1.0 Application



- NBP-63R series MCCB is mainly used for overload and short circuit protection of power lines with AC 50/60Hz, rated voltage up to 400V and rated current up to 63A. At the same time, it can be used as an isolating switch for equipment maintenance purpose. The circuit breaker is applicable to places with high breaking protection requirements such as JP cabinet, low-voltage switchgear, etc.
- Standard：IEC60947-2

2.0 Type designation



N B P - 63 R

- R: Breaking capacity code. R:15kA
- 63: Frame size
- P: Designing sequence
- B: Circuit Breaker
- N: Company code

3.0 Technical data

Sheet 1





Rated voltage(V)	230V~（1P）、400V~（2P，3P，4P）
Rated current(A)	1、2、3、4、6、10、16、20、25、32、40、50、63
Poles	1P，2P，3P，4P
Instantaneous tripping current	Ii=8In
Rated ultimate short-circuit breaking capacity Icu(A)	15000
Rated service breaking capacity Ics(A)	7500
Over current tripping characteristic	See sheet 2, figure 1
Temperature compensation coefficient	See sheet 3
Altitude compensation coefficient	See sheet 4
Mechanical & electrical life(times)	Mechanical life:20000; Electrical life:10000
Impulse withstand voltage	6kV
Terminal size(mm²)	See sheet 5
Tightening torque(N.m)	2.5~3.5
Overall dimensions	See figure 2,figure 3
Pollution degree	3
Protection degree	IP20B

3.1 Tripping characteristic (30℃)

Sheet 2

Serial No.		Setting current	Start status	Conventional time	Result	Remarks
a		1.05In	Cold status	t≤1h(对In≤63A)	Not trip	
b		1.30In	Immediately test after test 'a'	t < 1h(对In≤63A)	Trip	Current increases steadily within 5s
c		2In	Cold status	1s < t < 120s	Trip	
d		6.4In	Cold status	t≤0.1s	Not trip	Turn on the current by closing the auxiliary switch
e		9.6Inz	Cold status	t < 0.1s	Trip	Turn on the current by closing the auxiliary switch

3.2 Temperature derating

— When the ambient temperature is greater than or less than the calibrated temperature value, the rated current value of MCB shall be adjusted according to the provided temperature and current carrying capacity correction curve.

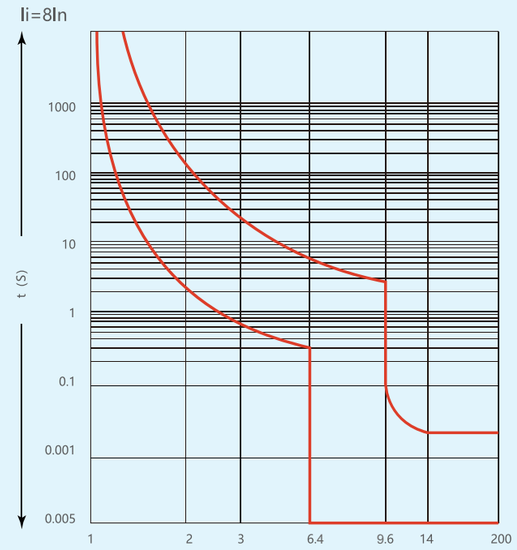
Sheet 3

The reference temperature is 30℃																					
In (A)	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70
1	1.3	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.0	1.0	1.0	0.99	0.97	0.95	0.93	0.91	0.91	0.91	0.91
2	2.5	2.4	2.4	2.4	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.00	1.90	1.90	1.90	1.80	1.80	1.80	1.80
3	3.8	3.7	3.6	3.5	3.5	3.4	3.4	3.3	3.3	3.2	3.2	3.0	3.0	3.00	2.90	2.80	2.80	2.80	2.70	2.70	2.70
4	5.1	4.9	4.8	4.8	4.7	4.7	4.5	4.4	4.3	4.3	4.2	4.1	4.0	3.9	3.9	3.8	3.7	3.6	3.5	3.5	3.5
6	7.6	7.4	7.3	7.2	7.1	7.0	6.8	6.6	6.5	6.4	6.3	6.2	6.0	5.9	5.8	5.7	5.6	5.5	5.4	5.3	5.3
8	10.2	9.9	9.7	9.5	9.3	9.2	9.0	8.9	8.7	8.5	8.3	8.2	8.0	7.9	7.8	7.7	7.6	7.5	7.2	7.1	6.9
10	13.6	13.4	13.1	12.8	12.5	12.3	12.0	11.7	11.4	11.0	10.7	10.4	10.0	9.9	9.7	9.5	9.3	9.0	8.8	8.6	8.6
13	16.8	16.5	16.3	15.9	15.7	15.4	15.0	14.7	14.3	14.0	13.7	13.4	13.0	12.8	12.5	12.2	12.0	11.7	11.5	11.2	11.0
16	20.5	20.0	19.8	19.4	19.0	18.7	18.4	18.0	17.6	17.2	16.8	16.4	16.0	16.0	15.0	15.0	15.0	14.0	14.0	13.0	13.0
20	25.3	25.0	24.5	24.0	23.7	23.2	22.8	22.4	21.9	21.5	21.0	20.5	20.0	20.0	19.0	19.0	19.0	18.0	18.0	17.0	17.0
25	31.1	30.5	30.0	29.5	29.0	28.5	28.0	27.5	27.0	26.5	26.0	25.5	25.0	25.0	24.0	24.0	23.0	23.0	22.0	21.0	21.0
32	40.5	39.8	39.2	38.5	37.9	37.2	36.5	35.8	35.0	34.3	33.6	32.8	32.0	32.0	31.0	30.0	30.0	29.0	28.0	28.0	27.0
40	51.0	50.0	49.2	48.4	47.5	46.7	45.8	45.0	44.0	43.0	42.0	41.0	40.0	39.0	39.0	38.0	37.0	36.0	35.0	34.0	33.0
50	64.0	63.0	62.0	60.8	59.8	58.6	57.4	56.3	55.0	53.8	52.6	51.3	50.0	49.0	48.0	47.0	46.0	44.0	42.0	40.0	38.0
63	82.0	80.7	79.2	77.8	76.3	74.7	73.2	71.6	70.0	68.3	66.6	64.8	63.0	62.0	61.0	60.0	58.0	57.0	55.0	52.0	50.0

3.3 Tripping curve

Figure 1

IEC 60947-2



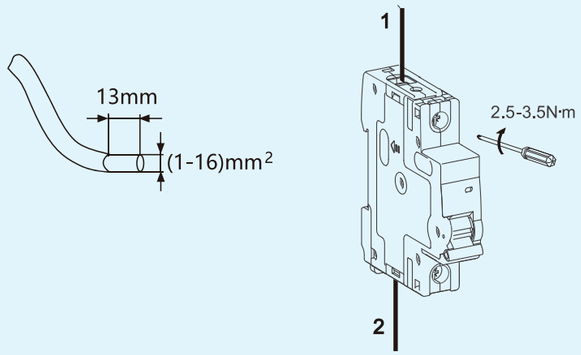
3.4 Current coefficient at different altitudes

Sheet 4

Altitude(m)	2000	3000	4000	5000
Dielectric strength(V)	3000	2500	2000	1800
Max. Ue(V)	440	440	440	440
In(A) under 30℃	1×In	0.95×In	0.93×In	0.9×In

3.5 Installation diagram and conductor table

Figure 2. Connection diagram



In(A)	Copper wire(mm²)
1~8	1
10	1.5
13~20	2.5
25	4
32	6
40~50	10
63	16

4.0 Others

- High breaking capacity, all series can reach 15kA
- Equipped with red and green indication
- Ventilation slot design, low temperature rise and long service life
- Various kinds of connection: cable, U-type busbar, Pin-type busbar
- Din-rail type installation with large snap stroke, realizing quick installation

5.0 Overall and mounting dimensions

Figure 3. Overall dimensions

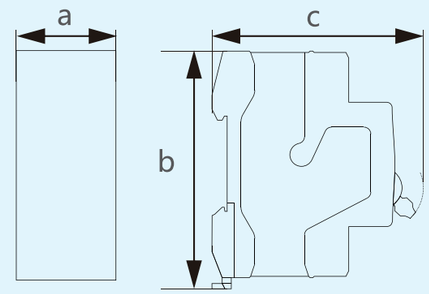
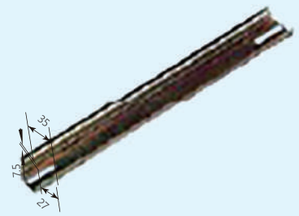


Figure 4. TH35-7.5 din rail



Sheet 5

	1P	2P	3P	4P
a	18	36	54	72
b	89	89	89	89
c	76	79	79	79