









NR2 Series Thermal Overload Relays

1.General

1.1 Certificates: CE, UkrSEPRO, EAC, RCC, UL;
1.2 Electric ratings: AC 50/60Hz, 690V, 0.1A~150A;
1.3 Tripping class: 10A;
1.4 Mounting version: Plug-in;
1.5 Standard: IEC/EN 60947-4-1
1.6 Overload protection and phase loss protection

2.Type designation

N R 2 - □

- Current class
- Design sequence No.
- Thermal overload relay
- Company code

3. Features

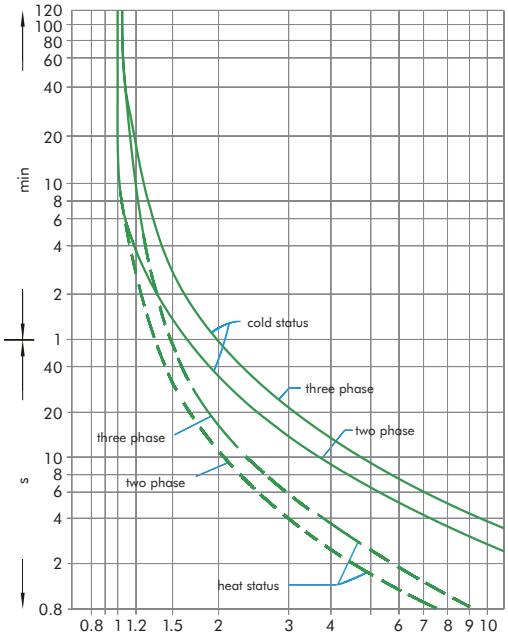
3.1 3-phase bimetal
3.2 Continuously readjustable current settings
3.3 Temperature compensation
3.4 Tripping indicator
3.5 Test button
3.6 Stop button
3.7 Manual and automatic reset button
3.8 Electrically separated 1N/O plus 1N/C contact
3.9 For direct mounting on contactor or independent mounting

4.Technical data

4.1 Protection properties

Item	Series No.	Multiples of current Setting		Tripping time	Test condition
Overload protection	1	1.05		>2h	Start from cold state
	2	1.2		≤2h	Start from heat state, right after item No.1
	3	1.5		≤2min	Start from heat state, right after item No.1
	4	7.2		2s<Tp≤10s	Start from cold state
Phase failure protection	5	Any two phases	Another phase	>2h	Start from cold state
		1.0	0.9		
	6	1.15	0	≤2h	Start from heat state, right after item No.5

Curves



Model		**NR2-11.5**
Picture		
Current class(A)		13
Phase loss protection function		Yes
Automatic & manual reset		Yes
Temperature compensation		Yes
Tripping indicator		Yes
Test & stop pushbutton		Yes
Mounting mode	Plug-in	Yes
	Independent	Yes
Auxiliary contacts	No. of contacts	1N/O+1N/C
	Rated current (A) (AC-15 220V)	2.73
	Rated current (A) (AC-15 380V)	1.58
	Rated current (A) (DC-13 220V)	0.2

Model		**NR2-93**
Picture		
Current class(A)		93
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
Auxiliary contacts	Configuration of contactsRated	1N/O+1N/C
	Rated current (A) (AC-15 220V)	2.73
	Rated current (A) (AC-15 380V)	1.58
	Rated current (A) (DC-13 220V)	0.2

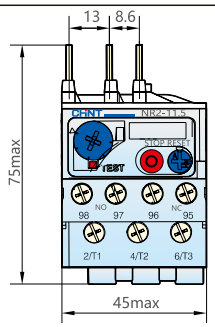
NR2-25	NR2-36
	
25	36
Yes	Yes
Yes	Yes
Yes	Yes
Yes	Yes
Yes	Yes
Yes	Yes
Yes	Yes
Yes	Yes
1N/O+1N/C	1N/O+1N/C
2.73	2.73
1.58	1.58
0.2	0.2

NR2-150

150
Yes
Yes
Yes
Yes
Yes
Yes
No
1N/O+1N/C
2.73
1.58
0.2

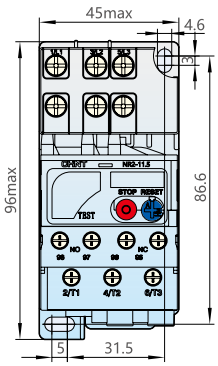
NR2-11.5

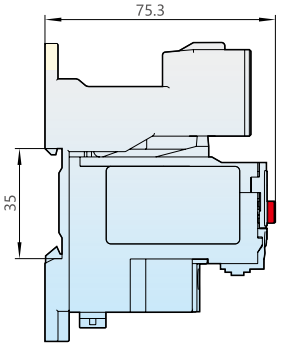




NR2-11.5 with MB-1

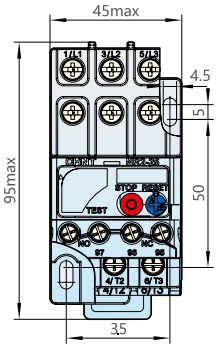


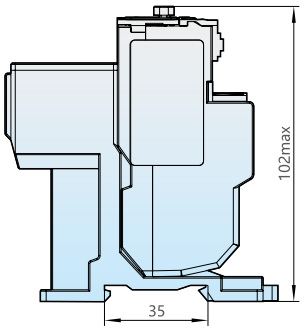




NR2-25

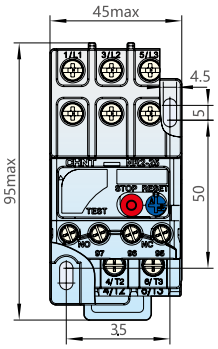


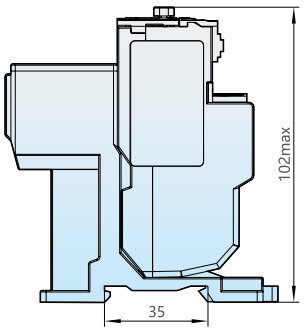




NR2-25 with MB-2

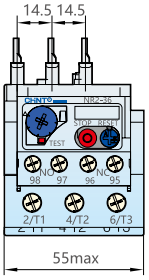


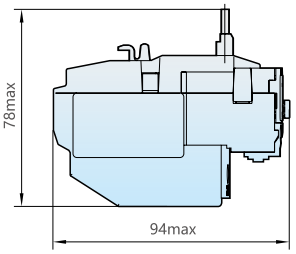




NR2-36

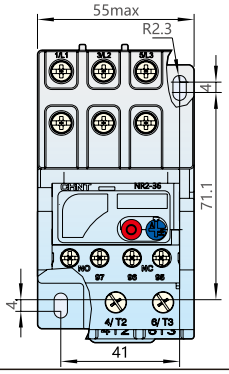


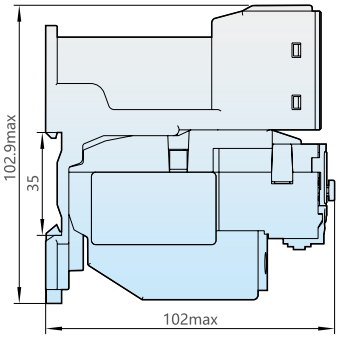




NR2-36 with MB-3

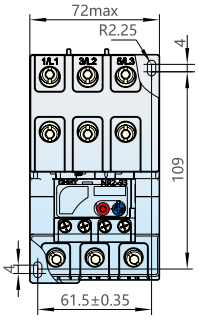


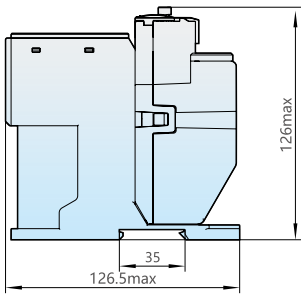




NR2-93

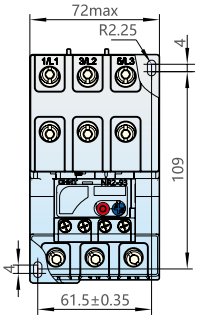


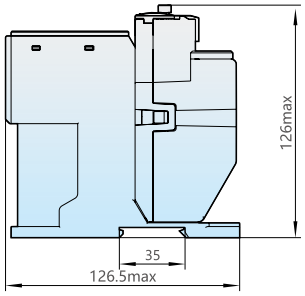




NR2-93 with MB-4

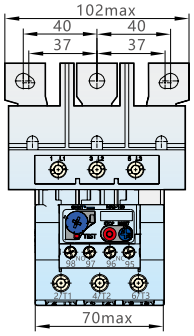


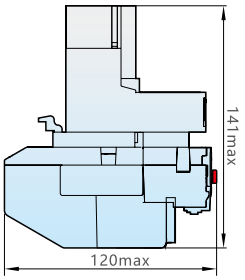




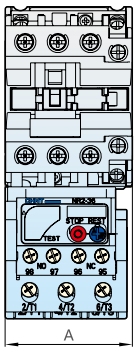
NR2-150(matched with NC2)

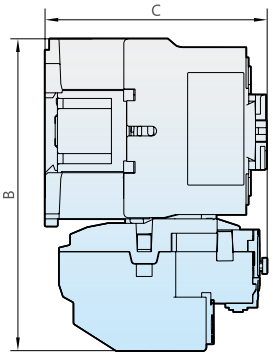






NR2(matched with contactor)





Modle / Size	NR2-11.5	NR2-25				NR2-36	NR2-93			
	NC6-09	NC1-09-25	NC1-32	NC7-09 ~ 22	NC7-25 ~ 32	NC1-32 NC7-32 ~ 38	NC1-40 ~ 65	NC1-80 ~ 95	NC7-40 ~ 65	NC7-80 ~ 95
A max (mm)	50	47	57	47	57	58	77	87	77	87
B max (mm)	119	122	135	125	135	142	178	178	178	178
C max (mm)	74	102	115	102	115	102	128	128	128	128

6. Wiring

Items			NR2-11.5	NR2-25	NR2-36	NR2-93	NR2-150
	Main circuit	Single core or stranded wire	1~4	1~4	4~10	4~35	25~50
		Wiring screw	M3.5	M4	M4	M10	M6/M8
	Auxiliary circuit	Single core or stranded wire	1~2.5	1~2.5	1~2.5	1~2.5	1~2.5
		Wiring screw	M3.5	M3.5	M3.5	M3.5	M3.5

7. Accessories

No.		Description	Application
1		MB-1	Incorporate with NR2-11.5 relay to form an independently mounted product
2		MB-2	Incorporate with NR2-25 relay to form an independently mounted product
3		MB-3	Incorporate with NR2-36 relay to form an independently mounted product
4		MB-4	Incorporate with NR2-93 relay to form an independently mounted product

8. Assembly with contactor

Model of overload relay	Rated current(A)	Recommended fuse type (RT16 is recommended)		Model of contactor
		aM	gG	
 NR2-11.5	0.1~0.16	0.25	2	NC6-09
	0.16~0.25	0.5	2	
	0.25~0.4	1	2	
	0.4~0.63	1	2	
	0.63~1	2	4	
	1~1.6	2	4	
	1.25~2	4	6	
	1.6~2.5	4	6	
	2.5~4	6	10	
	4~6	8	16	
	5.5~8	12	20	
	7~10	12	20	
	9~13	16	25	
 NR2-25	0.1~0.16	0.25	0.25	NC1-09 NC1-12 NC1-18 NC1-25 NC1-32 NC7-09~22 NC7-25~32
	0.16~0.25	0.5	0.5	
	0.25~0.4	1	1	
	0.4~0.63	1	1	
	0.63~1	2	2	
	1~1.6	2	2	
	1.25~2	4	4	
	1.6~2.5	4	4	
	2.5~4	6	6	
	4~6	8	8	
	5.5~8	12	12	
	7~10	12	12	
	9~13	16	16	
	12~18	20	20	
	17~25	25	25	

Model of overload relay	Rated current(A)	Recommended fuse type (RT16 is recommended)		Model of contactor
		aM	gG	
 NR2-36	23~32	40	63	NC1-32 NC7-32~38
	28~36	40	80	
 NR2-93	23~32	40	63	NC1-40 NC1-50 NC1-65 NC1-80 NC1-95 NC7-40~65 NC7-80~95
	30~40	40	100	
	37~50	63	100	
	48~65	63	100	
	55~70	80	125	
	63~80	80	125	
	80~93	100	160	
 NR2-150	80~104	125	250	NC2-115 NC2-150
	95~120	125	250	
	110~150	160	250	

NR2	-	25	9~13A
Product Series		**Frame Size**	**Setting Current Scope**
		11.5 25 36 93 150	Frame Size 11.5: 0.1~0.16A 0.16~0.25A 0.25~0.4A 0.4~0.63A 0.63~1A 1~1.6A 1.25~2A 1.6~2.5A 2.5~4A 4~6A 5.5~8A 7~10A 9~13A Frame Size 25: 0.1~0.16A 0.16~0.25A 0.25~0.4A 0.4~0.63A 0.63~1A 1~1.6A 1.25~2A 1.6~2.5A 2.5~4A 4~6A 5.5~8A 7~10A 9~13A 12~18A 17~25A Frame Size 36: 23~32A 28~36A Frame Size 93: 23~32A 30~40A 37~50A 48~65A 55~70A 63~80A 80~93A Frame Size 150: 80~104A 95~120A 110~150A

NR2 Relay 13~150

Frame Size	Auxiliary Contacts	Setting Current	Model Description	Code
11.5	1NO+1NC	0.1-0.16A	NR2-11.5/Z 0.1-0.16A	268165
11.5	1NO+1NC	0.16-0.25A	NR2-11.5/Z 0.16-0.25A	268166
11.5	1NO+1NC	0.25-0.4A	NR2-11.5/Z 0.25-0.4A	268167
11.5	1NO+1NC	0.4-0.63A	NR2-11.5/Z 0.4-0.63A	268168
11.5	1NO+1NC	0.63-1A	NR2-11.5/Z 0.63-1A	268169
11.5	1NO+1NC	1-1.6A	NR2-11.5/Z 1-1.6A	268170
11.5	1NO+1NC	1.25-2A	NR2-11.5/Z 1.25-2A	268171
11.5	1NO+1NC	1.6-2.5A	NR2-11.5/Z 1.6-2.5A	268172
11.5	1NO+1NC	2.5-4A	NR2-11.5/Z 2.5-4A	268173
11.5	1NO+1NC	4-6A	NR2-11.5/Z 4-6A	268174
11.5	1NO+1NC	5.5-8A	NR2-11.5/Z 5.5-8A	268175
11.5	1NO+1NC	7-10A	NR2-11.5/Z 7-10A	268176
11.5	1NO+1NC	9-13A	NR2-11.5/Z 9-13A	268177
25	1NO+1NC	9-13A	NR2-25 9-13A	268095
25	1NO+1NC	7-10A	NR2-25 7-10A	268096
25	1NO+1NC	12-18A	NR2-25 12-18A	268097
25	1NO+1NC	1.6-2.5A	NR2-25 1.6-2.5A	268131
25	1NO+1NC	0.10-0.16A	NR2-25 0.10-0.16A	268132
25	1NO+1NC	0.16-0.25A	NR2-25 0.16-0.25A	268133
25	1NO+1NC	0.25-0.4A	NR2-25 0.25-0.4A	268134
25	1NO+1NC	0.4-0.63A	NR2-25 0.4-0.63A	268135
25	1NO+1NC	0.63-1A	NR2-25 0.63-1A	268136
25	1NO+1NC	1-1.6A	NR2-25 1-1.6A	268137
25	1NO+1NC	1.25-2A	NR2-25 1.25-2A	268138
25	1NO+1NC	2.5-4A	NR2-25 2.5-4A	268139
25	1NO+1NC	4-6A	NR2-25 4-6A	268140
25	1NO+1NC	5.5-8A	NR2-25 5.5-8A	268141
25	1NO+1NC	17-25A	NR2-25 17-25A	268142
36	1NO+1NC	23-32A	NR2-36 23-32A	268143
36	1NO+1NC	28-36A	NR2-36 28-36A	268144
93	1NO+1NC	23-32A	NR2-93 23-32A	268145
93	1NO+1NC	30-40A	NR2-93 30-40A	268146
93	1NO+1NC	37-50A	NR2-93 37-50A	268147
93	1NO+1NC	48-65A	NR2-93 48-65A	268148
93	1NO+1NC	55-70A	NR2-93 55-70A	268149
93	1NO+1NC	63-80A	NR2-93 63-80A	268150
93	1NO+1NC	80-93A	NR2-93 80-93A	268151
150	1NO+1NC	80A-104A	NR2-150 80A-104A	268292
150	1NO+1NC	95A-120A	NR2-150 95A-120A	268293
150	1NO+1NC	110A-150A	NR2-150 110A-150A	268294