



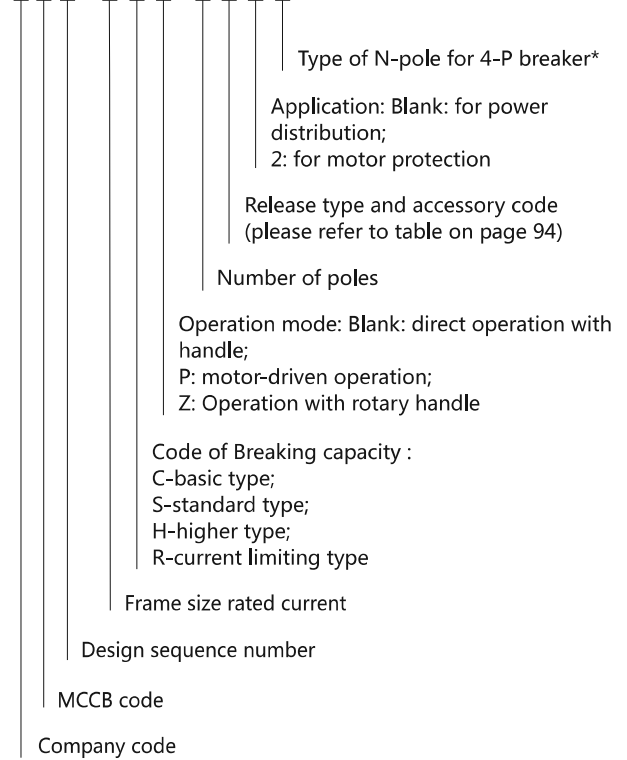
NM1 Moulded Case Circuit Breaker

1. General

- 1.1 Certificates: KEMA, UKrSEPRO, EAC, RCC, EK;
- 1.2 Electric ratings: AC 690V,50/60HZ, 10~1250A;
- 1.3 Mounting mode: Vertical and horizontal;
- 1.4 Standard: IEC/EN60947-2.

2. Type designation

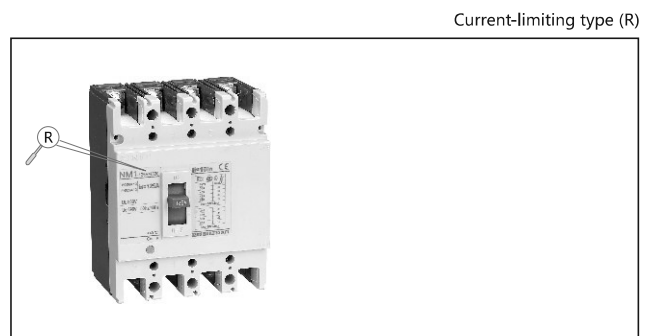
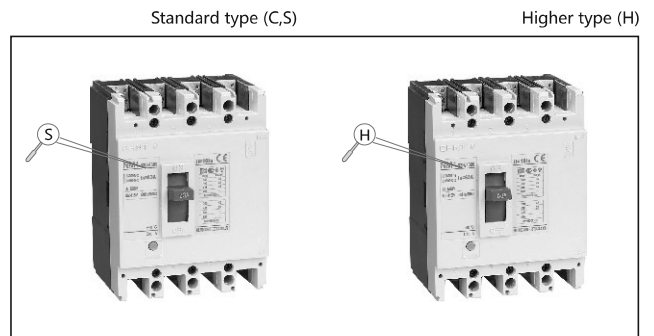
N M 1 - □ □ □ / □ □ □ □



Note *: There is types of N-pole for 4P breaker
B: Without current release components, N-Pole makes with the other three poles(N-pole first makes then breaks);

3. Classification

According to breaking capacity of breaker:



According to wiring mode:

Front connection

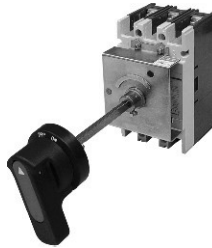


According to operation mode:

Direct operation with handle



Operation with rotary handle



Motor-driven operation



According to number of poles:

2P



3P



4P



4. Operating conditions

4.1 Temperature: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$; the average value within 24h shall not exceed $+35^{\circ}\text{C}$. (please refer to coefficients on P79 for temperature compensation correction); for the circuit breaker with thermo-magnetic release, $+40^{\circ}\text{C}$ is set to be the standard temperature for ratings. For temperature not between $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$, please contact us for temperature compensation correction.

4.2 Altitude: not exceed 2000m (Please contact with us for reduction coefficient if altitude at the mounted site beyond 2000m).

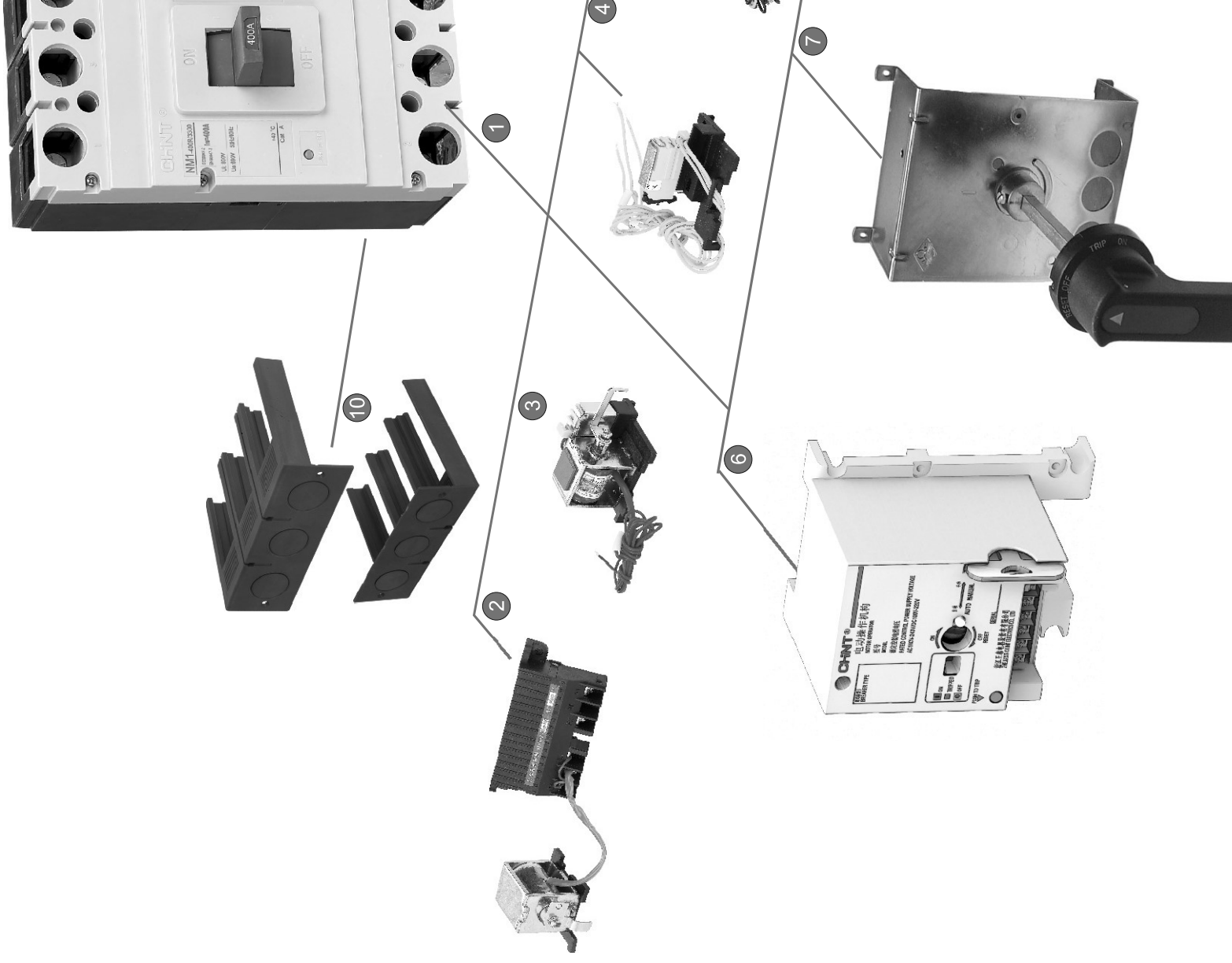
4.3 Pollution grade: Grade 3

4.4 Air conditions

At mounting site, relative humidity not exceed 50% at the max temperature of $+40^{\circ}\text{C}$, higher relative humidity is allowable under lower temperature. For example, RH could be 90% at $+20^{\circ}\text{C}$, special measures should be taken to occurrence of dews.

Initial status	
Cold status	
Right after test no. 1	
Remark	
	10A≤In≤25A
	25A≤In≤63A
	63A≤In≤125A
	125A≤In≤800A
	10A≤In≤25A
	25A≤In≤63A
	63A≤In≤125A
	125A≤In≤800A

- 1 MCCB (fixed type)
- 2 Under-voltage release
- 3 Shunt release
- 4 Alarm contact
- 5 Auxiliary contact
- 6 Motor-driven operation mechanism
- 7 Extended manual operation handle
- 8 Mechanical interlock
- 9 Cage clamp terminal
- 10 Terminal cover
- 11 Front connection plate





8. Curves (for power distribution, calibrated at 40°C)

8.1 The characteristic curve of anti-time limit and the correcting curve of temperature see fig.

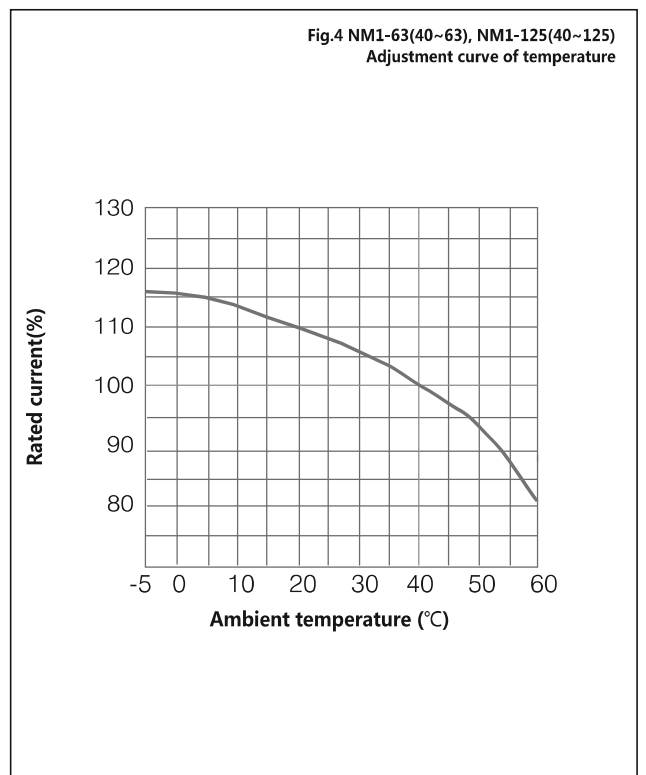
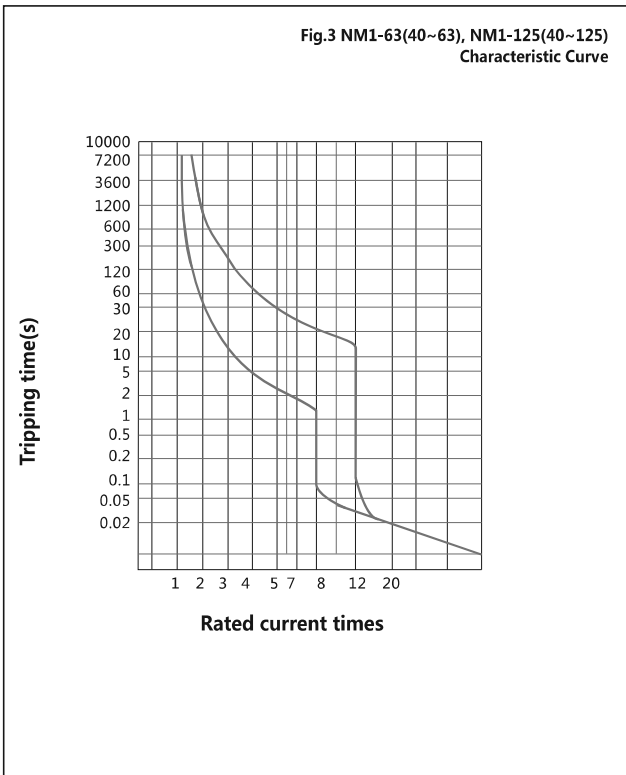
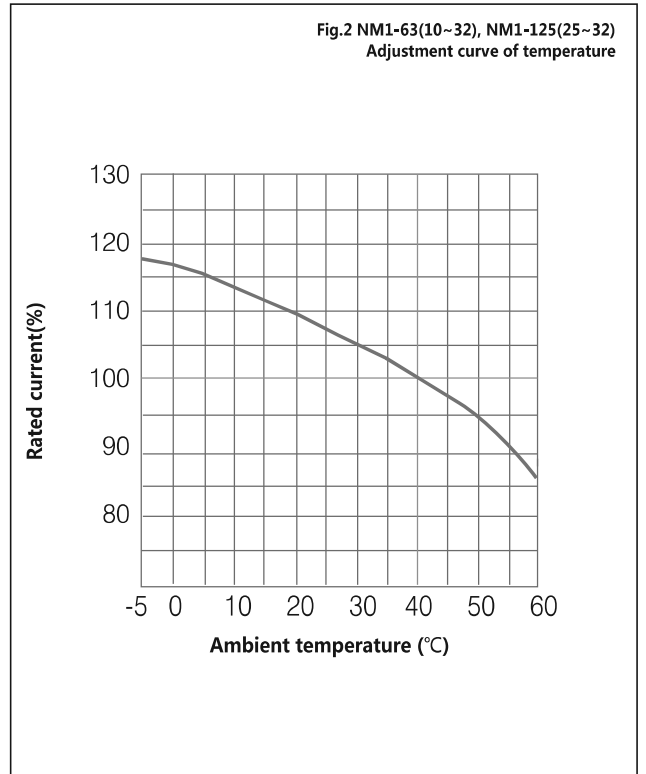
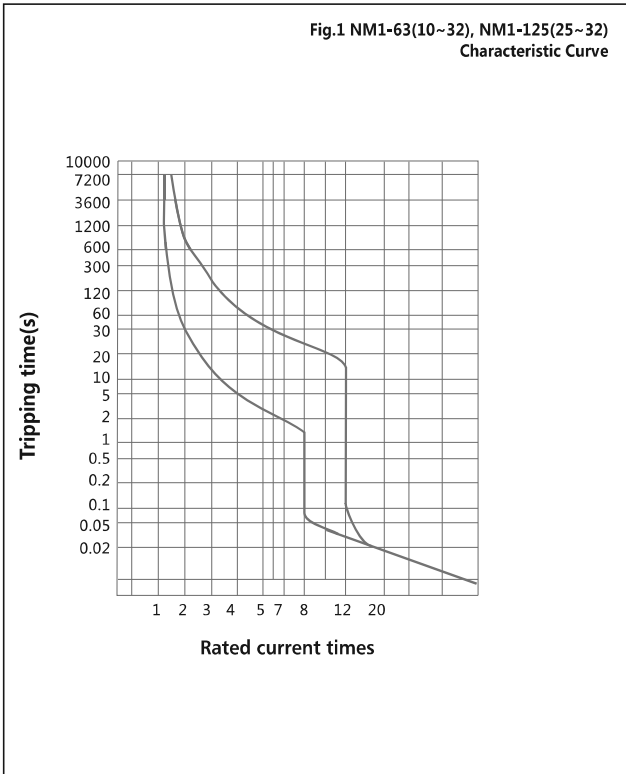


Fig.5 NM1-250 Characteristic Curve

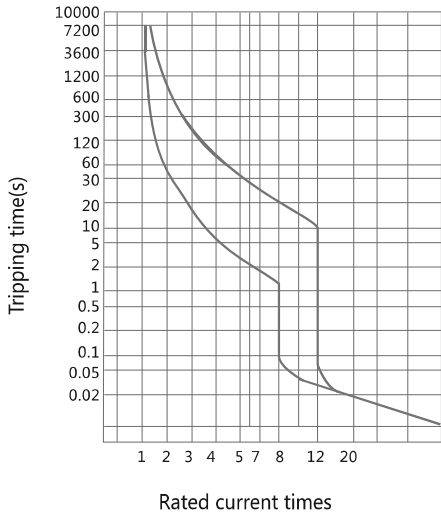


Fig.6 NM1-250 Adjustment curve of temperature

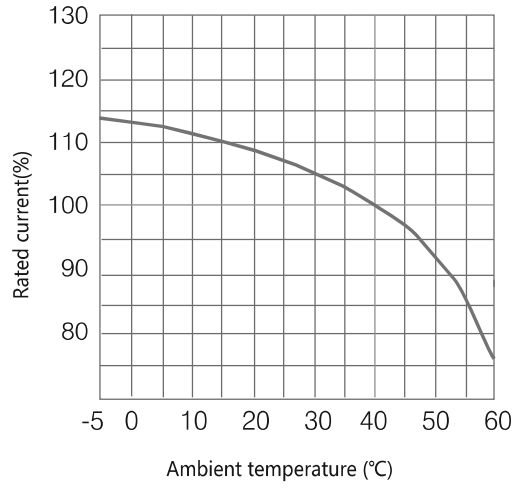


Fig.7 NM1-400 Characteristic Curve

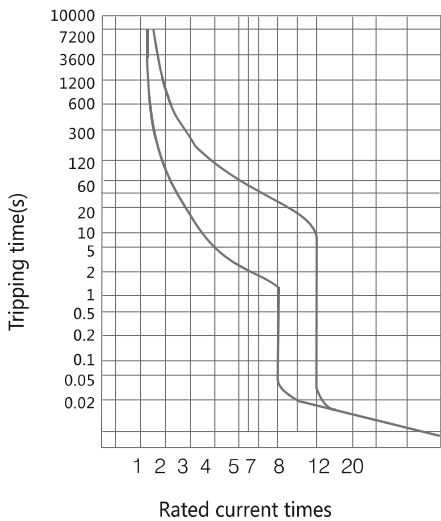
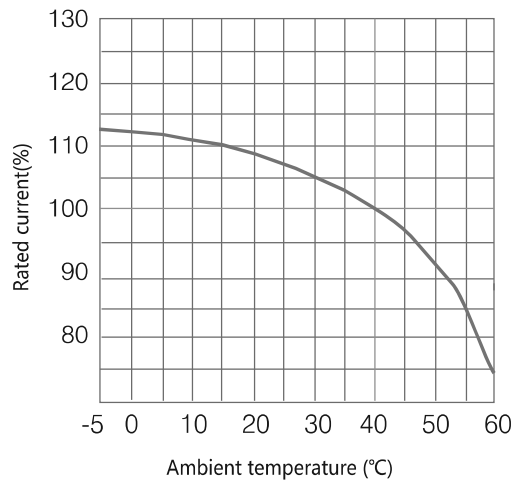


Fig.8 NM1-400 Adjustment curve of temperature



B

Fig.9 NM1-630, NM1-800 Characteristic Curve

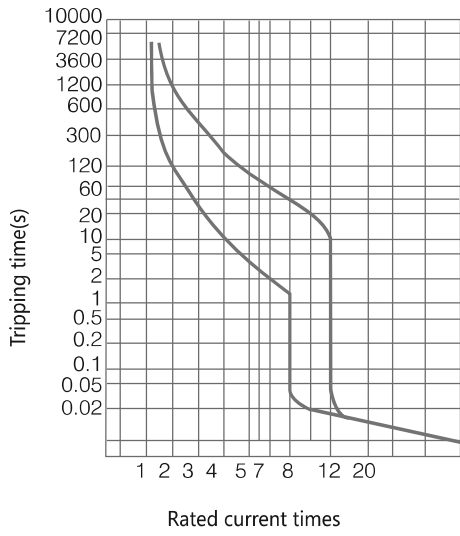


Fig.10 NM1-630, NM1-800 Adjustment curve of temperature

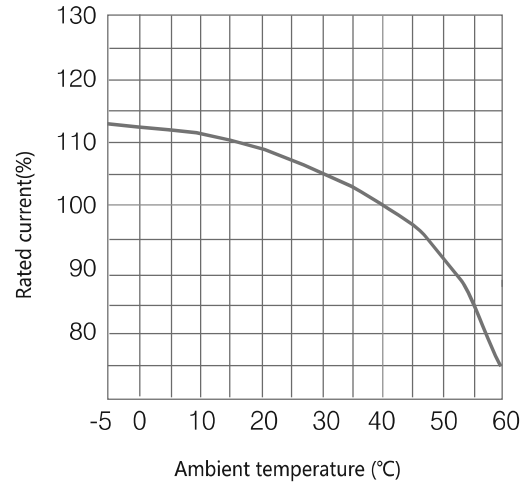


Fig.11 NM1-1250 Characteristic Curve

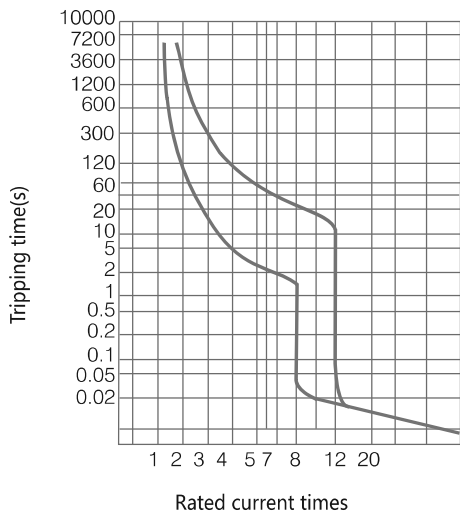
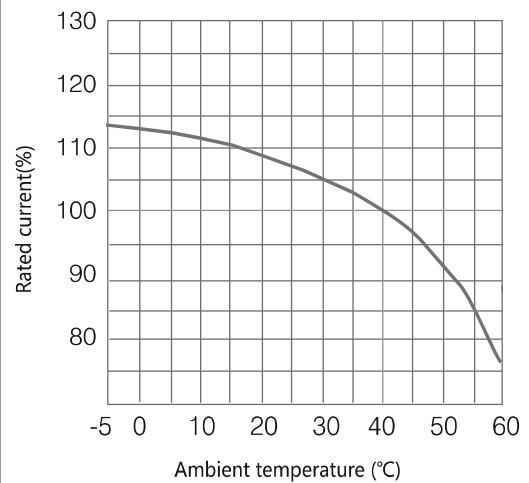


Fig.12 NM1-1250 Adjustment curve of temperature



8.2 Temperature compensation correction

NM1 series temperature compensation coefficient table (calibration at 40°C, for the calibration at other temperature standards please contact with us)

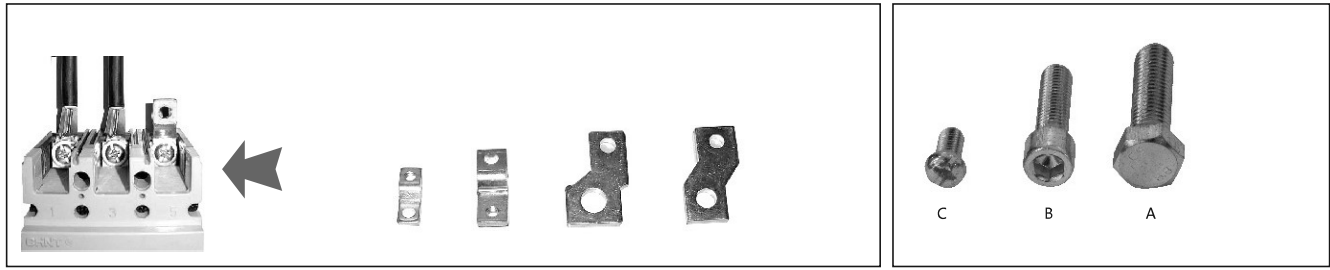
Type	Current range	Compensation coefficient													
		-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
NM1-63S, H	10~32A	1.18	1.17	1.16	1.14	1.12	1.09	1.07	1.05	1.03	1	0.97	0.95	0.92	0.87
NM1-63S, H	40~63A	1.16	1.16	1.15	1.14	1.12	1.10	1.08	1.06	1.03	1	0.97	0.94	0.87	0.82
NM1-125C, S, H, R	25~32A	1.18	1.17	1.16	1.14	1.12	1.09	1.07	1.05	1.03	1	0.97	0.95	0.92	0.87
NM1-125C, S, H, R	40~125A	1.16	1.16	1.15	1.14	1.12	1.10	1.08	1.06	1.03	1	0.97	0.94	0.87	0.82
NM1-250 S, H, R	100~250A	1.14	1.13	1.13	1.12	1.10	1.08	1.07	1.05	1.03	1	0.97	0.93	0.86	0.76
NM1-400S, H, R	225~400A	1.13	1.12	1.12	1.11	1.10	1.08	1.06	1.05	1.03	1	0.97	0.93	0.85	0.75
NM1-630S, H, R	400~630A	1.13	1.12	1.12	1.11	1.10	1.08	1.07	1.05	1.03	1	0.97	0.93	0.85	0.75
NM1-800S,H, R	630~800A	1.13	1.12	1.12	1.11	1.10	1.08	1.07	1.05	1.03	1	0.97	0.93	0.85	0.75
NM1-1250H	700~1250A	1.14	1.13	1.12	1.11	1.10	1.09	1.07	1.05	1.03	1	0.97	0.92	0.85	0.76

9. Wiring

Front connection(Fixed connection)

Extended connection terminals (for products 10~1250A, extended terminals are available)

Connection screws



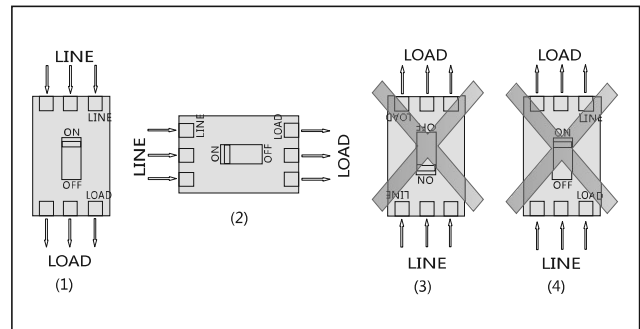
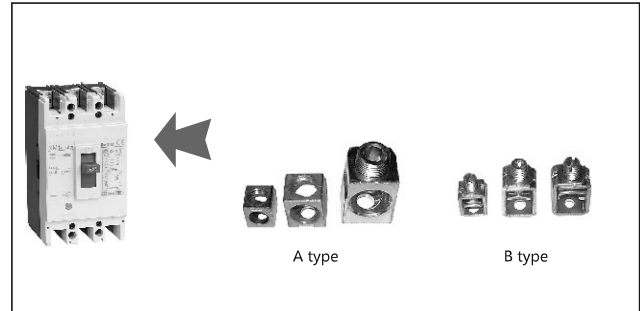


Frame level	Current (A)	Breaking capacity code	Front connection screw		
			Hexagonal head screw (A)	Hexagonal socket screw (B)	Cross screw (C)
63	10	S		■	
		H		■	
	16	S		■	
		H		■	
	20	S		■	
		H		■	
	25	S		■	
		H		■	
	30	S		■	
		H		■	
	32	S		■	
		H		■	
	40	S		■	
		H		■	
	50	S		■	
		H		■	
	60	S		■	
		H		■	
63	S		■		
	H		■		
125	25	C		■	■
		S		■	■
		H		■	■
		R		■	■
	30	C		■	■
		S		■	■
		H		■	■
		R		■	■
	32	C		■	■
		S		■	■
		H		■	■
		R		■	■
	40	C		■	■
		S		■	■
		H		■	■
		R		■	■
	50	C		■	■
		S		■	■
H			■	■	
R			■	■	
60	C		■	■	
	S		■	■	
	H		■	■	
	R		■	■	
63	C		■	■	
	S		■	■	
	H		■	■	
	R		■	■	
75	C		■	■	
	S		■	■	
	H		■	■	
	R		■	■	

Frame level	Current (A)	Breaking capacity code	Front connection screw			
			Hexagonal head screw (A)	Hexagonal socket screw (B)	Cross screw (C)	
125	80	C		■	■	
		S		■	■	
		H		■	■	
	100	R		■	■	
		C		■	■	
		S		■	■	
	125	H		■	■	
		R		■	■	
		C		■	■	
	250	100	S		■	
			H		■	
			R		■	
125		S		■		
		H		■		
		R		■		
140		S		■		
		H		■		
150		R		■		
		S		■		
160		H		■		
		R		■		
	S		■			
175	H		■			
	R		■			
	S		■			
180	H		■			
	R		■			
	S		■			
200	H		■			
	R		■			
	S		■			
225	H		■			
	R		■			
	S		■			
250	H		■			
	R		■			
	S		■			
400	225	S	■	■		
		H	■	■		
		R	■	■		
	250	S	■	■		
		H	■	■		
		R	■	■		
300	S	■	■			
	H	■	■			
	R	■	■			

Frame level	Current (A)	Breaking capacity code	Front connection screw		
			Hexagonal head screw (A)	Hexagonal socket screw (B)	Cross screw (C)
400	315	S	■	■	
		H	■	■	
		R	■	■	
	350	S	■	■	
		H	■	■	
		R	■	■	
	400	S	■	■	
		H	■	■	
		R	■	■	
630	400	S		■	
		H		■	
		R		■	
	450	S		■	
		H		■	
		R		■	
	500	S		■	
		H		■	
		R		■	
	630	S		■	
		H		■	
		R		■	
800	630	H		■	
		R		■	
	700	H		■	
		R		■	
	800	H		■	
		R		■	

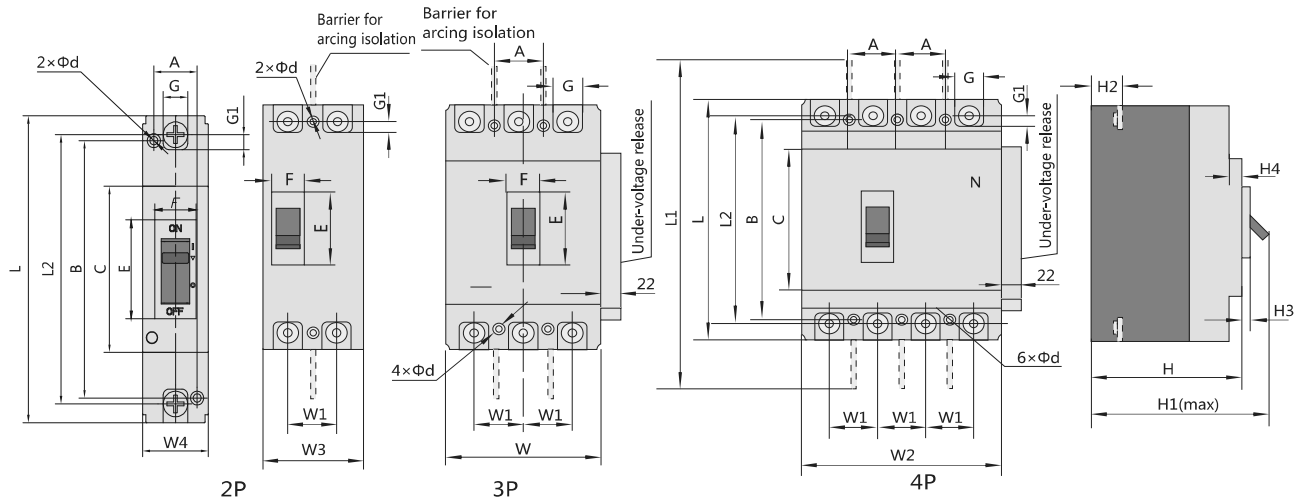
Cage clamp terminals (for products 16~400A, cage clamp terminals are available)



Modes of down-lead (1) and (2) illustrated in the figure are available for your wiring operation. For its breaking capacity may be affected, mode of down-lead (3) is not recommended, before reception of any authorized announcement from the manufacturer; the mode of down-lead (4) is prohibited for your wiring.

10. Overall and mounting dimensions

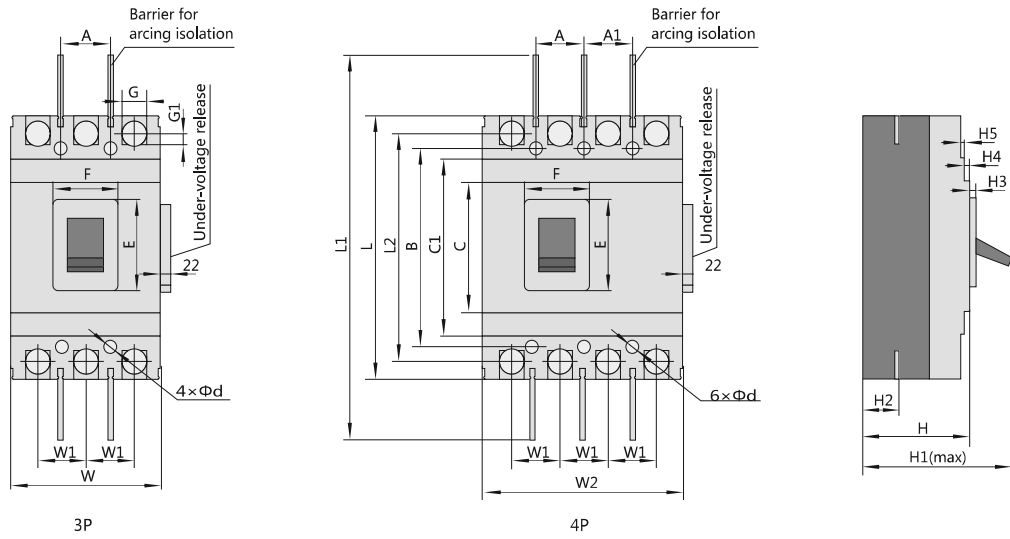
Fig.15a NM1-63, 125, 250 fixed connection



Dimension		NM1-63S	NM1-63H	NM1-125C NM1-125S	NM1-125H NM1-125R	NM1-250S/1P	NM1-250S	NM1-250H NM1-250R
Overall dimensions	C	85	85	85	85	102	102	102
	E	48	48	51	51	51	51	51
	F	23	23	23	23	22	23	23
	G	14	14	17.5	17.5	23	23	23
	G1	6.5	6.5	7.5	7.5	11.5	11.5	11.5
	H	70	80	67	86	86	87	103.5
	H1	91	100	86	104	109	110	127
	H2	19	28	24	24	24	24	24
	H3	6	6	4	4	4.5	3.5	3.5
	H4	5	5	7	7	6	5.5	5.5
	L	135	135	155	155	165	165	165
	L1	235	235	255	255	-	360	360
	L2	117	117	136	136	144	144	144
	W	76	76	90	90	-	105	105
W1	25	25	30	30	-	-	35	
W2	-	103	-	120	-	-	140	
W3	-	-	-	65	-	-	75	
W4	-	-	-	-	35	-	-	
Mounting dimensions	A	25	25	30	30	28	35	35
	B	117	117	130.5	130.5	109	126	126
dimensions	Φd	4.5	4.5	4.5×6	4.5×6	3.5	5	5

B

Overall and mounting dimensions of NM1-400, 630, 800, 1250(Fixed type)



(mm)

Dimension	NM1-400S NM1-400H NM1-400R	NM1-630S NM1-630H NM1-630R	NM1-800H/R	NM1-1250H	
Overall dimensions	C	128	136	265.5	
	C1	174	184.5	345.5	
	E	89	89	100	
	F	66	66	66	78
	G	31	40.5	45	-
	G1	12	15.5	12	-
	H	107	112	116	141
	H1	162	164.5	168	202
	H2	38	42	42	1250:56 ; 700A~1000A:54
	H3	6	6.5	4.5	19
	H4	5	3.5	5	2
	H5	4.5	4.5	8	4.5
	L	257	270.5	280	406*
	L1	459	472	490	715
	L2	224	234	243	-
	W	150	182	210	210
W1	48	58	70	70	
W2	198	240	280	-	
Mounting dimensions	A	44	58	70	
	A1	50	58	70	-
	B	194	200	243	375
	Φd	7	7	7	10

*Note: Length of NM1-1250H with the connection board, is 545mm