



28×21.5×35.5 3C:28×31.5×36 4C:28×41.5×36

## CRST13F

### 特点Features

- 体积小，重量轻，切换功率大。  
Small size, light weight, heavy reverse power
- 多种安装方法。  
Optional mounting ways.
- 结构牢固，抗冲击及抗震动性能强。  
Firm structure, strong anti-shock & anti vibration.
- 用于自动控制、通讯设备、家用电器及机床电器。  
Suitable for automatic control, telecommunication equipment, household electrical appliances and machinery electrical facilities.

### 订货信息 Ordering Information

CRST13F-2C-A-DC12V-1-L

1 2 3 4 5 6

1 型号Part number: CRST13F  
2 触点形式Contact arrangement: 1A:1A; 2A:2A; 3A:3A; 1B:1B; 2B:2B; 3B:3B  
1C:1C; 2C:2C; 3C:3C; 4A:4A; 4B:4B; 4C:4C  
3 引出端Terminal: A:插入式inserting type; B:PC板式type  
4 线圈额定电压(V): AC:6,12,24,36,48,110,120,220,240  
Coil rated voltage DC:6,12,24,36,48,110,220  
5 罩壳Cover: 1:1式Mode; 2:2式Mode  
6 线圈瞬态抑制: L:带发光二极管with LED;  
Coil transient suppression D:带阻尼二极管with diode;  
LD:带发光二极管和阻尼二极管with LED & diode;  
无:标准式 NIL:standard;

### 触点参数Contact Data

触点材料Contact Material	AgCdO AgSnO <sub>2</sub>			
触点形式Contact Arrangement	1A(1H)(SPSTNO) 1B(1D)(SPSTNC) 1C(1Z)(SPDT(B-M))	2A(2H)(DPSTNO) 2B(2D)(DPSTNC) 2C(2Z)(DPDT(B-M))	3A(3H)(SPSTNO) 3B(3D)(SPSTNC) 3C(3Z)(SPDT(B-M))	3A(3H)(SPSTNO) 3B(3D)(SPSTNC) 4C(4Z)(4PDT(B-M))
触点负载	阻性Resistive 线圈功耗 DC Contact Rating Coil power AC	15A, 20A/277VAC, 28VDC 0.9W 1.2VA	10A/277V AC, 12A/250VAC, 28VDC 0.9W 1.2VA	1.4W 2VA 2.5VA
最大切换电压Max. Switching Voltage	30VDC 300VAC 最大切换电流Max. Switching Current:20A			
接触电阻或压降Max. Resistance or Voltage drop	≤50mΩ			
寿命	电气Electrical	10 <sup>6</sup>		
Operational life	机械Mechanical	2×10 <sup>7</sup>		

### 线圈参数Coil Parameter

线圈电压 Coil voltage VDC	线圈电阻 Coil resistance Ω ±10%		吸合电压VDC(最大) Pickup voltage VDC(max) (额定电压的80%) (80% of rated voltage)	释放电压VDC(最小) Release voltage VDC(min) (额定电压的10%) (10% of rated voltage)	线圈功耗 Coil power W	动作时间 Operate Time ms	释放时间 Release Time ms
	额定 Rated	最大 Max.					
6	6.6	40	4.8	0.6	0.9	<25	<25
12	13.2	160	9.6	1.2			
24	26.4	640/650	19.2	2.4			
36	39.6	1440	28.8	3.6			
48	52.8	2600	38.4	4.8			
110	121	11000	88.0	11.0			
220	242	53778	176	22.0	1.4	<25	<25
12	13.2	107	9.6	1.2			
24	26.4	410	19.2	2.4			
36	39.6	926	28.8	3.6			
48	52.8	1700	38.4	4.8			
110	121	8500	88.0	11.0			
220	242	34571	176	22.0	1.5	<25	<25
12	13.2	100	9.6	1.2			
24	26.4	350	19.2	2.4			
36	39.6	865	28.8	3.6			
48	52.8	1600	38.4	4.8			
110	121	6900	88.0	11.0			
220	242	32267	176	22.0			

注意: 1. 使用的线圈电压低于线圈额定电压时将会损害继电器的工作。

CAUTION: The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.

2. 吸合、释放电压仅供检测用, 不是设计的使用指标。

Pickup and release voltage are for test purposes only and are not to be used as design criteria.

### 线圈参数Coil Parameter

线圈电压 Coil voltage VAC	线圈电阻 Coil resistance Ω ±10%		额定电流 Rated current mA	吸合电压VAC(最大) Pickup voltage VAC(max) (额定电压的80%) (80% of rated voltage)	释放电压VAC(最小) Release voltage VAC(min) (额定电压的30%) (30% of rated voltage)	线圈功耗 Coil power VA	
	额定 Rated	最大 Max.					
6	6.6	11.5	183.0	4.8	1.8	1.2	
12	13.2	46	91.0	9.6	3.6		
24	26.4	184	46.0	19.2	7.2		
36	39.6	320	33.0	28.8	10.8		
48	52.8	735	24.0	38.4	14.4		
110	121	3900	11.0	88.0	33.0		
120	132	4550	9.8	96.0	36.0	2.0	
220	242	14400	5.5	176	66.0		
240	312	19000	4.2	192	72.0		
12	13.2	24	167	9.6	3.6		2.5
24	26.4	100	83	19.2	7.2		
36	39.6	230	56	28.8	10.8		
48	52.8	410	42	38.4	14.4		
110	121	2300	18	88.0	33.0		
220	242	8600	9.1	176	66.0		
240	312	12100	6.2	192	72.0		

注意: 1. 使用的线圈电压低于线圈额定电压时将会损害继电器的工作。

CAUTION: The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.

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### 技术特性Operation condition

绝缘电阻Insulation Resistance	最小 Min 1000M Ω (500VDC)
介质耐压Dielectric Strength	50Hz 1000VAC
断开触点间Between contacts	50Hz 1500VAC
触点与线圈间Between contact and coil	
耐冲击Shock resistance	100m/s * 11ms
抗振性Vibration resistance	10~55Hz 双振幅amplitude 1.5mm
引出端强度Terminals strength	8N 4N(PC式type)
可焊性Solderability	235℃ ± 2℃ 3 ± 0.5s
环境温度Ambient Temperature	-40~70℃; -25~70℃ (3C,4C)
相对湿度Relative Humidity	85% (30℃)
质(重)量 Mass	37g(1C,2C);50g(3C);70g(4C)

### 安全认证Safety approvals

安全认证Safety approval			
负载 Load	1A,1B,1C:20A/277VAC,28VDC ½HP120VAC,240VAC 2A,2B,2C,3A,3B,3C,4A,4B,4C: 10A/277VAC,12A/250VAC,28VDC ½HP 125VAC 2A,2B,2C: ½HP120VAC,240VAC	10A/277VAC,28VDC	10A/220VAC