended to use X-type radiator

G-type radiator

Rated current 20-30A
it is recommended to use G-type radiator

T-shaped radiator

Rated current > 30A
it is recommended to use a T-shaped radiator

Note: Fans can be optionally installed, and other specifications of heat sinks can be assembled by contacting our business for communication.

Scan now to delve into the advanced technology and extensive applications of Golden Electric in the USA. Instant access to our official website for more up-to-date product information!

GSM48XXDA/AA DD

Modular Solid State Relay

GOLDEN solid-state relay



Appearance patent

- Configure anti misoperation transparent cover
- High temperature flame-retardant material
- Imported high-performance chips
- Running indicator light display

Product purpose

This series of products is widely used in automation control fields such as electric furnace heating constant temperature systems, CNC machinery, plastic machinery, food machinery, packaging machinery, textile machinery, petrochemical equipment, entertainment facilities, etc.

Product Advantages

VO grade flame retardant - safer and more reliable, stronger isolation - high-precision imported optocoupler, no sparking - no mechanical electric shock action, silent and noiseless - no noise interference during operation, built-in MOV clamp for high-frequency voltage - safe and worry free, first-line brand thyristor - reduces power consumption.

Product Naming Rules

G	S	M	**	**	A/D	A/D
GOLDEN	Solid State Relay	M: Modular	Load voltage 48:40-530VAC 66:40-660VAC 80:40-800VAC	LOAD 40:40A … 300:300A	Control signal D:4-32VDC A:90-280VAC	A:AC output D:DC output

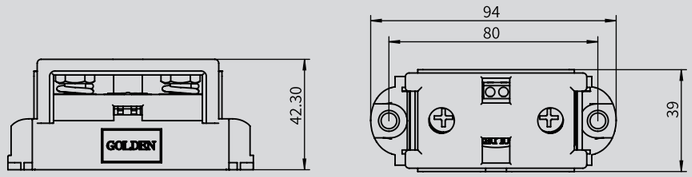
Product Selection Table

Product model	Load voltage	LOAD	Isolation Voltage	Insulation voltage	Control voltage	Action status indication
GSM4840DA	40-530VAC	40A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSM4860DA	40-530VAC	60A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSM4880DA	40-530VAC	80A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSM48100DA	40-530VAC	100A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSM48120DA	40-530VAC	120A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSM48150DA	40-530VAC	150A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication
GSM48200DA	40-530VAC	200A	⩾2500VAC	⩾2500VAC	4-32VDC	Input LED indication

Product parameters

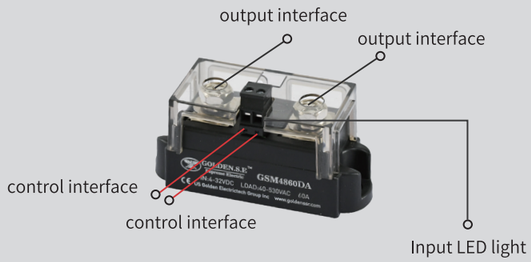
Product wiring diagram	
Control voltage: 4-32VDC	Turn-off voltage: 1VDC
Turn-on voltage: 4VDC	Control Current: 6-25mA (built-in constant current circuit)
Minimum conduction current: 10mA	Maximum on state pressure drop: 1.5VAC
Maximum off state current: 10mA	Critical rise rate of off state voltage: 500V/us
Maximum conduction time: Random type 1ms Zero crossing type 1/2周期+1ms AC control 10ms	
Maximum shutdown time: Random type 1ms Zero crossing type 1/2周期+1ms AC control 10ms	
Operating Frequency: 45-65HZ	Minimum isolation voltage: Between input and output ≥ 2500VAC
Minimum insulation voltage: Input and output on the motherboard ≥ 2500VAC	
Insulation resistance: 1000MΩ(500VDC)	Ambient Temperature: -40~80℃

Product dimension diagram

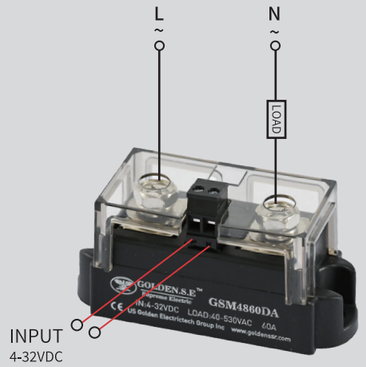


Dimensions (unit: mm)

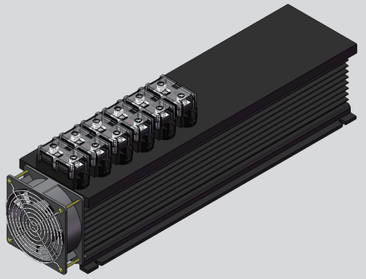
94mm*39mm*42.3mm

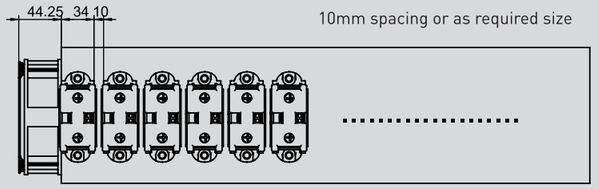


Product wiring diagram



Recommended radiator model





W-shaped radiator

Note: Fans can be optionally installed, and other specifications of heat sinks can be assembled by contacting our business for communication.

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