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May 2017

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CHINT | Next
CHINT ELECTRIC | series

The Next Reliable Choice

Modular Din Rail Product

CHINT•Empower the World



Founded in 1984, CHINT Group is a leader in Chinese industrial electric appliance and new energy sectors. With total assets of 36.5 billion RMB and nearly 30 thousand employees, the company is running business that covers the whole power equipment industrial chain including power generation, transmission, transformation, distribution, and consumption. The company is also operating in the fields of urban rail traffic, energy equipment manufacturing, new energy storage materials, energy Internet, investment & financing platform, and business incubator. The products have been sold to over 120 countries and regions around the world, and have entered main component markets in Europe, Asia, Middle East, and Africa.

The group ranks among top 500 private enterprises in China, and has been the largest tax payer among all manufacturers in Wenzhou for a few consecutive years. Zhejiang CHINT Electric Appliance Corporation under CHINT Group is the largest company in domestic LV electric appliance industry in terms of production and sales amount, and also the first company running LV electric appliance as main business listed in A-share market. CHINT Solar has built over a hundred photovoltaic power stations around the world, serving as the largest photovoltaic power station investor and operator in all domestic private players.

CHINT has always following the policies of innovation-driven industrial development. It's the first among all competitors to pass ISO9001 quality system certification, ISO 14001 environment system certification, and OHSAS18001 occupational health safety management certification. The group also holds China Compulsory Certificate (CCC), international CB safety certificate, US UL certificate, Finland FI certificate, Belgium CEBEC certificate, Netherland KEMA certificate, and Germany VDE certificate. The group now owns over 1000 domestic and foreign patents, and has led or participate in establishment and revision of over 120 industrial standards. Its HV and LV electric appliances and photovoltaic inverters won Germany Wed Dot Award. CHINT led development of critical manufacturing equipment PECVD, LPCVD, and MOCVD for China's first silicon based thin film photovoltaic cells, which has significantly improved semiconductor equipment manufacturing level in China.

The group has won a number of awards including China Industrial Award, National Quality Management Award, China Excellent Private Science & Technology Enterprise, China Top Ten Machinery Manufacturers with Core Competitiveness, China Top Ten Leading Private Enterprises with Independent Innovation Capabilities, China Contract-Fulfilling and Trustworthy Enterprise, National Advanced Private Enterprise for Employment and Social Security, and China Charity Award.

In the future, CHINT will march towards the targets of creating world famous brands and contributing to an industrial power. It will focus on building the Energy Internet and becoming a smart energy developer and operator. The group will make great efforts to implement three policies: globalization, M&A and integration, and smart manufacturing. Four platforms will be created, including scientific innovation and industrial incubation platform, online industrial and civil Internet of Things platform, online & offline supply chain interaction platform, and investment & financing and payment platform. Four industrial clusters will also be developed, including smart electrical system solution industrial cluster for smart grid, industrial automation information cluster for smart cities, clean energy, environment protection, and energy conservation industrial cluster for smart micro-grid, high-tech material information technology and high-end equipment industrial cluster for smart manufacturing, and Internet of Things IT and smart home industrial group for smart business.

Modular Din Rail Product



Contact site indicating window, more clearly on the position

All products have the contact site indicating window, which can prevent wrong operation, and make the using more reliable.



More choice of specifications of the residual operating current

6 specifications including 10mA, 30mA, 50mA, 75mA, 100mA and 300mA, for a wider choice and more accurate protection.



Absolute adaptability, with steady and reliable operation in extreme conditions

-35°C/+70°C operating temperature range. Meets several applications requirements.



Large current with small dimension, save the installation space

50A MCCB is only 18mm width, while 63A RCCB is only 36mm width.



Complete accessories, multifunctional combination

More accessories selection to achieve customer needs, reduce customization and cost.

10mA Earth leakage protection

First prevent the danger
More reliably on safety



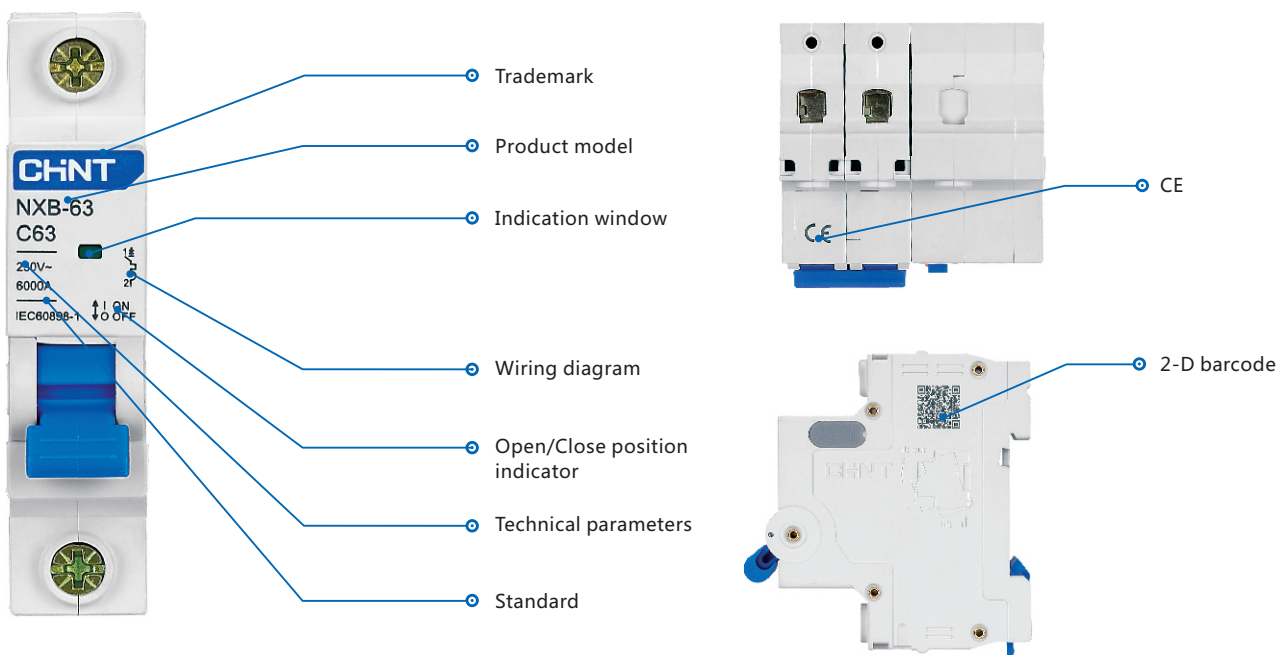
Content

Identifier description	P-01
Product overview	
Miniature Circuit Breaker	P-02
Residual current operated circuit breaker	P-03
Accessories	P-04
Surge protector	P-06
Isolation	P-06
Technical parameters	
Circuit breaker and switch parameters	P-07
Residual current operated circuit breaker (RCBO) parameters	P-09
Tripping characteristics	P-11
Product selection	
Circuit breakers	P-12
Surge protector	P-12
Product description	
Product description catalogue	P-13

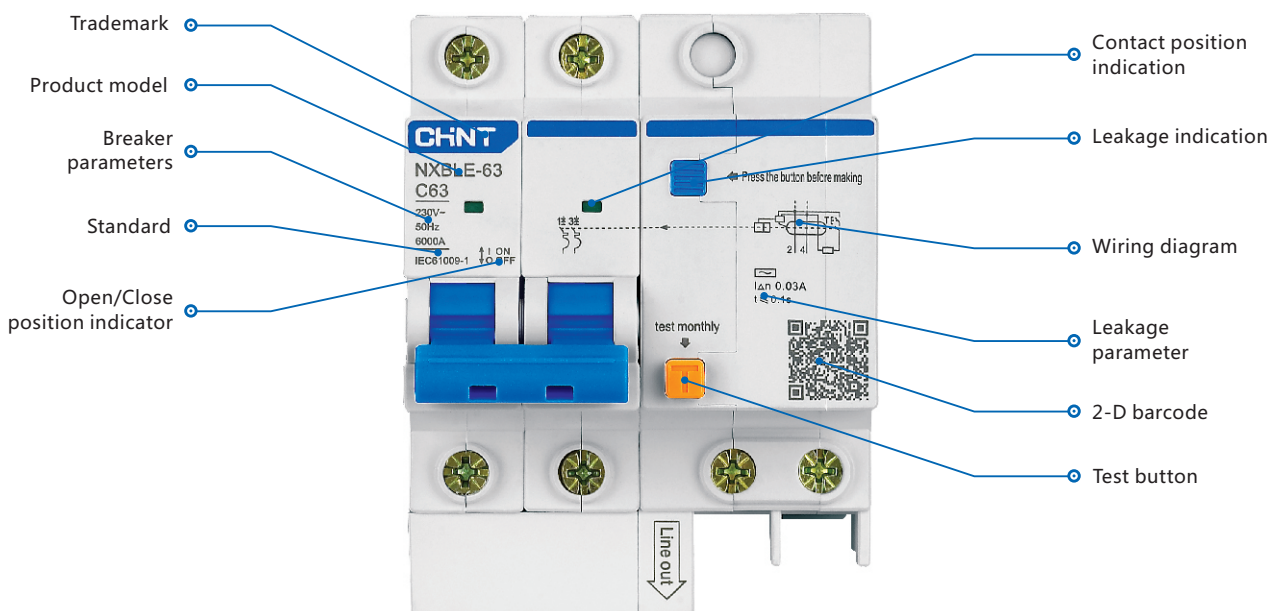
Modular DIN Rail Products

Identifier description

NXB-63 Miniature Circuit Breaker



NXBLE-63 Residual current operated circuit breaker



Modular DIN Rail Products

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 Products

● 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 NXC-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 Products

Product overview

Accessories for NXC-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

● Surge protector

It is mainly suitable for lightning protection for low-voltage distribution system in the building, and surge protection for the main inlet cabinet.

Key product models include (IEC61643-11):



NXU- I + II

Surge protector that meets both Type I and Type II SPD test



NXU- II

Surge protector that meets Type II SPD test



NXU- III

Surge protector that meets Type III SPD test

● 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)

Modular DIN Rail Products

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°C/90~96%,25°C/95~100%)		28 cycles	28 cycles	28 cycles
Terminals	Minimum cross section (mm ²)	1	1	1
	Maximum cross section (mm ²)	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 (°C)		30	30	30
Ambient temperature (°C)		-35~+70	-35~+70	-35~+70
Ambient storage temperature (°C)		-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°C increase from the reference temp	-(0.04~0.07)In	-(0.03~0.05)In	-(0.04~0.07)In
	Change for every 10°C 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

Modular DIN Rail Products

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	

Modular DIN Rail Products

● 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°C/90~96%,25°C/95~100%)		28 cycles	28 cycles
Terminals	Minimum cross section (mm ²)	1	1
	Maximum cross section (mm ²)	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 (°C)		30	30
Ambient working temperature (°C)		-35~+70	-35~+70
Ambient storage temperature (°C)		-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°C increase from the reference temp	-(0.03~0.050)In	-(0.03~0.050)In
	Change for every 10°C 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

Modular DIN Rail Products

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 \leq 100A), 4000(In $>$ 100A)	6000(In \leq 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

Modular DIN Rail Products

Tripping characteristics

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

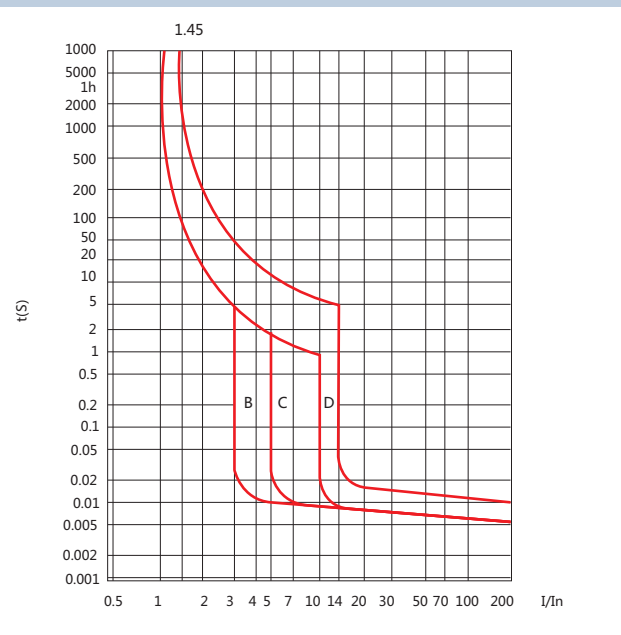
Test	Type	Test current	Starting state	Trip/Not trip time limit	Expected outcome	Notes
a	B,C,D	1.13In	Cold	$t \leq 1$ h (for $I_n \leq 63A$) $t < 2$ h (for $I_n > 63A$)	Not trip	
b	B,C,D	1.45In	Right after test	$t < 1$ h (for $I_n \leq 63A$) $t < 2$ h (for $I_n > 63A$)	Trip	Current increase steadily within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

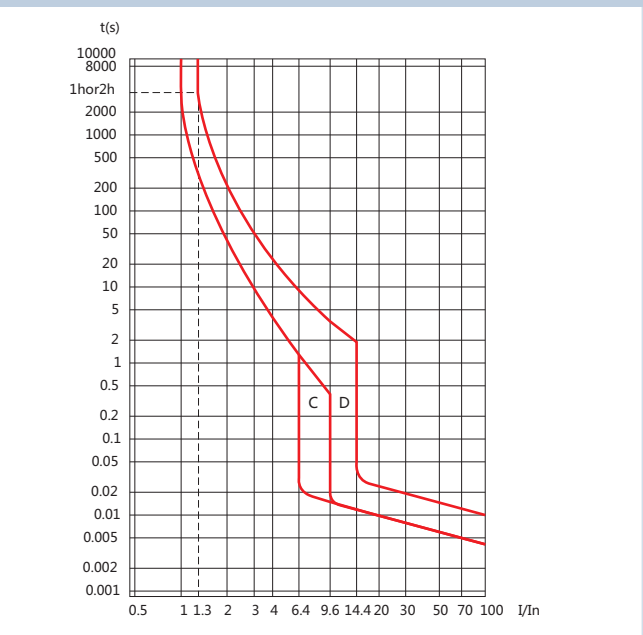
Release type	Test current	Starting state	Trip/Not trip time limit	Expected outcome	Notes
C,D	1.05In	Cold	$t \leq 1$ h (for $I_n \leq 63A$) $t \leq 2$ h (for $I_n > 63A$)	Not trip	
C,D	1.3In	Right after test	$t < 1$ h (for $I_n \leq 63A$) $t < 2$ h (for $I_n > 63A$)	Trip	Current increase steadily within 5s
C,D	2In	Cold	$t < 900s$	Trip	
C	6.4In	Cold	$t \leq 0.2s$	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 Smm ²	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	0.01A, 0.03A
NXBLE-40				
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		
NXBLE-125G		B, C, D		
				0.03A, 0.05A, 0.075A, 0.1A, 0.3A

Ordering example: NXB-40 C16 50 units

NXB-63 3P D63 50 units

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

- Surge protector

Product model	Remote signal contacts	Inrush current	Nominal discharge current	Open circuit voltage	Maximum continuous operating voltage	Number of poles
NXU-I+II	Default: No F: Yes	12.5kA			255V, 275V	1P, 1P+N, 2P, 3P, 3P+N, 4P
NXU-II	Default: No F: Yes		20kA, 40kA, 65kA, 100kA		255V, 275V, 320V, 385V, 440V	1P, 2P, 3P, 4P, 1P+N, 3P+N
NXU-III				10kV	255V, 275V, 320V, 385V	1P+N, 2P

Ordering example: NXU-I+II/F 12.5kA 275V 2P 300 units

NXU-II/F 40kA 320V 2P 300 units

NXU-III 10kV 320V 2P 300 units

Product description

Miniature Circuit Breaker

NXB-63 Miniature Circuit Breaker	P-15
NXB-63H Miniature Circuit Breaker	P-16
NXB-40 Miniature Circuit Breaker	P-17
NXB-125 Moulded Case Circuit Breaker	P-18
NXB-125G Miniature Circuit Breaker	P-19

Residual current operated circuit breaker (RCBO)

NXBLE-32 Residual current operated circuit breaker (RCBO)	P-20
NXBLE-63 Residual current operated circuit breaker (RCBO)	P-21
NXBLE-63Y Residual current operated circuit breaker (RCBO)	P-22
NXBLE-40 Residual current operated circuit breaker (RCBO)	P-23
NXBLE-125 Residual current operated circuit breaker (RCBO)	P-24
NXBLE-125G Residual current operated circuit breaker (RCBO)	P-25

Accessories

AX-X1 Auxiliary contacts	P-26
AL-X1 Alarm auxiliary contact	P-27
SHT-X1 Shunt release	P-29
OVT-X1 Overvoltage release	P-31
UVT-X1 Under-voltage release	P-32
OUVT-X1 Over/under voltage release	P-33
AX-X3 Auxiliary contact	P-34
AL-X3 Alarm auxiliary contact	P-36
SHT-X3 Shunt release	P-38
OVT-X3 Overvoltage release	P-40
UVT-X3 Under-voltage release	P-41
OUVT-X3 Over/under voltage release	P-42

Surge protector

NXU- I + II Surge protector	P-43
NXU- II series surge protector	P-45
NXU- III series surge protector	P-48

Isolation switch

NXHB-125 Isolation switch	P-50
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NXB-63 Miniature Circuit Breaker



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;

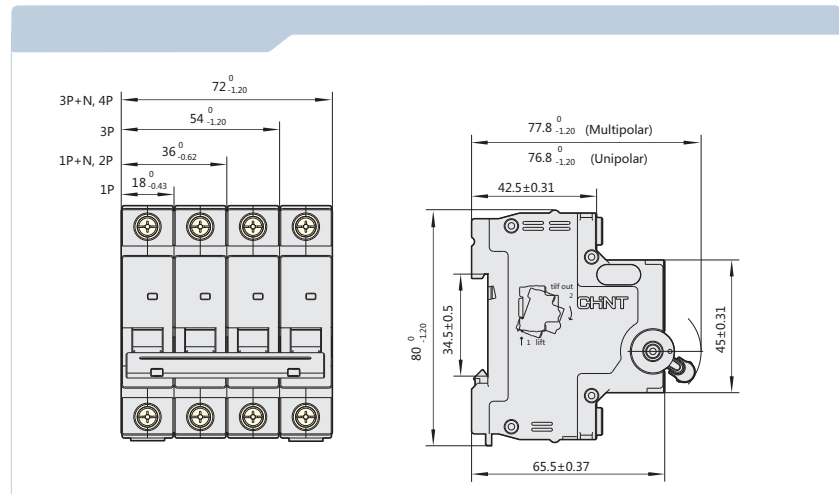
Rated impulse withstand voltage (Uimp): 4kV;

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



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;

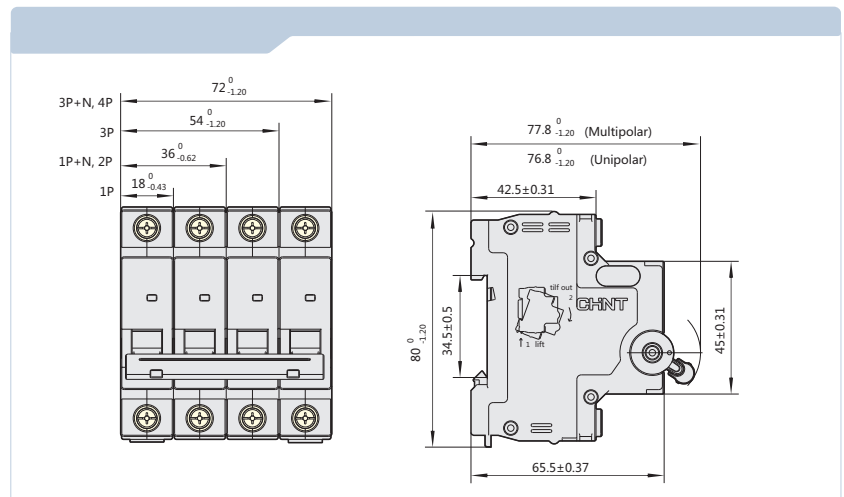
Rated impulse withstand voltage: 4kV;

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



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;

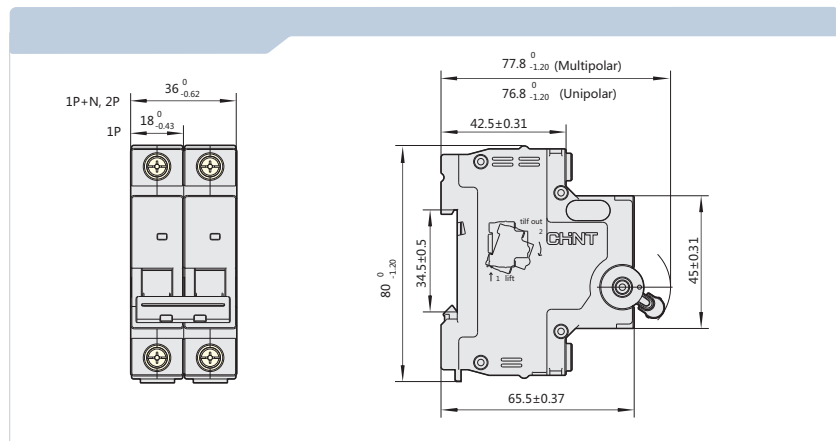
Rated impulse withstand voltage $U_{imp}(kV)$: 4;

Power consumption on each pole of the circuit breaker: $\leq 6.5W$

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



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;

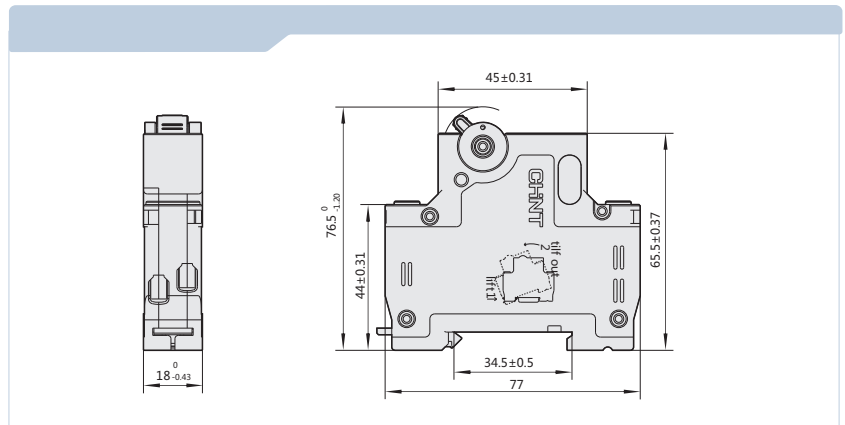
Rated impulse withstand voltage(Uimp): 4kV;

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



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 ($I_n \leq 100A$); 4000 cycles ($I_n > 100A$);

Rated short-circuit breaking capacity(I_{cu}): 10000A;

Short-circuit breaking capacity(I_{cs}): 7500A;

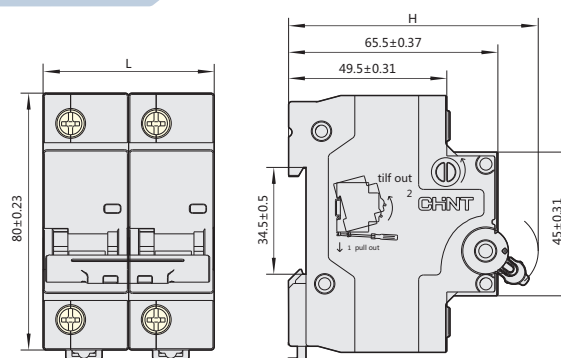
Rated impulse withstand voltage(U_{imp}): 4kV;

Power consumption on each pole of the circuit breaker: see Table 1.

Table 1

Rated current I_n (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



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 ($I_n \leq 100A$); 4000 cycles ($I_n > 100A$);

Rated short-circuit breaking capacity(I_{cu}): 10000A;

Short-circuit breaking capacity(I_{cs}): 7500A;

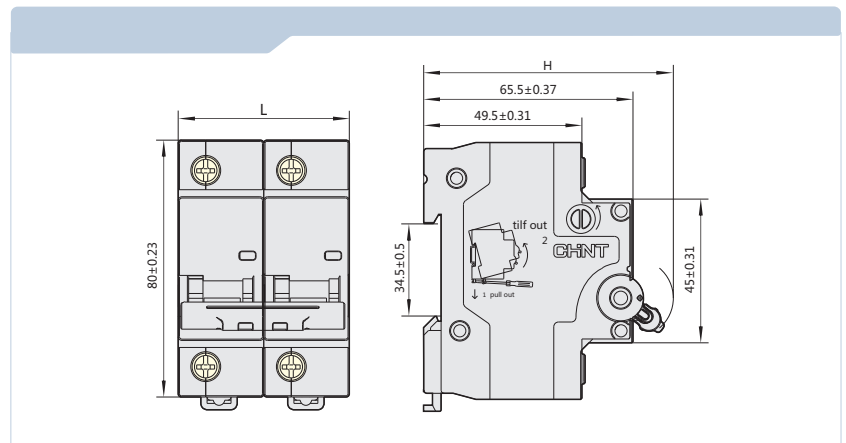
Rated impulse withstand voltage(U_{imp}): 4kV;

Power consumption on each pole of the circuit breaker: see Table 1.

Table 1

Rated current I_n (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)



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;

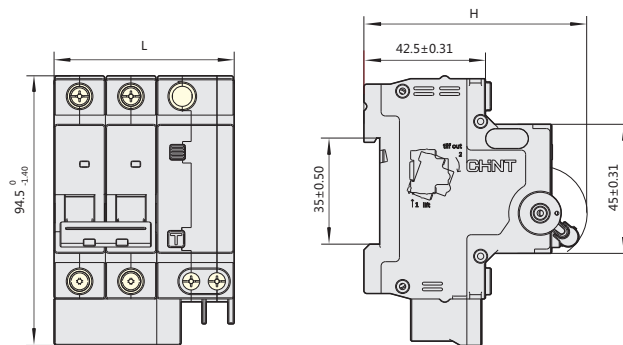
Electrical life: 10000 cycles;

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)



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;

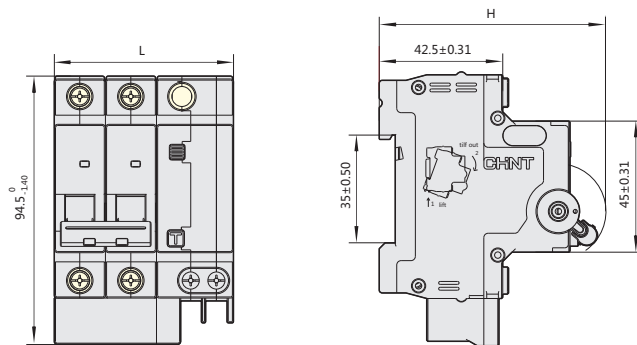
Electrical life: 10000 cycles;

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;

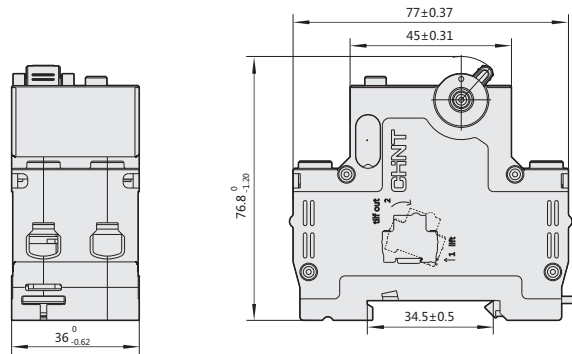
Electrical life: 10000 cycles;

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)



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;

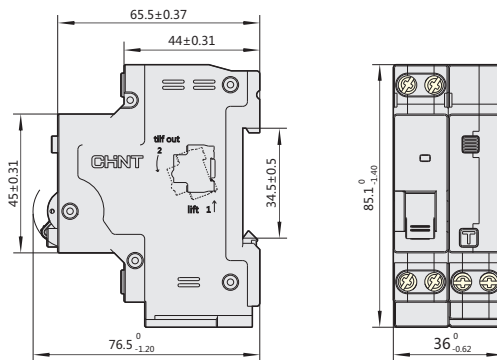
Electrical life: 10000 cycles;

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)



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;

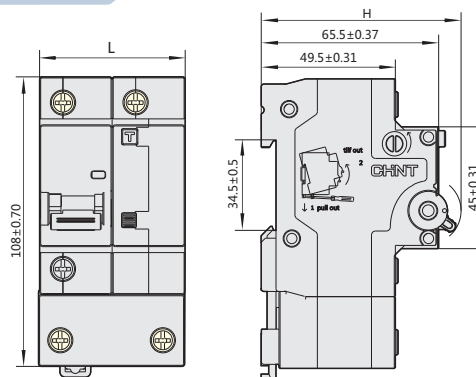
Electrical life: 6000 cycles ($I_n \leq 100A$); 4000 cycles ($I_n > 100A$);

Rated short-circuit breaking capacity(I_{cu}): 10000A;

Short-circuit breaking capacity(I_{cs}): 7500A;

Rated impulse withstand voltage(U_{imp}): 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)



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;

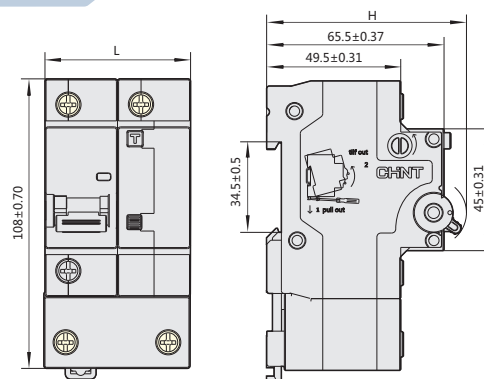
Electrical life: 6000 cycles ($I_n \leq 100A$); 4000 cycles ($I_n > 100A$);

Rated short-circuit breaking capacity (I_{cu}): 10000A;

Short-circuit breaking capacity (I_{cs}): 7500A;

Rated impulse withstand voltage (U_{imp}): 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 contacts



AX-X1 Auxiliary contacts

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 130	1
DC-12	DC 48	2
	DC 24	6

Action characteristics: Figure 1 shows the

wiring diagram for auxiliary contacts.

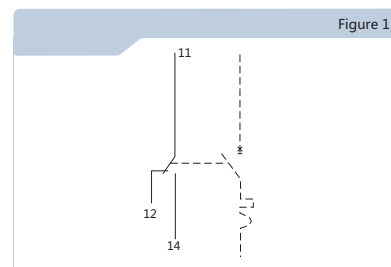
When the auxiliary contacts is open, terminals

11 and 12 are connected;

When the auxiliary contacts is closed, terminals

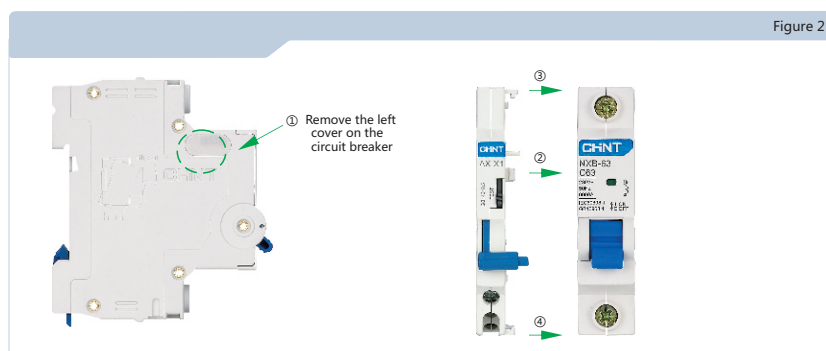
11 and 14 are connected.

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



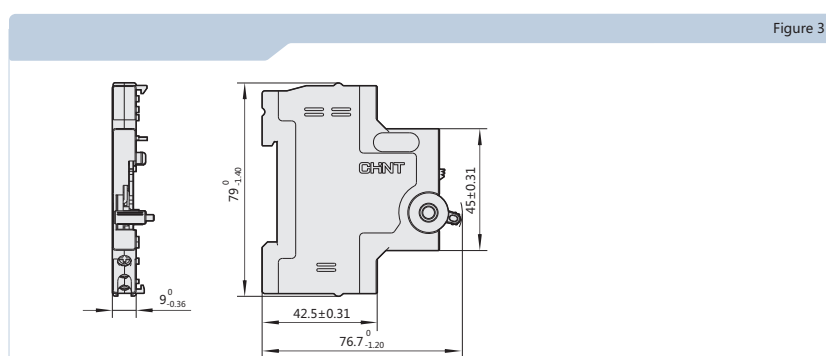
Assembly and installation of the product

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



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

Dimensions and installation sizes



AL-X1 Alarm auxiliary contact



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.

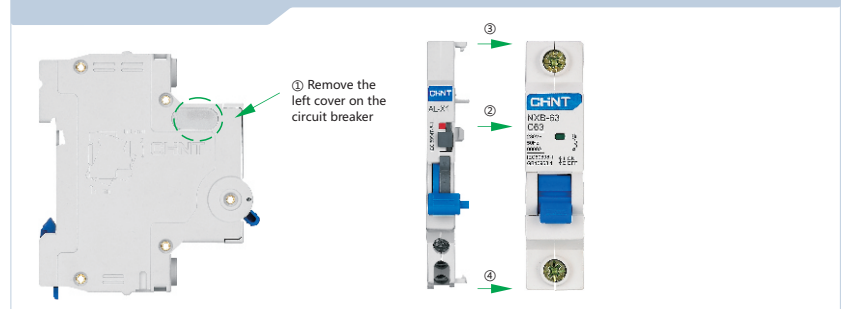
Figure 1



Assembly and installation of the product

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

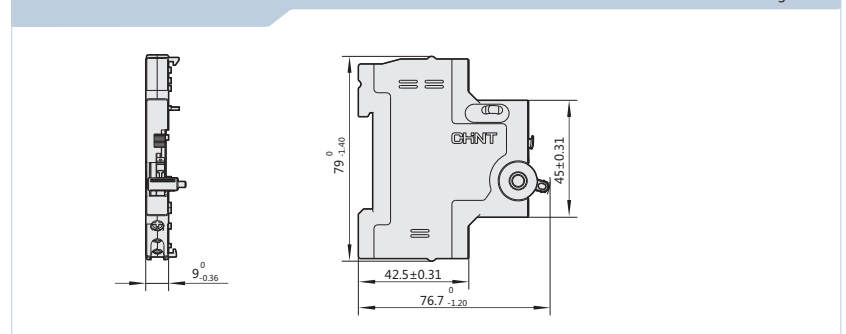
Figure 2



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



SHT-X1 Shunt release

Major function

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

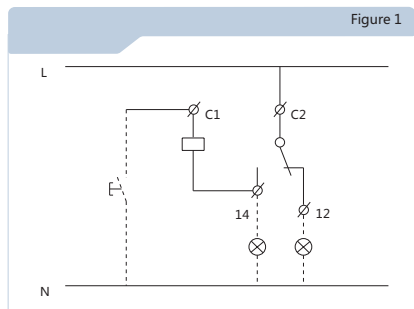
Parameters and performance

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

Table 1

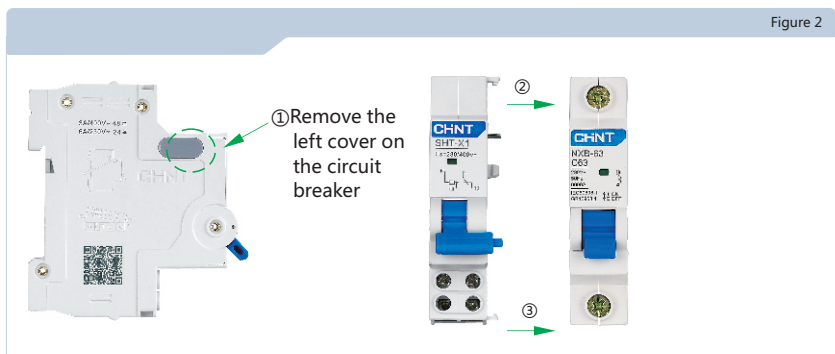
Rated operating voltage (V)	Rated operating current (A)
AC 415	3
AC 240	6
AC/DC 48	3
AC/DC 24	6

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.



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:

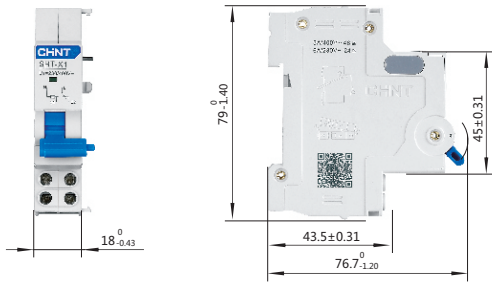


After SHT-X1 is assembled with the circuit breaker, mount them on TH35-7.5 steel mounting rail.

SHT-X1 Shunt release

Dimensions and installation sizes

Figure 3



OVT-X1 Overvoltage release



OVT-X1 Overvoltage release

Major function

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

Parameters and performance

Rated operation voltage U_e : AC 240V 50Hz (or 60Hz).

Rated insulation voltage U_i : 500V.

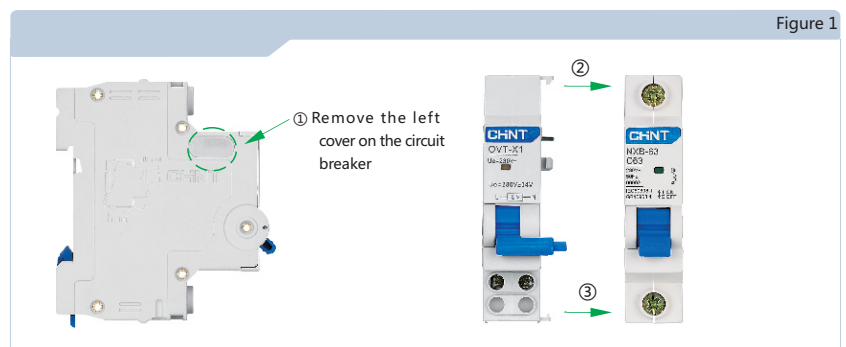
Overvoltage setting value U_{vo} : 280V.

Release action characteristics: when the main circuit voltage is in the range of (85% ~ 110%) U_e , 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.

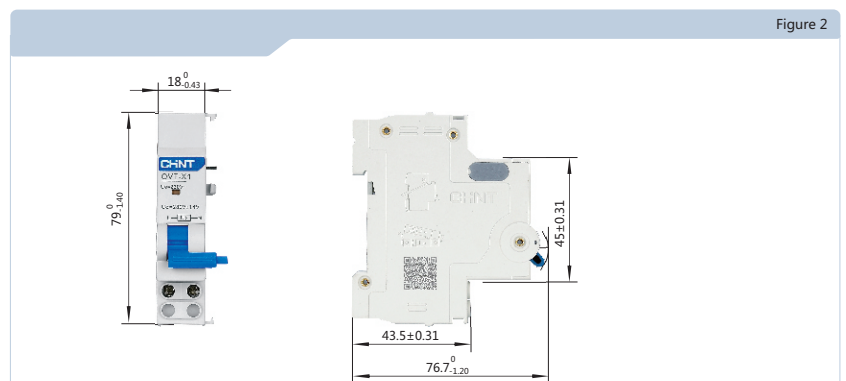
Assembly and installation of the product

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



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

Dimensions and installation sizes



UVT-X1 Under-voltage release



UVT-X1 Under-voltage release

Major function

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

Parameters and performance

Rated operation voltage U_e : AC 240V

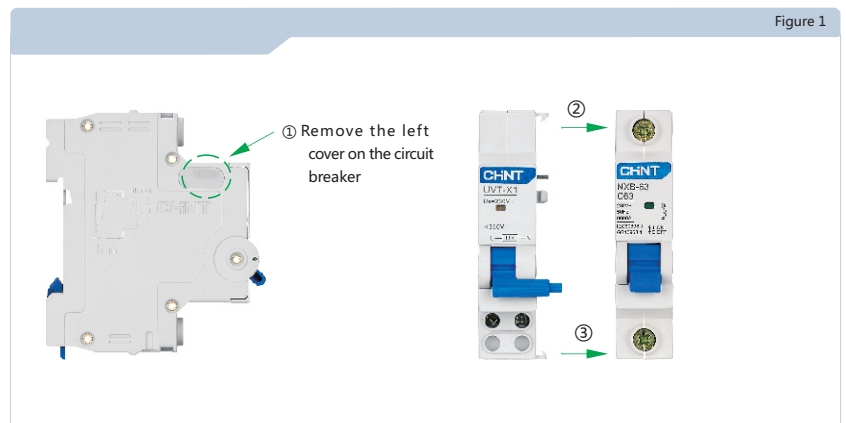
Rated insulation voltage U_i 500V

Action characteristics: when the applied voltage $\leq 35\% U_e$, the product should prevent circuit breaker from closing; when $35\% U_e \leq$ applied voltage $\leq 70\% U_e$, the product should operate and drive the circuit breaker open; when the applied voltage $\geq 85\% U_e$, the product should be able to close. The applied voltage should not exceed $110\% U_e$.

Life: the operating life of the release is ≥ 4000 cycles.

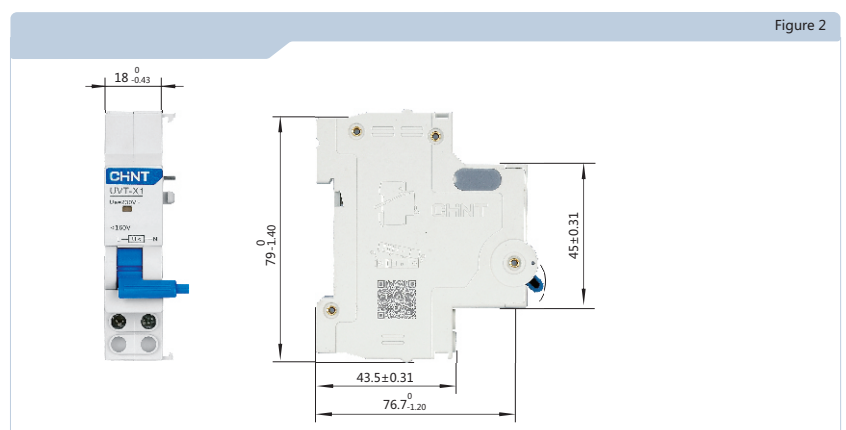
Assembly and installation of the product

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



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

Dimensions and installation sizes



OUVT-X1 Over/under voltage release



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 U_e : AC 240V, 50Hz;

Overvoltage operation setting value U_{vo} : 280V;

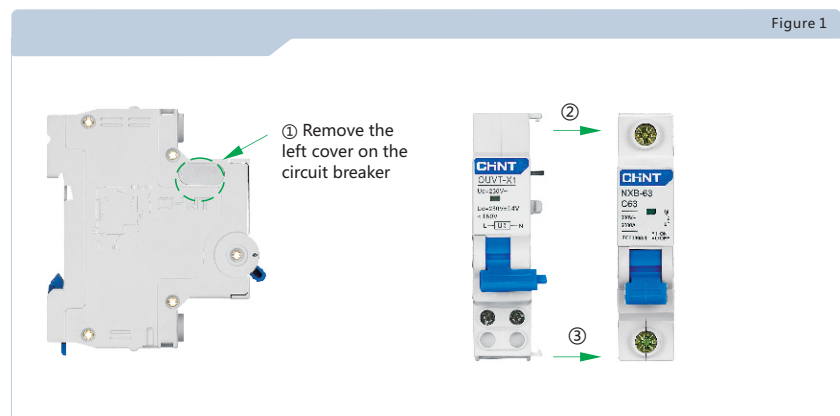
Rated insulation voltage U_i : 500V;

Tripping characteristics: the release is assembled with NXB-63 series circuit breaker. When the applied voltage is reduced to 35% U_e 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% U_e 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% U_e 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.

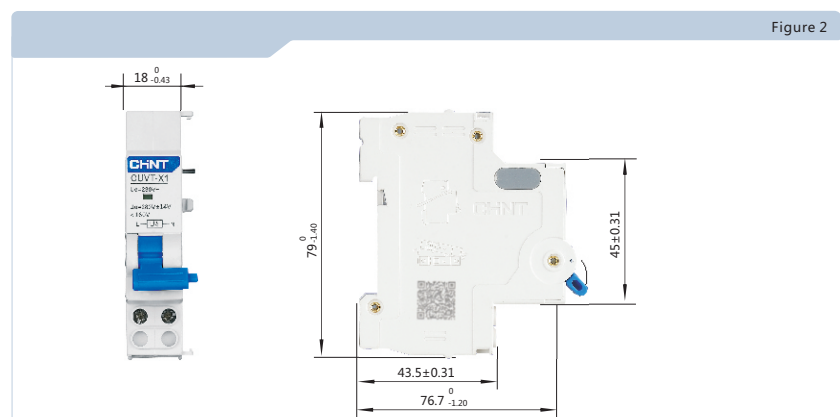
Assembly and installation of the product

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



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

Dimensions and installation sizes





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

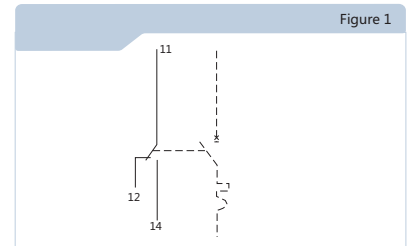
Rated operating currents under different working voltages:

Table 1

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

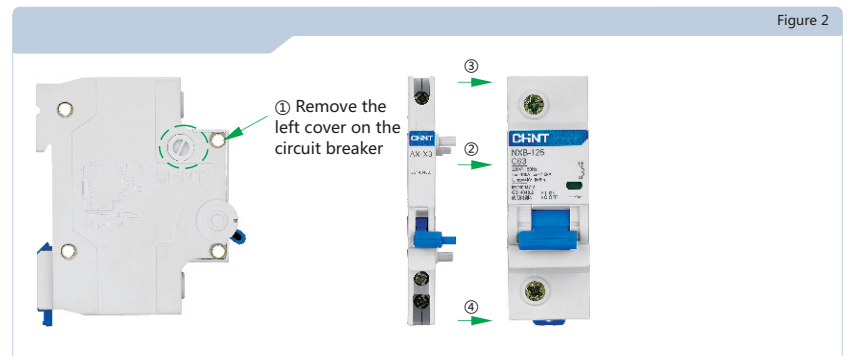
Action characteristics: Figure 1 shows the wiring diagram for auxiliary contacts. When the auxiliary contacts is open, terminals 11 and 12 is connected; When the auxiliary contacts is closed, terminals 11 and 14 is connected.

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



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:

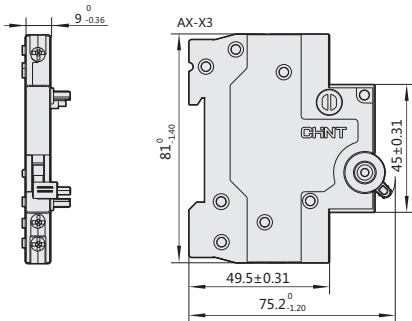


After AX-X3 is assembled with the circuit breaker, mount them on the TH3.5-7.5 steel mounting rail.

AX-X3 Auxiliary contact

Dimensions and installation sizes

Figure 4



AL-X3 Alarm auxiliary contact



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:

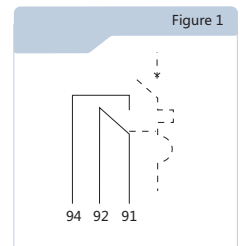
Table 1

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.

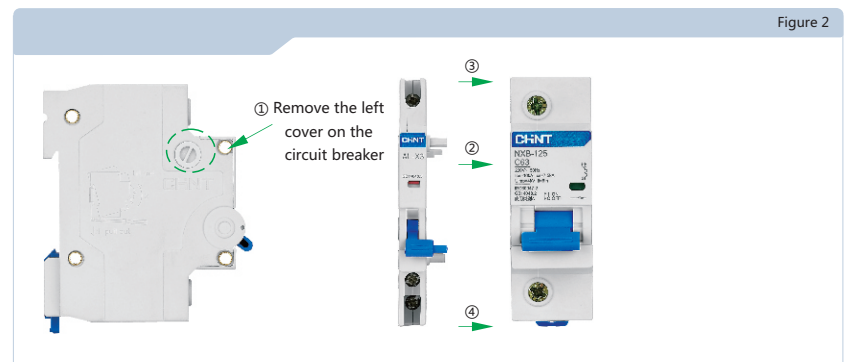
When the auxiliary contact is open, terminals 91 and 94 is connected; When the auxiliary contact is closed, terminals 91 and 92 is connected. When the alarm auxiliary contact is closed, and manually open with the handle, terminals 91 and 92 shall still be connected; when the alarm auxiliary contact is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



Assembly and installation of the product

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

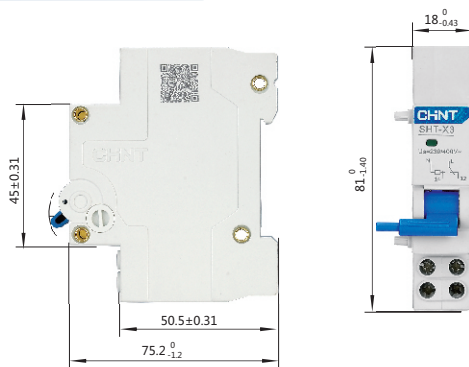


After AL-X3 is assembled with the circuit breaker, mount them on the TH3.5-7.5 steel mounting rail.

AX-X3 Auxiliary contact

Dimensions and installation sizes

Figure 2



SHT-X3 Shunt release



SHT-X3 Shunt release

Major function

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

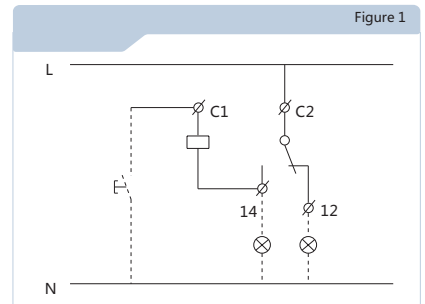
Parameters and performance

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

Table 1

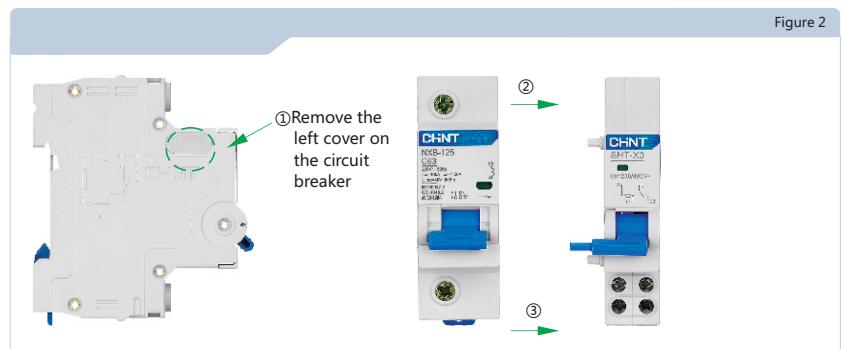
Rated operating voltage (V)	Rated operating current (A)
AC 415	3
AC 240	6
AC/DC 48	3
AC/DC 24	6

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.



Assembly and installation of the product

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

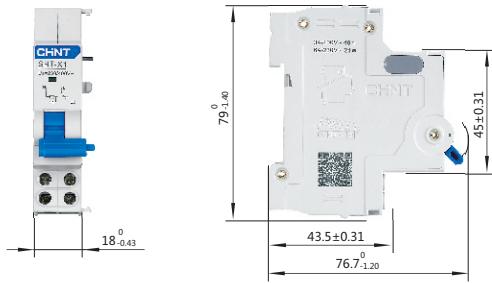


After the release is assembled with the circuit breaker, mount them on TH35-7.5 steel mounting rail.

SHT-X1 Shunt release

Dimensions and installation sizes

Figure 3



OVT-X3 Overvoltage release



OVT-X3 Overvoltage release

Major function

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

Parameters and performance

Rated operation voltage U_e : AC 240V 50Hz (or 60Hz).

Rated insulation voltage U_i : 500V.

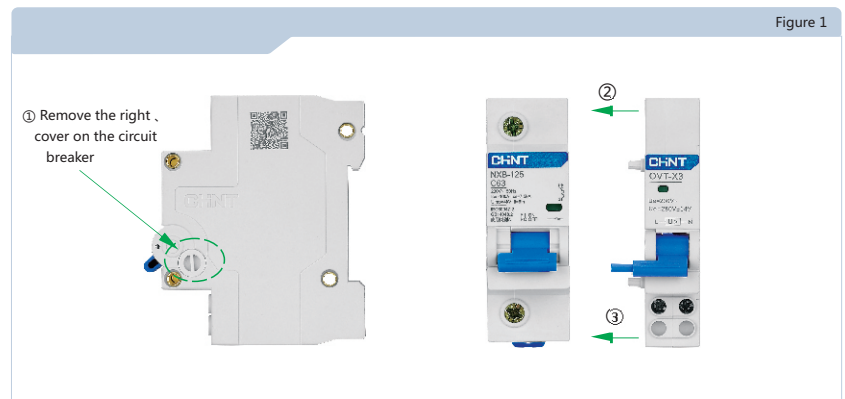
Overvoltage setting value U_{vo} : 280V.

Release action characteristics: when the main circuit voltage is in the range of (85% ~ 110%) U_e , 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.

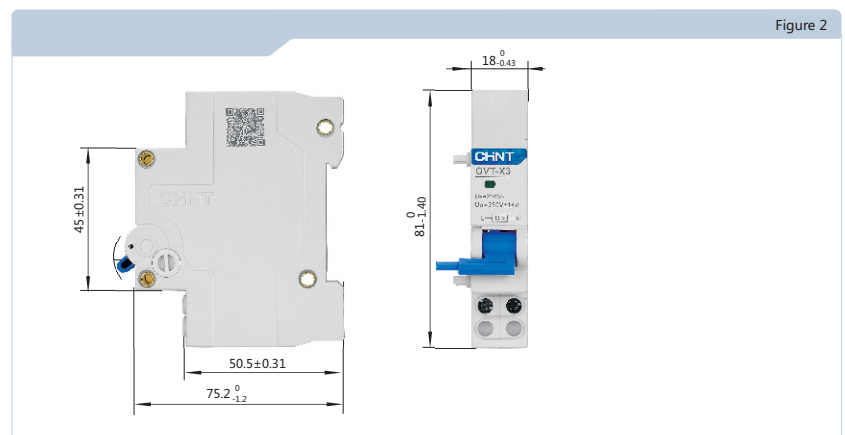
Assembly and installation of the product

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



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

Dimensions and installation sizes



UVT-X3 Under-voltage release



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 U_e : AC240V

Rated insulation voltage U_i 500V

Life: the operating life of the release is ≥ 4000 cycles.

Action characteristics: when the applied voltage $\leq 35\% U_e$, the product should prevent circuit breaker from closing; when $35\% U_e \leq$ applied voltage $\leq 70\% U_e$, the product should operate and drive the circuit breaker open; when the applied voltage $\leq 85\% U_e$, the product should be able to close. The applied voltage should not exceed $110\% U_e$.

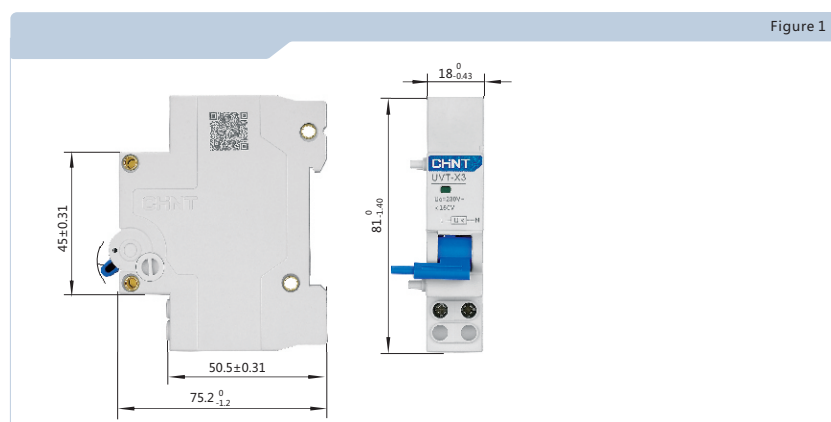
Assembly and installation of the product

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



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

Dimensions and installation sizes



OUVT-X3 Over/under voltage release



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 U_e : AC240V, 50Hz;

Overvoltage operation setting value U_{vo} : 280V;

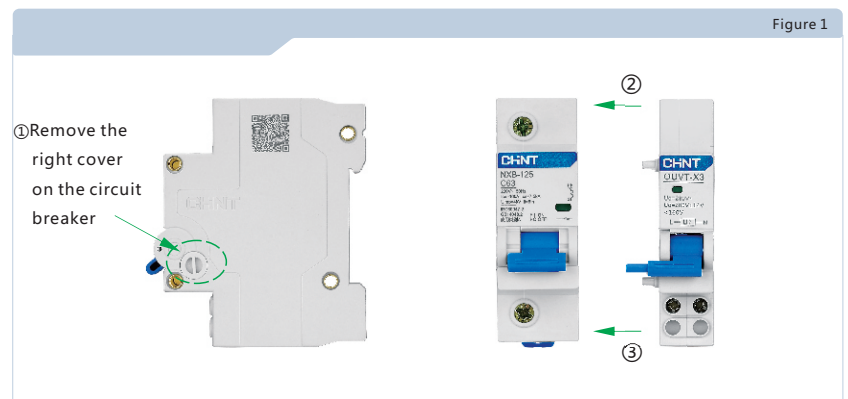
Rated insulation voltage U_i : 500V;

Tripping characteristics: the release is assembled with NXB-125 series circuit breaker. When the applied voltage is reduced to 35% U_e 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% U_e 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% U_e 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.

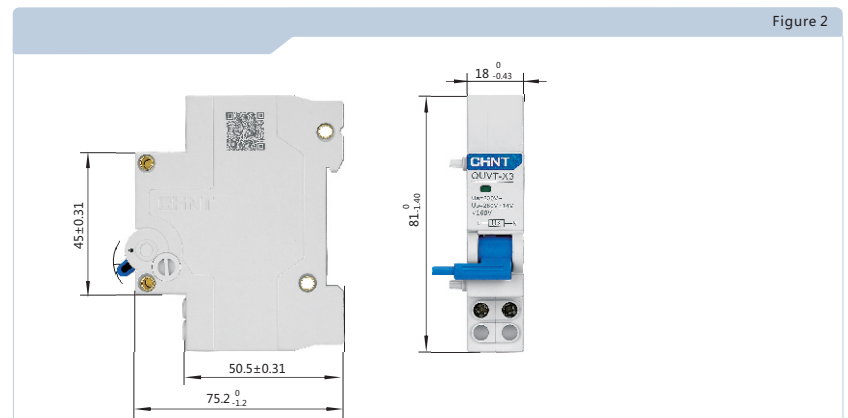
Assembly and installation of the product

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

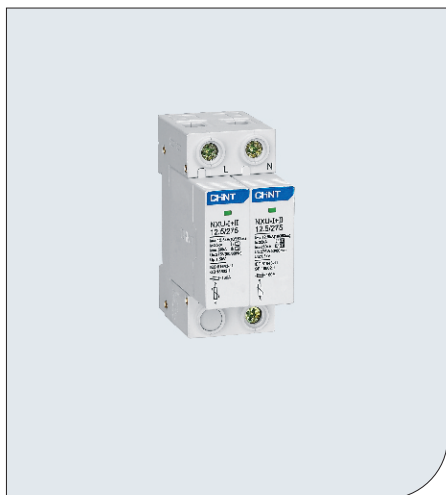


After OUVT-X3 is assembled with the circuit breaker, mount them to TH35-7.5 steel mounting rail.

Dimensions and installation sizes



NXU- I + II Surge protector



NXU- I + II Surge protector

Compliant standards

IEC/EN61643-11.







Compliant certification

CE

Major function

Lightning protection and surge protection for the inlet cabinet

Technical parameters

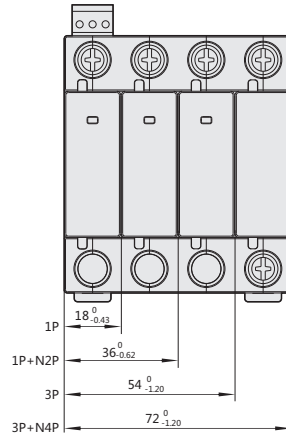
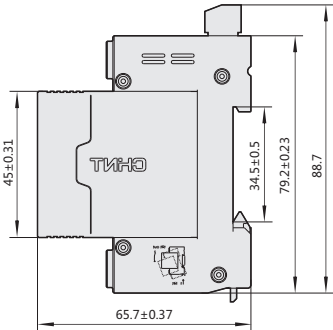
NXU- I + II							
General distribution protection (IEC/EN 61643-11; GB18802.1)							
Number of poles	1P	2P	3P	4P	1P+N	3P+N	
Protection mode	L-PE L-N	L-PE N-PE	L-PE	L-PE N-PE	L-N N-PE	L-N	N-PE
Electrical Performance							
Test category	I, II						
Frequency (Hz)	50/60						
Maximum continuous operation voltage (V)				275	255	275	255
Inrush current (10 / 350µs) Iimp (kA)				12.5	50	12.5	50
Nominal discharge current (8 / 20µs) In (kA)				25	50	25	50
Maximum discharge current (8 / 20µs) Imax (kA)				50	60	50	50
Voltage protection level Up (kA)				1.5	1.5	1.5	1.5
Rated load current IL (A)				-	-	-	-
Rated opening follow current value Ifi (A)				No follow current	100	No follow current	100
Maximum backup fuse (gL / gG) (A)				160	-	160	-
Short circuit current withstand capacity when maximum backup fuse (kA)				10	-	10	-
Remote control and indication							
This function is optional according to the need.							
Operation status/fault indication				Green/Red		Green/Red	
Remote signaling terminals connection capacity				Max 1.5mm ²		Max 1.5mm ²	
Remote signal switching capability	AC				250V/0.5A		250V/0.5A
	DC				250V/0.1A;75V/0.5A		250V/0.1A;75V/0.5A
Protection class				IP20			
Mounting	TH35-7.5 / DIN35 rail mounting						
Wire stripping length (mm)	12						
Connection capacity (mm ²)	2.5 ~ 35						
Screw size	M5						
Rated torque (N·m)	2.5						
Torque limit (N·m)	5						
Ambient temperature (°C)	-40~+70						
Altitude (m)	≤2000						
Relative humidity	≤95% @ + 20 °C; ≤50% @ + 40 °C						
Installation environment	No significant vibration and shock						
Weight (g)	157	300	437	578	309	569	

NXU- I + II Surge protector

Dimensions and installation sizes

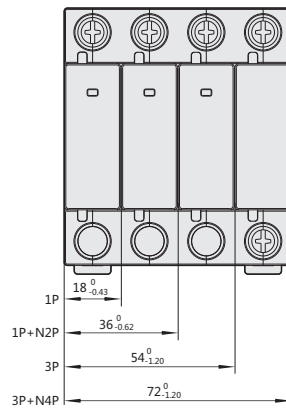
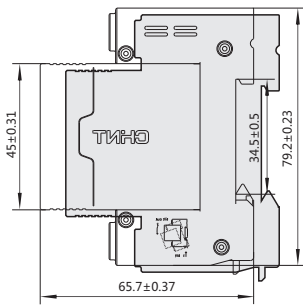
NXU-I+II/F

Fig 1 Dimension & installation sizes of surge protector with remote signaling



NXU-I+II

Fig 2 Dimension & installation sizes of surge protector without remote signaling contacts



NXU-II series surge protector



NXU-II series surge protector

Compliant standards

IEC/EN61643-11.

Compliant certification

CE

Major function

Lightning protection and surge protection for the inlet cabinet

Parameters and performance

Basic parameters and technical performance indicators (see Table 1)

Table 1

Technical parameters	Parameter value
Maximum discharge current (kA)	20, 40, 65, 100
Maximum continuous operation voltage (V ~)	255, 275, 320, 385, 440
Nominal discharge current (kA)	10, 20, 30, 40
Voltage protection level (kV)	1.2, 1.3, 1.5, 1.6, 1.8, 1.9, 2.0, 2.2
Number of poles	1P, 2P, 3P, 4P, 1P+N, 3P+N
Connecting wires (mm ²)	≤16
Tightening torque (N·m)	2.0
protection degree	IP20
Dimensions	See Fig 2-5
Backup protection fuses	See Table 3

Select the appropriate size depending on the grounding system and protection mode.

Table 2

Grounding system	TT	TN-C	TN-S	IT	Notes	
Maximum operation voltage of the grid $U_{s,max}$	345V	253V	253V	400V	Refer IEC 60364-5-534	
NXU-II	Common mode protection* $U_c=255V, 275V, 320V$	—	1P, 3P	2P, 4P	—	We recommend to choose 320V
	Common mode protection* $U_c=385V$	2P, 4P	1P, 3P	2P, 4P	—	
	Common mode protection* $U_c=385V$	2P, 4P	1P, 3P	2P, 4P	3P	

* Common mode protection: phase-to-ground and neutral-ground protection.

Backup fuse selection

Table 3

Surge protector model	Maximum discharge current (kA)	Backup fuse	
		Rated current (A)	Breaking range
NXU-II	20	63	gL/gG
	40	125	gL/gG
	65	160	gL/gG
	100	250	gL/gG

NXU-II series surge protector

Special feature:

- a. NXU- II surge protector consists of two major components, the protection module (4) and base (2), their structures are completely independent of each other, and can be plugged/unplugged as shown in Figure 1.
 - b. NXU- II surge protector is configured with a degradation indicator (3), as shown in the figure. After the product gets degraded, it shall pop up on the surface of protection module (4) for warning. The protection module (4) should be immediately replaced, and there is no need to disconnect the line or rewire.
- (1) in the figure is the maximum continuous operation voltage indication of the surge protector, it can also be used to prevent modules of erroneous dimensions get inserted when changing the module. The value pointed by the heart-shaped angular pointer is the maximum continuous operation voltage of the product.

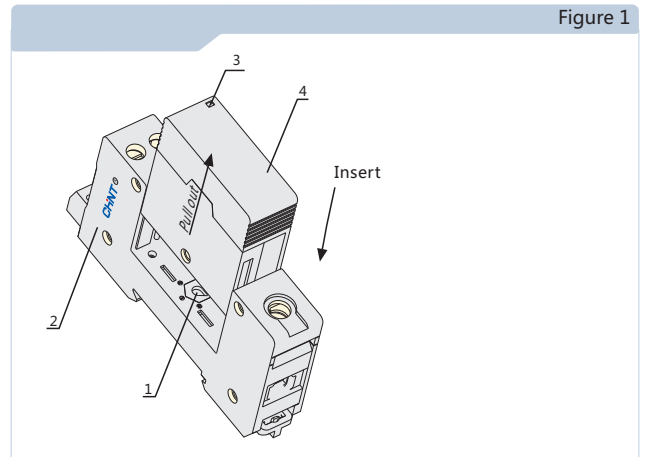


Figure 1

Dimensions and installation sizes

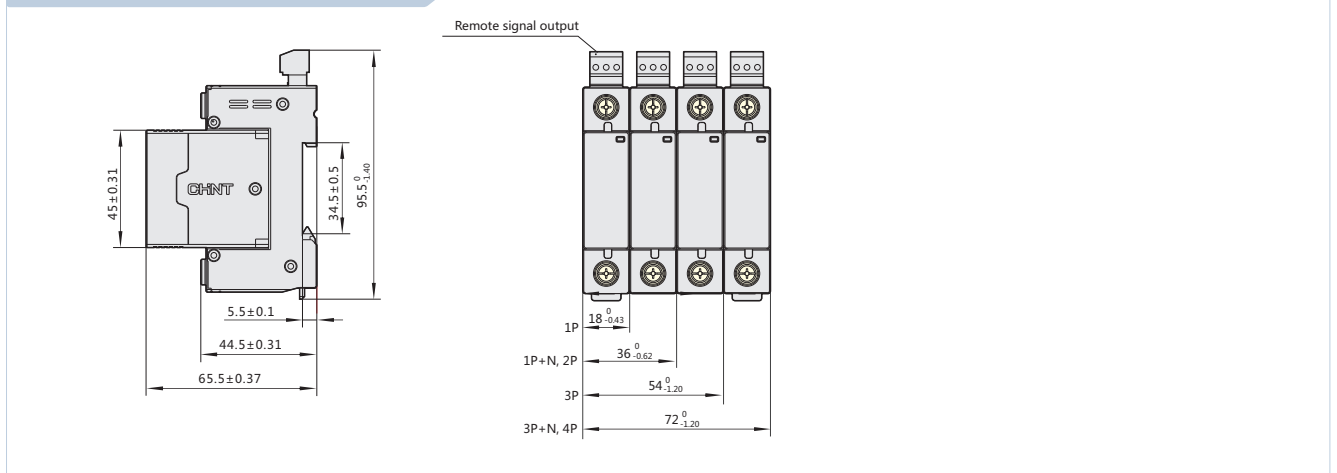
See Table 4, Figure 2-5 for dimensions and installation sizes.

Table 4

Maximum discharge current Imax (kA)	Dimensions mm			
	1P	2P	3P	4P
20, 40, 65	18	36	54	72
100	36	72	108	144

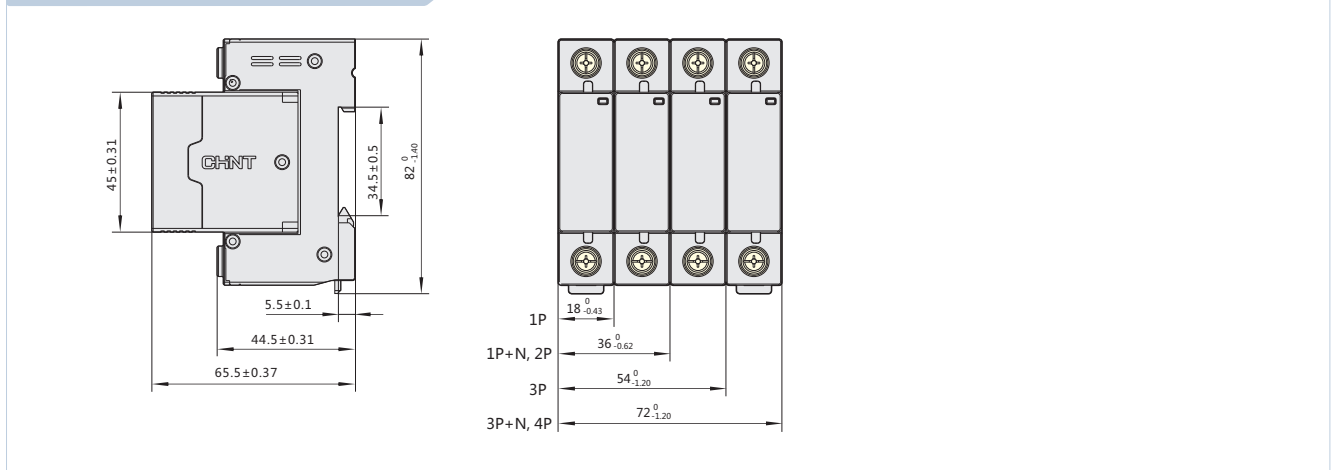
NXU-II/F(20kA, 40kA, 65kA)

Fig 2 Dimensions and installations sizes of surge protector with remote signal outputs



NXU-II (20kA, 40kA, 65kA)

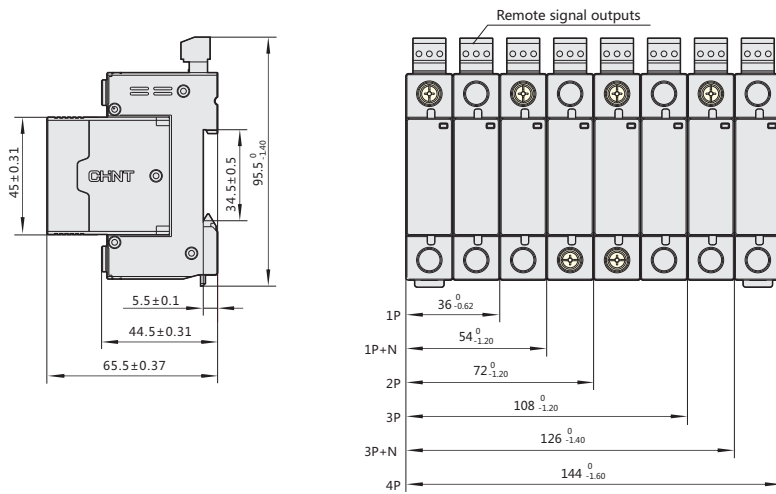
Fig 3 Dimensions and installation sizes of surge protector without remote signal outputs



NXU-II series surge protector

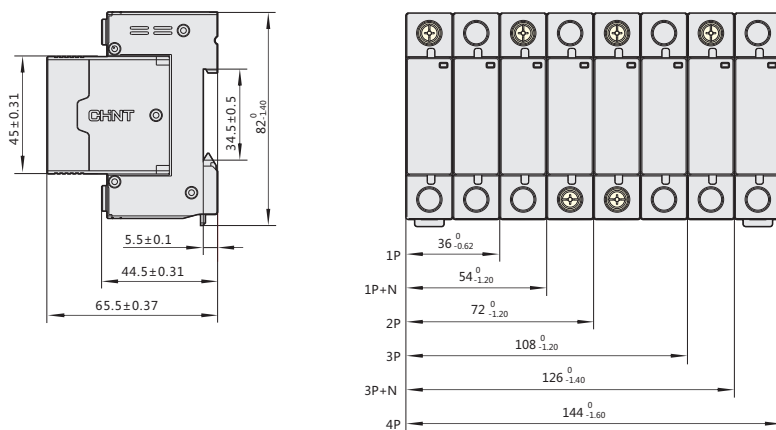
NXU-II/F(100kA)

Fig 4 Dimensions and installations sizes of surge protector with remote signal outputs



NXU-II(100kA)

Fig 5 Dimensions and installation sizes of surge protector without remote signal outputs



NXU-III series surge protector



NXU-III series surge protector

Compliant standards

IEC/EN61643-11.

Compliant certification

CE

Major function

Inhibit transient over-voltage amplitude and relieve surge energy.

Parameters and performance

Basic parameters and technical performance indicators (see Table 1)

Table 1

Technical parameters	Parameter value
Test category	Category III
Open-circuit voltage (kV)	10
Short circuit current (kA)	5
Maximum continuous operation voltage (V ~)	255, 275, 320, 385
Voltage protection level (kV)	1.5
Number of poles	1P+N, 2P
Connecting wires (mm ²)	≤16
Tightening torque (N·m)	1.2, 2.0
protection degree	IP20
Dimensions and installation sizes	See Fig 2 and Fig 3
Backup protection circuit breaker	NB1-63 C10

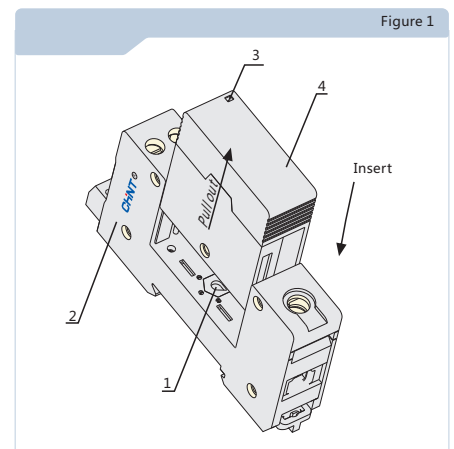
Design type and protection mode combination corresponding to different models of surge protector (see Table 2)

Table 2

Open circuit voltage (1.2/50 μ s) (kV)	Maximum continuous operation voltage U_c (V ~)	Design type and pole number combination
10	320 385	Compound 2P
10	275	Compound 1P+N

Special feature:

The surge protector is configured with a degradation indicator (3), as shown in Figure 1. After the product gets degraded, it shall pop up on the surface of protection module (4) for warning. The protection module (4) should be immediately replaced, and there is no need to disconnect the line or rewire. (1) is the maximum continuous operation voltage indication of the surge protector, it can also be used to prevent modules with erroneous dimensions get inserted when changing the module. The value pointed by the heart-shaped angular pointer is the maximum continuous operation voltage of the product.



NXU-III series surge protector

Surge protector maximum continuous operation voltage U_c selection:

Table 3

Grounding system	TT	TN	IT	NOTE
Maximum operation voltage of the grid $U_{s,max}$	345V	253V	400V	Refer IEC 60364-5-534
NU6-III	Common mode protection* $U_c=320V,385V$	—	2P	—
	Differential mode protection* $U_c=275V$	1P+N	—	—

Common mode protection: phase-to-ground and neutral-ground protection.

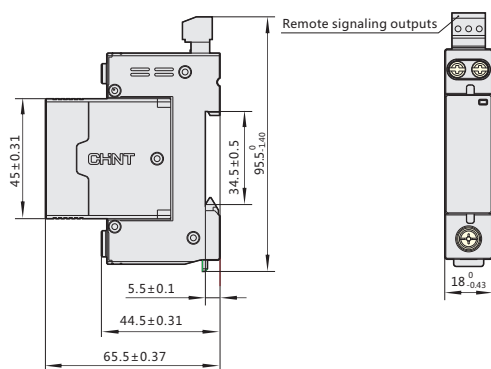
Differential mode protection: phase-to-phase or phase-to-neutral, neutral-to-ground protection.

Dimensions and installation sizes

See Figure 2 and 3 for dimensions and installation sizes.

NXU-III/F

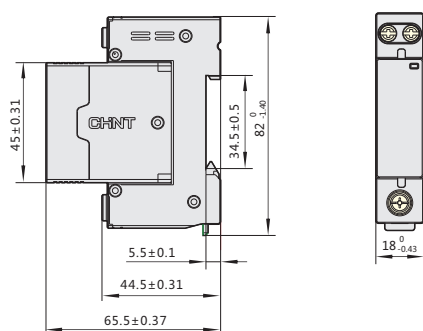
Figure 2 Dimensions and installation sizes of surge protector with remote signaling outputs



TH35 - 7.5 steel rail mounting.

NXU-III

Figure 3 Dimensions and installation sizes of surge protector without remote signaling outputs



NXHB-125 Isolation switch



NXHB-125 Isolation switch

Compliant standards

IEC60947-3

Compliant certification

CE

Major function

Isolation function

Parameters and performance

Rated current I_e : 20A, 32A, 40A, 63A, 80A, 100A, 125A;

Number of poles: 1P, 2P, 3P, 4P;

Rated insulation voltage U_i : 500V;

Rated operation voltage U_e : 240V~(1P), 415V~(2P, 3P, 4P);

Rated impulse withstand voltage U_{imp} : 6kV;

Rated short time withstand current I_{cw} : 12 I_e , power-on time of 1s;

Rated short-circuit making capacity I_{cm} : 20 I_e , power-on time of 0.1s;

Rated making and breaking capacity: 3 I_e , 1.05 U_e , $\cos\phi=0.65$;

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;

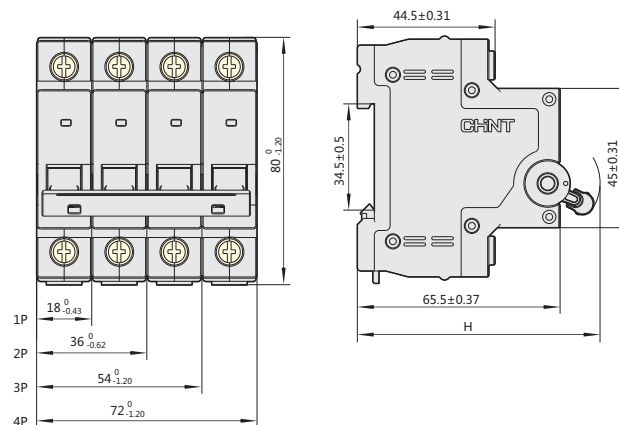
Installation: TH35-7.5 steel rail mounting, the gradient of the mounting surface from the vertical plane should be $\leq 5^\circ$;

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)	$76.3_{-1.2}^0$	$78_{-1.2}^0$

Note

Dotted lines for writing notes.