

Standard: IEC60947-4-1 **CB CE RoHS**

## 1. Description

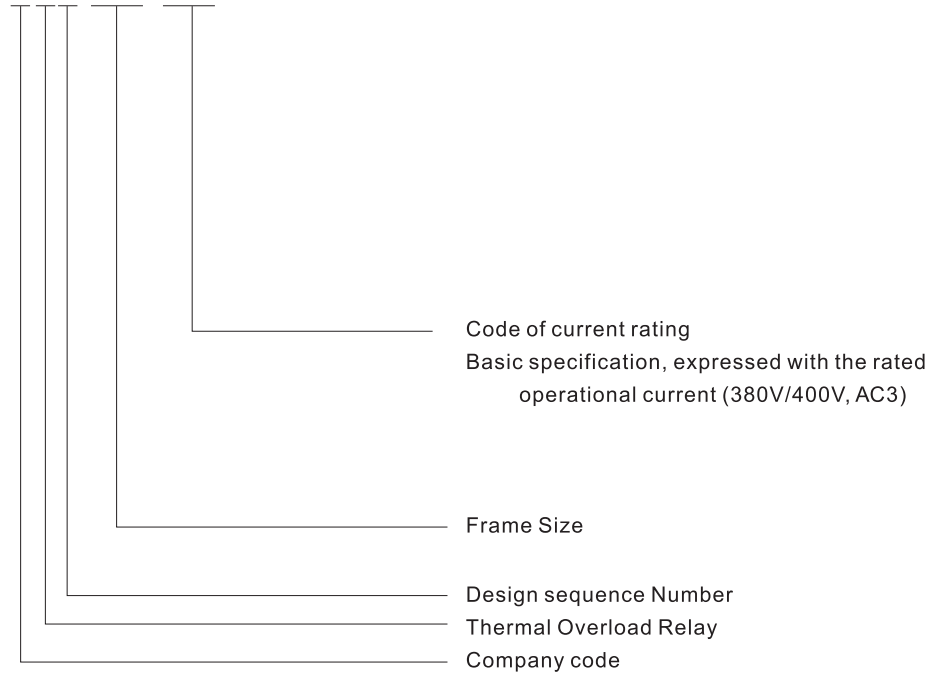


CR2-03

- Electric value: AC 50/60Hz, 690V, 0.1A~630A;
- Tripping class: 10A;
- Mounting version:
  - a. Plug-in: Available for CR2-03,13,23,33,43;
  - b. Independent: Available for CR2-53, 63;
- Standard: IEC/EN 60947-4-1

## 2. Type Designation

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CR2-13



CR2-23



CR2-33

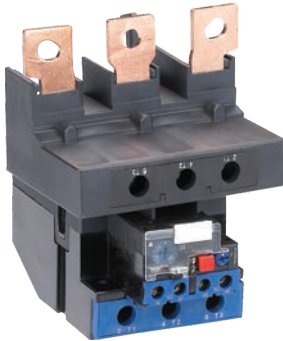
## 3. Feature

- 3.1 3-phase bimetal
- 3.2 Continuously readjustable current settings
- 3.3 Temperature compensation
- 3.4 Tripping indicator
- 3.5 Test button
- 3.6 Stop button
- 3.7 Manual and automatic reset button
- 3.8 Electrically separated 1N/O plus 1N/C contact

## 4. Technical Specification

### 4.1 Protection property

Item	Series No.	I/In		Operating time $T_p$	Test condition
Overload protection	1	1.05		>2 h	Start from cold status
	2	1.2		$\leq 2h$	Start from heat status, right after item No.1
	3	1.5		$\leq 2min$	Start from heat status, right after item No.1
	4	7.2		$2s < T_p \leq 10s$	Start from cold status
Phase failure protection	5	Any two phases	Another phase	>2 h	Start from cold status
		1.0	0.9		
6	1.15	0	$\leq 2 h$	Start from heat status, right after item No.5	



CR2-43

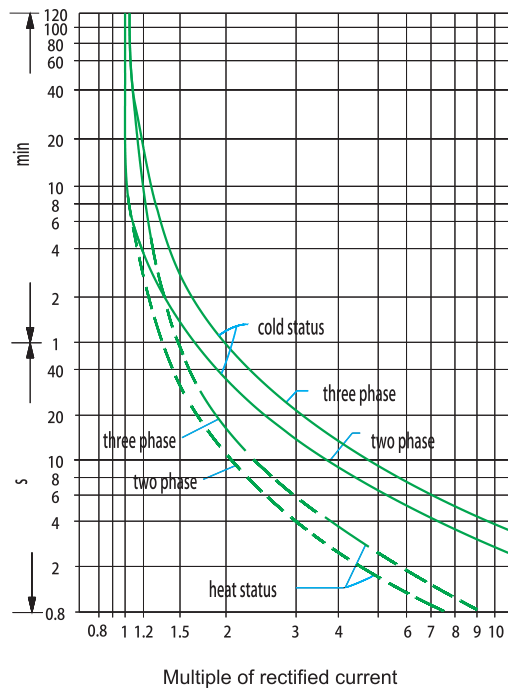


CR2-53



CR2-63

### 4.2 Curve



### 4.3 Main Technical Data

Phase failure protection function	Yes	
Automatic & manual reset	Yes	
Temperature compensation	Yes	
Tripping indicator	Yes	
Test & stop pushbutton	Yes	
Mounting mode	Plug-in Yes Independent Yes	
No. of contacts	1N/O+1N/C	
Auxiliary contacts	Rated current (A) (AC-15 220V)	2.73
	Rated current (A) (AC-15 380V)	1.58
	Rated current (A) (DC-13 220V)	0.2

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## 5. Assembly with contactor

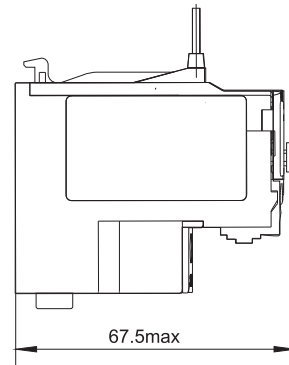
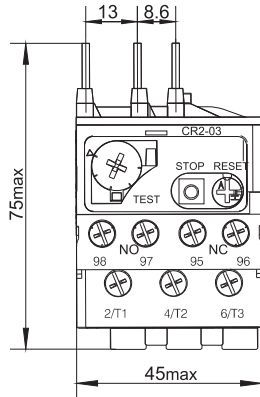
Model of overload relay	Code	Rated current (A)	Recommended fuse type (RT16 is recommended)		Contactor Matched
			aM	gG	
CR2-03	0301	0.1~0.16	0.25	2	CC1-09K CC1-12K
	0302	0.16~0.25	0.5	2	
	0303	0.25~0.4	1	2	
	0304	0.4~0.63	1	2	
	0305	0.63~1	2	4	
	0306	1~1.6	2	4	
	0307	1.6~2.5	4	6	
	0308	2.5~4	6	10	
	0310	4~6	8	16	
	0312	5.5~8	12	20	
	0314	7~10	12	20	
	0316	9~13	16	25	
CR2-13	1301	0.1~0.16	0.25	2	CC1-09 CC1-12 CC1-18 CC1-25 CC1-32
	1302	0.16~0.25	0.5	2	
	1303	0.25~0.4	1	2	
	1304	0.4~0.63	1	2	
	1305	0.63~1	2	4	
	1306	1~1.6	2	4	
	1307	1.6~2.5	4	6	
	1308	2.5~4	6	10	
	1310	4~6	8	16	
	1312	5.5~8	12	20	
	1314	7~10	12	20	
	1316	9~13	16	25	
	1321	12~18	20	35	
	1322	17~25	25	50	
CR2-23	2353	23~32	40	63	CC1-32
	2355	30~40	40	80	
CR2-33	3353	23~32	40	63	CC1-40 CC1-50 CC1-65 CC1-80 CC1-95
	3355	30~40	40	100	
	3357	37~50	63	100	
	3359	48~65	63	100	
	3361	55~70	80	125	
	3363	63~80	80	125	
	3365	80~93	100	160	
CR2-43	4366	80~104	125	200	CC1-115 CC1-150
	4367	95~120	125	224	
	4368	110~150	160	250	
CR2-53	5369	80~125	125	200	CC1-115 CC1-185 CC1-150 CC1-225
	5370	100~160	160	250	
	5371	125~200	200	315	
CR2-63	6372	160~250	250	400	CC1-185 CC1-400 CC1-225 CC1-500 CC1-265 CC1-630 CC1-330
	6373	200~315	315	500	
	6374	250~400	400	630	
	6375	315~500	500	800	
	6376	400~630	630	800	

# CR2 Thermal Overload Relay

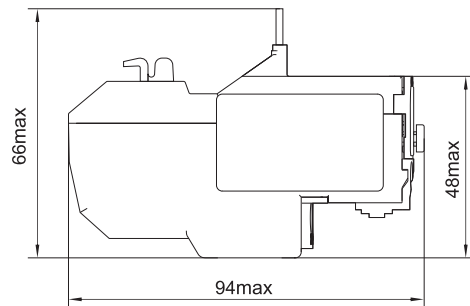
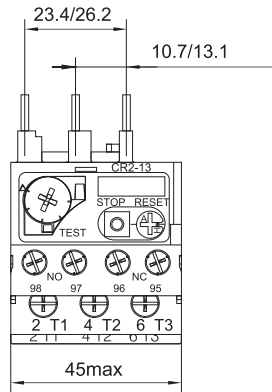


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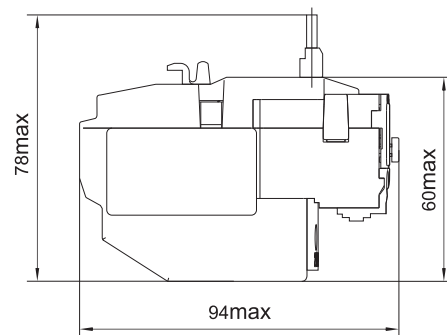
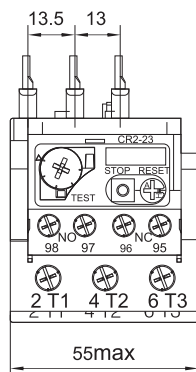
## 6. Overall and mounting dimension (mm)



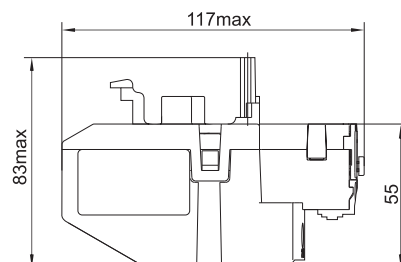
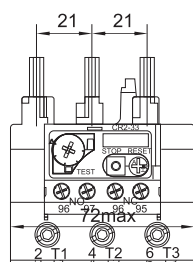
CR2-03



CR2-13



CR2-23

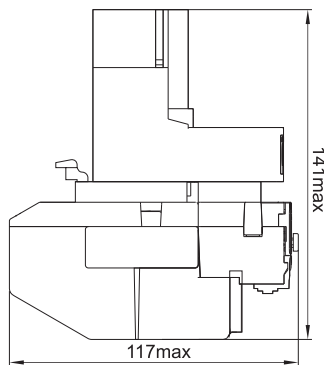
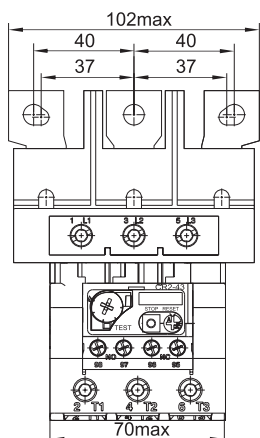
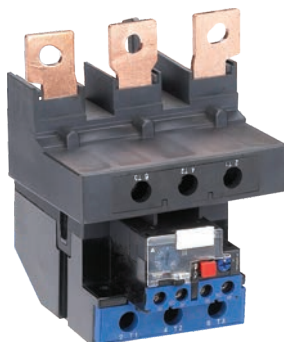


CR2-33

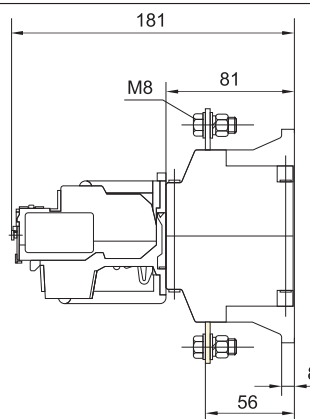
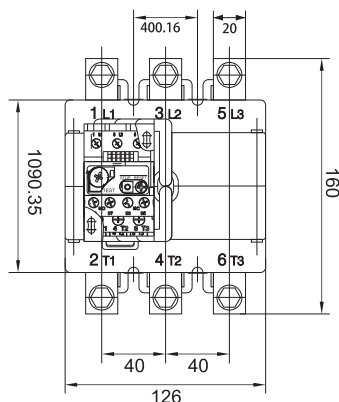
# CR2 Thermal Overload Relay



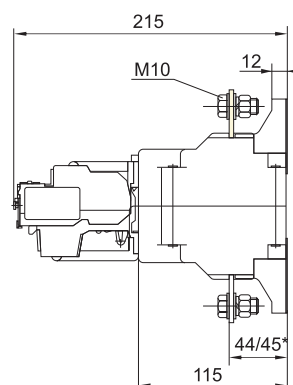
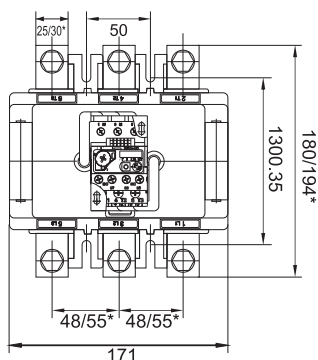
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CR2-43



CR2-53



CR2-63

Note: Dimension with \* for the product over 400A.

## 7. Wiring

Items			CR2-03	CR2-13	CR2-23	CR2-33	CR2-43	CR2-53	CR2-63
Cross section area of conductor mm <sup>2</sup>	Main circuit	Single core or stranded wire	1~4	1~4	4~10	4~35	25~95	25~95	70~2×240
		Wiring screw	M3.5	M4	M4	M10	M6/M8	M8	M10
	Auxiliary circuit	Single core or stranded wire	0.5~2.5	0.5~2.5	0.5~2.5	0.5~2.5	0.5~2.5	0.5~2.5	0.5~2.5
		Wiring screw	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5