

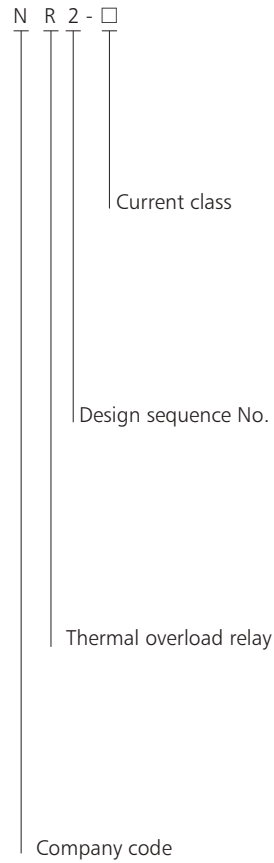


## NR2 Thermal Overload Relay

### 1. General

- 1.1 Certificates: CE, KEMA, UkrSEPRO, GOST, RCC, UL;
- 1.2 Electric ratings: AC 50/60Hz, 690V, 0.1A~630A;
- 1.3 Tripping class: 10A;
- 1.4 Mounting version:
  - a. Plug-in: Available for NR2-11.5, 25, 36, 93, 150;
  - b. Independent: Available for NR2-200, 630;
- 1.5 Standard: IEC/EN 60947-4-1

### 2. Type designation



### 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

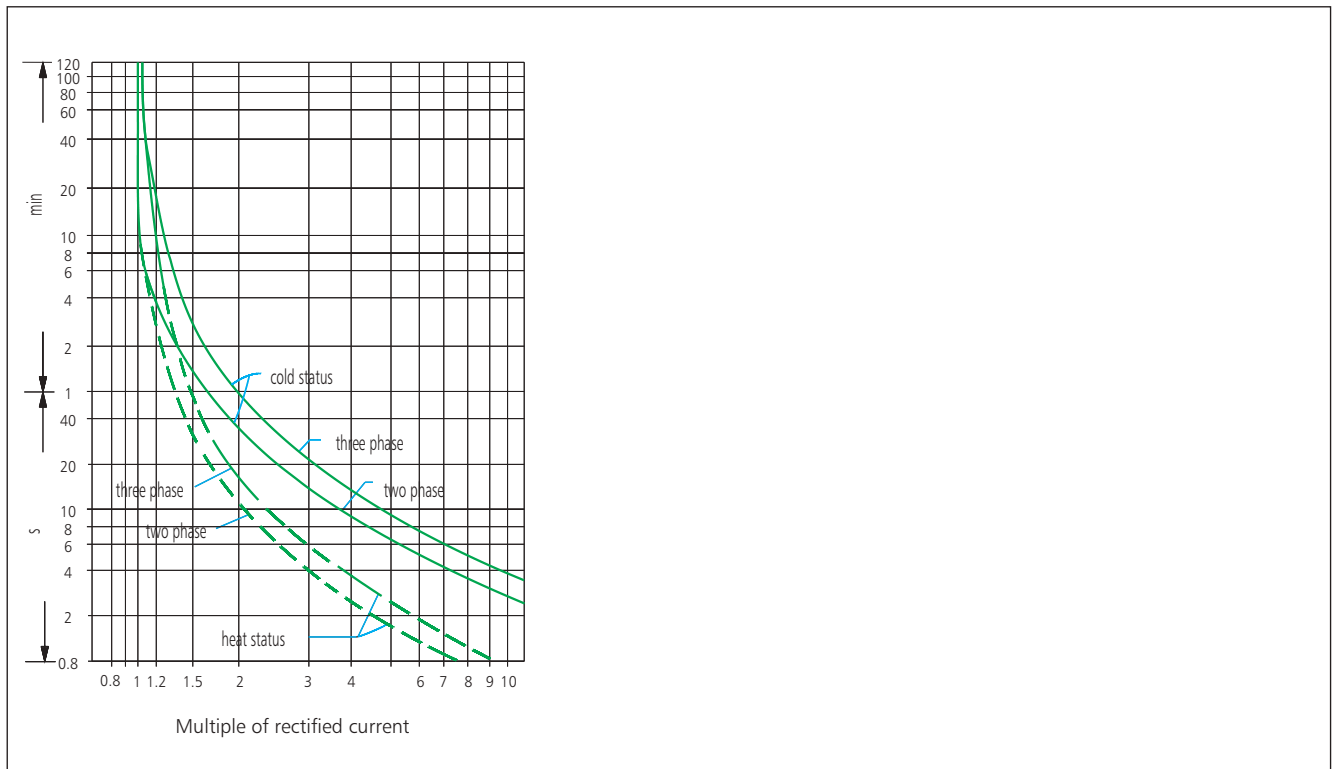


#### 4. Technical data


##### 4.1 Protection properties


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



#### Curves






4.2 Main Technical Parameters

Model		NR2-11.5						
Picture								
Current class(A)		13						
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	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						
		Current setting range						
Rated operational current(A)		0.1~0.16	0.16~0.25	0.25~0.40	0.40~0.63	0.63~1	1~1.6	1.25~2
Matched fuse	aM(A)	0.25	0.5	1	1	2	2	4
	gG(A)	2	2	2	2	4	4	6

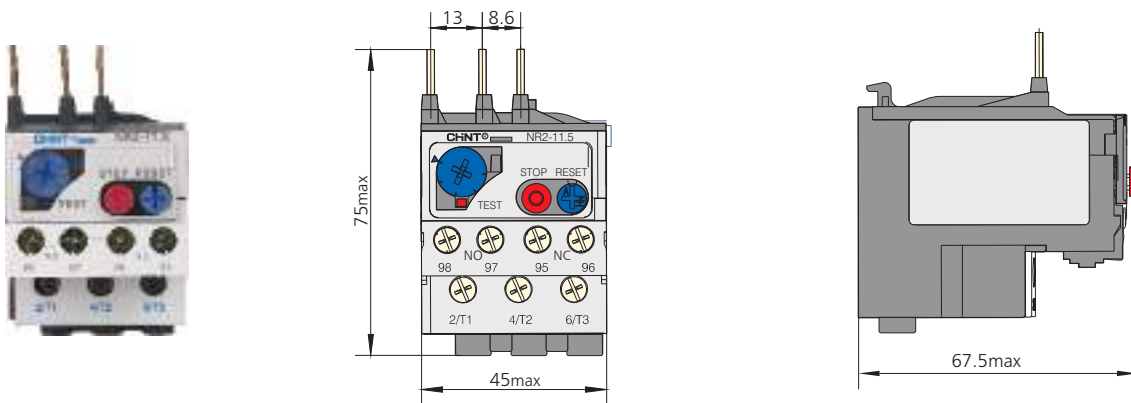
Model		NR2-93						
Picture								
Current class(A)		93						
Phase failure protection function		Yes						
Automatic & manual reset		Yes						
Temperature compensation		Yes						
Tripping indicator		Yes						
Test & stop pushbutton		Yes						
Mounting mode	Plug-in	Yes						
	Independent	Yes						
Auxiliary contacts	Configuration of 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						
		Current setting range						
Rated operational current(A)		23~32	30~40	37~50	48~65	55~70	63~80	80~93
Matched fuse	aM(A)	40	40	63	63	80	80	100
	gG(A)	63	100	100	100	125	125	160

NR2-25								NR2-36	
									
25								36	
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	
Current setting range								Current setting range	
1.6~2.5	2.5~4	4~6	5.5~8	7~10	9~13	12~18	17~25	23~32	28~36
4	6	8	12	12	16	20	25	40	40
6	10	16	20	20	25	35	50	63	80

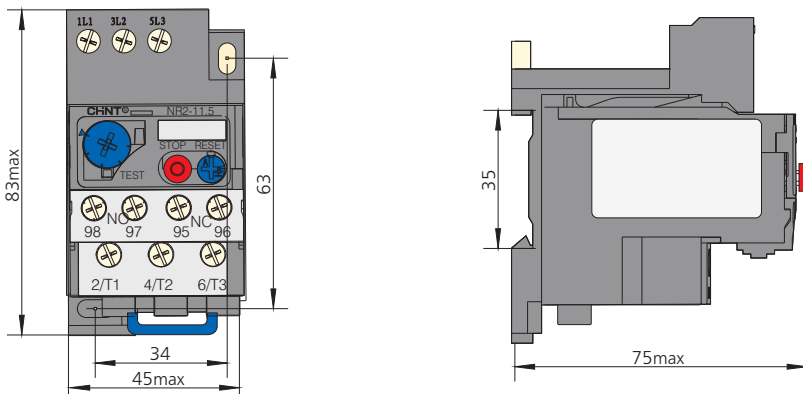
NR2-150			NR2-200			NR2-630				
										
150			200			630				
Yes			Yes			Yes				
Yes			Yes			Yes				
Yes			Yes			Yes				
Yes			Yes			Yes				
Yes			Yes			Yes				
Yes			No			No				
No			Yes			Yes				
1N/O+1N/C			1N/O+1N/C			1N/O+1N/C				
2.73			2.73			2.73				
1.58			1.58			1.58				
0.2			0.2			0.2				
Current setting range			Current setting range			Current setting range				
80~104	95~120	110~150	80~125	100~160	125~200	160~250	200~315	250~400	315~500	400~630
125	125	160	125	160	200	250	315	400	500	630
200	224	250	200	250	315	400	500	630	800	800

5. Overall and mounting dimensions (mm)

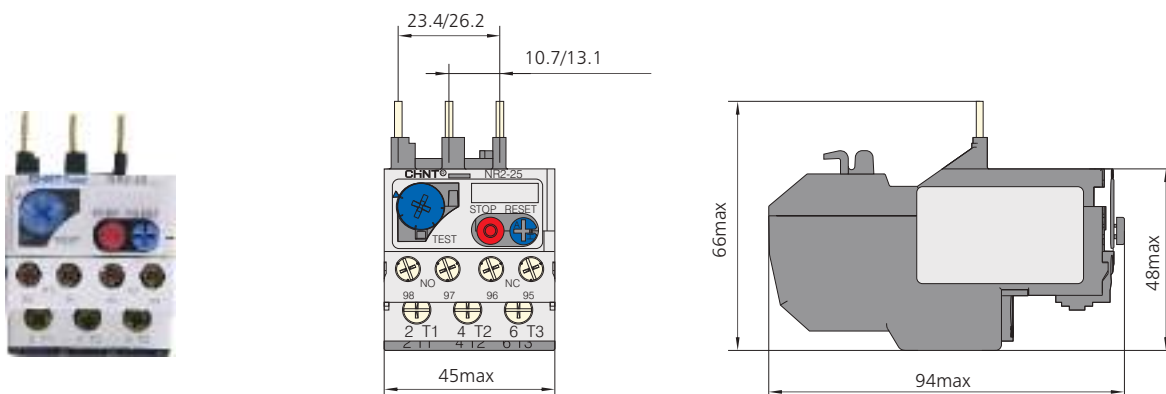
NR2-11.5



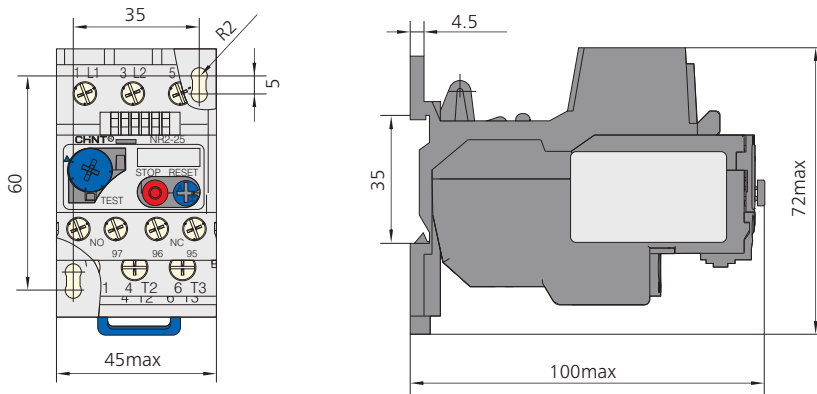
NR2-11.5 with Mounting Block



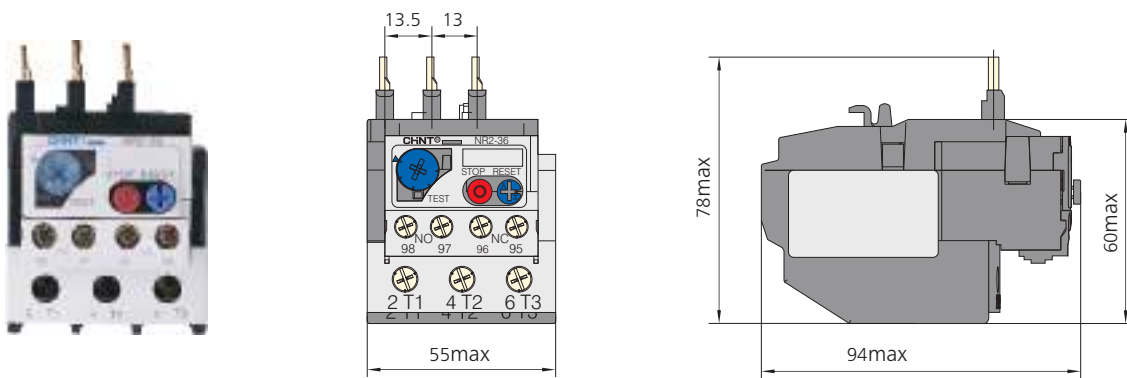
NR2-25



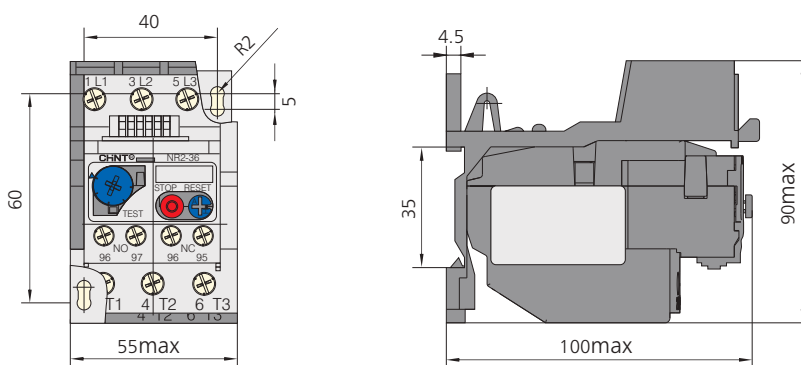
NR2-25 with Mounting Block



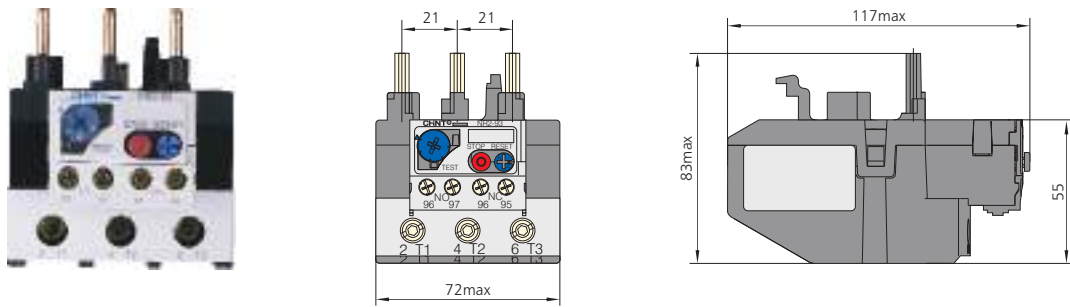
NR2-36



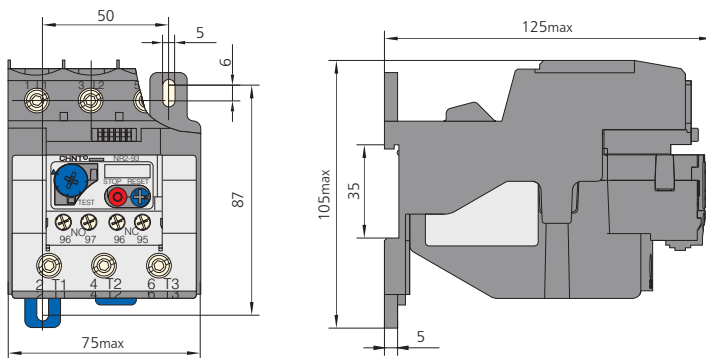
NR2-36 with Mounting Block



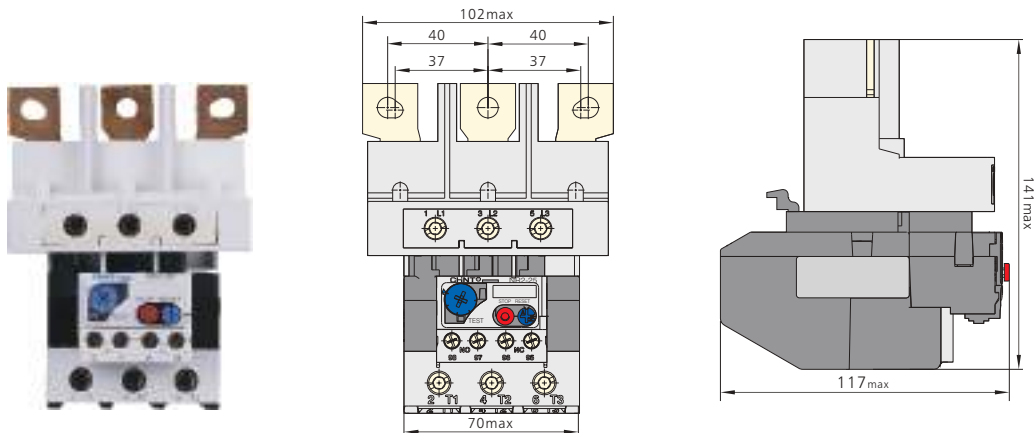
NR2-93



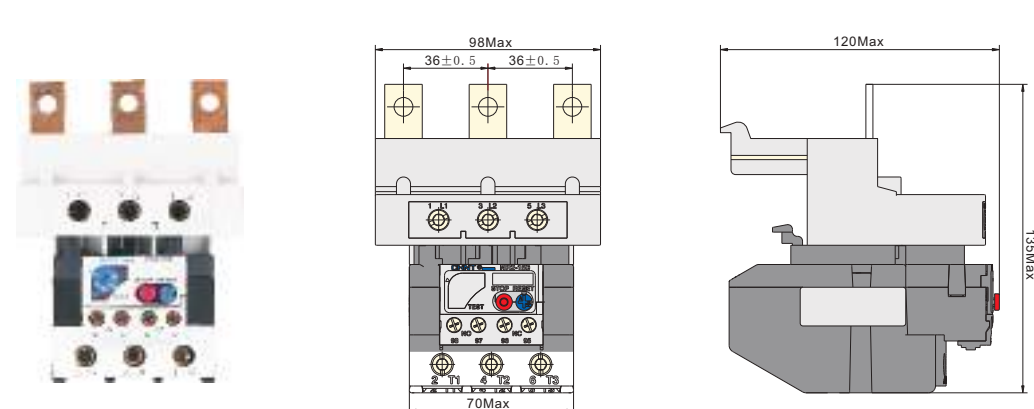
NR2-93 with Mounting Block

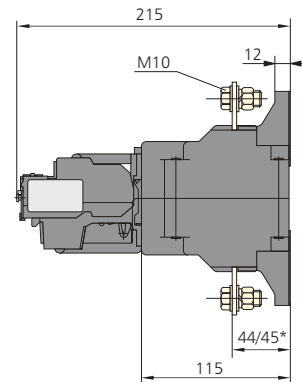
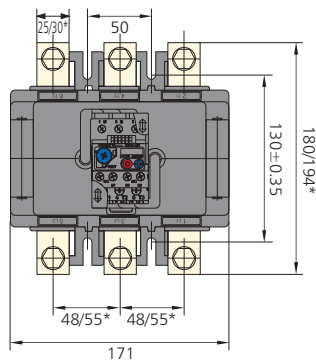
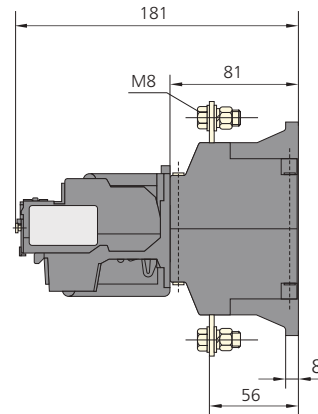
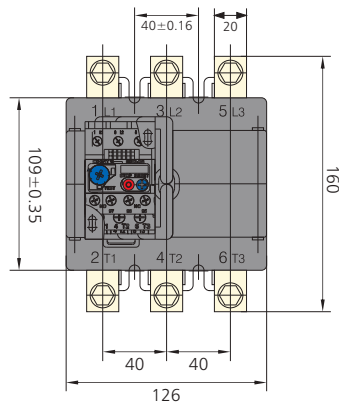


NR2-150 (matched with NC2)



NR2-150 (matched with NC7)





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

## 6. Wiring



Items			NR2-11.5	NR2-25	NR2-36	NR2-93	NR2-150	NR2-200	NR2-630
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



7. Accessories

No.		Description	Application
1		Mounting block for NR2-11.5	Incorporate with NR2-11.5 relay to form an independently mounted product
2		Mounting block for NR2-25	Incorporate with NR2-25 relay to form an independently mounted product
3		Mounting block for NR2-36	Incorporate with NR2-36 relay to form an independently mounted product
4		Mounting block for NR2-93	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	
 NR2-25	5.5~8	12	20	NC1-09 NC1-12 NC1-18 NC1-25 NC1-32 NC7-09~18 NC7-25~32
	7~10	12	20	
	9~13	16	25	
	12~18	20	35	
	17~25	25	50	

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
	30~40	40	100	NC1-50
	37~50	63	100	NC1-65
	48~65	63	100	NC1-80
	55~70	80	125	NC1-95
	63~80	80	125	NC7-40~65
80~93	100	160	NC7-80~95	
 NR2-150 (matched with NC2)	80~104	125	200	NC2-115 NC2-150
	95~120	125	224	
	110~150	160	250	
 NR2-150 (matched with NC7)	80~104	125	200	NC7-115 NC7-150 NC7-170
	95~120	125	224	
	110~150	160	250	
 NR2-200	80~125	125	200	NC2-115 NC7-115~170 NC2-150 NC7-205 NC2-185 NC2-225
	100~160	160	250	
	125~200	200	315	
 NR2-630	160~250	250	400	NC2-185 NC7-205~300 NC2-225 NC7-410~475 NC2-265 NC7-620 NC2-330 NC2-400 NC2-500 NC2-630
	200~315	315	500	
	250~400	400	630	
	315~500	500	800	
	400~630	630	800	