

PCB 继电器

TRA1

- 10A switching capability
- SPST-NO&SPDT configuration
- Transparent sealed available
- Class B/F available
- Conform to RoHS,ELV directive



ORDERING CODE 订购代码

TRA1	D	—	12VDC	—	S	—	H	(2)
1	2		3		4		5	6
1. Relay Model 继电器型号 2. Coil Power 线圈功率 D=0.72W, L=0.54W 3. Coil Nominal Voltage 线圈额定电压 3,5,6,9,12,24,48VDC 4. S: Sealed 密封 5. 触点转换形式 Z: Form C H: Form A 6. Nil: Standard Type 标准 2: Transparent Cover								

COIL DATA 线圈参数 (at 20℃)

Nominal Voltage额定电压(VDC)	3	5	6	9	12	24	48	0.54W
Coil Resistance线圈阻值(Ω ± 10%)	17	46	67	150	270	1050	4250	
Rated Current额定电流(mA)	180	108	90	60	45	22.5	11.3	
Max Operate Voltage 最大吸合电压(VDC)	2.4	4	4.8	7.2	9.6	19.2	38.4	
Min Release Voltage最小释放电压(VDC)	0.15	0.25	0.3	0.45	0.6	1.2	2.4	
Coil Resistance线圈阻值(Ω ± 10%)	13	35	50	110	200	800	3200	0.72W
Rated Current额定电流(mA)	240	144	120	80	60	30	15	
Max Operate Voltage 最大吸合电压(VDC)	2.4	4	4.8	7.2	9.6	19.2	38.4	
Min Release Voltage最小释放电压(VDC)	0.15	0.25	0.3	0.45	0.6	1.2	2.4	
Max ApplicableVoltage 最大过载电压	70℃时额定电压的130%，23℃时额定电压的170%							

CONTACT DATA 触点参数

Contact Form触点形式	1H/1Z
Contact Material触点材料	Silver Alloy
Load负载	Resistive load(COS Φ =1)
Contact Ratings触点负载	10A 240VAC 10A 30VDC
Minimum load 最小负载	100mA 5VDC
Max Switching Voltage最大转换电压	250VAC/30VDC
Max Switching Current最大转换电流	12A
Max Switching Power 最大转换功率	2500VA/300W
Contact Resistance接触电阻	100m Ω Max at 6VDC 1A
Life Expectancy寿命	Electrical 电气寿命: 100,000 Operations(at30Operations/minute)
	Mechanical机械寿命: 10,000,000 Operations(at300Operations/minute)

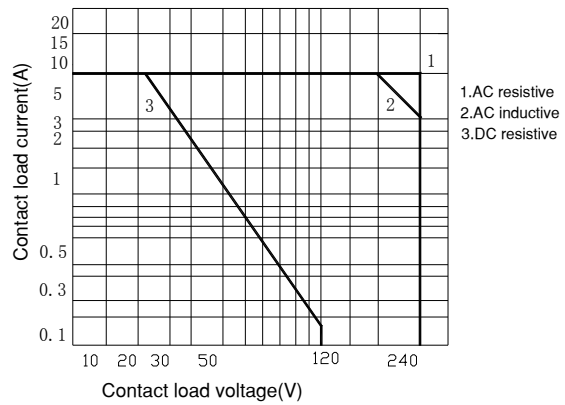
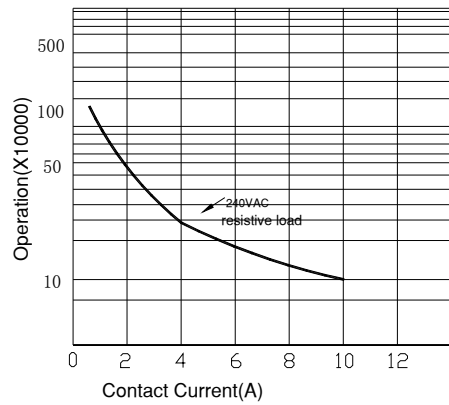
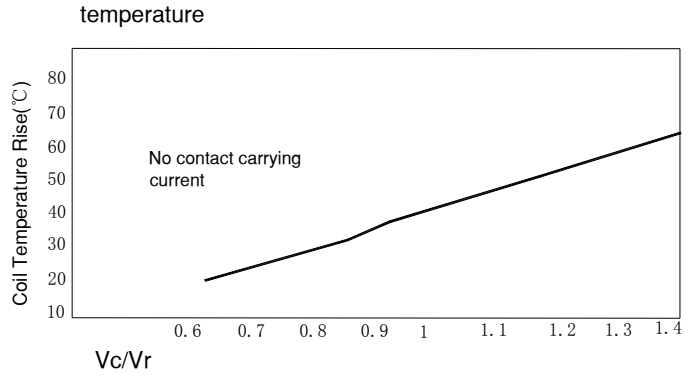
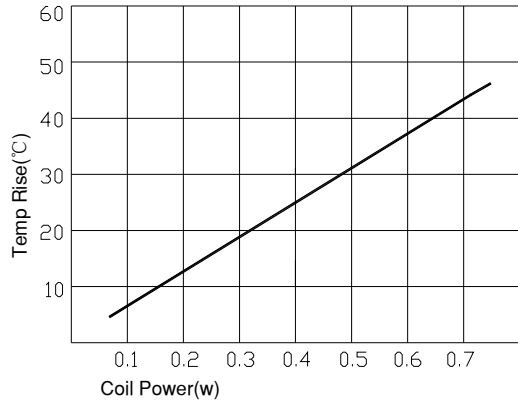
■ CHARACTERISTICS DATA 性能参数

Insulation Resistance绝缘阻值	100M Ω Min at 500VDC
Dielectric Strength Between Open Contacts触点间耐压	1000VAC(for one minute)
Between Contacts and coil触点与线圈间耐压	5000VAC(for one minute)
Operate Time吸合时间	20ms
Release Time释放时间	10ms
Temperature Range环境温度	-40℃to+85℃
Shock Resistance冲击	Operating Extremes动作极限: 10G 11ms
	Damage Limits破坏极限: 100G 6ms
Vibration Resistance振动	10-55Hz, 1.5mm
Max. switching frequency最大转换频率	Mechanical:18,000operations/hr
	Electrical:1,800operations/hr
Humidity湿度	40-85%
Weight重量	Approx 14g
Safety Standard安全标准	UL cUL TÜV CQC

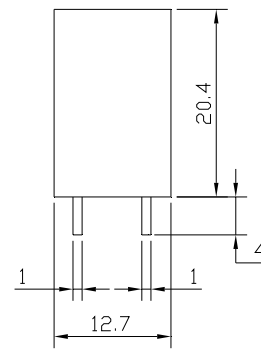
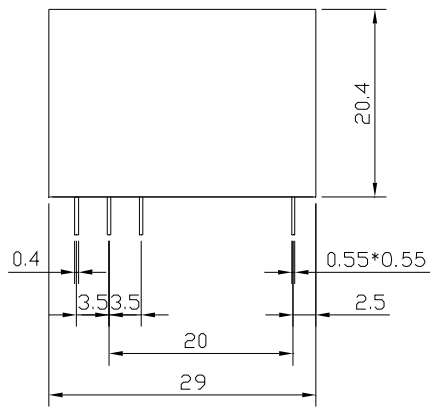
■ APPROVED STANDARDS 安全标准

Model(型号)	Coiling rating (线圈电压)	Safety Standard (安全标准)	Contact rating (触点负载)
TRA1	3 to 48VDC	TÜV	10A 240VAC 10A 30VDC
		UL/cUL	10A 240VAC 10A 30VDC
		CQC	10A 240VAC

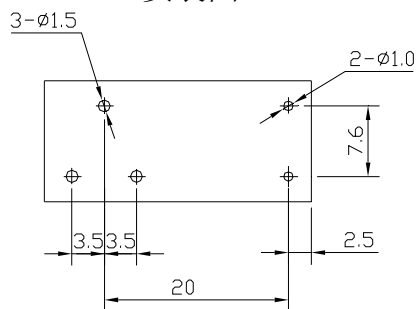
■ ENGINEERING DATA 设计参数



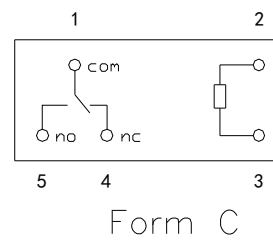
■ OVERALL AND MOUNTING DIMENSIONS 安装图



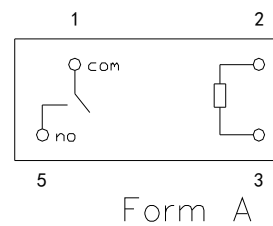
安装图



接线图



Form C



Form A

- 备注：1) 产品部分外形尺寸中未注尺寸公差：当外形尺寸 $\leq 1\text{mm}$ 时，公差为 $\pm 0.2\text{mm}$ ；当外形尺寸在 $1\sim 5\text{mm}$ 时，公差为 $\pm 0.3\text{mm}$ ；
当外形尺寸 $> 5\text{mm}$ 时，公差为 $\pm 0.4\text{mm}$ 。
2) 安装孔尺寸中未注尺寸公差均为 $\pm 0.1\text{mm}$ 。

声明：

本产品规格书仅供客户使用时参考，如有更改，恕不另行通知。

Таблица возможной замены реле

силовые реле

HONGFA	TIANBO	SONGLE	HELISUN	OMRON
HF3FF	HJR-3FF	SRD(T73)	HLS8-T73	G5L
HF10FF-2			HLS-MK2P	MK2
HF10FF-3Z			HLS-MK3P	MK3
HF13F			HLS-13F	
HF18FF	HJQ-22		HLS-4453(18F)-4	MY4
HF21FF	HJR-21FF	SRU(22F)	HLS8-22F	G5L-E
HF32F	TRG1	SRSB	HLS-32F	835/835NL
HF32FA/32FA-T	TRG1	SRSB	HLS-32F	835/835NL
HF32FA-G	TRG1	SRSB	HLS-32F	835/835NL
HF33F	TRG2	SRSC	HLS-33F	G5SB
HF62F	TRA2F	SMIH(14FHA)	HLS-14FK	G5J
HF46F/HF46F-G	TRGB			202/202H
HF49FD				G5J
HF102F	TRAF		HLS-102F	G4A
HF115F	TRC2	SMIH(14FH)	HLS-14F2	G2RL
HF115FP	TRC3	SMIH(14FH)	HLS-14F3	
HF140FF	TRA3		HLS-14F	G2R/G2RG
HF13F	HJQ-13F-2C	SMB(13F)	HLS-13F-2	LY2
HF2100	HJQ-15F-1	SLC(T91)	HLS-T91(16F)-1	G7G
HF105F - 4	HJQ-15F-3	SLCH(T92)		
HF105F-1	HJQ-15F	SLA(T90)	HLS-T90(15F)	G8P
HF2160	HJQ-15F-2	SLI(T93)	HLS-T91(16F)-2	G7G/G8G
HF165FD	HJQ-15F	SLA	HLS-T90(15F)	G8P
JQC-21FF	HJR-21FF	SRD(T73)	HLS8-22F	
HF7FF	HJR-7FF	SRG(4123)	HLS8-T73	
HF141FF	TRA1		HLS-14F1	G2R
HF14FW	TRA2	SMIH(14FH)	HLS-14F2	G2R
HF14FF	TRA1		HLS-14F	G2R
HF36F	TRA4			
HF42F	TRA5			G5PA-2
HF8	TRDH	SRI(T72)	HLS-T72	
HF102F			HLS-102F	G4A
HLS-4453(18F)-2		SMBH(4453)	HLS-4453(18F)-2	MY2
HF18FF-3Z			HLS-4453(18F)-3	MY3

сигнальные реле

HONGFA	TIANBO	SONGLE	HELISUN	OMRON
HFD2	HJR1	SRC	HLS-4078	G5V-2
HFD4				
HFD27	HJR1-2	SRC	HLS-4078	G5V-2
HFD41	HJR4102	SRS		
HF41F			HLS6-4100H-1	G2E
HM4101F	HJR4102E			
HFD23			HLS6-23F	G5V-1

автомобильные реле

HONGFA	TIANBO	SONGLE	HELISUN	OMRON
HFKM, HFKS	TRAW	SLE(4117)	HLS-4117	
HVF6	TRFM			G8HN
HFKP	TRKP	SLB	HLS-4120	G8PE
	TRS			
	TRV3			
HFV4	TRV4	SLD	HLS-CMA3	G8JN
	TRV5			
HFV7	TRV6	SLDH	HLS-CMA3-1	G8JR
HFKW	HJR78F	SRA(T74)	HLS-T78	G8QN
			HLS-4121/4122	
HFV6		SLM	HLS-CMA6	G8H