

Low Voltage Brief Catalogue





#### NB1-63(H) Miniature Circuit Breaker



NB1-63



NB1-63H

#### General

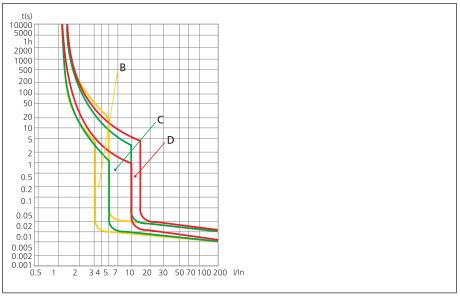
- lacet Short circuit protection
- ullet Overload protection
- Switch
- Isolation
- Contact position indicator
- Advanced current-limit technology
- Heat dissipation gap for better cooling
- Extendable DIN-rail holder for easy installation

#### Technical features

Standard		IEC/EN 60898-1	IEC/EN 60947-2	UL1	.077
Rated current In	A		6, 10, 13, 16, 2, 40, 50, 63	1, 2, 3, 4, 6, 20, 25, 32,	
Poles		1P, 1P+N, 2P, 3P, 3P+N, 4P	1P, 2P, 3P, 4P	1P, 2P, 3P, 4P	1P, 2P
Rated voltage Ue	V	230/400~2	40/415	277/480	110/125
Rated frequency	Hz		AC 50/60		DC
Rated breaking capacity	А	6000/10000	6000	5000	10000
Energy limiting class		3			
Rated impulse withstand voltage (1.2/50) Uimp	V	600		00	
Thermo-magnetic release characteristic		B, C, D	(8-12)In	B, C, D	(4-7)In, (7-15)In
Electrical life		4,000			
Mechanical life		20,000			
Mounting		On DIN rail EN 60715 (35mm) by means of fast clip dev		clip device	
Connection		From top and bottom			
Auxiliary contact		Yes			
Shunt release		Yes			
Under voltage release		Yes			
Alarm contact		Yes			

#### Curve

B, C, D curve







NB1-63DC



#### NB1-63DC DC Circuit Breaker

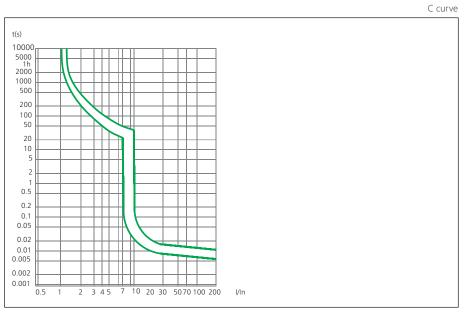
#### General

- Excellent breaking capacity
- Double connection function of lead wire and bus bar
- Stored energy operation, fast closing, long service life
- Convenient installation, disassembly
- Contact on-off indication, higher security
- Green environmental protection and energy saving

#### Technical features

Standard		IEC/EN 60947-2
Rated current In	A	1, 2, 3, 4, 6, 10, 13, 16, 20, 25, 32, 40, 50, 63
Poles		1P, 2P, 4P
Rated voltage Ue	V	1P: 250V; 2P: 500V; 4P: 1000V
Electrical life		1,500
Mechanical life		20,000

#### • Curve







NB1-63G

# CE 🖄

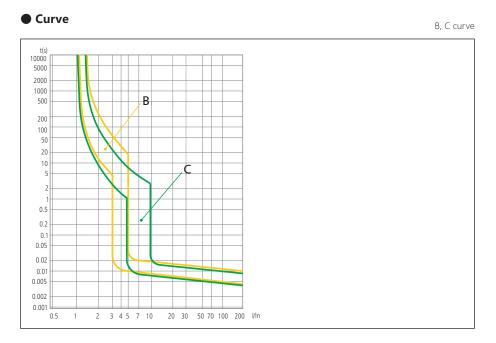
#### NB1-63G Miniature Circuit Breaker

#### General

- lacet Short circuit protection
- ullet Overload protection
- Switch
- lace Isolation
- Various wiring solutions: U-type/pin-type/Comb-type Busbar/Cable

#### Technical features

Standard		IEC/EN 60898-1
Rated current In	A	1, 2, 3, 4, 6, 10, 13, 16, 20, 25, 32, 40, 50, 63
Poles		1P, 2P, 3P, 4P
Rated voltage Ue	V	230/400
Rated frequency	Hz	50/60
Rated breaking capacity	А	6000
Rated impulse withstand voltage(1.2/50) Uimp	V	4000
Thermo-magnetic release characteristic		В, С
Electrical life		4,000
Mechanical life		20,000
Mounting		On DIN rail EN 60715 (35mm) by means of fast dip device
Connection		From top and bottom







NBH8



#### **NBH8 Miniature Circuit Breaker**

#### General

- ullet Short circuit protection
- Overload protection
- Switch
- Isolation
- lace 1P+N in one module.
- lacksquare Contact position indicator

#### Technical features

Standard		IEC/EN 60898-1
Rated current In	A	1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40
Poles		1P+N
Rated voltage Ue	V	230~240
Thermo-magnetic release characteristic		В, С
Rated frequency	Hz	50/60
Rated breaking capacity	А	4500/6000
Rated impulse withstand voltage(1.2/50) Uimp	V	4000
Electrical life		8, 000
Mechanical life		20, 000
Mounting		On DIN rail EN 60715 (35mm) by means of fast clip device
Terminal connection type		Cable/Pin-type busbar
Auxiliary contact		Yes
Shunt release		Yes
Under voltage release		Yes
Alarm contant		Yes

#### • Curve

B, C curve t(s) 10000 5000 1h 2000 1000 500 В 200 100 50 20 10 5 С 2 1 0.5 0.2 0.1 0.05 0.02 0.01 0.005 0.002 0.001 2 3457 10 20 30 5070100 200 l/ln 1





DZ158



#### **DZ158 Moulded Case Circuit Breaker**

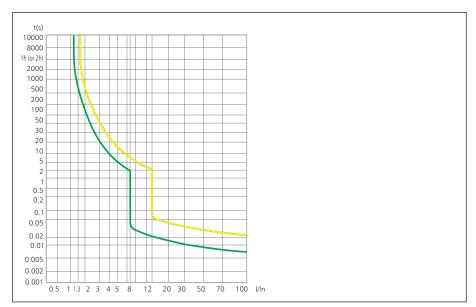
#### General

- Short circuit protection
- ullet Overload protection
- Switch
- Isolation
- ullet Contact position indicator

#### Technical features

Standard		IEC/EN 60947-2
Rated current In	A	63, 80, 100, 125
Poles		1P, 2P, 3P, 4P
Rated voltage Ue	V	230/400~240/415
Rated frequency	Hz	50
Rated breaking capacity	kA	6/10
Rated impulse withstand voltage(1.2/50) Uimp	V	4000
Thermo-magnetic release characteristic		(8-12)In
Electrical life		1,500 (In=63A, 80A, 100A) 1,000 (In=125A)
Mechanical life		8,500 (In=63A, 80A, 100A) 7,000 (In=125A)
Mounting		On DIN rail EN 60715 (35mm) by means of fast clip device
Connection		From top and bottom

#### Curve







NL1



# NL1 Residual Current Operated Circuit Breaker without Over-current Protection (Magnetic)

#### General

- protect people against indirect contacts and additional protection against direct contacts.
- protect installations against fire hazard due to insulation faults.

#### Detectable wave form

- AC Class
- Tripping is ensured for slowly increasing sinusoidal AC residual currents.
- A Class
  - Tripping is ensured for sinusoidal AC residual currents and for pulsed DC residual currents, whether applied suddenly or increasing slowly.
- A-SI Class

Tripping is ensured not only for sinusoidal AC residual currents but also for pulsed DC residual currents whether applied suddenly or increasing slowly. A type with filters against spurious tripping caused by harmonics and transient surges.

With the impact of 8/20us surge 3000A, this high immunity RCCB will still be in stable status.

#### • Tripping sensitivity

10mA - precision instrument leakage protection and bathroom use. 30mA - additional protection against direct contact.

100mA - co-ordinated with the earth system according to the formula

 $I \Delta n < 50/R$ , to provide protection against indirect contacts.

300mA - protection against indirect contacts, as well as fire harzard.

#### Tripping time

- Instantaneous
- It ensures instantaneous tripping (without time-delay).
- Short time delay G
  - It ensures any tripping at least 10ms.
- Selective S
  - It ensures total discrimination with a nonselective RCCB placed downstream.

#### • Fault current indicator

#### Technical features

Standard		IEC/EN 61008-1
Type (wave form of the earth leakage sensed)		AC, A, AC-G, A-G, AC-S, A-S, A-SI
Rated current In	А	25, 40, 63, 80, 100
Poles		2P, 4P
Rated voltage Ue	V	230/400~240/415
Rated sensitivity I∆n	А	0.01 for 25A, 0.03, 0.1, 0.3
Short-circuit current Icn=I∆c	А	6000/10000
Electrical life		2, 000
Mechanical life		2, 000
Terminal connection type		Cable/U-type busbar/Pin-type busbar
Mounting		On DIN rail EN 60715 (35mm) by means of fast clip device
Connection		From top and buttom





NL210

## CE KEUR

# NL210 Residual Current Operated Circuit Breaker without over-current protection

#### General

- protect people against indirect contacts and additional protection against direct contacts.
- protect installations against fire hazard due to insulation faults.

#### • Detectable wave form

#### • B Class

Tripping is ensured for sinusoidal AC residual currents pulsed DC residual currents, alternating residual sinusoidal currents up to 1000Hz, pulsating direct residual currents and for smooth direct residual currents, whether applied suddenly or increasing slowly.

#### • Tripping sensitivity

30mA - additional protection against direct contact.

#### • Tripping time

Instantaneous

It ensures instantaneous tripping (without time-delay).

#### Fault current indicator

#### • Technical features

Standard		IEC/EN 61008-1
Type (wave form of the earth leakage sensed)		В
Rated current In	А	25, 40, 63
Poles		4P
Rated voltage Ue	V	400
Rated sensitivity I∆n	А	0.03
Short-circuit current lcn=l∆c	А	10000
Electrical life		2, 000
Mechanical life		10000
Terminal connection type		Cable/U-type busbar/Pin-type busbar
Mounting		On DIN rail EN 60715 (35mm) by means of fast clip device
Connection		From top and buttom







NB1L

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# NB1L Residual Current Operated Circuit Breaker with Over-current Protection (Magnetic)

#### General

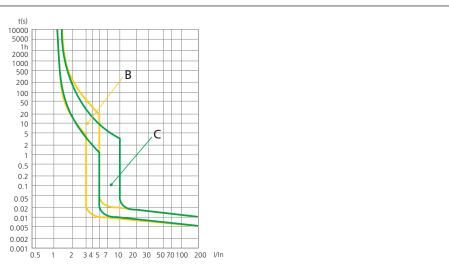
- Protection against risk of fire
- lacet Protection against risk of electric shock
- lacet Protection against overload
- Protection against short circuit
- Contact position indicator

#### • Technical features

Standard		IEC/EN	61009-1
Type (wave form of the earth leakage sensed)		AC	с, А
Thermo-magnetic release characteristic		B	, C
Rated current In		MCB+add-on RCCB block	1, 2, 3, 4, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63
		Combined	1~25/6~40
Poles		MCB+add-on RCCB block	1P+N, 2P, 3P, 3P+N, 4P
		Combined	1P+N, 2P
Rated voltage Ue	V	230/400~240/415	
Rated sensitivity I∆n	А	0.03, 0.1, 0.3	
Rated short-circuit capacity lcn	А	6,000/10,000	
Break time under l^n	S	≤0.1	
Electrical life			2,000
Mechanical life			2,000
Mounting			N 60715 (35mm) by fast clip device
Connection		From top and bott	om (for combined type)
Connection		From top (MCB-	+add-on RCCB block)



B, C curve







NB2LE

# CE SAA

#### NB2LE Residual Current Operated Circuit Breaker

#### General

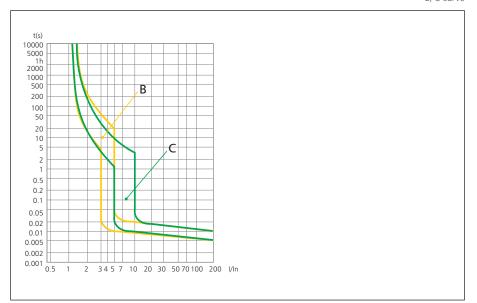
- ullet Protection against risk of fire
- $igodoldsymbol{\bullet}$  Protection against risk of electric shock
- Protection against overload
- Protection against short circuit

#### Technical features

Standard		IEC/EN 61009-1
Type (wave form of the earth leakage sensed)		AC, A
Thermo-magnetic release characteristic		В, С
Rated current In	A	6, 10, 16, 20, 25
Poles		1P+N
Rated voltage Ue	V	240
Rated sensitivity I∆n	А	0.03
Short-circuit current Icn	А	4,500
Electrical life		2, 000
Mechanical life		2, 000
Mounting		On DIN rail EN 60715 (35mm) by means of fast clip device
Connection		From top and bottom

#### Curve

B, C curve







NB310L (2P)



NB310L (3PN)

# CE KEUR

# NB310L Residual Current Operated Circuit Breaker with Over-current Protection (Magnetic)

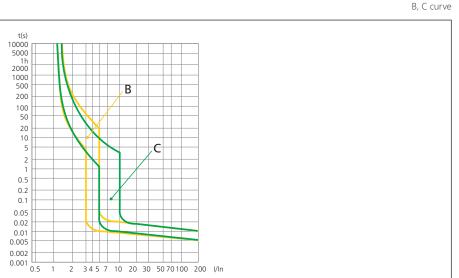
#### General

- lacet Protection against risk of fire
- lacet Protection against risk of electric shock
- lacet Protection against overload
- Protection against short circuit
- Contact position indicator

#### • Technical features

Standard		IEC/EN	61009-1
Type (wave form of the earth leakage sensed)		А	A, AC
Poles		2P	3PN
Thermo-magnetic release characteristic		B	C
Rated current In	А	6-32	6-40
Poles		2P	3P+N
Rated voltage Ue	V	230/240	400
Rated sensitivity I∆n	А	0.	03
Rated short-circuit capacity lcn	А	6,0	000
Break time under I∆n	S	≤	0.1
Electrical life		2,0	000
Mechanical life		2,000	10000
Mounting			50715 (35mm) by st clip device
Connection		From top a	and bottom

#### • Curve





XF9



XF9J



S9



V9



### XF9 (Auxiliary Contact for NB1, NBH8, NB1L, NBH8LE)

#### General

- General: Indication of the position of the device's contacts.
- Manufactured according to IEC/EN 60947-5-1
- Rated voltage: DC 24V, 48V, 130V; AC 240V, 415V
- Configurations: 1N/O+1N/C
- Mounted on the left of the MCBs/RCBOs.

# CE

#### XF9J (Alarm Auxiliary Contact for NB1, NBH8, NB1L, NBH8LE)

#### General

- General: Indication of the position of the device's contacts only after the automatic release of the MCBs/RCBOs due to overload or short circuit.
- Manufactured according to IEC/EN 60947-5-1
- Rated voltage: DC 24V, 48V, 130V; AC 240V, 415V
- Configurations: 1N/O+1N/C
- Mounted on the left of the MCBs/RCBOs.



#### S9 (Shunt Release for NB1, NBH8, NB1L, NBH8LE)

#### General

- General: Remote opening of the device when a voltage is applied.
- Manufactured according to IEC/EN 60947-5-1
- Rated voltage: AC/DC 24V, 48V; AC 230V, 400V
- Mounted on the left of the MCBs/RCBOs.

# C€

#### V9 (Under Voltage Release for NB1, NBH8, NB1L, NBH8LE)

#### General

- General: Reliable break the device in the case of a voltage drop (between 35% and 70% of its rated value)
- Manufactured according to IEC/EN 60947-5-1
- Rated voltage: AC 230V
- lacet Mounted on the left of the MCBs/RCBOs .



## AX-1 (Auxiliary Contact for DZ158, DZ158LE)

#### General

- General: Indication of the position of the device's contacts.
- Manufactured according to IEC/EN 60947-5-1
- Rated voltage: DC 125V; AC 415V
- Configurations: 1N/O+1N/C
- Mounted on the left of the MCBs/RCBOs.

AX-1







NH2



#### **NH2 Switch Disconnector**

#### General

- Isolation
- Designed match DZ series MCBs/RCBOs

#### Technical features

- Manufactured according to IEC/EN 60947-3
- Electric ratings: 32A, 63A,100A, 125A, 230/400V~240/415V, 50/60Hz
- Rated short circuit breaking capacity: 20le, t=0.1s
- Electric life: 1500
- Mechanical life: 8500
- lacksquare Connection: From top and bottom



NH4

# NH4 Switch Disconnector

CE 🚵 🗵 🛞 🖪 SAA

#### General

- Isolation
- Designed match N series MCBs/RCBOs

#### Technical features

- Manufactured according to IEC/EN 60947-3
- Electric ratings: 32A, 63A, 100A, 125A, 230/400V~240/415V, 50/60Hz
- Rated short circuit breaking capacity: 20le, t=0.1s
- Electric life: 1500
- Mechanical life: 8500
- Connection: From top and bottom



CE KEUR

#### NZK1-32 Change-over Switch

#### General

- Electric ratings: AC 50/60Hz;
- Rated voltage up to 250V, rated current 32A;
- Standard: IEC/EN 60669-1

#### Technical features

- Poles: 1P, 2P
- Rated frequency: 50Hz/60Hz;
- Rated operating current le: 32A;
- Rated voltage Ue: 250V;
- Rated making and breaking capacity: 1.1Ue; 1.25le; COSΦ=0.3±0.05; 200 times
- Operational performance: Ue0<sup>+5%</sup>le; COSΦ=0.6±0.05; 10000 times

## CE KEUR



NZK2

#### NZK2-32 Change-over Switch

#### General

- Electric ratings: AC 50/60Hz;
- Rated voltage up to 250V, rated current 32A;
- Standard: IEC/EN 60669-1

#### Technical features

- Poles: 1P, 2P
- Rated frequency: 50Hz/60Hz;
- Rated operating current le: 32A;
- Rated voltage Ue: 250V;
- Rated making and breaking capacity:
- 1.1Ue; 1.25le; COSΦ=0.3±0.05; 200 times ● Operational performance:
- Ue0<sup>+5%</sup>le; COSΦ=0.6±0.05; 10000 times







NXW5

#### NXW5 Wall Mounting Enclosure

#### General

ullet For installing the modular DIN-rail products together to control the electric system

#### • Technical features

- Manufactured according to IEC/EN 62208
- Designed for three phases circuit system
- Electric ratings: 220...240/380...415V, AC50/60Hz
  - Max. incoming current (A): 630A
- Protection degree: IP54
- Surface mounting for outdoor installation.



General

• Guarantee MCBs' wiring safety.

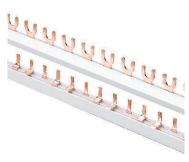
MCB Shield (For eB, NH2)

#### Technical features

- Electrical ratings: up to 100A, 220...240/380...415V, AC 50/60Hz
- Poles of mounted units: 1P, 3P



MCB Shield



CBB-2 Busbar

#### **CBB-2** Busbar

#### Main application and naming rule

• Busbar is mainly applied to low-voltage distribution equipment for assembly of 18mm wide modularized products.

#### • Operating conditions:

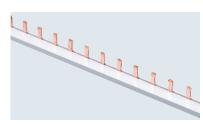
- Operating temperature range:  $5^{\circ}C \sim + 40^{\circ}C$
- Relative air humidity in 20°C: 90%
- Altitude: ≤2000m
- Pollution degree: 2

CBB-2201

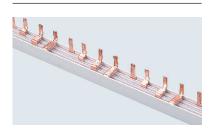
#### Main Technical Parameter

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Parameter name	Numeric value
Number of poles	1, 2, 3, 4
Rated voltage, V	230/400
Rated impulse withstand voltage Uimp, V	4000

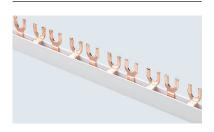
#### CBB-2101



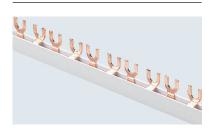
CBB-2401

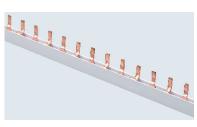


**CBB-2302** 

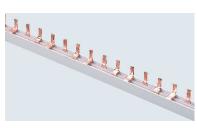


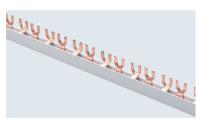
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#### CBB-2301

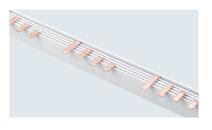




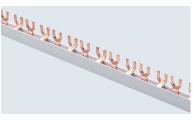
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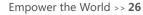


CBB-231110

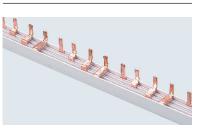


CBB-2202

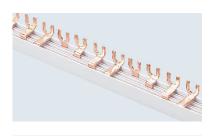












CBB-211610

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NM8

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#### NM8, NM8S Adjustable type MCCB

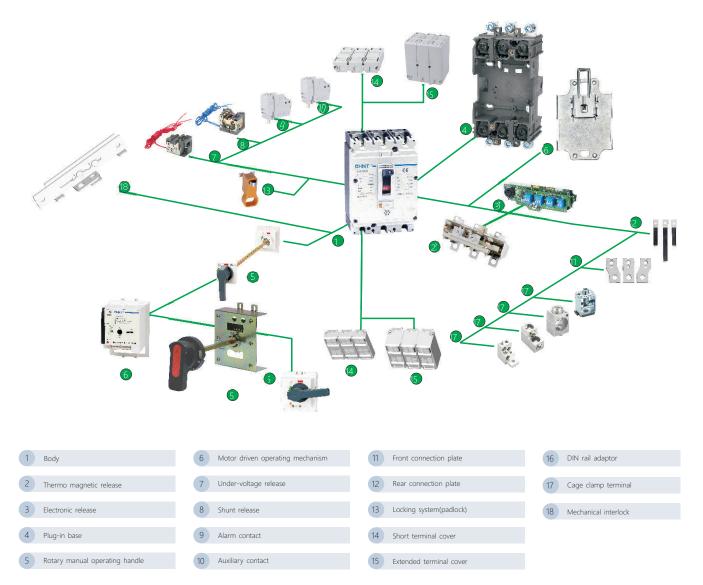
- Rated current from 16 to 1600A
- Thermal-magnetic type / Electronic type
- Adjustable thermal & adjustable magnetic trip
- 2P 3P 4P available
- 3-class breaking capacity from 50kA to 150kA
- Ics=100%Icu(In≤630A), Ics=50%Icu(In>630A)
- Circuit breakers and auxiliaries comply with the following international standard: IEC/EN 60947-1: general rules
  - IEC/EN 60947-2: circuit breakers

IEC/EN 60947-3: switches, disconnectors, switch-disconnectors, etc.

IEC/EN 60947-4: contactor and motor starters

IEC/EN 60947-5.1 and following: control circuit devices and switching elements, automatic control components. NM8 also comply with the specifications of the marine classification companies.

- Certified for operation in pollution-degree III environments as defined by IEC standard 60947 (industrial environments).
- Wide temperature range from -5°C to +40°C
- A complete system of add-on modules for NM8





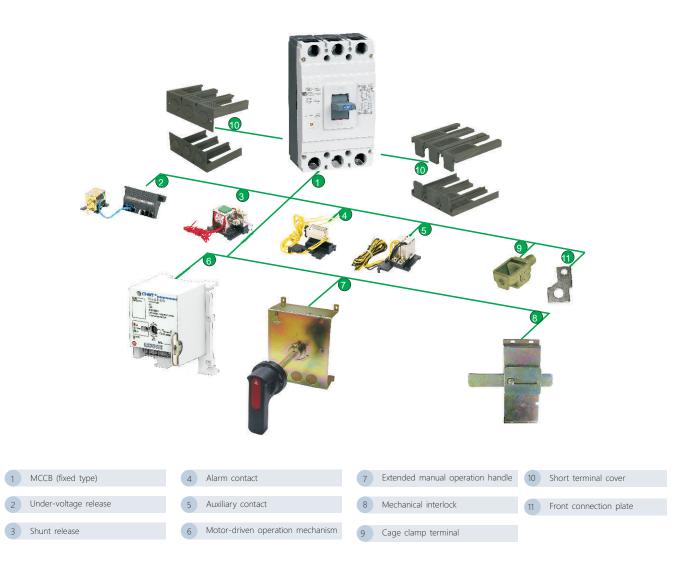


NM1

# NM1 Fixed type MCCB

KEMR 🔮 [H] RCC 🕻

- Rated current from 10 to 1250A
- Employing a fixed thermal and fixed magnetic trip.
- Frames made of rigid materials of engineering plastics
- lacksquare Complete range of one, two, three and four-pole version
- ullet 4-class breaking capacity from 10kA to 70kA
- Vertical/horizontal installation
- Circuit breakers and auxiliaries comply with the following international standard: IEC/EN 60947-1: general rules IEC/EN 60947-2: circuit breakers automatic control components.
- Certified for operation in pollution-degree III environments as defined by IEC standard 60947 (industrial environments).
- Temperature range from -5°C to +40°C
- A complete system of add-on modules for Nm1



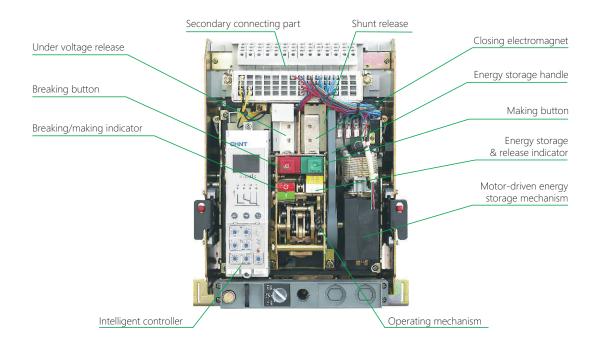




NA8G

#### NA8G Air Circuit Breaker

- Rated current: 200A to 6300A
- Rated operational voltage: AC230V, AC400V; DC220V, DC110V
- Mainly used in distribution networks
- Frequency: 50Hz/60Hz
- $lacel{eq:class}$  Olass of pollution: 3
- Temperature range from -5°C to +40°C
- Standard: IEC/EN 60947-2



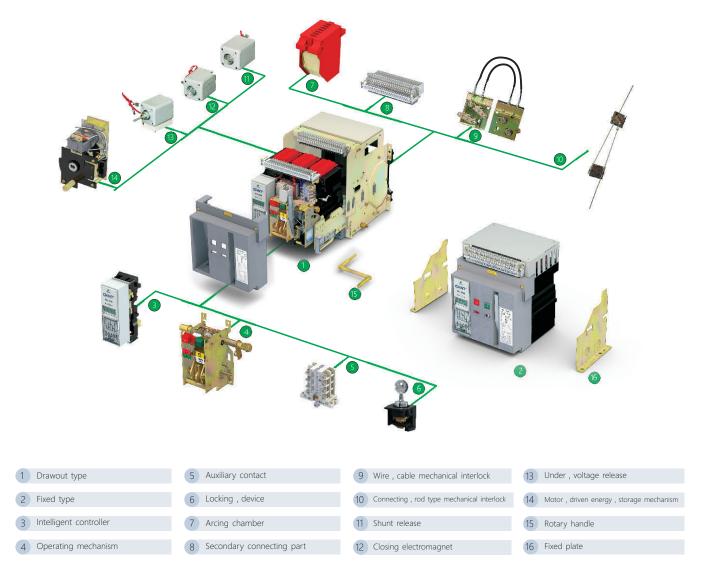


NA1

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#### NA1 Air Circuit Breaker

- Rated current from 200 to 6300A
- Modulized mechanical part and accessories
- The terminal of the control circuit on the front enables easy handling
- Minimized arc space
- 3P 4P available
- Max. breaking capacity up to 120kA at 400V
- Drawout type / fixed type
- Power supplied from either top or bottom does no reduction in performance
- Circuit breakers comply with IEC/EN 60947-2
- Certified for operation in pollution-degree III environments as defined by IEC standard 60947 (industrial environments).
- Temperature range from -5°C to +40°C
- A complete system of add-on modules for NA1



CHINT ELECTRIC





NC8



NC7

CE KEUR CRU'us

#### NC8 AC Contactor

- The NC8 series AC contactor is used for remote making & breaking circuits, and can also be used with proper thermal overload relay together as an electromagnetic starter to protect circuits from overload.
- Rating up to 690V, 500A, AC 50/60Hz
- Standard: IEC/EN 60947-4-1
- Utilization category: AC-1, AC-3, AC-4
- Mounting conditions: inclination between mounting plane and vertical plane not exceed ±5°



#### NC7 AC Contactor

- The NC7 series AC contactor is mainly used for remotely closing and breaking circuits, and can be combined with an appropriate thermal overload relay to form a electromagnetic starter so as to protect the circuits likely to be overloaded in operation; the contact is well suited for frequently starting and controlling AC motors.
- Rating up to 690V, 620A, AC 50/60Hz, usage category of AC-3/400V
- This product meets the standard of IEC60947-4-1
- Coil voltage (AC): 24V, 36V, 48V, 110V, 127V, 220V, 230V,
  - 380V, 415V, 440V, 480V, 500V, 600V, 660V
- Side mounting auxiliary contacts: NCF1-11C (1NO & 1NC)
- Top mounting auxiliary contacts: AX-3-20 & AX-3-02 & AX-3-11 (2NO or 2NC or 1NO & 1NC) AX-3-13 & AX-3-31 (1NO & 3NC or 3NO & 1NC)
  - AX-3-40 & AX-3-04 & AX-3-22 (4NO or 4NC or 2NO & 2NC)
- Top mounting time delay block: F5-T (making time delay);
  - F5-D (breaking time delay)
- Assemble with Thermal overload Relay NR2 (or NRE8) to be a DOL Starter.
- Assemble with another one & AX-3 & F5 & NR2 (or NRE8) to be a Star-Delta Starter called QJX2;
- ullet Assemble with a current limiting block to be a Capacitor Contactor.
- Assemble with another one to be a reversing contactor.





NC6

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#### **NC6 Contactor**

- The NC6 Series Mini Contactor is used in remote motor (≤4kW) control application.
- Rating up to 690V, 9A (AC-3). ----- (06A, 09A)
- Standard: IEC/EN 60947-4-1
- Two kinds of mounting available: Normal type (without pins); Pin type (with pins)
- Ambient temp: -5°C~+40°C
- Coil voltage (AC): 24V, 36V, 48V, 110V, 127V, 220V, 230V, 380V, 400V;
- Auxiliary contacts: NCF6-20 & NCF6-02 (2NO or 2NC) NCF6-13 & NCF6-31 (1NO & 3NC or 3NO & 1NC) NCF6-40 & NCF6-04 (4NO or 4NC)
- Assemble with Thermal overload Relay NR2-11.5 to be a DOL Starter.



#### **NC1 Contactor**

- The NC1 Series Contactor is used in remote motor (≤45kW) control application.
- Rating up to 690V, 95A (AC-3). ----- (09A, 12A, 18A, 25A, 32A, 40A, 50A, 65A, 80A, 95A)
- Standard: IEC/EN 60947-4-1
- Ambient temp:-25°C~+55°C
- Coil voltage (AC): 24V, 36V, 48V, 110V, 127V, 220V, 230V, 380V, 415V, 440V, 480V, 500V, 600V, 660V
- Coil voltage (DC): 24V, 36V, 48V, 110V, 220;
- Side mounting auxiliary contacts: NCF1-11C (1NO & 1NC)
- Top mounting auxiliary contacts: F4-20 & F4-02 & F4-11 (2NO or 2NC or 1NO & 1NC)
  F4-13 & F4-31 (1NO & 3NC or 3NO & 1NC)
  - F4-40 & F4-04 & F4-22 (4NO or 4NC or 2NO & 2NC)
- Top mounting time delay block: F5-T (making time delay);
  - F5-D (breaking time delay)
- Assemble with Thermal overload Relay NR2 (or NRE8) to be a DOL Starter.
- Assemble with another one & F4 & F5 & NR2 (or NRE8) to be a Star-Delta Starter called QJX2;
- Assemble with a current limiting block to be a Capacitor Contactor.
- Assemble with another one to be a reversing contactor.



NC1





NC1-Z(N) DP

#### NC1-Z(N) DP Contactor

- Used for long-distance circuit making and breaking
- Rated working voltage up to 690V, 25A and 40A (AC-3)
  w/ 2 NO 2 NC main contacts
- Compliance standards: IEC / EN 60947-4-1
- Ambient air temperature: -25°C~+55°C,
- 24-hour average temperature not exceeding +35°C
- Altitude: ≤ 2000m
- Coil voltage: DC 48V
- Can form into reversible contactor with other AC contactors



#### **NC2 Contactor**

- The NC2 Series Contactor is used in remote motor (≤475kW) control application.
  Rating up to 690V, 800A (AC3).
  - ----- (115A,150A,185A,225A,265A,330A,400A,500A,630A,800A)
- Standard: IEC/EN 60947-4-1
- Ambient temp: -5°C~+40°C
- Coil voltage (AC): 110V, 127V, 220V, 230V, 380V, 400V;
- Top mounting auxiliary contacts: F4-20 & F4-02 & F4-11 (2NO or 2NC or 1NO & 1NC)
  F4-13 & F4-31 (1NO & 3NC or 3NO & 1NC)
  - F4-40 & F4-04 & F4-22 (4NO or 4NC or 2NO & 2NC)
- Top mounting time delay block: F5-T (making time delay);
  - F5-D (breaking time delay)
- Assemble with Thermal overload Relay NR2 to be a DOL Starter.
- Assemble with another one to be a reversing contactor.



NCK3

#### **NCK3 DP Contactor**

- The NCK3 Series DP Contactor is used in remote motor of air-conditioner (<60HP) control application.</p>
- Rating up to 630V, 90A. ----- (25A, 30A, 32A, 40A, 50A, 60A, 75A, 90A)
- Standard: UL508

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- Poles: 1P+1NC, 1P+N, 2P, 3P
- Ambient temp: -5°C~+40°C
- Coil voltage (AC): 24V, 110V,120V, 220V,240V (50/60Hz).







NCH8

# (6 🙆 🔮

#### NCH8 Modular AC Contactor

- For controlling the household device or similar low inductive electric device
- Manufactured according to IEC/EN 61095
- Utilization category: AC-1, AC-7a, AC-7b
- Electric ratings: up to 20A, 25A, 40A, 63A, 230V, 400V, AC50/60Hz;
- Various contact assembly are available

# C€ EÆ

#### **CJ19 Capacitor Switching Contactor**

- The CJ19 Series Contactor is used in remote capacitor (130kvar) switch application.
- Rating up to 400V, 130A (AC-6b). ----- (25A, 32A, 43A, 63A, 95A, 115A, 150A, 170A)
- Standard: IEC/EN 60947-4-1
- Ambient temp: -5℃~+40℃
- Coil voltage (AC): 24V, 36V, 48V, 110V, 127V, 220V, 230V, 380V, 415V, 440V, 480V, 500V
  - CJ19-25: Rating current 17A (AC-6b/380V); Power of controlled capacitor≤12.5kvar.
  - CJ19-32: Rating current 23A (AC-6b/380V); Power of controlled capacitor≪20kvar.
  - CJ19-43: Rating current 29A (AC-6b/380V); Power of controlled capacitor≤25kvar.
  - CJ19-63: Rating current 43A (AC-6b/380V); Power of controlled capacitor≤33.3kvar.
  - CJ19-95: Rating current 72.2A (AC-6b/400V); Power of controlled capacitor≪50kvar.
  - CJ19-115: Rating current 87A (AC-6b/400V); Power of controlled capacitor≤60kvar.
  - CJ19-150: Rating current 115A (AC-6b/400V);
  - Power of controlled capacitor≤80kvar.
  - CJ19-170: Rating current 130A (AC-6b/400V); Power of controlled capacitor≤90kvar.



CJ19







NR8

#### NR8 Thermal Overload Relay

- NR8 series thermal overload relay is used to provide overload and phase failure protection for AC motors
- Frequency: AC 50Hz/60Hz
- Voltage: up to 690V
- current: 0.1A~38A
- Standard: IEC 60947-4-1.



#### **NRE8 Electronic Overload Relay**



NRE8



NR2

- The NRE8 Series Electronic Overload Relay is used
- in remote motor control application for overload function.
- Rating up to 690V, 630A (AC3). ----- (25A, 40A, 100A, 200A, 630A)
- Standard: IEC/EN 60947-4-1
- Ambient temp: -5°C~+40°C
- Assemble with Contactor NC1, NC2, NC7, NC8 to be a DOL Starter.



#### NR2 Thermal Overload Relay

- NR2 series thermal overload relay is used to provide overload and phase failure protection for AC motors.
- Rating up to 690V, 630A. ----- (11.5A, 25A, 36A, 93A, 150A, 200A, 630A)
- Standard: IEC/EN 60947-4-1
- Ambient temp: -5°C~+40°C
- Assemble with Contactor NC1, NC2, NC7 to be a DOL Starter.



NS2



#### **NS2 Manual Motor Starter**

- The NS2 Series Manual Motor Starter is used in remote motor control application for overload, short circuit & phase failure.
- Rating up to 690V, 80A(AC3). ----- (0.1~0.16A, 0.16~0.25A, 0.25~0.4A, 0.4~0.63A, 0.63~1A, 1~1.6A, 1.6~2.5A, 2.5~4A, 4~6.3A, 6~10A, 9~14A, 13~18A, 17~23A, 20~25A, 24~32A, 16~25A, 25~40A, 40~63A, 56~80A)
- Standard: IEC/EN 60947-2, IEC/EN 60947-4-1
- Ambient temp: -5°C~+40°C
- Side mounting auxiliary contacts: NS2-AU20(2NO)

NS2-AU11(1NO & 1NC)

- Front mounting auxiliary contacts: NS2-AE20(2NO)
  - NS2-AE11(1NO & 1NC)
- Under-voltage release: NS2-UV110, NS2-UV220, NS2-UV380;
- Shunt release: NS2-SH110, NS2-SH220, NS2-SH380;

Fault signal contact & instantaneous auxiliary contact: NS2-FA0110 (1NC &1NO)

NS2-FA0101 (1NC & 1NC)

NS2-FA1010 (1NO & 1NO) NS2-FA1001 (1NO & 1NC)







NP8



#### **NP8 Pushbutton**

- The NP8 Series Pilot Device is used in remote circuit control and indication.
- Rating up to 415V, 1.9A (AC-15) or 250V, 0.27A (DC-13)
- Standard: IEC/EN 60947-5-1 IP65; Drill plan: Φ22mmm
- Electrical endurance: 1000 ×10<sup>3</sup> circles for Flush & mushroom head type; 100 ×10<sup>3</sup> circles for Flush & mushroom other head type;
- Ambient temp: -5°C~+40°C; Contact blocks: 3pcs (max);
- Illuminated: Either illuminated or Non-illuminated available.
- Button: Either Momentary or Maintained type available
- Holder: Plastic available
- Head available: Flush head, Mushroom head, selector switch, double-head switch, indicator
- Head colors available: Red Black Green Blue Yellow.



NP2



#### **NP2** Pushbutton

- The NP2 Series Pilot Device is used in remote circuit control and indication.
- Rating up to 230V, 4.5A (AC-15) or 110V, 0.6A (DC-13)
- Standard: IEC/EN 60947-5-1 IP40; Drill plan: Φ22mm
- Electrical endurance: 500×103 circles for Flush & mushroom head type; 100×103 circles for Flush & mushroom other head type;
- Ambient temp: -5°C~+40°C; Contact blocks: 2pcs (max);
- Illuminated: Either illuminated or Non-illuminated available.
- Button: Either Momentary or Maintained type available
- Holder: Either metal or plastic available
- Head available: Flush head, Mushroom head, selector switch, double-head switch, indicator
- Head colors available: Red Black Green Blue Yellow.





NPH1



#### NPH1 Pushbutton Box

- The NPH1 Series Pushbutton enclosure is designed for NP8 Series Pushbutton.
- Rating up to AC 415V or DC 250V;
- Standard: IEC/EN 60947-5-1 IP65;
- Electrical endurance: 500×103 circles for Flush & mushroom head type;
  - 100 ×103 circles for Flush & mushroom other head type;
- Ambient temp: -5°C~+40°C



#### ND16 Indicator Light

- The ND16 Series Indicator is used in remote indication.
- Rating up to 400V (AC/DC)
- Standard: IEC/EN 60947-5-1
- IP65,IP40;
- Drill plan: Φ22mm
- Electrical endurance: 30×103 Hours
- Ambient temp: -5°C~+40°C
- Head colors available: Red Green Blue Yellow White; ND16-22A(S)/2: For AC/DC application, Flat-platform lampshade; ND16-22A(S)/4: For AC application, Flat-round platform lampshade; ND16-22B(S)/2: For AC/DC application, Flat-round platform lampshade; ND16-22B(S)/4: For AC application, Flat-round platform lampshade; ND16-22C(S)/2: For AC/DC application, Arc-surface ripple lampshade; ND16-22C(S)/4: For AC application, Arc-surface ripple lampshade; ND16-22D(S)/2: For AC/DC application, Arc-surface round lampshade; ND16-22D(S)/2: For AC/DC application, Arc-surface round lampshade; ND16-22D(S)/4: For AC application, Arc-surface round lampshade; ND16-22B(S)/4: For AC application, Arc-surface round lampshade;



ND16



#### ND16 Buzzer

- Rating up to AC/DC 110V, AC 380V
- IP20
- ND16-22F, ND16-22FS
- ND16-22L, ND16-22LC
- Head colors: Red Black



ND16





NVF2G

#### **NVF2G Inverter**

- Superior starting capability: Flux vector control technology, 0.5Hz/150% (starting torque)
- More powerful overload, 180% rated current to maintain 5s
- Stable operation at high speed: speed accuracy of 0.5%
- Maximum speed deviation speed ratio: Vector Control without PG 1:100; V/F 1:50
- Significant energy saving: Automatic energy-saving operation, effect up to 20% -50%



NVF300M

#### **NVF300M Inverter**

- NVF300M mini type inverter with compact dimension
- Flux vector control can provide high speed precision, wide speed range, high start torque and good reliability
- PID control,wobble frequency control,preset speed function
- Single phase and Three phase input



NVF300

#### NVF300 Inverter

- Use of advanced high-precision flux vector control technology to achieve precise and smooth starting of motor
- Good environmental adaptability, allowing the voltage fluctuation range of 15%,~+10% Circuit board with conformal coating
- Starting torque: 0.5Hz/180% rated torque
- Speed range: 1:100 (control without PG); 1:1000 (control with PG)
- High-speed pulse input and pulse output functions, suitable for applications where precision requirements for speed control are very high.
- Built in EMC, and powerful product anti-interference capability
- Automatic energy-saving operation, automatic current limiting, automatic voltage regulator, PID control functions, provide better equipment protection for customers and achieve energy saving
- More than 20 kinds of protection functions e.g. over-current, over-voltage, under-voltage, overload, phase loss, and overheating
- Widely used in electrical drive and automation and control of papermaking, textile,water supply, municipal administration, food and machinery.







NJR2-T



NJR2-D



NJR2-ZX

#### NJR2-T Soft-starter

- Three-phase 220V voltage class, dual CPU control, smooth starting and stopping
- ullet Built-in with multiple protection features, perfect protection for soft starting of the motor
- Product specifications covering 7.5kW-160kW (squirrel cage) Three-phase AC induction motor
- Multiple overload curves in line with national standards, better overload protection
  - Widely used in electrical drive equipment in many fields
- Ideal replacement for traditional star-delta starters, and auto voltage starting
- Starting current: 0.5-5 times the starting current limit.
- Kickstart time: 0.1S

#### NJR2-D Soft-starter

- Three-phase 380V voltage class, dual-CPU control, smooth starting and stopping
- All-aluminum design patents, good heat dissipation
- 75kW or less full-aluminum design, the radiator and shell in one, increased heat dissipation area
- Powerful starting function and perfect protection function: Built-in 6 kinds of starting modes, adaptable to loads of different occasions Built-in with multiple protection features, perfect protection on motor and soft starting Multiple overload curves in line with national standards for, better overloading protection
- RS485 communication (external communication module) function, facilitating networking control and automated transformation

#### NJR2-ZX On-line-line Soft-starter

- Without requiring bypass contactor, online operation, built-in fan with feedback signal
- Dual-CPU chips, fast response to protection, smooth starting and stopping
- Aluminum casing patented design, desirable cooling effect
- Powerful starting ability, perfect protection function
- Built-in with six kinds of starting modes, suitable for loads on different occasions
- Multiple overload curves in line with national standards, better overloading protection RS485 communication (external communication module)
- Shield design for wiring, without requiring bypass contactor





NJS3

# €€

#### NJS3 Time Delay Relay

- NJS3 series time relay mainly used as time control component for control circuit with AC 50Hz/60Hz, rated control power supply voltage to 220V,make or break the circuit at a preset time.
- DIN rail mounting and compact 18 mm design.

# C€

CE



NJS3-D

# NJS3-D Time Delay Relay

- NJS3-D time relay is mainly used as a delay control switchfor control circuit with AC frequency 50Hz, and rated control supply voltage to 240V.
- Typical application:Suitable for metal halide lamps,15 minutes lockout cool down timer.DIN rail mounting and compact 18mm design.



#### **NTE8 Time Delay Relay**

- NTE8 Series time delay relay is applicable for controlling circuit @AC 50Hz/60Hz, up to 230V rated voltage or up to DC 24V rated voltage as delay element to make or break circuit according to preset time.
- This product meets the requirements of IEC60947-5-1.



NTE8

JSS48B

#### **JSS48B Time Delay Relay**

• JSS48B Time Delay Relay is applicable for controlling circuit @ A.C. 50Hz/60Hz, up to 380V rated supply voltage and up to D.C. 240V rated supply voltage as delay element to make or break circuit according to preset time.







# CE

JSS48A





JSZ3



JSZ6





# **NKG3 Time Switch**

• NKG3 time switch (hereinafter referred to as time control switch) is used in automatic control circuits with a frequency of AC 50Hz (or 60Hz), a rated control supply voltage of up to 220V and a rated operational current of 3A to provide timed on-off control for street lamps, advertising lamps and similar equipment.

NKG3

# JSS48A Time Delay Relay

● JSS48A Time Delay Relay is applicable for controlling circuit @ A.C. 50Hz/60Hz, up to 380V rated control supply voltage and up to D.C. 240V rated control supply voltage as delay element to make/break circuit according to preset time.



# **JSZ3 Time Delay Relay**

 JSZ3 Time Delay Relay is applicable for automatic control system, such as machine automatic control, and complete equipment automatic control, etc.

# CE

## JSZ6 Time Delay Relay

 JSZ6 Time Delay Relay is applicable for automatic control system, such as machine tool automatic control, complete equipment automatic control, etc.





NJMC1

# CE

# NJMC1 Pulse Relay

- Contact switching current of up to 16A and 32A; a complete range of AC/DC specifications;
- NJMC1 pulse relay is a mechanical bistable relay that changes the contact state by inputting pulse signals.



#### **Power Relay Socket**

• Various kinds of socket for different relays

Socket



NHR17



NHR40

014

#### NHR17 Fuse-switch Disconnector

- NHR17 series fuse-swith disconnector is a new product developed by our company.
- Rated insulation voltage up to 800V, rated operational voltage up to 690V.
- Rated operational current up to 630A, rated frequency 50Hz, in the distribution circuit and motor circuit which has high short-circuit current as the power switch, isolating switch, emergency switch as well as circuit protection,
  - but normally it is not used to make and break a single motor directly.
- Standard: IEC/EN 60947-3.
- Rated current: 160~630A



#### NHR40 Fuse-switch Disconnector

- NHR40 series switch-disconnector with fuse is applicable in the circuit of AC50Hz, rated voltage AC690V and below, DC440V and below, rated current up to 630A.
- NHR40 series are infrequently manually operated multipolar fuse combination switches,
- They break or switch off on load and provide safely isolation and protection against overcurrent for any voltage electrical circuit.
- Standard: IEC/EN 60947-3.
- Rated current: 160~630A



NHRT40



KEMA

#### NHRT40 Vertical Fuse-switch Disconnector

- NHRT40 series are infrequently manually operated multipolar fuse combination switches,
- They break or switch off on load and provide safely isolation and protection against overcurrent for any voltage electrical circuit.
- Standard: IEC/EN 60947-3.
- Rated current: 160~630A



NZ7

#### NZ7 Automatic Transfer Switching Equipment

- Applicable to the three-phase four-line two-circuit power supply network with an AC power frequency of 50Hz, rated operational voltage of AC400V, and rated operational current of up to 630A, the NZ7 series automatic transfer switching equipment can automatically connect one or several loads from one power source to another to ensure the normal power supply of the load circuit.
- This product is applicable to the important places such as industrial, commercial, and storied buildings, and residential houses.
- Certificate: KEMA
  - Execution standard: IEC/EN 60947-6-1





RT28

#### **RT28 Cylindrical Contact Caps Fuse Protector**

- Standards compliant: GB / T 13539, IEC60269
- Rated voltage: to AC500V
- Rated current range: 32A ~ 63A
- Rated breaking capacity: 50kA
- Breaking range and use category: gG type
- Support member of the fuse can be equipped with lamp (X), and the instruction is more clear
- Patented appearance, modular design, practical and good-looking
- Rail mounting, easy and fast
- Mainly used for electrical circuit overload and short circuit protection
- Warm reminder: this type of fuse is not recommended for capacitor cabinet; it is recommended to use RT36 type for replacement.



RT29

#### **RT29 Fuse with Cylindrical Cap**

- Standards compliant: GB / T 13539.2, IEC 60269-2
- Rated voltage: AC500V
- Rated current range: 2A ~ 125A complete current specifications
- Rated breaking capacity: 50kA
- Breaking range and use category: gG type
- Fuse link of the impactor is equipped with, and it has the phase loss protection function as the motor.
- Mainly used for electrical circuit overload and short circuit protection
- Warm reminder: this type of fuse is not recommended for capacitor cabinet; it is recommended to use RT36 type for replacement.



RT36

#### **RT36 Knife Contact Fuse Protector**

- Standards compliant: GB / T 13539.2, IEC60269-2
- Rated voltage: to AC690V
- Rated current range: 4A ~ 1250A complete current specifications
- Rated breaking capacity: up to 120kA safer
- Breaking range and use category: gG type
- laces Open structure, good heat dissipation condition
- Self design, use more confident with CHINT special models
- lacet RX1 signal fuses can be equipped with to achieve remote function.
- ullet Mainly used for electrical circuit overload and short circuit protection