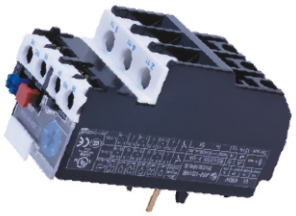
JRS4-dR系列热过载继电器
JRS4-dR Range Thermal Overload Relay

一、用途 APPLICATION

JRS4-dR系列热过载继电器用于交流50Hz/60Hz，额定绝缘电压690V，额定工作电压至660V，电流0.1A-36A的电路中,用作交流电动机的过载和断相保护之用.

JRS4-dR range thermal overload relay is used in AC 50Hz (or 60Hz); rated voltage is up to 660V, for protecting AC motor against overload or phase-breaking.



二、型号、参数及尺寸
TYPE、 PARAMETERS AND DIMENSION

■ 型号及含义 type and means

JR S 4 – □ □ d R / □

- “TH” 湿热带产品， “C” 船用品 "TH" in the Humid Tropics of the product, "C" boat supplies
- 改进型，可与GSC3系列接触器组合 Improved, with access to family GSC3 combination
- 产品系列代号d Product line, code-named d
- 热元件标号（三位数字） Hot grade components (number three)
- 规格代号，用匹配组合的交流接触器额定工作电流表示（两位数字） Code specifications, matching the combination of AC contactor rated current that (number two)
- 设计序号 Design serial number
- 三相 Three-phase
- 热过载继电器 Thermal overload relay

■ 结构形式 structure type

△ 双金属片式； Bimetal type

△ 辅助触头为电气上分开的一常开和一常闭触头；
Auxiliary contacts are one normally open and one normally closed;

△ 三相； Three phase

△ 有常闭触头断开钮； With normally closed contact disconnect button

△ 脱扣等级：10级； Trip grade: class 10

△ 有机构检测钮； With device test button

△ 有整定电流调节装置； Setting current regulator devices

△ 有手动和自动复位钮；Hand operate and automatic reset

△ 有周围空气温度补偿； With ambient temperature compensation

△ 有脱扣指示；With release showing

△ 带断相保护；With phase-breaking protect

■ 动作特性 action feature

动作特征 action feature	序号 No.	整定电流倍数 Setting current multiples 任意二相 Arbitrary two phase	另一相 Other phase	动作时间 Action time	起始条件 Start condition	周围空气温度（℃） Ambient temperature
各相负载不平衡时 Imbalance load of phases	1	1.00	0.90	>2h	冷态 Cold station	20±5
	2	1.15	0	<2 h	接序1试验后 After test No.1	
各相负载平衡时 balance load of phases	1	1.05		>2h	冷态 Cold station	20±5
	2	1.20		<2h	接序1试验后 After test No.1	
	3	1.50		<4min	接序1试验后 After test No.1	
	4	7.20		4S<Tp≤10S	冷态 Cold station	
温度补偿性能 Temperature compensation capacity	1	1.05		>2h	冷态 Cold station	40±5
	2	1.20		<2h	接序1试验后 After test No.1	
	3	1.05		>2h	冷态 Cold station	-5±2
	4	1.30		<2h	接序3试验后 After test No.3	

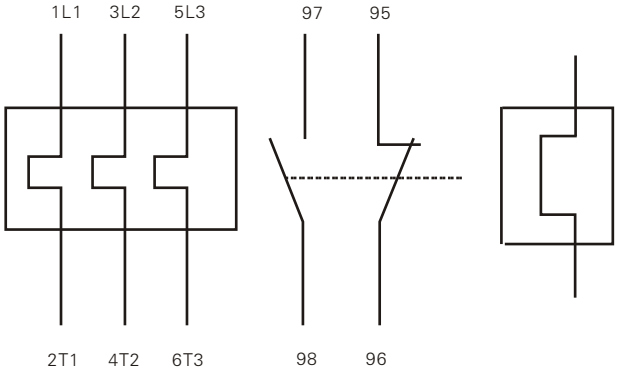
主要技术参数 main technical parameters

型 号type		JRS4-09-25dR	JRS4-32dR
额定绝缘电压Ui(V) Rated insulation voltage		690	
辅助电路 attached circle	额定工作电压Ue(V)及使用类别 Rated work voltage and use classification	AC-15：380V 220V DC-13：220V 110V	
	约定发热电流Ith A Conventional thermal current	5A	
	可接通最小负载 Connect minimum load	24V,10mA	
周围空气温度(℃) ambient temperature		-5~+40	
海拔(m) elevation		≤2000	
大气条件environment condition		周围空气温度为40° 时,大气相对湿度不超过50%,20° 时最大相对湿度不超过90% Relative humidity is not exceeding 50% at the maximum ambient temperature +40℃	
符合的标准standard		IEC 60947-4 GB14048.4	
贮存环境storage environment		温度-25℃～55℃,相对湿度(25℃时)95% Temperature -25 ℃ ~ 55 ℃, relative humidity (25 ℃ when) 95%	
污染等级pollution grade		3级 pole	
外壳防护等级out-frame protect grade		Ip10	
安装条件 installing condition		安装面与垂直面的倾斜度不大于5° the tilt and swing gradient≤5°	
主回路接线能力 Main circuit wiring capacity	软 线soft wire（mm^2）	4	10
	硬 线hard wire(mm^2)	6	16
	根数 root	2	2

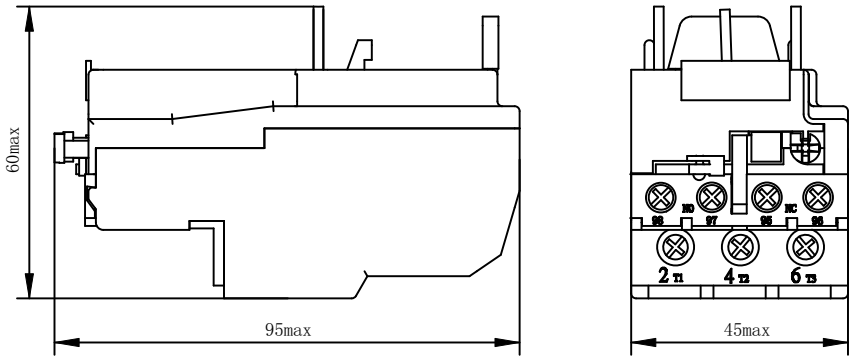
整定电流调节范围及编号 Setting current adjust area and serious no.

型号type	热元件 Hot components		(SCPD)熔断器(A) fuse box		可插接的交流接触器型号 Can plug the AC contactor model
	编号 No.	整定电流调节范围(A) Setting current range (A)	a M	gG	
JRS4-09dR	301	0.1～0.16	0.25	2	GSC3-09～18
	302	0.16～0.25	0.5	2	
	303	0.25～0.40	1	2	
	304	0.40～0.63	1	2	
	305	0.63～1	2	4	
	306	1.0～1.6	2	4	
	307	1.6～2.5	4	6	
	308	2.5～4	6	10	
	310	4～6	8	16	
	312	5.5～8	12	20	
	314	7～10	12	20	
JRS4-12dR	316	9～13	16	25	
JRS4-18dR	321	12～18	20	35	
JRS4-25dR	322	17～25	25	50	GSC3-25
JRS4-32dR	353	23～32	40	63	GSC3-32
	355	28～36	40	80	

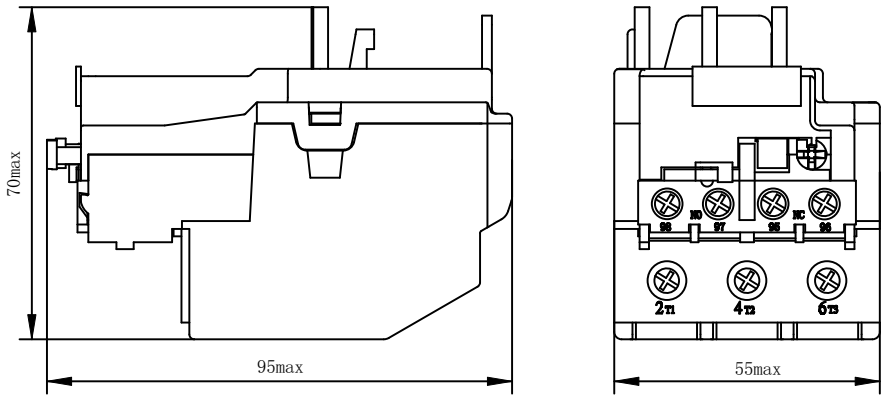
热过载继电器主、辅电路接线图
thermal relay main、attached circle wiring picture



外形尺寸与安装尺寸 outline and installation size



JRS4-09～25dR的外形尺寸与安装尺寸
JRS4-09～25dR outline and installation size



JRS4-32dR的外形尺寸安装尺寸
JRS4-32dR outline and installation size

三、船用热过载继电器 MARINE THERMAL RELAY

■ 周围空气温度：-5℃～+40℃。Ambient temperature: -5℃～+40℃;

△ 大气条件：可有凝露、盐雾、霉菌、海上潮湿空气等存在。
Air condition: be able to bear the influence of moisture in the air、salt fog、oil fog、 mould、humid air on the sea;

△ 倾斜、摇摆：各方向不超过22.5°，周期10S。
Tilt and vibration: all direction should low than 22.5°,cycle 10S.

△ 振动：可安装在频率2～13.2Hz，振幅为±1，频率13.2～80Hz，加速度为±7m/s²。
Shock: can bear frequency 2-13.2Hz and amplitude in ±1mm or frequency 13.2～80Hz and acceleration ±7m/s²

△ 电源电压和频率变化：稳态电压变化为额定值的-10%～+6%稳态频率变化为额定值的±5%。
Power voltage and frequency changes: steady-state voltage is -10%～+6% of rated voltage, steady-state frequency change is ±5% or rated frequency.

△ 安装面与垂直面斜度不大于5°，应按正常位置安装。
The inclined angle between the mounting surface and vertical surface no more than 5°, located on the place of non-sensible compact and vibration.

四、订货须知 ORDER NOTICE

△ 订货时必须说明热过载继电器的产品代号，湿热带产品、船用产品还须注明代号“TH”、“C”.
Need remark thermal relay's type、installation way and order volume.
Remark “TH” ± to humid hot tropic product、and remark “C” ± to marine product.

△ 如普通型：JRS4-09308dR

△ 船用型：JRS4-09308dR/C
Example: normal: JRS4-09308dR
Marine: JRS4-09308dR/C