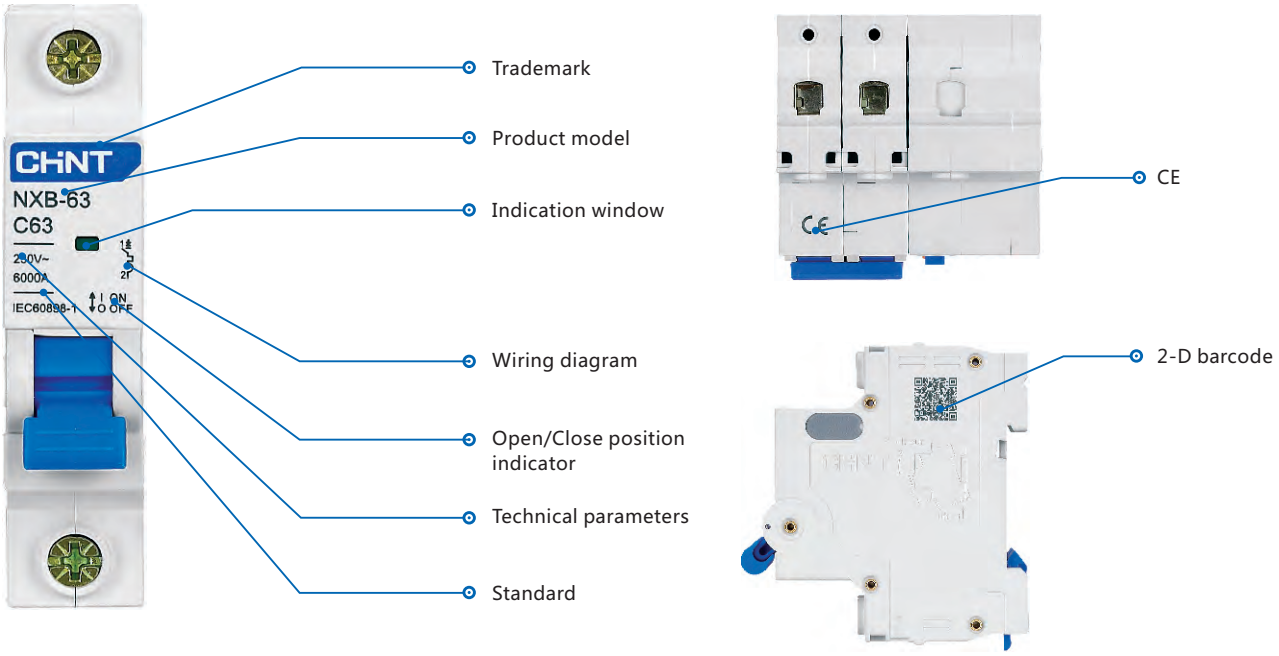
Content

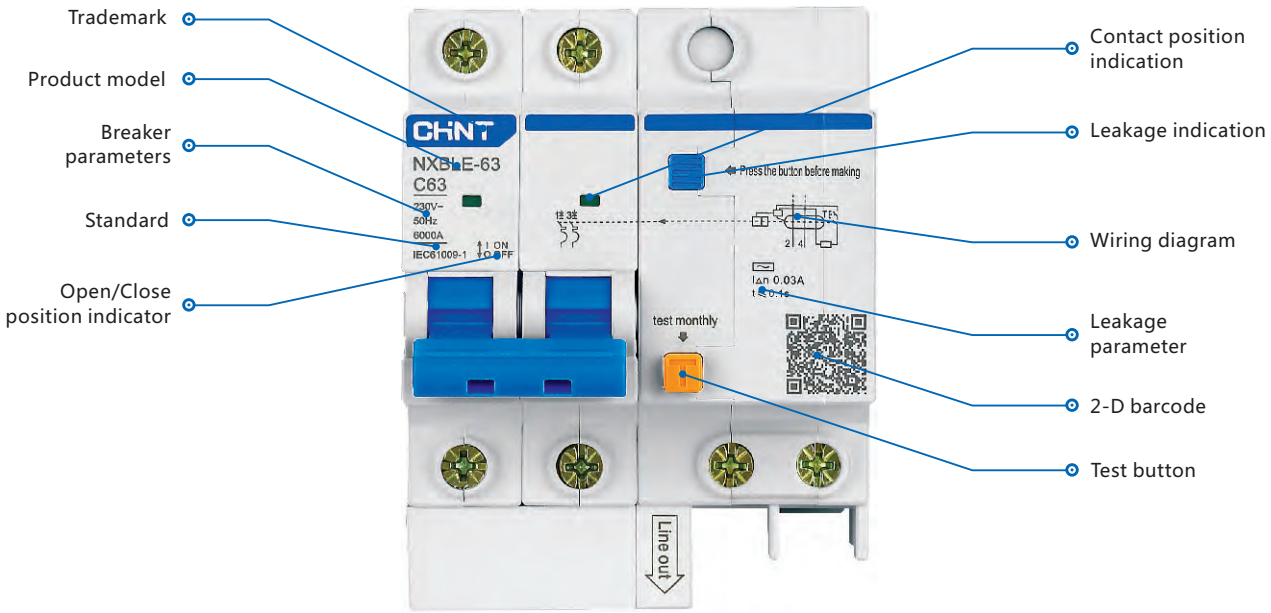
Modular DIN Rail Product

Identifier description

NXB-63 Miniature circuit breaker



NXBLE-63 Residual current operated circuit breaker



Product overview

Miniature circuit breaker

Overload protection, short circuit protection and isolation. It is widely used in building power distribution, industrial power distribution, as well as control and protection for a variety of equipment with operating current not exceeding 125A.Key products series include:

NXB-40

40A and below single mode 1P + N Miniature Circuit Breaker
(IEC/EN 60898-1)

NXB-63

63A and below Miniature Circuit Breaker
(IEC/EN 60898-1)

NXB-63H

63A and below Miniature Circuit Breaker (IEC/EN 60898-1)

NXB-80

80A and below 1P, 1P + N, 2P Miniature Circuit Breaker
(IEC/EN 60898-1)

NXB-125

125A and below Molded Case Circuit Breaker
(IEC/EN 60898-1)

NXB-125G

125A and below Miniature Circuit Breaker
(IEC/EN 60898-1)

Modular DIN Rail Product

Product overview

● Residual current operated circuit breaker (RCBO)

It has the function of overload and short circuit protection, isolation and Earth leakage current protection, i.e., besides the protection function of Miniature Circuit Breaker, it can also serve as additional protection for direct or indirect electric leakage/shock or protective measures for electric fire. It is especially suited for places with low safety level, such as bathroom, swimming pool, plug socket or transformer.
Key products series include:

NXBLE-40

40A and below 1P + N RCBO
(IEC/EN 61009-1)

NXBLE-63Y

63A and below 1P + N RCBO
(IEC/EN 61009-1)

NXBLE-32

32A and below RCBO
(IEC/EN 61009-1)

NXBLE-63

63A and below RCBO
(IEC/EN 61009-1)

NXBLE-125

125A and below RCBO
(IEC / EN 60947-2)

NXBLE-125G

125A and below RCBO
(IEC/EN 61009-1)

Product overview

Accessories

A variety of additional features can be achieved with wide range of accessories when used with circuit breaker, such as alerts, shunt trip, under -voltage protection, etc. Usually the Max number of accessories assembled on the circuit breaker is three. Accessories with independent tripping function should be assembled first, such as shunt trip, and under-voltage trip, Followed by other accessories , such as auxiliary contacts, alarm auxiliary contacts.

Accessories that can be assembled with NXB-63 series (IEC/EN 60947-5)

AX-X1

Auxiliary contacts

AL-X1

Alarm auxiliary contacts

SHT-X1

Shunt release

OVT-X1

Over-voltage release

UVT-X1

Under-voltage release

OUVT-X1

Over/under voltage release

Modular DIN Rail Product

Product overview

Accessories for NXB-125 series (IEC/EN 60947-5)

AX-X3

Auxiliary contacts

AL-X3

Alarm auxiliary contacts

SHT-X3

Shunt release

OVT-X3

Over-voltage release

UVT-X3

Under-voltage release

OUVT-X3

Over/under voltage release

Product overview

● Isolation switch

With isolation function, it is mainly used for isolation and functional analysis of terminal power distribution.

NXHB-125

125A and below isolation switch (IEC/EN60898-3)

Parameters

● Circuit breaker and switch parameters

Product model		NXB-40	NXB-63	NXB-63H
Compliant standards		IEC60898-1	IEC60898-1	IEC60898-1
Rated current (A)		6~40	1~63	1~63
Rated voltage (V ~)		240	240/415	240/415
Rated frequency (Hz)		50/60	50/60	50/60
Number of poles		1P+N	1P, 1P+N, 2P, 3P, 3P+N, 4P	1P, 1P+N, 2P, 3P, 3P+N, 4P
Mechanical life (cycles)		20000	20000	20000
Electrical life (cycles)		10000	10000	10000
Rated short-circuit breaking capacity Icu (A)		4500	6000	10000
Short-circuit breaking capacity Icu (A)		4500	6000	7500
Rated impulse withstand voltage (1.2 / 50)(kV)		4	4	4
Dielectric test voltage (V)		(Power frequency 1 minute) 2000	(Power frequency 1 minute) 2000	(Power frequency 1 minute) 2000
Anti-humid and heat properties (GB/T2423.4:55℃/90~96%,25℃/95~100%)		28 cycles	28 cycles	28 cycles
Terminals	Minimum cross section (mm²)	1	1	1
	Maximum cross section (mm²)	16	25	25
	Standard connection torque (N·m)	1.5	2	2
	Maximum withstand torque (N m)	2	2.5	2.5
	Wire insertion depth (mm)	10	12.5	12.5
Reference temperature for setting of thermal element (℃)		30	30	30
Ambient temperature (℃)		-35~+70	-35~+70	-35~+70
Ambient storage temperature (℃)		-35~+85	-35~+85	-35~+85
Applicable altitude (m)		5000	5000	5000
Electromagnetic trip type	Type B (3In ~ 5In)		■	■
	Type C (5In ~ 10In)	■	■	■
	Type D (10In ~ 14In)	■	■	■
	Type C (6.4In ~ 9.6In)			
	Type D (9.6In~14.4In)			
Electromagnetic tripping current correction factor under different power frequency (recommended value)	50 ~ 60Hz	1In	1In	1In
	100Hz	1.1In	1.1In	1.1In
	200Hz	1.2In	1.2In	1.2In
	400Hz	1.5In	1.5In	1.5In
	DC	1.5In	1.5In	1.5In
Derating factor with multiple products side by side (recommended value)	≤3	(0.9~0.95)In	(0.9~0.95)In	(0.9~0.95)In
	4 ~ 6	(0.86~0.80)In	(0.86~0.80)In	(0.86~0.80)In
	7 ~ 9	(0.78~0.76)In	(0.78~0.76)In	(0.78~0.76)In
	>9	0.76In	0.76In	0.76In
Temperature compensation coefficient (recommended value)	Change for every 10℃ increase from the reference temp	-(0.04~0.07)In	-(0.03~0.05)In	-(0.04~0.07)In
	Change for every 10℃ decrease from the reference temp	+(0.04~0.07)In	+(0.04~0.07)In	+(0.04~0.07)In
Rated current correction factor for high altitude use (recommended value)	≤2000m	In	In	In
	3000m	0.96In	0.96In	0.96In
	4000m	0.94In	0.94In	0.94In
	5000m	0.92In	0.92In	0.92In
Rated voltage correction factor for high altitude use (recommended value)	≤2000m	Ue	Ue	Ue
	3000m	0.89Ue	0.89Ue	0.89Ue
	4000m	0.78Ue	0.78Ue	0.78Ue
	5000m	0.68Ue	0.68Ue	0.68Ue
Cable entry		Top or bottom entry	Top or bottom entry	Top or bottom entry
Mounting		TH35-7.5-rail mounting	TH35-7.5-rail mounting	TH35-7.5-rail mounting
Pollution degree		Pollution degree II	Pollution degree II	Pollution degree II
Protection degree	Direct mounting	IP20	IP20	IP20
	Mounted in the distribution box	IP40	IP40	IP40
Accessories that can be assembled		AX-X1, AL-X1, SHT-X1, OVT-X1, UVT-X1, OUVT-X1	AX-X1, AL-X1, SHT-X1, OVT-X1, UVT-X1, OUVT-X1	AX-X1, AL-X1, SHT-X1, OVT-X1, UVT-X1, OUVT-X1

NXB-80	NXB-125	NXB-125G	NXHB-125
IEC60898-1	IEC60947-2	IEC60898-1	IEC60947-3
80	63~125	63~125	63~125
240	240/415	240/415	240/415
50/60	50/60	50/60	50/60
1P, 1P+N, 2P	1P, 2P, 3P, 4P	1P, 2P, 3P, 4P	1P, 2P, 3P, 4P
20000	20000	20000	10000
10000	6000(In≤100A), 4000(In>100A)	6000(In≤100A), 4000(In>100A)	3000
6000	10000	10000	20Ie
6000	7500	7500	3Ie
4	4	4	6
(Power frequency 1 minute) 2000	(Power frequency 1 minute) 1890	(Power frequency 1 minute) 2000	(Power frequency 1 minute) 1890
28 cycles	28 cycles	28 cycles	28 cycles
1	6	6	1
25	50	50	50
2	3.5	3.5	3.5
3	4	4	4
12.5	15	15	15
30	30	30	30
-35~+70	-35~+70	-35~+70	-35~+70
-35~+85	-35~+85	-35~+85	-35~+85
5000	5000	5000	5000
■		■	
■		■	
■		■	
	■		
	■		
1In	1In	1In	
1.1In	1.1In	1.1In	
1.2In	1.2In	1.2In	
1.5In	1.5In	1.5In	
1.5In	1.5In	1.5In	
(0.9~0.95)In	(0.9~0.95)In	(0.9~0.95)In	
(0.86~0.80)In	(0.86~0.80)In	(0.86~0.80)In	
(0.78~0.76)In	(0.78~0.76)In	(0.78~0.76)In	
0.76In	0.76In	0.76In	
-(0.03~0.05)In	-(0.03~0.05)In	-(0.03~0.05)In	
+(0.04~0.07)In	+(0.04~0.07)In	+(0.04~0.07)In	
In	In	In	
0.96In	0.96In	0.96In	
0.94In	0.94In	0.94In	
0.92In	0.92In	0.92In	
Ue	Ue	Ue	
0.89Ue	0.89Ue	0.89Ue	
0.78Ue	0.78Ue	0.78Ue	
0.68Ue	0.68Ue	0.68Ue	
Top or bottom entry	Top or bottom entry	Top or bottom entry	Top or bottom entry
TH35-7.5-rail mounting	TH35-7.5-rail mounting	TH35-7.5-rail mounting	TH35-7.5-rail mounting
Pollution degree II	Pollution degree III	Pollution degree III	Pollution degree II
IP20	IP20	IP20	IP20
IP40	IP40	IP40	IP40
AX-X1, AL-X1, SHT-X1, OVT-X1, UVT-X1, OUVT-X1	AX-X3, AL-X3, SHT-X3, OVT-X3, UVT-X3, OUVT-X3	AX-X3, AL-X3, SHT-X3, OVT-X3, UVT-X3, OUVT-X3	

● Residual current operated circuit breaker parameter

Product model		NXBLE-40	NXBLE-63Y
Compliant standards		IEC61009-1	IEC61009-1
Rated current (A)		6~40	6~63
Rated residual operating current (A)		0.01, 0.03	0.01, 0.03
Leakage protection type		AC	AC
Rated voltage (V ~)		240	240
Rated frequency (Hz)		50/60	50/60
Number of poles		1P+N	1P+N
Mechanical life (cycles)		20000	20000
Electrical life (cycles)		10000	10000
Rated short-circuit breaking capacity (A)		4500	4500
Short-circuit breaking capacity (A)		4500	4500
Rated impulse withstand voltage (1.2 / 50)(kV)		4	4
Dielectric test voltage (V)		(Power frequency 1 minute) 2000	(Power frequency 1 minute) 2000
Anti-humid and heat properties (GB/T2423.4:55℃/90~96%,25℃/95~100%)		28 cycles	28 cycles
Terminals	Minimum cross section (mm²)	1	1
	Maximum cross section (mm²)	16	25
	Standard connection torque (N·m)	1.5	2
	Maximum withstand torque (N m)	2	2.5
	Wire insertion depth (mm)	10	12.5
Reference temperature for setting of thermal element (℃)		30	30
Ambient working temperature (℃)		-35~+70	-35~+70
Ambient storage temperature (℃)		-35~+85	-35~+85
Applicable altitude (m)		5000	5000
Electromagnetic trip type	Type B (3In ~ 5In)		
	Type C (3In ~ 5In)	■	■
	Type D (3In ~ 5In)	■	■
	Type C (6.4In ~ 9.6In)		
	Type D (9.6In~14.4In)		
Electromagnetic tripping current correction factor under different power frequency (recommended value)	50 ~ 60Hz	1In	1In
	100Hz	1.1In	1.1In
	200Hz	1.2In	1.2In
	400Hz	1.5In	1.5In
	DC	1.5In	1.5In
Derating factor with multiple products side by side (recommended value)	≤3	(0.9~0.95）In	(0.9~0.95）In
	4 ~ 6	(0.86~0.80)In	(0.86~0.80)In
	7 ~ 9	(0.78~0.76)In	(0.78~0.76)In
	>9	0.76In	0.76In
Temperature compensation coefficient (recommended value)	Change for every 10℃ increase from the reference temp	-(0.03~0.050)In	-(0.03~0.050)In
	Change for every 10℃ decrease from the reference temp	-(0.04~0.07)In	-(0.04~0.07)In
Rated current correction factor for high altitude use (recommended value)	≤2000m	In	In
	3000m	0.96In	0.96In
	4000m	0.94In	0.94In
	5000m	0.92In	0.92In
Rated voltage correction factor for high altitude use (recommended value)	≤2000m	Ue	Ue
	3000m	0.89Ue	0.89Ue
	4000m	0.78Ue	0.78Ue
	5000m	0.68Ue	0.68Ue
Cable entry		Top-in, Bottom-out	Top-in, Bottom-out
Mounting		TH35-7.5-rail mounting	TH35-7.5-rail mounting
Pollution degree		Pollution degree II	Pollution degree II
Protection class	Direct mounting	IP20	IP20
	Mounted in the distribution box	IP40	IP40
Accessories that can be assembled		AX-X1, AL-X1, SHT-X1, OVT-X1, UVT-X1, OUVT-X1	AX-X1, AL-X1, SHT-X1, OVT-X1, UVT-X1, OUVT-X1

NXBLE-32	NXBLE-63	NXBLE-125	NXBLE-125G
IEC61009-1	IEC61009-1	IEC60947-2	IEC61009-1
6~32	6~63	63~125	63~125
0.03, 0.05, 0.075, 0.1, 0.3	0.03, 0.05, 0.075, 0.1, 0.3	0.03, 0.05, 0.075, 0.1, 0.3	0.03, 0.05, 0.075, 0.1, 0.3
AC	AC	AC	AC
240/415	240/415	240/415	240/415
50/60	50/60	50/60	50/60
1P+N, 2P, 3P, 3P+N, 4P	1P+N, 2P, 3P, 3P+N, 4P	1P+N, 2P, 3P, 3P+N, 4P	1P+N, 2P, 3P, 3P+N, 4P
20000	20000	20000	20000
10000	10000	6000(In≤100A), 4000(In>100A)	6000(In≤100A), 4000(In>100A)
6000	6000	10000	10000
6000	6000	7500	7500
4	4	4	4
(Power frequency 1 minute) 2000	(Power frequency 1 minute) 2000	(Power frequency 1 minute) 1890	(Power frequency 1 minute) 2000
28 cycles	28 cycles	28 cycles	28 cycles
1	1	6	6
25	25	50	50
2	2	3.5	3.5
2.5	2.5	4	4
12.5	12.5	15	15
30	30	30	30
-35~+70	-35~+70	-35~+70	-35~+70
-35~+85	-35~+85	-35~+85	-35~+85
5000	5000	5000	5000
■	■		■
■	■		■
■	■		■
		■	
		■	
1In	1In	1In	1In
1.1In	1.1In	1.1In	1.1In
1.2In	1.2In	1.2In	1.2In
1.5In	1.5In	1.5In	1.5In
1.5In	1.5In	1.5In	1.5In
(0.9~0.95）In	(0.9~0.95）In	(0.9~0.95）In	(0.9~0.95）In
(0.86~0.80)In	(0.86~0.80)In	(0.86~0.80)In	(0.86~0.80)In
(0.78~0.76)In	(0.78~0.76)In	(0.78~0.76)In	(0.78~0.76)In
0.76In	0.76In	0.76In	0.76In
-(0.03~0.050)In	-(0.03~0.050)In	-(0.03~0.050)In	-(0.03~0.050)In
-(0.04~0.07)In	-(0.04~0.07)In	-(0.04~0.07)In	-(0.04~0.07)In
In	In	In	In
0.96In	0.96In	0.96In	0.96In
0.94In	0.94In	0.94In	0.94In
0.92In	0.92In	0.92In	0.92In
Ue	Ue	Ue	Ue
0.89Ue	0.89Ue	0.89Ue	0.89Ue
0.78Ue	0.78Ue	0.78Ue	0.78Ue
0.68Ue	0.68Ue	0.68Ue	0.68Ue
Top-in, Bottom-out	Top-in, Bottom-out	Top-in, Bottom-out	Top-in, Bottom-out
TH35-7.5-rail mounting	TH35-7.5-rail mounting	TH35-7.5-rail mounting	TH35-7.5-rail mounting
Pollution degree II	Pollution degree II	Pollution degree III	Pollution degree III
IP20	IP20	IP20	IP20
IP40	IP40	IP40	IP40
AX-X1, AL-X1, SHT-X1, OVT-X1, UVT-X1, OUVT-X1	AX-X1, AL-X1, SHT-X1, OVT-X1, UVT-X1, OUVT-X1	AX-X3, AL-X3	AX-X3, AL-X3

Tripping characteristics

● Tripping characteristics are in compliant with standard IEC60898-1 and IEC61009-1

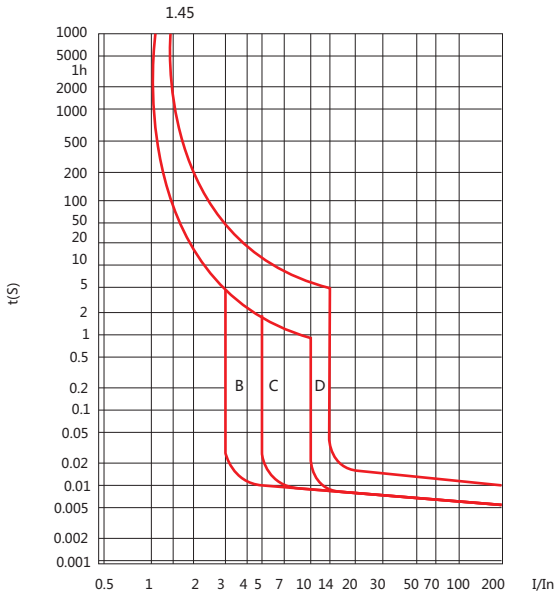
Test	Type	Test current	Starting state	Trip/Not trip time limit	Expected outcome	Notes
a	B,C,D	1.13In	Cold	t≤1 h(for In≤63A) t<2 h(for In>63A)	Not trip	
b	B,C,D	1.45In	Right after test	t<1 h(for In≤63A) t<2 h(for In>63A)	Trip	Current increase steadily within 5s
c	B,C,D	2.55In	Right after test	1s<t<60s (for In≤32A) 1s<t<120s (for In>32A)	Trip	
d	B C D	3In 5In 10In	Cold	t≤0.1s	Not trip	Connect the current by closing the auxiliary switch
e	B C D	5In 10In 20In	Cold	t < 0.1s	Trip	Connect the current by closing the auxiliary switch

● Tripping characteristics are in compliant with standard IEC60947-2

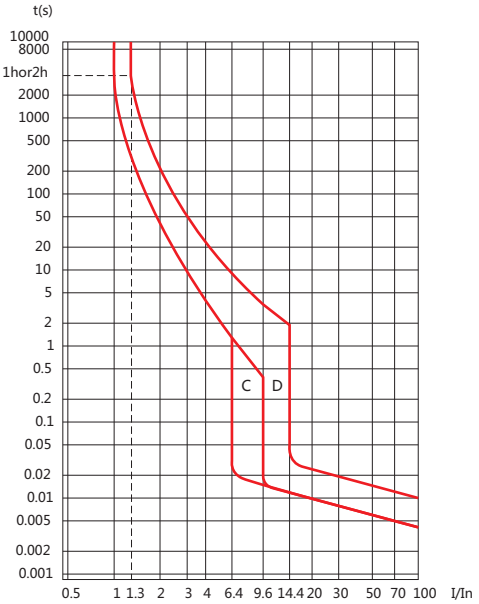
Release type	Test current	Starting state	Trip/Not trip time limit	Expected outcome	Notes
C,D	1.05In	Cold	t≤1 h(for In≤63A) t≤2 h(for In > 63A)	Not trip	
C,D	1.3In	Right after test	t < 1 h(for In≤63A) t < 2 h(for In > 63A)	Trip	Current increase steadily within 5s
C,D	2In	Cold	t < 900s	Trip	
C	6.4In	Cold	t≤0.2s	Not trip	Connect the current by closing the auxiliary switch
D	9.6In				
C	9.6In	Cold	t < 0.2s	Trip	
D	14.4In				

● Tripping curve

Compliant with standard IEC60898-1 and IEC61009-1



Compliant with standard IEC60947-2



Cross-sectional area of the connecting copper wire

● The following table shows the cross-sectional area of the copper wire corresponding to the rated current (recommended value):

Copper wire cross-sectional area Smm²	Rated current In(A)
1	In≤8
1.5	8＜In≤12
2.5	12＜In≤20
4	20＜In≤25
6	25＜In≤32
10	32＜In≤50
16	50＜In≤63
25	63＜In≤85
35	85＜In≤115
50	115＜In≤150

Product selection and order

● Circuit breakers

Product model	Number of poles	Electromagnetic release type	Rated current	Rated residual operating current
NXB-40	1P+N	C, D	6A, 10A, 16A, 20A, 25A, 32A, 40A	
NXBLE-40				0.01A, 0.03A
NXB-63	1P, 1P+N, 2P, 3P, 3P+N, 4P	B, C, D	1A, 2A, 3A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A	
NXBLE-32	1P+N, 2P, 3P, 3P+N, 4P	B, C, D	6A, 10A, 16A, 20A, 25A, 32A	0.03A, 0.05A, 0.075A, 0.1A, 0.3A
NXBLE-63			6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A	
NXBLE-63Y	1P+N	C, D	6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A	0.01A, 0.03A
NXB-80	1P, 1P+N, 2P	B, C, D	80A	
NXB-125	1P, 2P, 3P, 4P	C, D	63A, 80A, 100A, 125A	
NXB-125G		B, C, D		
NXBLE-125	1P+N, 2P, 3P, 3P+N, 4P	C, D		0.03A, 0.05A, 0.075A, 0.1A, 0.3A
NXBLE-125G		B, C, D		

Ordering example:NXB-40 C16 50 units

NXB-63 3P D63 50 units

NXBLE-63 1P+N C63 0.03A 30 units

Product description

Miniature circuit breaker

Residual current operated circuit breaker (RCBO)

Accessories

Isolation switch

NXB-63 Miniature circuit breaker

Compliant standards

IEC60898-1

Compliant certification

CE

Major function

Overload protection, short circuit protection, positive isolation

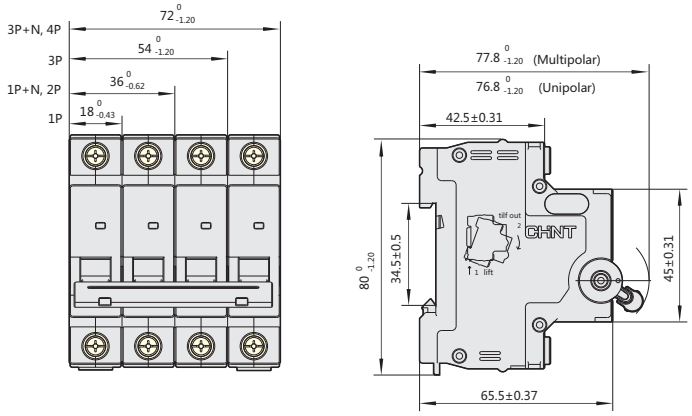
Technical parameters

Rated current: 1A, 2A, 3A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A;
Rated voltage: 240V ~ (1P, 1P+N), 415V ~ (2 ~ 4P, 3P+N);
Frequency: 50/60Hz;
Electromagnetic release type: B, C, D;
Number of poles: 1P, 1P+N, 2P, 3P, 3P+N, 4P;
Mechanical life: 20000 cycles;
Electrical life: 10000 cycles;
Rated short-circuit breaking capacity(Icu): 6000A;
Short-circuit breaking capacity (Ics): 6000A;
Rated impulse withstand voltage (Uimp): 4kV;
Power consumption on each pole of the circuit breaker: see Table 1.

Table 1

Rated current In (A)	Maximum power consumption per pole (W)
1~10	2
16~32	3.5
40~63	5

Dimensions and installation sizes



NXB-63H Miniature circuit breaker

Compliant standards

GB10963.1,IEC60898-1

Compliant certification

CCC,CE

Major function

Overload protection, short circuit protection , positive isolation

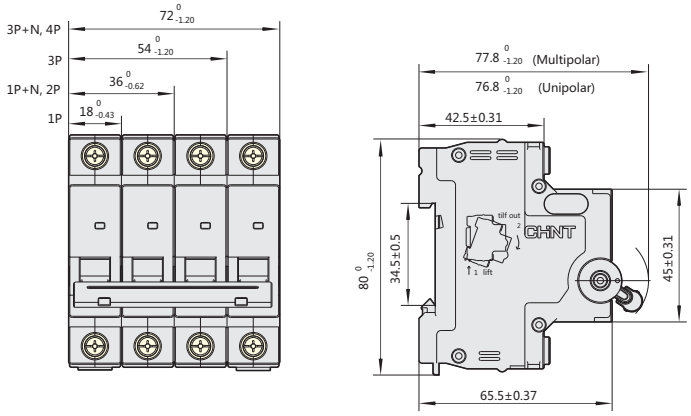
Technical parameters

Rated current: 1A, 2A, 3A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A,;
Rated voltage: 240V ~ (1P, 1P+N), 415V ~ (2 ~ 4P, 3P+N);
Frequency: 50/60Hz;
Electromagnetic release type: B, C, D;
Number of poles: 1P, 1P+N, 2P, 3P, 3P+N, 4P;
Mechanical life: 20000 cycles;
Electrical life: 10000 cycles;
Rated short-circuit breaking capacity: 10000A;
Short-circuit breaking capacity: 7500A;
Rated impulse withstand voltage: 4kV;
Power consumption on each pole of the circuit breaker: see Table 1.

Table 1

Rated current In (A)	Maximum power consumption per pole (W)
1~10	2
16~32	3.5
40~63	5

Dimensions and installation sizes



NXB-80 Miniature circuit breaker

Compliant standards

IEC60898-1

Compliant certification

CE

Major function

Overload protection, short circuit protection , positive isolation

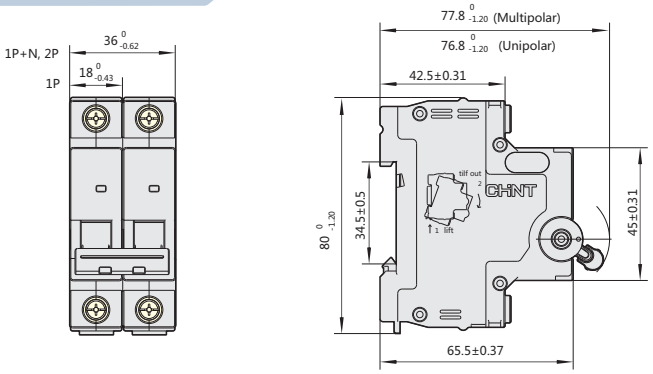
Technical parameters

Rated current: 80A;
Rated voltage: 240V ~;
Frequency: 50/60Hz;
Electromagnetic release type: B, C, D;
Number of poles: 1P, 1P+N, 2P;
Mechanical life: 20000 cycles;
Electrical life: 10000 cycles;
Rated short-circuit breaking capacity: see Table 1;
Short-circuit breaking capacity: see Table 1;
Rated impulse withstand voltage Uimp(kV): 4;
Power consumption on each pole of the circuit breaker: ≤ 6.5W

Table 1

Model	Number of poles	Rated voltage	Rated short-circuit breaking capacity	Short-circuit breaking capacity
NXB-80	1P, 1P+N	240V	6000A	6000A
	2P	240V	6000A	6000A

Dimensions and installation sizes



NXB-40 Miniature circuit breaker

Compliant standards

IEC60898-1

Compliant certification

CE

Major function

Overload protection, short circuit protection, positive isolation

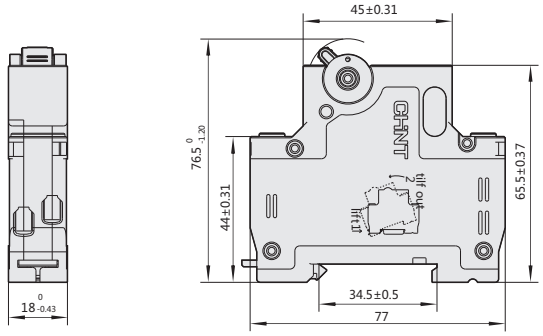
Technical parameters

Rated current: 6A, 10A, 16A, 20A, 25A, 32A, 40A;
Rated voltage: 240V;
Frequency: 50/60Hz;
Electromagnetic release type: C, D;
Number of poles: 1P+N;
Mechanical life: 20000 cycles;
Electrical life: 10000 cycles;
Rated short-circuit breaking capacity(Icu): 4500A;
Short-circuit breaking capacity(Ics): 4500A;
Rated impulse withstand voltage(Uimp): 4kV;
Power consumption on each pole of the circuit breaker: see Table 1.

Table 1

Rated current In (A)	Maximum power consumption per pole (W)
1~10	2
16~32	3.5
40	5

Dimensions and installation sizes



NXB-125 Moulded case circuit breaker

Compliant standards

IEC60947-2

Compliant certification

CE

Major function

Overload protection, short circuit protection, positive isolation

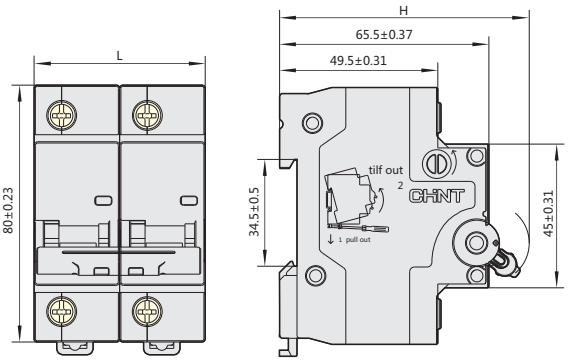
Technical parameters

Rated current: 63A, 80A, 100A, 125A;
Rated voltage: 240V ~ (1P), 415V ~ (2P, 3P, 4P);
Frequency: 50/60Hz;
Electromagnetic release type: C, D;
Number of poles: 1P, 2P, 3P, 4P;
Mechanical life: 20000 cycles;
Electrical life: 6000 cycles (In≤100A); 4000 cycles (In > 100A);
Rated short-circuit breaking capacity(Icu): 10000A;
Short-circuit breaking capacity(Ics): 7500A;
Rated impulse withstand voltage(Uimp): 4kV;
Power consumption on each pole of the circuit breaker: see Table 1.

Table 1

Rated current In (A)	Maximum power consumption per pole (W)
63	3.5
80	5.5
100	7.5
125	11.5

Dimensions and installation sizes



	1P	2P	3P	4P
L(mm)	$27^{0}_{-0.52}$	$54^{0}_{-0.74}$	$81^{0}_{-0.87}$	$108^{0}_{-1.40}$
H(mm)	$75.5^{0}_{-1.20}$	$78.5^{0}_{-1.20}$	$78.5^{0}_{-1.20}$	$78.5^{0}_{-1.20}$

NXB-125G Miniature circuit breaker

Compliant standards

IEC60898-1

Compliant certification

CE

Major function

Overload protection, short circuit protection, positive isolation

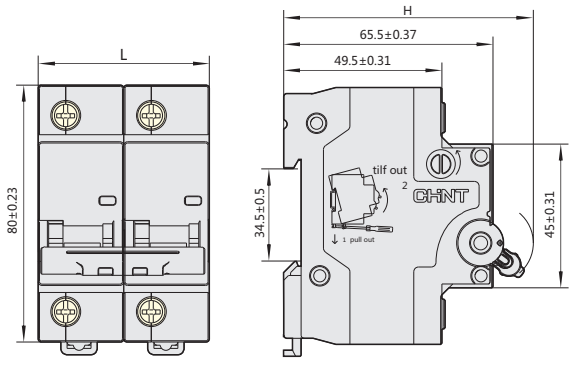
Technical parameters

Rated current: 63A, 80A, 100A, 125A;
Rated voltage: 240V ~ (1P), 415V ~ (2P, 3P, 4P);
Frequency: 50/60Hz;
Electromagnetic release type: B, C, D;
Number of poles: 1P, 2P, 3P, 4P;
Mechanical life: 20000 cycles;
Electrical life: 6000 cycles (In≤100A); 4000 cycles (In＞100A);
Rated short-circuit breaking capacity(Icu): 10000A;
Short-circuit breaking capacity(Ics): 7500A;
Rated impulse withstand voltage(Uimp): 4kV;
Power consumption on each pole of the circuit breaker: see Table 1.

Table 1

Rated current In (A)	Maximum power consumption p r pole (W)
63	3.5
80	5.5
100	7.5
125	11.5

Dimensions and installation sizes



	1P	2P	3P	4P
L(mm)	$27^{0}_{-0.52}$	$54^{0}_{-0.74}$	$81^{0}_{-0.87}$	$108^{0}_{-1.40}$
H(mm)	$75.5^{0}_{-1.20}$	$78.5^{0}_{-1.20}$	$78.5^{0}_{-1.20}$	$78.5^{0}_{-1.20}$

NXBLE-32 Residual current operated circuit breaker (RCBO)

Compliant standards

IEC61009-1

Compliant certification

CE

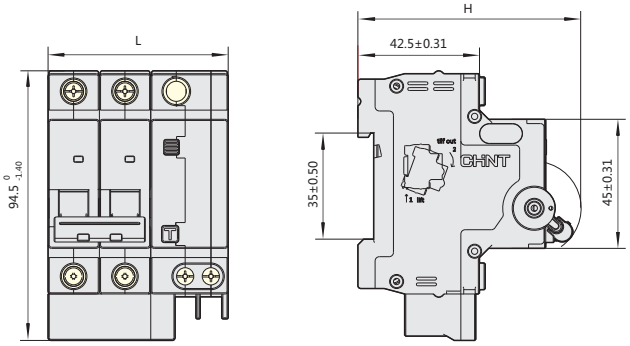
Major function

Overload protection, short circuit protection, positive isolation, residual current operation

Technical parameters

Rated current: 6A, 10A, 16A, 20A, 25A, 32A;
Rated residual operating current: 0.03A, 0.05A, 0.075A, 0.1A, 0.3A;
Rated voltage: 240V ~ (1P+N, 2P), 415V ~ (3P, 3P+N, 4P);
Frequency: 50/60Hz;
Electromagnetic release type: B, C, D;
Number of poles: 1P+N, 2P, 3P, 3P+N, 4P;
Mechanical life: 20000 cycles;
Electrical life: 10000 cycles;
Rated short-circuit breaking capacity(Icu): 6000A;
Short-circuit breaking capacity(Ics): 6000A;
Rated impulse withstand voltage(Uimp): 4kV.

Dimensions and installation sizes



	1P+N	2P	3P	3P+N	4P
L(mm)	45 0 -0.62	63 0 -0.74	90 0 -1.40	99 0 -1.40	117 0 -1.60
H(mm)	76.8 0 -1.20	77.8 0 -1.20	77.8 0 -1.20	77.8 0 -1.20	77.8 0 -1.20

NXBLE-63 Residual current operated circuit breaker (RCBO)

Compliant standards

1EC61009-1

Compliant certification

CE

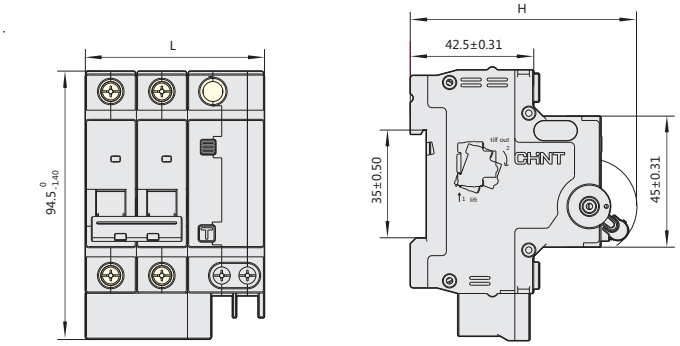
Major function

Overload protection, short circuit protection, isolation, residual current operation

Technical parameters

Rated current: 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A;
Rated residual operating current: 0.03A, 0.05A, 0.075A, 0.1A, 0.3A;
Rated voltage: 240V ~ (1P+N, 2P), 415V ~ (3P, 3P+N, 4P);
Frequency: 50/60Hz;
Electromagnetic release type: B, C, D;
Number of poles: 1P+N, 2P, 3P, 3P+N, 4P;
Mechanical life: 20000 cycles;
Electrical life: 10000 cycles;
Rated short-circuit breaking capacity(Icu): 6000A;
Short-circuit breaking capacity(Ics): 6000A;
Rated impulse withstand voltage(Uimp): 4kV;

Dimensions and installation sizes



	1P+N	2P	3P	3P+N	4P
L(mm)	54 0 -0.74	72 0 -0.74	103.5 0 -1.40	117 0 -1.40	135 0 -1.60
H(mm)	76.8 0 -1.20	77.8 0 -1.20	77.8 0 -1.20	77.8 0 -1.20	77.8 0 -1.20

NXBLE-63Y Residual current operated circuit breaker (RCBO)

NXBLE-63Y Residual current operated circuit breaker (RCBO)

Compliant standards

1EC61009-1

Compliant certification

CE

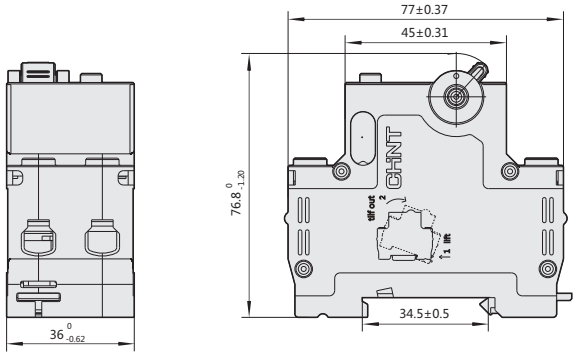
Major function

Overload protection, short circuit protection, isolation, residual current operation

Technical parameters

Rated current: 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A;
Rated residual operating current: 0.01A, 0.03A;
Rated voltage: 240V ~ ;
Frequency: 50/60Hz;
Electromagnetic release type: C, D;
Number of poles: 1P+N;
Mechanical life: 20000 cycles;
Electrical life: 10000 cycles;
Rated short-circuit breaking capacity(Icu): 4500A;
Short-circuit breaking capacity(Ics): 4500A;
Rated impulse withstand voltage(Uimp): 4kV;

Dimensions and installation sizes



NXBLE-40 Residual current operated circuit breaker (RCBO)

Compliant standards

1EC61009-1

Compliant certification

CE

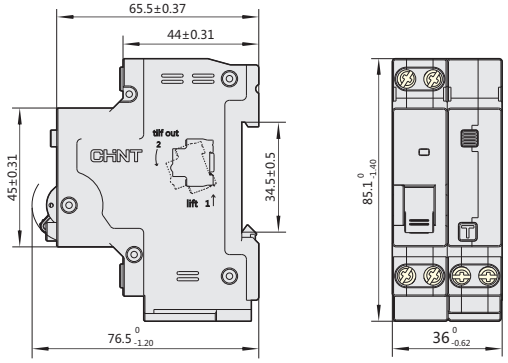
Major function

Overload protection, short circuit protection, isolation, residual current operation

Technical parameters

Rated current: 6A, 10A, 16A, 20A, 25A, 32A, 40A;
Rated residual operating current: 0.01A, 0.03A;
Rated voltage: 240V ~ ;
Frequency: 50/60Hz;
Electromagnetic release type: C, D;
Number of poles: 1P+N;
Mechanical life: 20000 cycles;
Electrical life: 10000 cycles;
Rated short-circuit breaking capacity(Icu): 4500A;
Short-circuit breaking capacity(Ics): 4500A;
Rated impulse withstand voltage(Uimp): 4kV.

Dimensions and installation sizes



NXBLE-125 Residual current operated circuit breaker (RCBO)

Compliant standards

EC60947-2

Compliant certification

CE

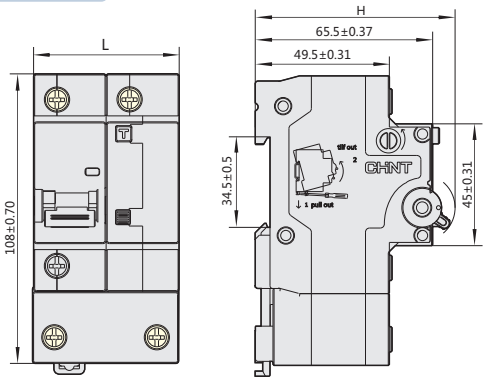
Major function

Overload protection, short circuit protection, isolation, residual current operation

Technical parameters

Rated current: 63A, 80A, 100A, 125A;
Rated residual operating current: 0.03A, 0.05A, 0.075A, 0.1A, 0.3A;
Rated voltage: 240V ~ (1P+N, 2P), 415V ~ (3P, 3P+N, 4P);
Frequency: 50/60Hz;
Electromagnetic release type: C, D;
Number of poles: 1P+N, 2P, 3P, 3P+N, 4P;
Mechanical life: 20000 cycles;
Electrical life: 6000 cycles (In≤100A); 4000 cycles (In> 100A);
Rated short-circuit breaking capacity(Icu): 10000A;
Short-circuit breaking capacity(Ics): 7500A;
Rated impulse withstand voltage(Uimp): 4kV.

Dimensions and installation sizes



	1P+N	2P	3P	4P
L(mm)	$54^{0}_{-0.74}$	$81^{0}_{-0.87}$	$108^{0}_{-1.40}$	$135^{0}_{-1.60}$
H(mm)	$75.5^{0}_{-1.20}$	$78.5^{0}_{-1.20}$	$78.5^{0}_{-1.20}$	$78.5^{0}_{-1.20}$

NXBLE-125G Residual current operated circuit breaker (RCBO)

Compliant standards

1EC61009-1

Compliant certification

CE

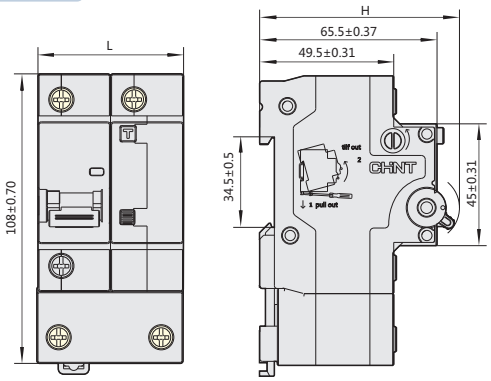
Major function

Overload protection, short circuit protection, isolation, residual current operation

Technical parameters

Rated current: 63A, 80A, 100A, 125A;
Rated residual operating current: 0.03A, 0.05A, 0.075A, 0.1A, 0.3A;
Rated voltage: 240V ~ (1P+N, 2P), 415V ~ (3P, 3P+N, 4P);
Frequency: 50/60Hz;
Electromagnetic release type: B, C, D;
Number of poles: 1P+N, 2P, 3P, 3P+N, 4P;
Mechanical life: 20000 cycles;
Electrical life: 6000 cycles (In≤100A); 4000 cycles (In＞100A);
Rated short-circuit breaking capacity(Icu): 10000A;
Short-circuit breaking capacity(Ics): 7500A;
Rated impulse withstand voltage(Uimp): 4kV.

Dimensions and installation sizes



	1P+N	2P	3P	4P
L(mm)	$54^{0}_{-0.74}$	$81^{0}_{-0.87}$	$108^{0}_{-1.40}$	$135^{0}_{-1.60}$
H(mm)	$75.5^{0}_{-1.20}$	$78.5^{0}_{-1.20}$	$78.5^{0}_{-1.20}$	$78.5^{0}_{-1.20}$

AX-X1 Auxiliary contact

Compliant standards

IEC60947-5-1

Compliant certification

CE

Major function

To achieve long-distance signal indication for the open/close status of the circuit breaker

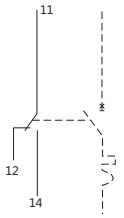
Parameters and performance

Table 1

Utilization category	Rated operating voltage V	Rated operating current A
AC-12	AC 415	3
	AC 240	6
DC-12	DC 130	1
	DC 48	2
	DC 24	6

Action characteristics: Figure 1 shows the wiring diagram for auxiliary contacts.
When the auxiliary contacts is open, terminals 11 and 12 are connected;
When the auxiliary contacts is closed, terminals 11 and 14 are connected.
Life: Operating life of auxiliary contacts is ≥ 10000 cycles.

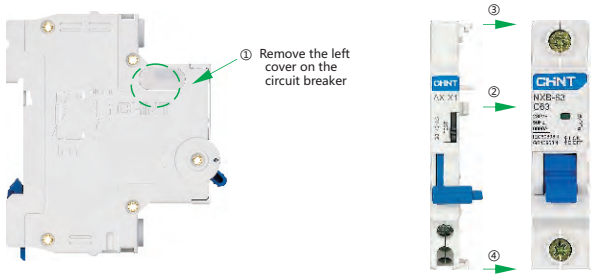
Figure 1



Assembly and installation of the product

Can be assembled with NXB-63, NXB-40 series circuit breakers, with assembly diagram shown below:

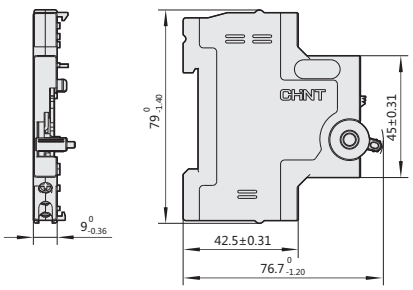
Figure 2



After AX-X1 is assembled with the circuit breaker, mount them on the TH3.5-7.5 steel mounting rail.

Dimensions and installation sizes

Figure 3



AL-X1 Alarm auxiliary contact

Compliant standards

IEC60947-5-1

Compliant certification

CE

Major function

To achieve signal indication over long distance for open/close status of the circuit breaker and alarm.

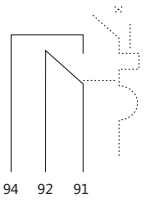
Parameters and performance

Table 1

Utilization category	Rated operating voltage V	Rated operating current A
AC-12	AC 415	3
	AC 240	6
DC-12	DC 130	1
	DC 48	2
	DC 24	6

Action characteristics: Figure 1 shows the wiring diagram for auxiliary contact.When the auxiliary contact is open, terminals 91 and 94 are connected;When the auxiliary contact is closed, terminals 91 and 92 are connected. When the alarm auxiliary contact is closed, and manually opened with the handle, terminals 91 and 92 shall still be connected; when the alarm auxiliary contact is closed, and the assembled circuit trip is open due to error, terminals 91 and 92 shall be open, and terminals 91 and 94 shall be connected; Life: Operating life of alarm auxiliary contact is ≥ 10000 cycles.

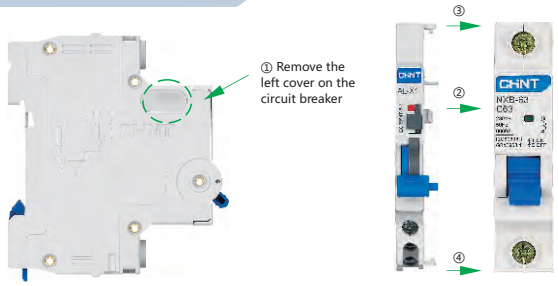
Figure 1



Assembly and installation of the product

Can be assembled with NXB-63, NXB-40 series circuit breakers, with assembly diagram shown below:

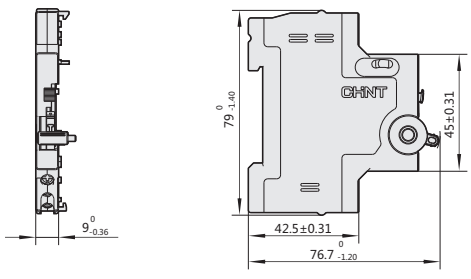
Figure 2



After AL-X1 is assembled with the circuit breaker, mount them on the TH3.5-7.5 steel mounting rail.

Dimension and installation sizes

Figure 3



SHT-X1 Shunt release

Major function

To be assembled with the circuit breaker to achieve remote shunt trip.

Parameters and performance

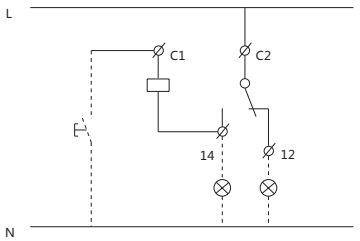
Rated insulation voltage (Ui): 500V;
Rated operation current under different rated operation voltage (see Table 1):
Utilization category: AC-12, DC-12.

Table 1

Rated operating voltage (V)	Rated operating current (A)
AC 415	3
AC 240	6
AC/DC 48	3
AC/DC 24	6

Action characteristics: within the range of 70% ~ 110% of the rated control supply voltage, the release should operate reliably to open the circuit breaker. Figure 1 shows the wiring diagram for the release. When the release is open, terminal C2 and 12 shall be connected, and the external security indicator shall light up; when the release is closed, terminal C2 and 14 shall be connected, and the external warning indicator shall light up; when the release is closed, and the external button is connected, the release shall trip and drive the circuit breaker to trip and be opened. Meanwhile, the release indicator shall display trip mark. Mechanical life: operating life of the release is ≥ 4000 cycles.

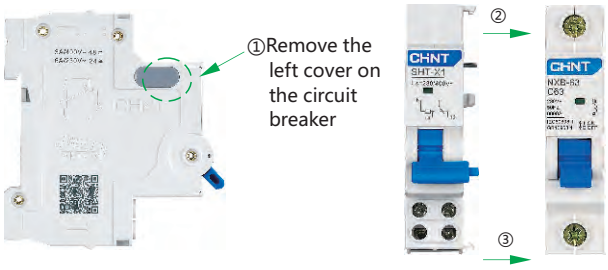
Figure 1



Assembly and installation of the product

SHT-X1 can be assembled with NXB-63 or NXB-40 series circuit breaker, with the assembly diagram shown below:

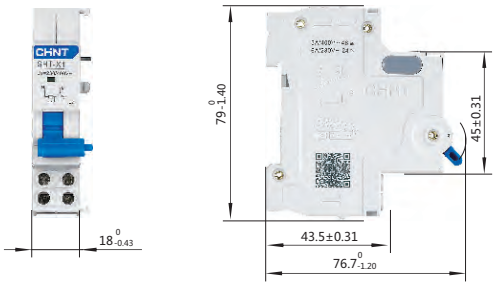
Figure 2



After SHT-X1 is assembled with the circuit breaker, mount them on TH35-7.5 steel mounting rail.

Dimensions and installation sizes

Figure 3



OVT-X1 Overvoltage release

Major function

To be assembled with the circuit breaker to achieve overvoltage protection.

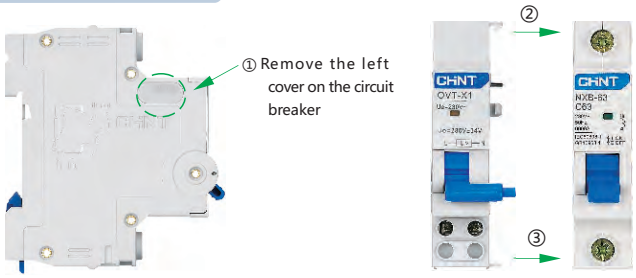
Parameters and performance

Rated operation voltage Ue: AC 240V 50Hz (or 60Hz).
Rated insulation voltage Ui: 500V.
Overvoltage setting value Uvo: 280V.
Release action characteristics: when the main circuit voltage is in the range of (85% ~ 110%) Ue, the release shall be able to keep the circuit breaker to work reliably for long term. When the main circuit voltage is increased to 280 (1 ± 5%) V, the release assembled with NXB-63 series circuit breaker should act and trip open NXB-63 circuit breaker.
Mechanical and electrical life: the mechanical and electrical life of release is ≥4000 operation cycles.

Assembly and installation of the product

OVT-X1 can be assembled with NXB-63 or NXB-40 series circuit breaker, with the assembly diagram shown below:

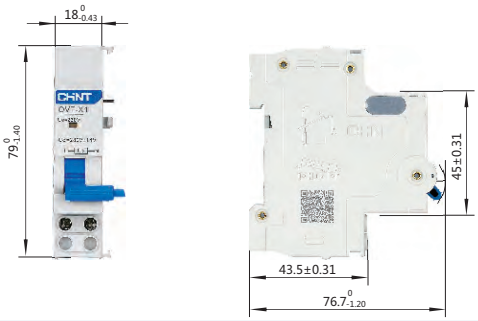
Figure 1



After the release is assembled with the circuit breaker, mount them on TH35-7.5 steel mounting rail.

Dimensions and installation sizes

Figure 2



UVT-X1 Under-voltage release

Major function

To be assembled with the circuit breaker to achieve overvoltage protection.

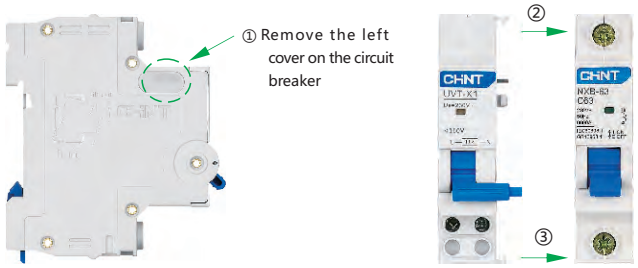
Parameters and performance

Rated operation voltage Ue: AC 240V
Rated insulation voltage Ui 500V
Action characteristics: when the applied voltage ≤35% Ue, the product should prevent circuit breaker from closing; when 35% Ue≤ applied voltage ≤70% Ue, the product should operate and drive the circuit breaker open; when the applied voltage ≥85% Ue, the product should be able to close. The applied voltage should not exceed 110%Ue.
Life: the operating life of the release is ≥ 4000 cycles.

Assembly and installation of the product

UVT-X1 can be assembled with NXB-63 or NXB-40 series circuit breaker, with the assembly diagram shown below:

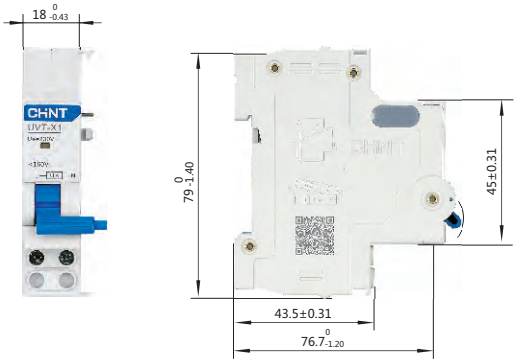
Figure 1



After the release is assembled with the circuit breaker, mount them on TH35-7.5 steel mounting rail.

Dimensions and installation sizes

Figure 2



OUVT-X1 Over/under voltage release

Major function

To be assembled with circuit breaker to achieve over/under voltage protection

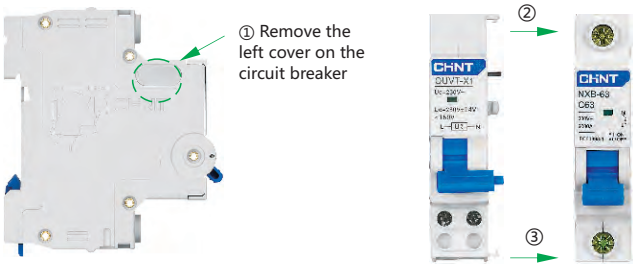
Parameters and performance

Rated operation voltage Ue: AC 240V, 50Hz;
Overvoltage operation setting value Uvo: 280V;
Rated insulation voltage Ui: 500V;
Tripping characteristics: the release is assembled with NXB-63 series circuit breaker. When the applied voltage is reduced to 35%Ue or increased to 95% ~ 105% of the over-voltage setting value, the release should drive the circuit breaker to act. When the applied voltage is below 35%Ue or above 105% of the over-voltage setting value, the release should be able to prevent the circuit breaker from closing. When the supply voltage is above 85% Ue and below 95% of over-voltage setting value, the circuit breaker should be able to close normally. The upper limit of the applied voltage should be less than 110% over-voltage operation setting value.
Mechanical and electrical life: the mechanical and electrical life after the release is assembled with the circuit breaker should be ≥ 4000 cycles, of which, 500 cycles for over-voltage trip and under-voltage trip each, and 3000 cycles for the open/close of the circuit breaker.

Assembly and installation of the product

OUVT-X1 can be assembled with NXB-63 or NXB-40 series circuit breaker, with the assembly diagram shown below:

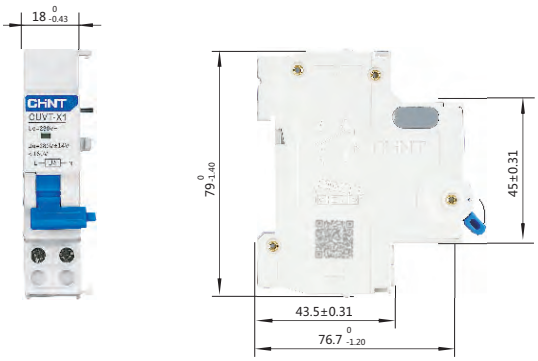
Figure 1



After AL-X1 is assembled with the circuit breaker, mount them on the TH3.5-7.5 steel mounting rail.

Dimensions and installation sizes

Figure 2



AX-X3 Auxiliary contact

Major function

IEC60947-5-1

Compliant certification

CE

Major function

To be assembled with the circuit breaker to achieve long-distance signal indication for the open/close status of the circuit breaker

Parameters and performance

Rated operating currents under different working voltages:

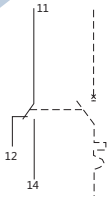
Table 1

Utilization category	Rated operating voltage V	Rated operating current A
AC-12	AC 415	3
	AC 240	6
DC-12	DC 130	1
	DC 48	2
	DC 24	6

Action characteristics: Figure 1 shows the wiring diagram for auxiliary contacts.When the auxiliary contacts is open, terminals 11 and 12 is connected; When the auxiliary contacts is closed, terminals 11 and 14 is connected.

Life: Operating life of auxiliary contacts is ≥ 10000 cycles.

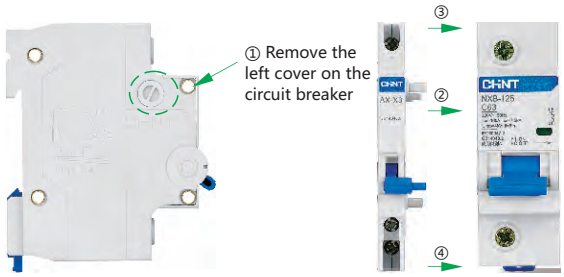
Figure 1



Assembly and installation of the product

AX-X3 can be assembled with NXB-125, NXB-125G series circuit breaker, with the assembly diagram shown below:

Figure 2

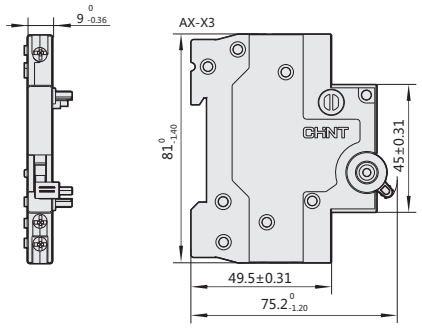


After AX-X3 is assembled with the circuit breaker, mount them on the TH3.5-7.5 steel mounting rail.

AX-X3 Auxiliary contact

Dimensions and installation sizes

Figure 4



AL-X3 Alarm auxiliary contact

Compliant standards

IEC60947-5-1

Compliant certification

CE

Major function

To be assembled with the circuit breaker to achieve signal indication over long distance for open/close status of the circuit breaker and alarm.

Parameters and performance

Rated operation currents under different working voltages:

Table 1

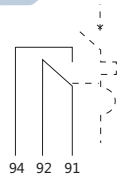
Utilization category	Rated operating voltage V	Rated operating current A
AC-12	AC 415	3
	AC 240	6
DC-12	DC 130	1
	DC 48	2
	DC 24	6

Action characteristics: Figure 1 shows the wiring diagram for auxiliary contact.

When the auxiliary contact is open, terminals 91 and 94 is connected; When the auxiliary contact is closed, terminals 91 and 92 is connected. When the alarm auxiliary contact is closed, and manually open with the handle, terminals 91 and 92 shall still be connected; when the alarm auxiliary contact is closed, and the assembled circuit trip open due to error, terminals 91 and 92 shall be open, and terminals 91 and 94 shall be connected;

Life: Operating life of alarm auxiliary contact is ≥ 10000 cycles.

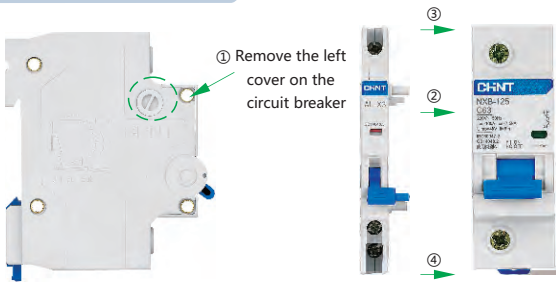
Figure 1



Assembly and installation of the product

AL-X3 can be assembled with NXB-125 series circuit breaker, with the assembly diagram shown below:

Figure 2

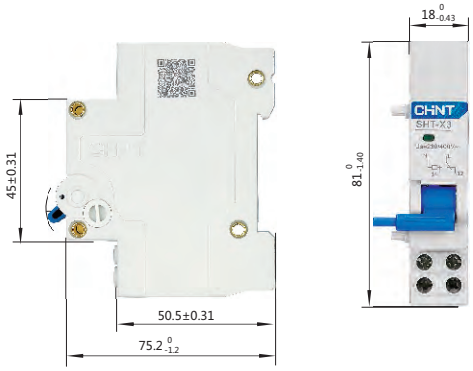


After AL-X3 is assembled with the circuit breaker, mount them on the TH3.5-7.5 steel mounting rail.

AL-X3 Alarm auxiliary contact

Dimensions and installation sizes

Figure 2



SHT-X3 Shunt release

Major function

To be assembled with the circuit breaker to achieve remote shunt trip.

Parameters and performance

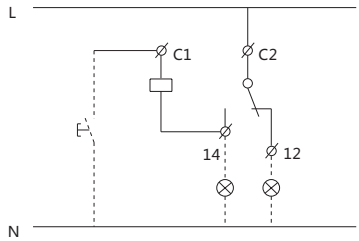
Rated insulation voltage (Ui): 500V;
Rated operation current under different rated operation voltage (see Table 1):
Utilization category: AC-12, DC-12.

Table 1

Rated operating voltage (V)	Rated operating current (A)
AC 415	3
AC 240	6
AC/DC 48	3
AC/DC 24	6

Action characteristics: within the range of 70% ~ 110% of the rated control supply voltage, the release should operate reliably to open the circuit breaker. Figure 1 shows the wiring diagram for the release. When the release is open, terminal C2 and 12 shall be connected, and the external security indicator shall light up; when the release is closed, terminal C2 and 14 shall be connected, and the external warning indicator shall light up; when the release is closed, and the external button is connected, the release shall trip and drive the circuit breaker to trip and be opened. Meanwhile, the release indicator shall display trip mark. Mechanical life: operating life of the release is ≥ 4000 cycles.

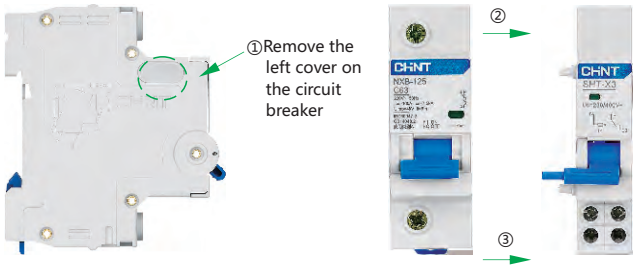
Figure 1



Assembly and installation of the product

SHT-X3 can be assembled with NXB-125 circuit breaker, with the assembly diagram shown below:

Figure 2

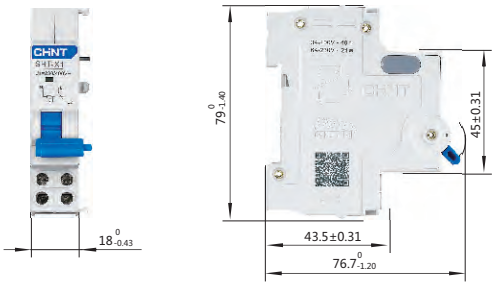


After the release is assembled with the circuit breaker, mount them on TH35-7.5 steel mounting rail.

SHT-X3 Shunt release

Dimensions and installation sizes

Figure 3



OVT-X3 Overvoltage release

Major function

To be assembled with the circuit breaker to achieve overvoltage protection.

Parameters and performance

Rated operation voltage Ue: AC 240V 50Hz (or 60Hz).
Rated insulation voltage Ui: 500V.
Overvoltage setting value Uvo: 280V.
Release action characteristics: when the main circuit voltage is in the range of (85% ~ 110%) Ue, the release shall be able to keep the circuit breaker to work reliably for long term. When the main circuit voltage is increased to 280 (1 ± 5%) V, the release assembled with NXB-125series circuit breaker should act and trip open NXB-125 circuit breaker.
Mechanical and electrical life: the mechanical and electrical life of release is ≥ 4000 operation cycles.

Assembly and installation of the product

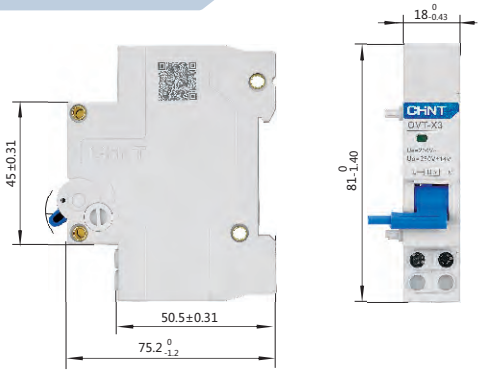
OVT-X3 can be assembled with NXB-125 series circuit breaker, with the assembly diagram shown below:

Figure 1

After the release is assembled with the circuit breaker, mount them on TH35-7.5 steel mounting rail.

Dimensions and installation sizes

Figure 2



UVT-X3 Under-voltage release

Major function

To be assembled with the circuit breaker to achieve under-voltage protection

Parameters and performance

Rated operation voltage Ue: AC240V
Rated insulation voltage Ui 500V
Life: the operating life of the release is ≥ 4000 cycles.
Action characteristics: when the applied voltage ≤35% Ue, the product should prevent circuit breaker from closing; when 35% Ue≤applied voltage ≤70% Ue, the product should operate and drive the circuit breaker open; when the applied voltage ≤85% Ue, the product should be able to close. The applied voltage should not exceed 110%Ue.

Assembly and installation of the product

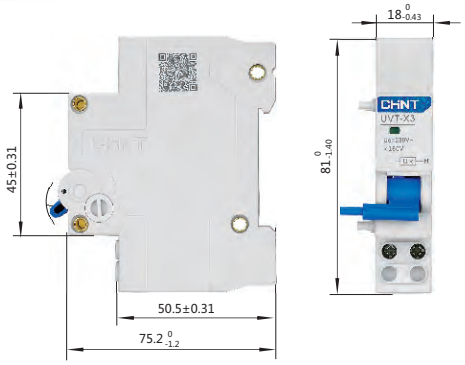
UVT-X3 can be assembled with NXB-125 series circuit breaker, with the assembly diagram shown below:

Figure 1

After the release is assembled with the circuit breaker, mount them on TH35-7.5 steel mounting rail.

Dimensions and installation sizes

Figure 1



OUVT-X3 Over/under voltage release

Major function

To be assembled with circuit breaker to achieve over/under voltage protection

Parameters and performance

Rated operation voltage Ue: AC240V, 50Hz;
Overvoltage operation setting value Uvo: 280V;
Rated insulation voltage Ui: 500V;
Tripping characteristics: the release is assembled with NXB-125 series circuit breaker. When the applied voltage is reduced to 35%Ue or increased to 95% ~ 105% of the over-voltage setting value, the release should drive the circuit breaker to act. When the applied voltage is below 35%Ue or above 105% of the over-voltage setting value, the release should be able to prevent the circuit breaker from closing. When the supply voltage is above 85% Ue and below 95% of over-voltage setting value, the circuit breaker should be able to close normally. The upper limit of the applied voltage should be less than 110% over-voltage operation setting value.
Mechanical and electrical life: the mechanical and electrical life after the release is assembled with the circuit breaker should be ≥ 4000 cycles, of which, 500 cycles for over-voltage trip and under-voltage trip each, and 3000 cycles for the open/close of the circuit breaker.

Assembly and installation of the product

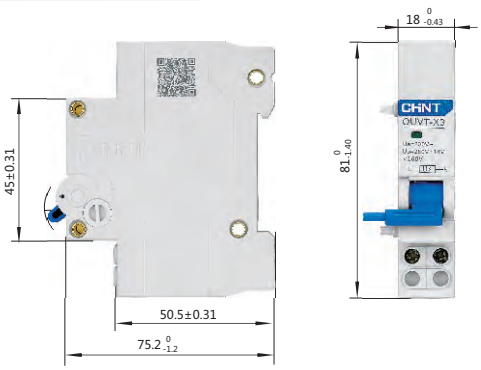
OUVT-X3 can be assembled with NXB-125 series circuit breaker, with the assembly diagram shown below:

Figure 1

After OUVT-X3 is assembled with the circuit breaker, mount them to TH35-7.5 steel mounting rail.

Dimensions and installation sizes

Figure 2



NXHB-125 Isolation switch

Compliant standards

IEC60947-3

Compliant certification

CE

Major function

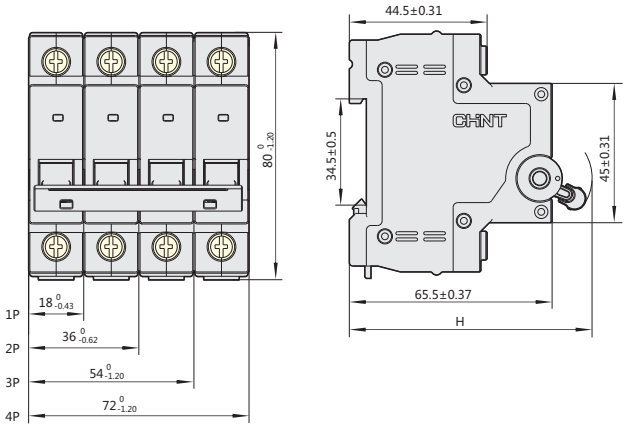
Isolation function

Parameters and performance

Rated current Ie: 20A, 32A, 40A, 63A, 80A, 100A, 125A;
Number of poles: 1P, 2P, 3P, 4P;
Rated insulation voltage Ui: 500V;
Rated operation voltage Ue: 240V~(1P), 415V~(2P, 3P, 4P);
Rated impulse withstand voltage Uimp: 6kV;
Rated short time withstand current Icw: 12 Ie, power-on time of 1s;
Rated short-circuit making capacity Icm: 20Ie, power-on time of 0.1s;
Rated making and breaking capacity: 3Ie, 1.05Ue, COSφ=0.65;
Operation performance: mechanical life of 10,000 cycles, electrical life of 3000 cycles;
Pollution degree: II;
Utilization category: AC-22A, AC-21B;
Installation category: II, III;
Installation: TH35-7.5 steel rail mounting, the gradient of the mounting surface from the vertical plane should be ≤5°;
Wiring: screw clamp wiring, tightening torque 3.5N·m (80A ~ 125A);
tightening torque 2.0N·m(20A ~ 63A).

Dimensions and installation sizes

Fig 1 Dimensions and installation sizes



	1P	2P~4P
H(mm)	76.3 0 -1.2	78 0 -1.2