



## Low Voltage Brief Catalogue



CHINT

CHINT



## CHINA+TOMORROW= CHINT

“CHIN” indicates “CHINA”, and “T” represents “TOMORROW”, proclaiming its signification-“Tomorrow of China”.



Zhejiang CHINT Electrics Co.,Ltd. (public company, SHA:601877) is the largest-selling low-voltage electrics manufacturers in China. The company mainly engages in the research & development, manufacturing and sales of over 100 series low-voltage products with over 10,000 specification, such as modular Din-rail products, Moulded Case Circuit Breaker, Control products, Relays, Inverters, Soft Starters, Transformers, Automatic Voltage Regulators, Capacitors, Switch Disconnections, etc. and provides integrated electrical system solution for the industries of electric power, machinery, building, communication, HVAC, metallurgy, petrochemical, railway and etc.



With its worldwide presence of distribution network, CHINT is capable of delivering high quality and professional services for its customers at home and abroad.



CHINT is consistently committed to developing itself into a world-class electric supplier of integrated system solutions in this era of economic globalization. By adhering to the development strategy of “internationalization, High-Technology and Industrialization”, the company has persistently devoted itself to the innovation measures in corporate system, technology, and management with a vision of offering global customers with high-performance, intelligent and energy-saving electric products, technologies and services.





## Marketing Network

Chint not only has advanced production equipment, strict quality management and innovative research and development team, but also a worldwide marketing network consisting of 5 international marketing areas, 13 domestic marketing offices, 12 logistics centers, more than 280 specialty stores and more than 1000 sales companies, which are always ready to provide the users with high-quality professional services.





Europe



America



CIS Region



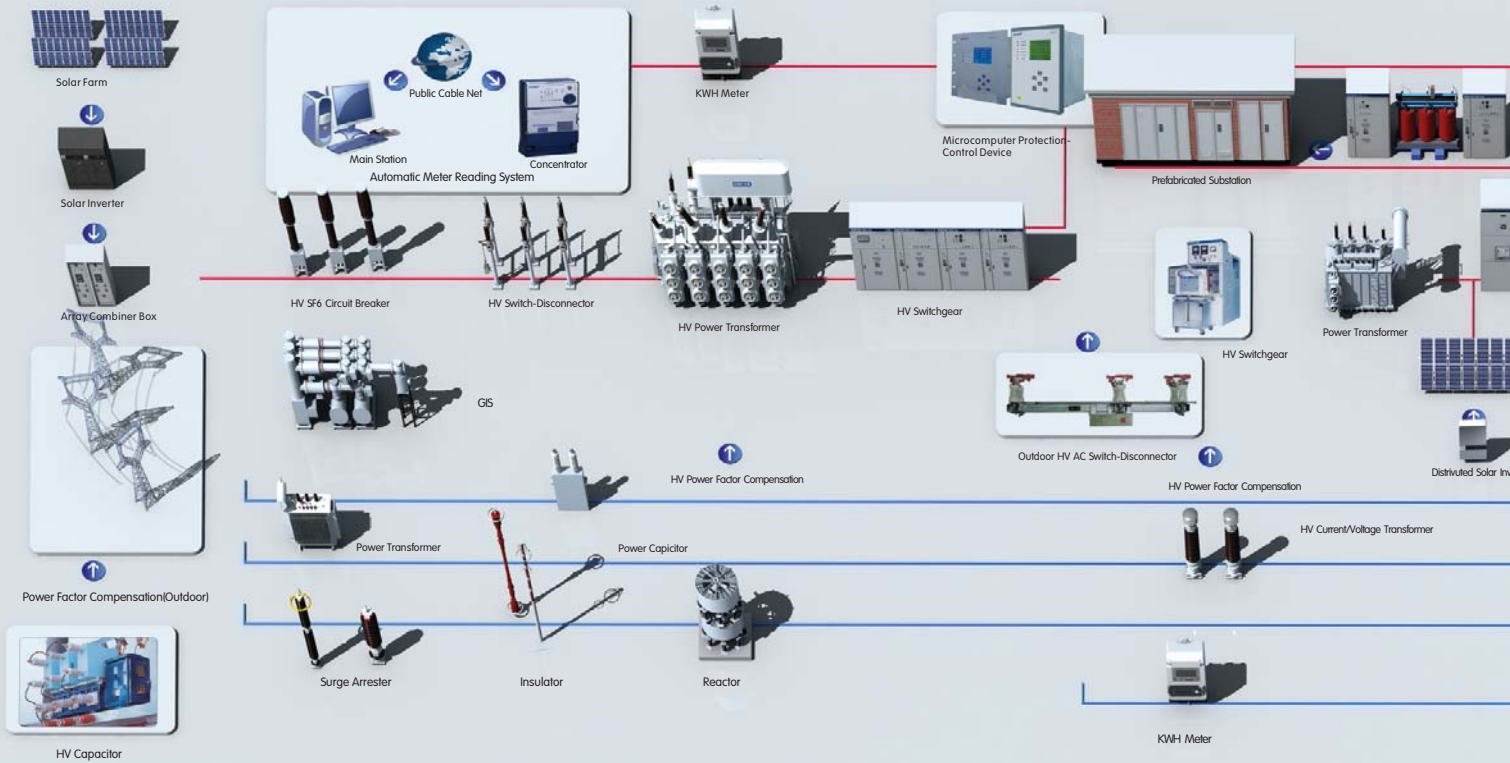
West Asia & Africa



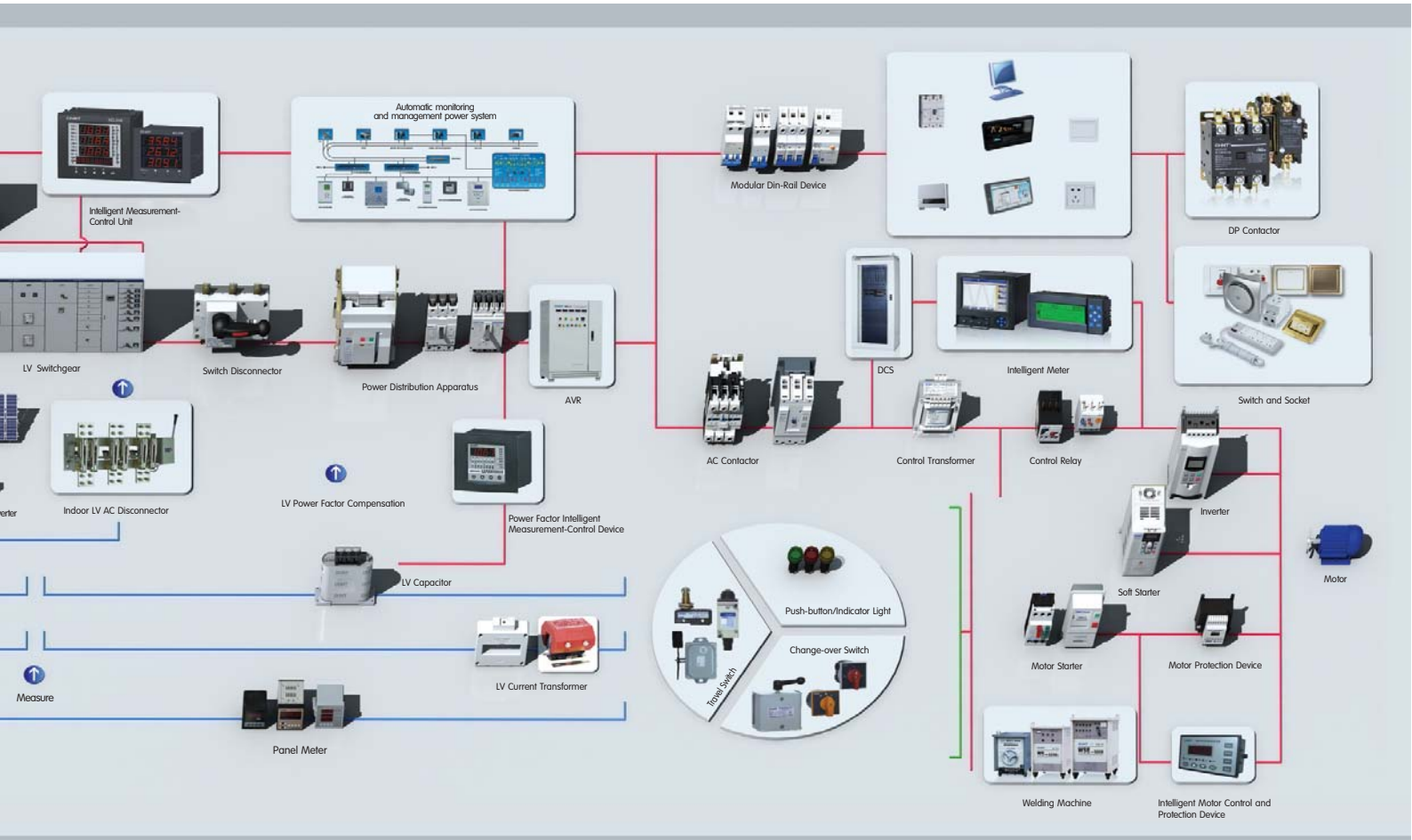
Asia-Pacific



# CHINT Electric Systems



Power of Dedication has transformed CHINT from a simple electric component manufacturer into a leading electric system solution provider, enabling all users from power transmission, distribution and usage sectors to access more reliable, secure, energy-saving, precise, eco-friendly, and intelligent electric products and services. CHINT highly values all personalized demands of electric power, machinery, construction, communications, HVAC, metallurgy, petrochemical, railway, and other industries all the time, and devote itself to facilitating technical innovations and building a green future by providing users with world-class tailor-made electric system solutions.







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### NB1 Miniature Circuit Breaker



NB1

#### ● General

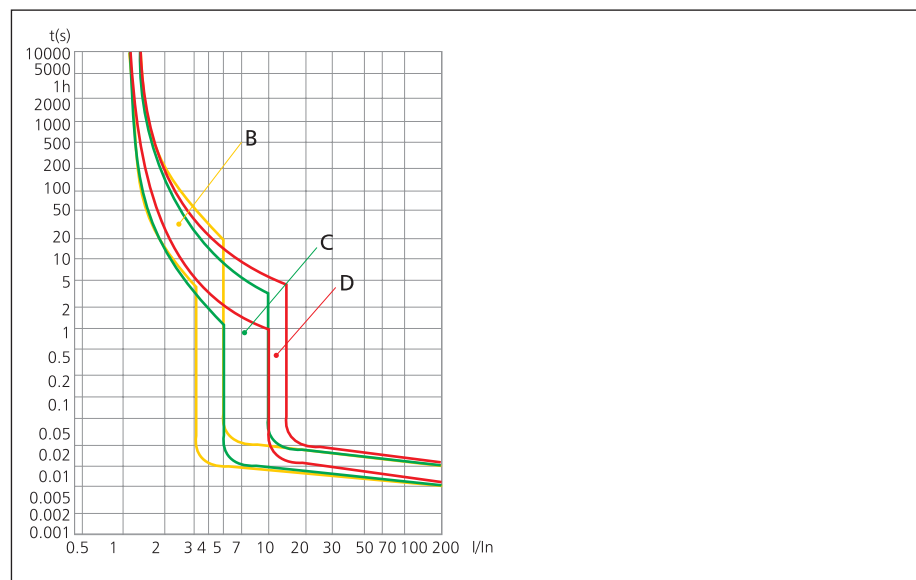
- Short circuit protection
- Overload protection
- Switch
- Isolation
- Contact position indicator
- Advanced current-limit technology
- Heat dissipation gap for better cooling
- Extendable DIN-rail holder for easy installation

#### ● Technical features

Standard		IEC/EN 60898-1	IEC/EN 60947-2	UL1077	UL1077
Rated current In	A	1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63		1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63	
Poles		1P, 1P+N, 2P, 3P, 3P+N, 4P	1P, 2P, 3P, 4P	1P, 2P, 3P, 4P	1P, 2P
Rated voltage Ue	V	230/400~240/415		277/480	110/125
Rated frequency	Hz	AC 50/60			DC
Rated breaking capacity	A	6000/10000	6k	5k	10k
Energy limiting class		3			
Rated impulse withstand voltage(1.2/50) Uimp	V	4000			
Thermo-magnetic release characteristic		B, C, D	8-12In, 9.6-14.4In	B, C, D	4-7In, 7-14In
Electrical life		4, 000			
Mechanical life		20, 000			
Mounting		On DIN rail EN 60715 (35mm) by means of fast 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





NB7

## NB7 Miniature Circuit Breaker

### ● General

- Main specifications
- Graded according to the rated current  $I_n$  ;
- Classified as follows according to the type of instantaneous release: type B (3-5) $I_n$ , type C (5-10) $I_n$ , type D ((10-16) $I_n$ ;

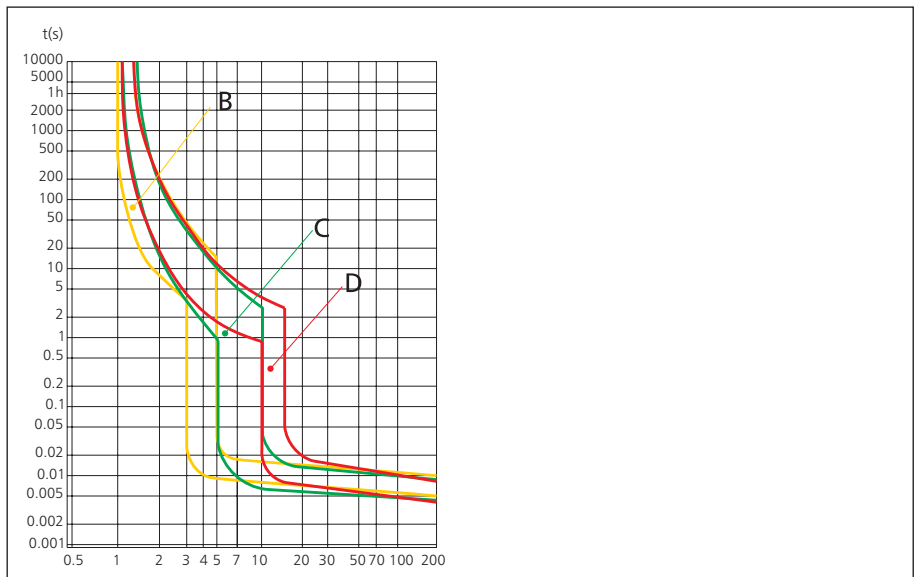
### ● Technical data

Standard		IEC/EN 60898-1
Rated current $I_n$	A	1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63
Poles		1P, 2P, 3P, 4P
Rated voltage $U_e$	V	230/400
Rated frequency	Hz	50
Electrical life		4, 000
Mechanical life		10, 000

Rated current $I_n$ (A)	Number of poles	Rated voltage $U_e$ (V)	Rated short circuit capacity $I_{cn}$ (A)
B、C type: 1~40	1	230/400	6000
	2, 3, 4	400	
B、C type: 50 60	1	230/400	4500
	2, 3, 4	400	
D type: 1~63	1	230/400	
	2, 3, 4	400	

### ● Curve

B, C, D curve



CE N S PG RCC SAA

**eBC eB eBG Miniature Circuit Breaker**



eBC

● **General**

- Short circuit protection
- Overload protection
- Switch
- Isolation
- Economic type breaker
- High cost-effective

● **Technical features**

Standard		IEC/EN 60898-1	IEC/EN 60947-2
Rated current $I_n$	A	1, 2, 3, 4, 6, 10, 15, 16, 20, 25, 32, 40, 50, 63	
Poles		1P, 2P, 3P, 4P	
Rated voltage $U_e$	V	230/400~240/415	
Rated frequency	Hz	50/60	
Rated breaking capacity	kA	3 (1~63A) eBC 4.5 (1~63A) eB 6 (1~40A) eBG	
Rated impulse withstand voltage(1.2/50) $U_{imp}$	V	4000	
Thermo-magnetic release characteristic		B, C, D	8-12 $I_n$
Electrical life		4, 000	
Mechanical life		10, 000	
Terminal connection type		Cable/Pin-type busbar	
Mounting		On DIN rail EN 60715 (35mm) by means of fast clip device	
Connection		From top and bottom	



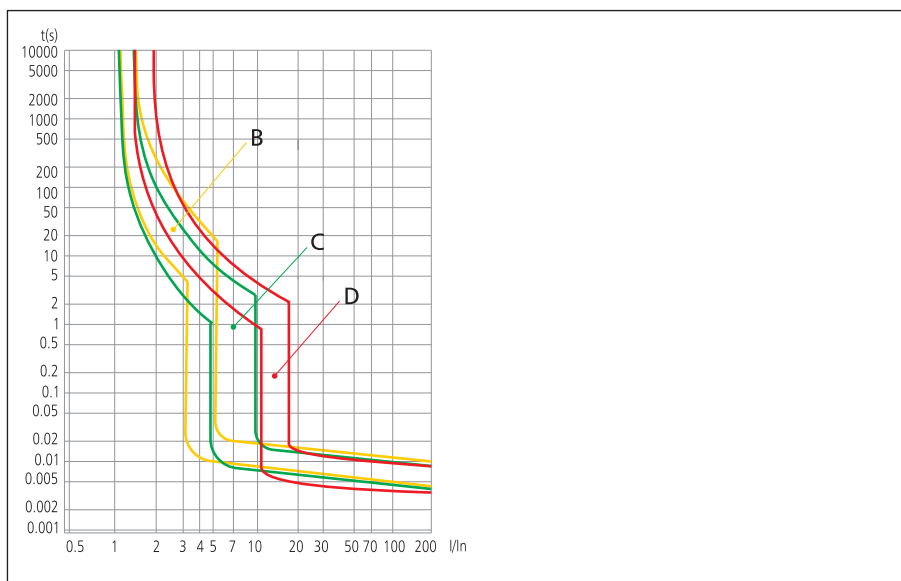
eB



eBG

● **Curve**

B, C, D curve





## UB Miniature Circuit Breaker



UB

### ● General

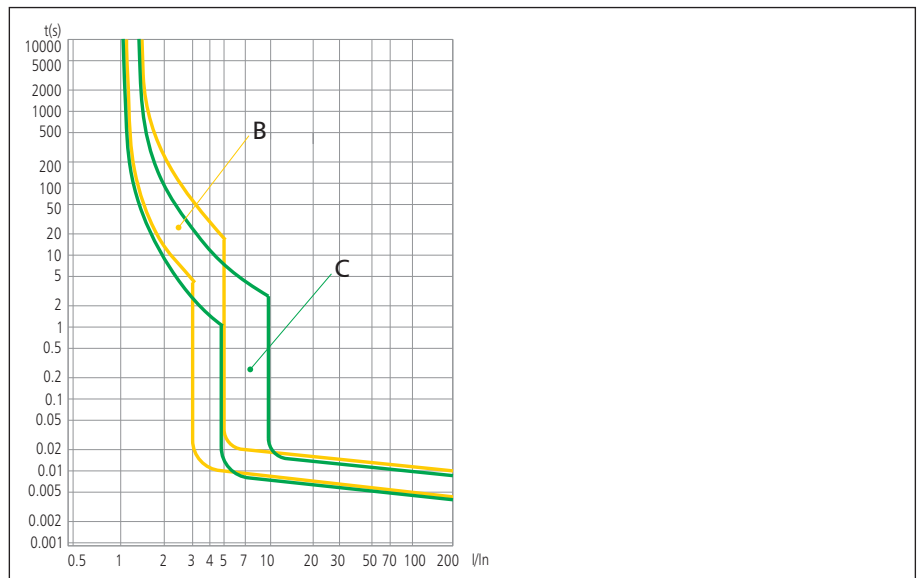
- Short circuit protection
- Overload protection
- Switch
- Isolation
- Various wiring solutions: U-type/pin-type/Comb-type Busbar/Cable

### ● Technical features

Standard		IEC/EN 60898-1
Rated current In	A	6, 10, 13, 16, 20, 25, 32, 40
Poles		1P, 2P, 3P, 4P
Rated voltage Ue	V	230/400~240/415
Rated frequency	Hz	50/60
Rated breaking capacity	A	6000
Rated impulse withstand voltage(1.2/50) Uimp	V	4000
Thermo-magnetic release characteristic		B, C
Electrical life		4,000
Mechanical life		10,000
Mounting		On DIN rail EN 60715 (35mm) by means of fast dip device
Connection		From top and bottom

### ● Curve

B, C curve





## DZ158 Moulded Case Circuit Breaker



DZ158

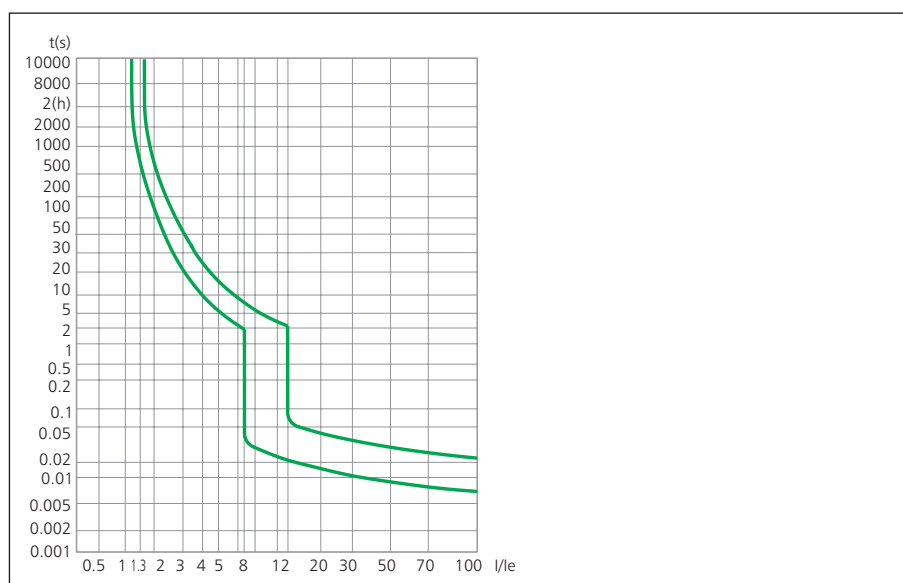
### ● General

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

### ● Technical features

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

### ● Curve





### NBH8 Miniature Circuit Breaker



NBH8

● **General**

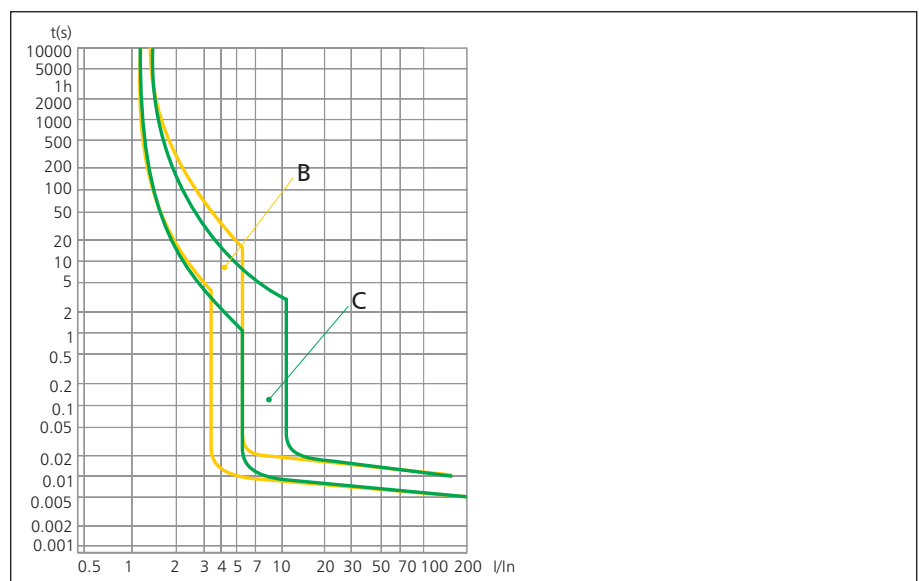
- Short circuit protection
- Overload protection
- Switch
- Isolation
- 1P+N in one module.
- Contact position indicator

● **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		B, C
Rated frequency	Hz	50/60
Rated breaking capacity	A	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 contact		Yes

● **Curve**

B, C curve





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



NL1

### ● 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.

### ● Tripping sensitivity

- 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 hazard.

### ● Tripping time

- Instantaneous  
It ensures instantaneous tripping (without time-delay).
- Short time delay  $\square$   
It ensures any tripping at least 10ms.
- Selective  $\square$   
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
Rated current $I_n$	A	25, 40, 63, 80, 100
Poles		2P, 4P
Rated voltage $U_e$	V	230/400–240/415
Rated sensitivity $I_{\Delta n}$	A	0.03, 0.1, 0.3
Short-circuit current $I_{cn}=I_{\Delta c}$	A	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 bottom





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



NB1L

### ● General

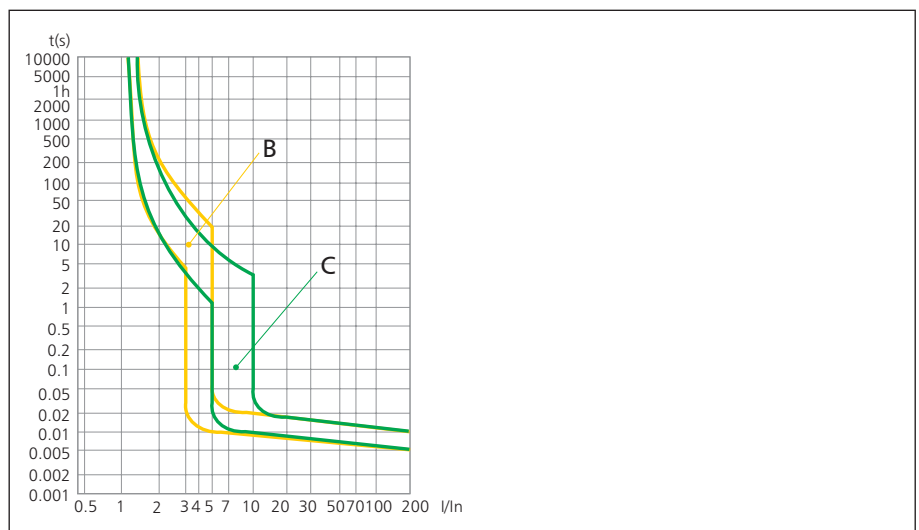
- Protection against risk of fire
- Protection against risk of electric shock
- Protection against overload
- Protection against short circuit
- Contact position indicator

### ● Technical features

Standard	IEC/EN 61009-1	
Type (wave form of the earth leakage sensed)	AC, A	
Thermo-magnetic release characteristic	B, C	
Rated current $I_n$	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
	Combined	1P+N, 2P, 3P, 3P+N, 4P
Rated voltage $U_e$	V	230/400~240/415
Rated sensitivity $I_{\Delta n}$	A	0.03, 0.1, 0.3
Rated short-circuit capacity $I_{cn}$	A	6,000/10,000
Break time under $I_{\Delta n}$	s	$\leq 0.1$
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 (for combined type)	
	From top (MCB+add-on RCCB block)	

### ● Curve

B, C curve



### NB7LE Residual Current Operated Circuit Breaker



NB7LE

● **General**

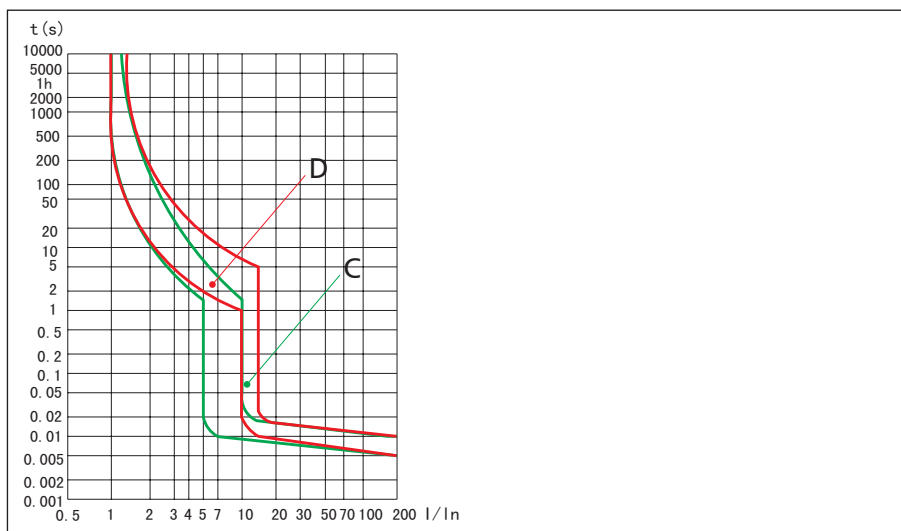
- Protection against risk of fire
- Protection against risk of electric shock
- Protection against overload
- Protection against short circuit
- Contact position indicator

● **Technical features**

Standard	IEC/EN 61009-1	
Rated current I <sub>n</sub>	A	NB7LE-32 6, 10, 16, 20, 25, 32; NB7LE-63 6, 10, 16, 20, 25, 32, 40, 50, 63
Poles		1P+N, 2P, 3P, 3P+N, 4P 1P+N, 2P
Rated voltage U <sub>e</sub>	V	230(1P+N, 2P), 440(3P, 3P+N, 4P)
Rated frequency	Hz	50
Rated breaking capacity	A	4500
Electrical life		4, 000
Mechanical life		20, 000

● **Curve**

C, D curve



CE SAA

### NB3LE Residual Current Operated Circuit Breaker with Over-current Protection (Electronic)



NB3LE

● **General**

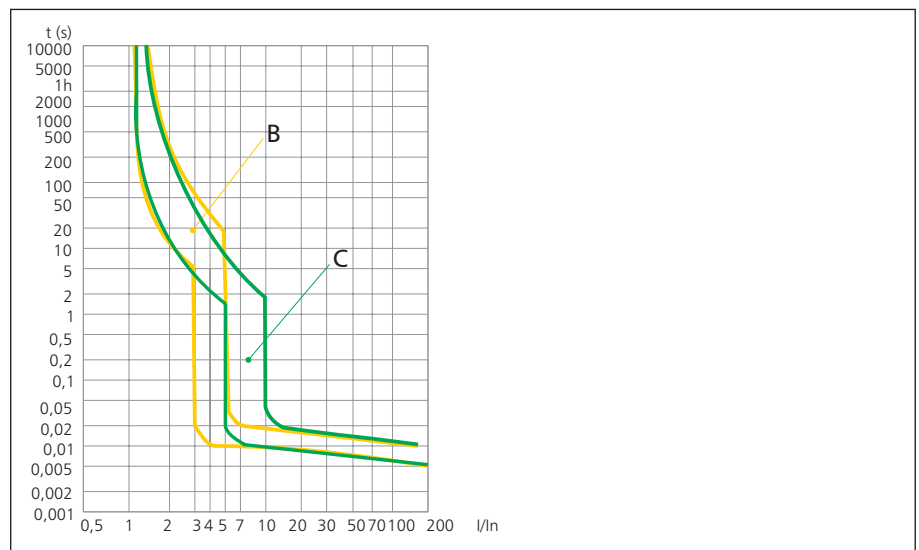
- Protection against risk of fire
- Protection against risk of electric shock
- Protection against overload
- Protection against short circuit
- 1P+N in one module
- Contact position indicator

● **Technical features**

Standard		IEC/EN 61009-1
Type (wave form of the earth leakage sensed)		AC
Thermo-magnetic release characteristic		B, C
Rated current $I_n$	A	6, 10, 16, 20, 25, 32
Poles		1P+N
Rated voltage $U_e$	V	240
Rated sensitivity $I_{\Delta n}$	A	0.03
Short-circuit current $I_{cn}$	A	6,000
Break time under $I_{\Delta n}$	s	$\leq 0.1$
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

● **Curve**

B, C curve





### NB3LEU Residual Current Operated Circuit Breaker with Over-current Protection (Electronic)



NB3LEU

● **General**

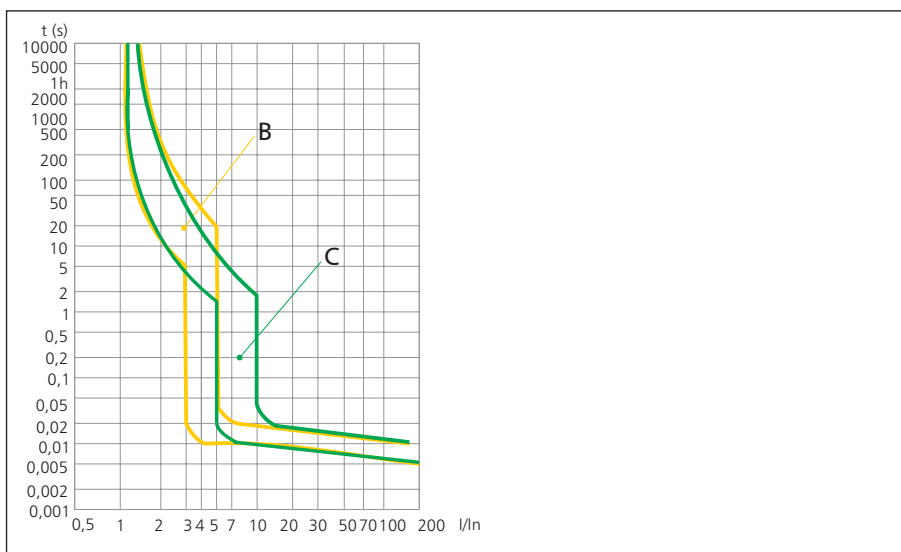
- Protection against risk of fire
- Protection against risk of electric shock
- Protection against overload
- Protection against short circuit
- 1P+N in one module
- Contact position indicator

● **Technical features**

Standard		IEC/EN 61009-1
Type (wave form of the earth leakage sensed)		AC
Thermo-magnetic release characteristic		B, C
Rated current I <sub>n</sub>	A	6, 10, 13, 16, 20, 25, 32, 40
Poles		1P+N
Rated voltage U <sub>e</sub>	V	240
Rated sensitivity I <sub>Δn</sub>	A	0.03
Short-circuit current I <sub>cn</sub>	A	10,000
Break time under I <sub>Δn</sub>	s	≤0.1
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

● **Curve**

B, C curve





## NBH8LE Residual Current Operated Circuit Breaker with Over-current Protection (Electronic)



NBH8LE

### ● General

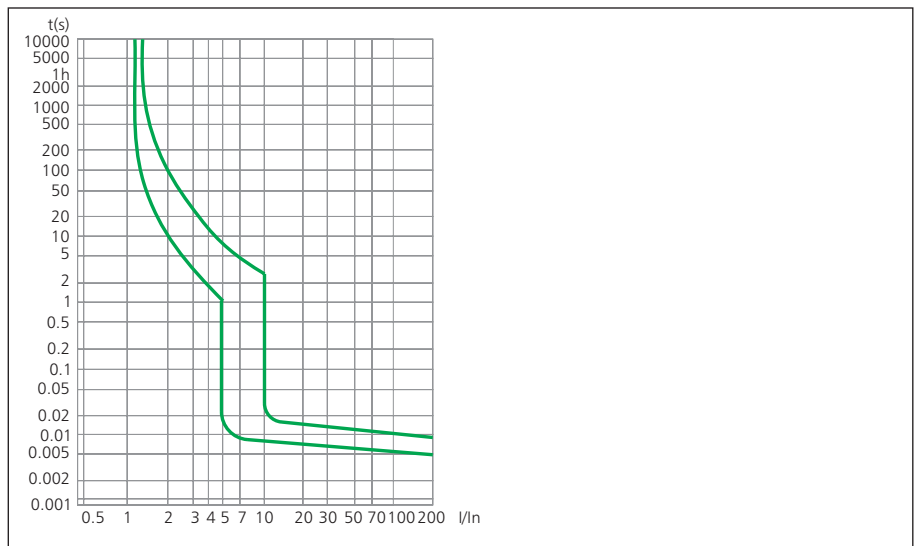
- Protection against risk of fire
- Protection against risk of electric shock
- Protection against overload
- Protection against short circuit

### ● Technical features

Standard	IEC/EN 61009-1	
Type (wave form of the earth leakage sensed)	AC	
Thermo-magnetic release characteristic	C	
Rated current $I_n$	A	1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40
Poles	1P+N	
Rated voltage $U_e$	V	230
Rated sensitivity $I_{\Delta n}$	A	0.03
Short-circuit current $I_{cn}$	A	4,500
Electrical life	4,000	
Mechanical life	20,000	
Mounting	On DIN rail EN 60715 (35mm) by means of fast clip device	
Connection	From top	

### ● Curve

C curve





## DZ158LE Residual Current Operated Circuit Breaker



DZ158LE

### ● General

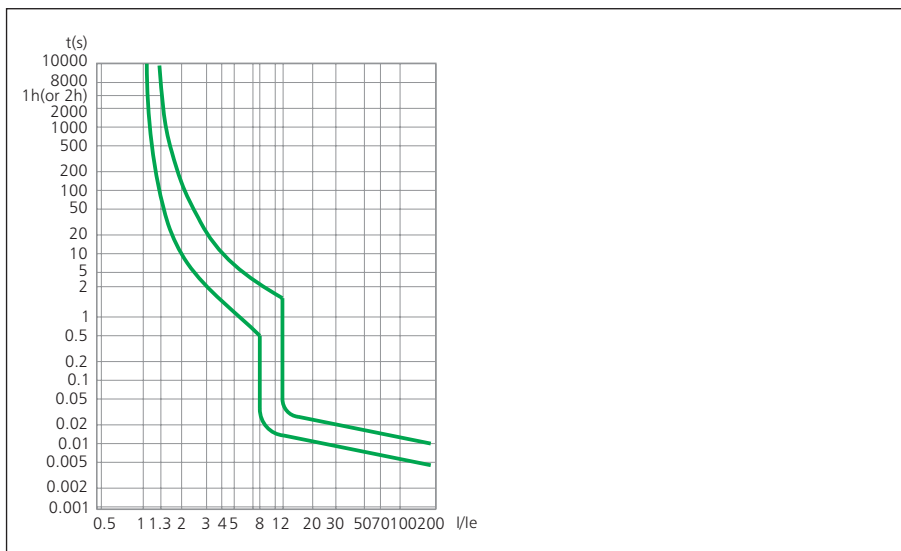
- Protection against risk of fire
- Protection against risk of electric shock
- Protection against overload
- Protection against short circuit

### ● Technical features

Standard	IEC/EN 60947-2	
Type (wave form of the earth leakage sensed)	AC	
Thermo-magnetic release characteristic	8~12In	
Rated current In	A	63, 80, 100
Poles	1P+N, 2P, 3P, 3P+N, 4P	
Rated voltage Ue	V	230/400
Rated sensitivity I $\Delta$ n	A	0.03, 0.1, 0.3
Short-circuit current Icn	A	6,000
Electrical life	1, 500	
Mechanical life	8,500	
Mounting	On DIN rail EN 60715 (35mm) by means of fast clip device	
Connection	From top	

### ● Curve

C curve





XF9

### XF9 (Auxiliary Contact for NB1, NBH8, NB1L, NB3LE, 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.



XF9J

### XF9J (Alarm Auxiliary Contact for NB1, NBH8, NB1L, NB3LE, 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

### S9 (Shunt Release for NB1, NBH8, NB1L, NB3LE, NBH8LE)

● **General**

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



V9

### V9 (Under Voltage Release for NB1, NBH8, NB1L, NB3LE, 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
- Mounted on the left of the MCBs/RCBOs .



AX-1

### 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.



### NH2 Switch Disconnecter



NH2

● **General**

- Isolation
- Designed match DZ series MCBs/RCBOs

● **Technical features**

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



### NH4 Switch Disconnecter



NH4

● **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: 20Ie, t=0.1s
- Electric life: 1500
- Mechanical life: 8500
- Connection: From top and bottom



## NU6 Low-voltage Surge Arrester



NU6- I

### ● General

- Protect electric system and on-loading electrical apparatus from thunder.
- Protect electric system and on-loading electrical apparatus from instantaneous over-voltage.

### ● Technical features

- NU6- I :
- Manufactured according to IEC/EN 61643-1
- Electric ratings: 230/400V, AC50/60Hz, 3-phases
- Shock current limp peak (10/350  $\mu$ s)(kA): 15kA, 25kA, 40kA
- Max. continuous operational voltage  $U_c$ (V): 275V, 320V, 385V, 440V



NU6- II

### ● NU6- II :

- Manufactured according to IEC/EN 61643-1
- Composed by two independent components
- With remote control port
- Electric ratings: 230/400V, AC50/60Hz, 3-phases
- Nominal discharge current (kA): 5kA, 15kA, 25kA, 40kA.
- Max. continuous operational voltage  $U_c$  (V): 275V, 320V, 385V, 460V, 510V, 550V



NU6-III

### ● NU6-III:

- Manufactured according to IEC/EN 61643-1
- Composed by two independent components
- With remote control port
- Electric ratings: 230V, AC50/60Hz, 3-phases
- $U_{oc}$  (1.2/50 $\mu$ s)(kV): 2kV, 3kV, 4kV, 6kV, 10kV, 20kV
- Max. continuous operational voltage  $U_c$  (V): 275V, 320V, 385V

### NP9 Pushbutton



NP9

● **General**

- For controlling electrical circuit either directly or via starters, contactors, relays etc. And pushbutton with lamp could also be used as indicator.

● **Technical features**

- Manufactured according to IEC/EN 60947-5-1
- Type: Pushbutton without illuminated lamp  
 Electric ratings: 6A, 230V, AC50/60Hz  
 Electric life: 100,000  
 Mechanical life: 250,000
- Type: Pushbutton with illuminated lamp  
 Electric ratings: 20mA, AC/DC 6.3/12/24/110/230V
- Assembly of contact: 1N/C+2N/O, 2N/C+1N/O, 3N/O, 2N/C+2N/O  
 (Not available for illuminated type)
- Mounting on Din rail (TH35-7.5)



ND9

### ND9 Indicator Light

● **General**

- Indication of signal, pre-set signal, malfunction signal etc.

● **Technical features**

- Manufactured according to IEC/EN 60947-5-1
- Two types: single lamp & dual lamps
- Electric ratings: 20mA, AC/DC 6.3/12/24/110/230V
- Mounting on Din rail (TH35-7.5)



NX8

### NX8 Consumer Unit (Body)

● **General**

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

● **Technical features**

- Manufactured according to IEC/EN 60439-3 (IEC/EN 60670-24)
- Electric ratings: up to 100A, 230V, AC50/60Hz
- On-load current(A): 100/1-phase, 63/3-phase
- No. of mounted units: 5, 8, 12, 15, 20, 24
- Flush mounting



NX2

### NX2 Consumer Unit (Body)

● **General**

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

● **Technical features**

- Manufactured according to IEC/EN 60439-3 (IEC/EN 60670-24)
- Electric ratings: up to 100A, 230V, AC50/60Hz
- On-load current(A): 100/1-phase, 63/3-phase
- No. of mounted units: 8, 10, 14, 18, 28, 36
- Surface mounting



NXW1

### NXW1 Consumer Unit (Body) for Outdoor Application

● **General**

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

● **Technical features**

- Manufactured according to IEC/EN 60439-3 (IEC/EN 60670-24)
- Electric ratings: up to 63A, 230V, AC50/60Hz
- No. of mounted units: 3, 5
- High protection degree up to IP65
- Surface mounting



NXW5

### NXW5 Wall Mounting Enclosure

● **General**

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

● **Technical features**

- Manufactured according to IEC/EN 60439-1
- Designed for three phases circuit system
- Electric ratings: 220...240/380...415V, AC50/60Hz  
Max. incoming current (A): 630A
- Protection degree: IP54/IP65
- Surface mounting for outdoor installation.



MCB Shield

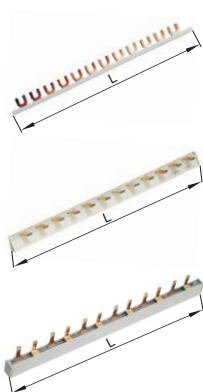
### MCB Shield (For eB, NH2)

● **General**

- Guarantee MCBs' wiring safety.

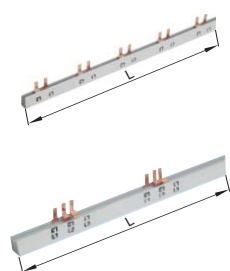
● **Technical features**

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



### Busbar for MCB & RCCB

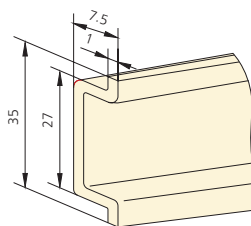
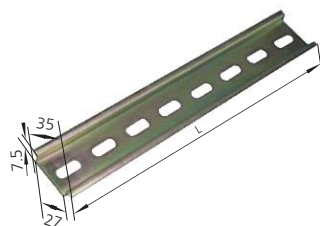
Model	Number of poles	Cross section (mm <sup>2</sup> )	Length L (m)
Fork Type	1P, 2P, 3P, 4P	12	1
Pin Type	1P, 2P, 3P, 4P	12	1
Pin Type	1P, 2P, 3P, 4P	16	1



### Busbar for RCBO

Model	Number of poles	Cross section (mm <sup>2</sup> )	Length L (m)
Fork Type	2P	10	1
Pin Type	3P	10	1

### DIN Rail



Model	L(m)
DIN Rail	1



NZK1



## 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  $I_e$ : 32A;
- Rated voltage  $U_e$ : 250V;
- Rated making and breaking capacity:  
1.1 $U_e$ ; 1.25 $I_e$ ;  $\text{COS}\Phi=0.3\pm 0.05$ ; 200 times
- Operational performance:  
 $U_{e0}^{+5\%}I_e$ ;  $\text{COS}\Phi=0.6\pm 0.05$ ; 10000 times



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  $I_e$ : 32A;
- Rated voltage  $U_e$ : 250V;
- Rated making and breaking capacity:  
1.1 $U_e$ ; 1.25 $I_e$ ;  $\text{COS}\Phi=0.3\pm 0.05$ ; 200 times
- Operational performance:  
 $U_{e0}^{+5\%}I_e$ ;  $\text{COS}\Phi=0.6\pm 0.05$ ; 10000 times

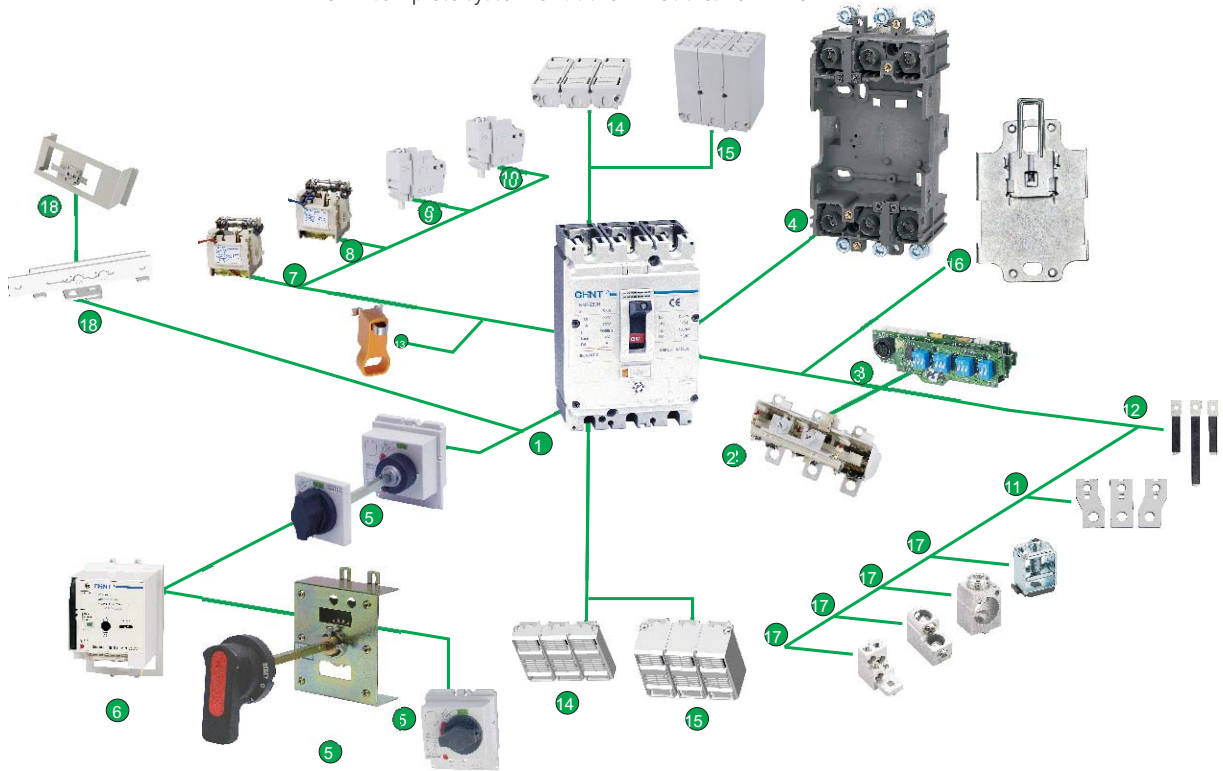


**NM8, NM8S**  
**Adjustable type MCCB**



NM8

- Rated current from 16 to 1250A
- Thermal-magnetic type / Electronic type / Magnetic-only type
- Adjustable thermal & adjustable magnetic trip
- 2P 3P 4P available
- 3-class breaking capacity from 50kA to 150kA
- $I_{cs} = 100\%I_{cu} (I_n \leq 630A)$ ,  $I_{cs} = 50\%I_{cu} (I_n > 630A)$
- 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  $-40^{\circ}C$  to  $+70^{\circ}C$
- A complete system of add-on modules for NM8



1 Body	6 Motor driven operating mechanism	11 Front connection plate	16 DIN rail adaptor
2 Thermo magnetic release	7 Under-voltage release	12 Rear connection plate	17 Cage clamp terminal
3 Electronic release	8 Shunt release	13 Locking system(padlock)	18 Mechanical interlock
4 Plug-in base	9 Alarm contact	14 Short terminal cover	
5 Rotary manual operating handle	10 Auxiliary contact	15 Extended terminal cover	



NM7



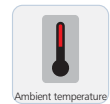
## NM7 Moulded Case Circuit Breaker

### ● General

- Rated operation range 10A~1250A
- Several modes available:
  - 3P, 4P, fixed type, plug-in type,
- Front connection; Rear connection.
- Vertical/horizontal installation
- Standard: IEC 60947-2
- Certificate: KEMA

### ● Operation conditions

- Ambient air temperature
- The upper limit for the ambient air temperature is +40°C, lower limit -5°C, and the average temperature is not higher than +35°C within 24 hours.
- Altitude: not higher than 2000m for the installation site.
- Atmospheric conditions:
  - When the ambient air temperature is +40°C, the relative humidity of the air shall not be higher than 50%; a higher relative humidity is allowed at a lower temperature; for the wettest month, the maximum relative humidity averaged shall be 90% while the lowest temperature averaged in that month +25°C, and the condensation produced due to temperature change shall be taken into consideration.
- Class of pollution: 3



Ambient temperature



Altitude



No Pollution

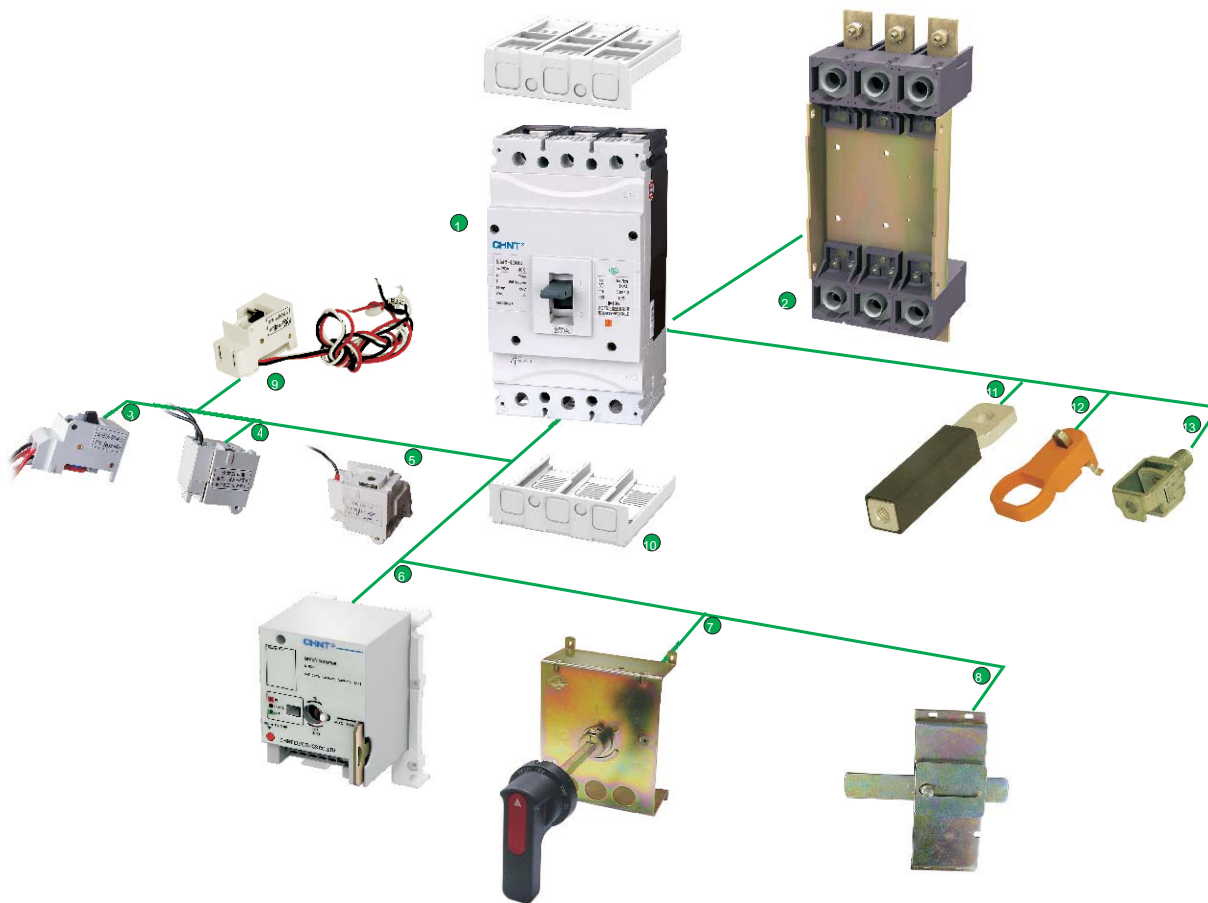


**NM6 NM6S**  
**Moulded Case Circuit Breaker**



NM6

- Rated current from 6 to 1600A
- Thermo-magnetic type, intelligent type
- Frames made of rigid materials of engineering plastics
- 1P, 2P, 3P, 4P available
- Vertical/horizontal installation
- Standard: 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



- |                 |   |                        |                                  |
|-----------------|---|------------------------|----------------------------------|
| 1 Body          | 5 Under-voltage release                       | 8 Mechanical interlock | 11 Rear connection               |
| 2 Plug-in type  | 6 Motor-driven mechanism (both for AC and DC) | 9 Auxiliary contacts   | 12 Blocking devices(padlocks)    |
| 3 Alarm contact | 7 Rotating operating mechanism                | 10 Terminal cover      | 13 Cage type connecting terminal |
| 4 Shunt release |   |                        |                                  |

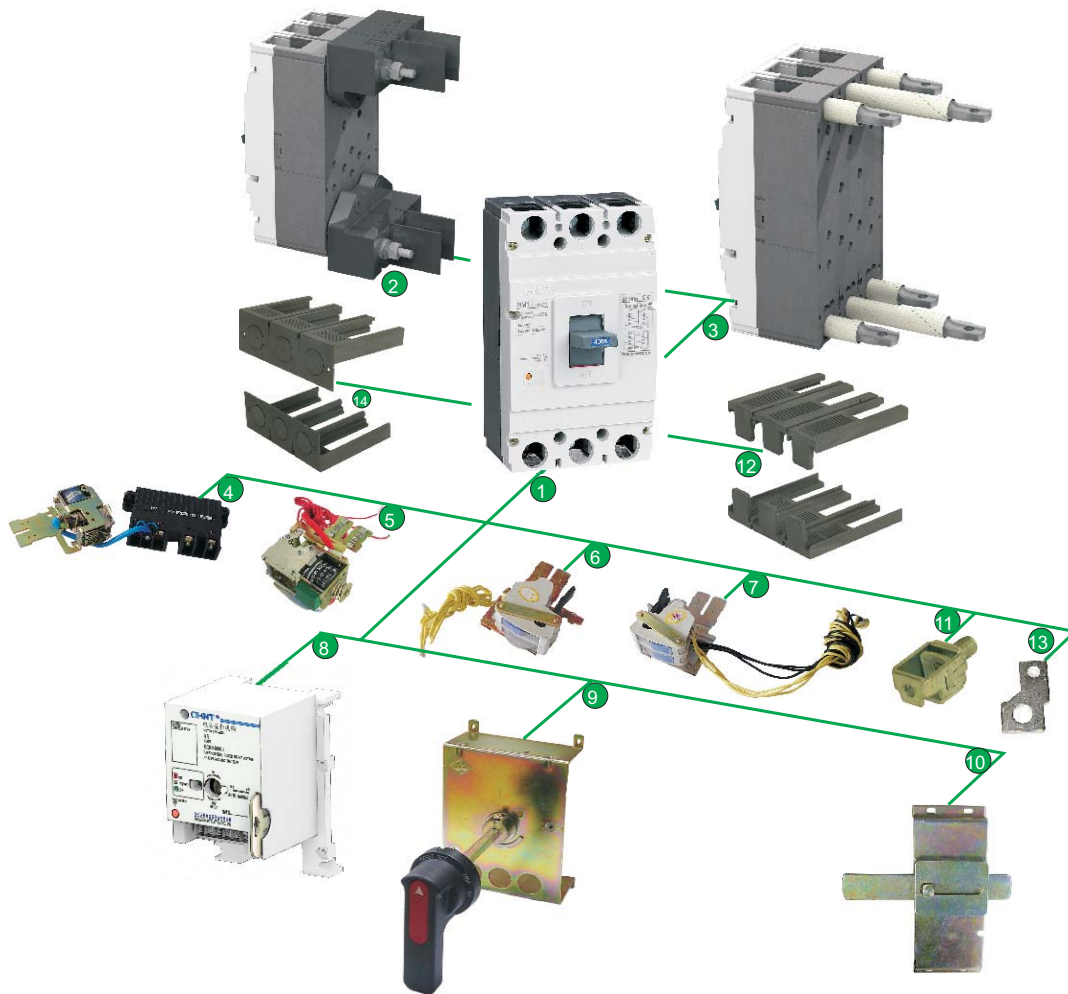




NM1

### NM1 Fixed type MCCB

- Rated current from 10 to 1250A
- Employing a fixed thermal and fixed magnetic trip.
- Frames made of rigid materials of engineering plastics
- Complete range of two, three and four-pole version
- 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
  - IEC/EN 60947-4.1: contactor and motor starters
  - IEC/EN 60947-5.1: and following: control circuit devices and switching elements, 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 +60°C
- A complete system of add-on modules for NM1



- |                         |                     |                                    |                           |
|-------------------------|---------------------|------------------------------------|---------------------------|
| 1 MCCB (fixed type)     | 5 Shunt release     | 8 Motor-driven operation mechanism | 11 Cage clamp terminal    |
| 2 Plug-in type          | 6 Alarm contact     | 9 Extended manual operation handle | 12 Short terminal cover   |
| 3 Rear connection       | 7 Auxiliary contact | 10 Mechanical interlock            | 13 Front connection plate |
| 4 Under-voltage release |                     |                                    |                           |



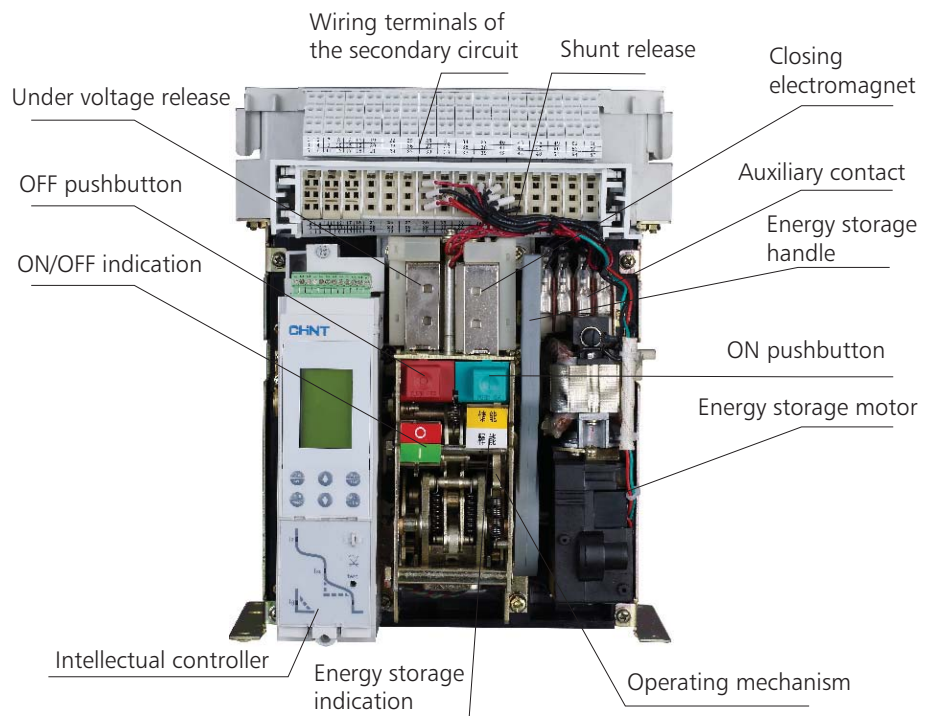
## NA8 Air Circuit Breaker



NA8

### ● General

- Rated current: 200A to 6300A
- Rated operational voltage: AC 400V or 690V (specifications 3200 and 6300 AC 690V in trial production),
- Mainly used in distribution networks
- Frequency: 50Hz
- Class of pollution: 3
- Temperature range from -5°C to +40°C
- Standard: IEC 60947-2



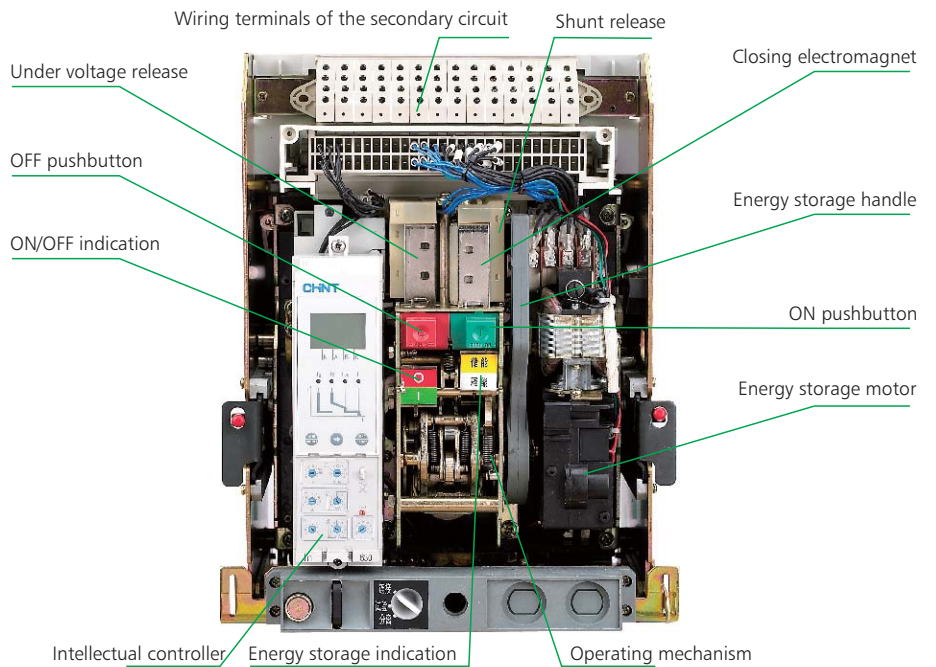
## NA8G Air Circuit Breaker



NA8G

### ● General

- Rated current: 200A to 6300A
- Rated operational voltage: AC 415V, 690V (specifications 3200 and 6300 AC 690V in trial production),
- Mainly used in distribution networks
- Frequency: 50Hz
- Class of pollution: 3
- Temperature range from -5°C to +40°C
- Standard: IEC/EN 60947-2



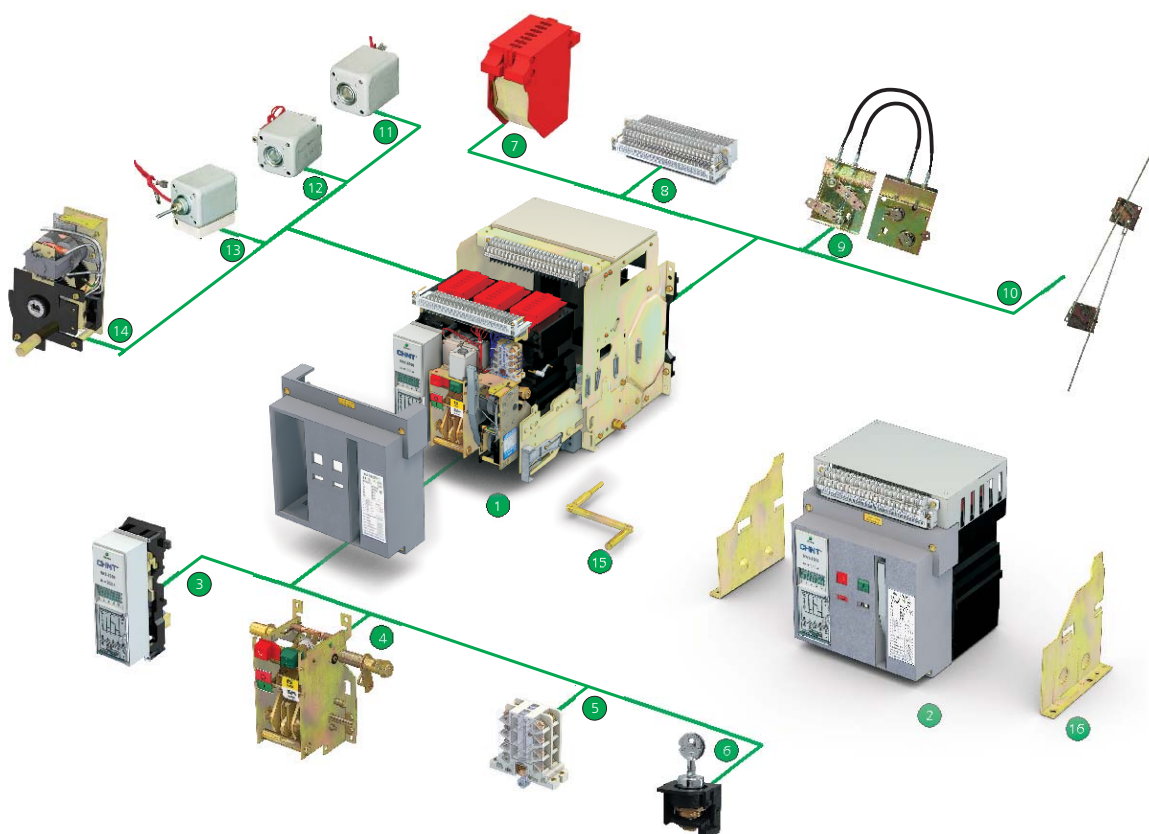


NA1



### 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 +65°C
- A complete system of add-on modules for NA1



1 Drawout type	5 Auxiliary contact	9 Wire-cable mechanical interlock	13 Under-voltage release
2 Fixed type	6 Locking-device	10 Connecting-rod type mechanical interlock	14 Motor-driven energy-storage mechanism
3 Intelligent controller	7 Arcing chamber	11 Shunt release	15 Rotary handle
4 Operating mechanism	8 Secondary connecting part	12 Closing electromagnet	16 Fixed plate



NC8



### NC8 AC Contactor

- 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, 100A, 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  $\pm 22.5^\circ$



NC7

### 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



### NC6 Contactor



NC6

- The NC6 Series Mini Contactor is used in remote motor ( $\leq 4kW$ ) control application.
- Rating up to 690V, 9A (AC3). ----- (06A, 09A)
- Standard: IEC/EN 60947-4-1
- Two kinds of mounting available: Normal type (without pins); Pin type (with pins)
- Ambient temp:  $-5 \sim 40^\circ C$
- 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



NC1

- The NC1 Series Contactor is used in remote motor ( $\leq 45kW$ ) control application.
- Rating up to 690V, 95A (AC3). ----- (09A, 12A, 18A, 25A, 32A, 40A, 50A, 65A, 80A, 95A)
- Standard: IEC/EN 60947-4-1
- Ambient temp:  $-5 \sim 40^\circ C$
- 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 (2NO & 2NC)  
 F4-13 & F4-31 (1NO & 3NC or 3NO & 1NC)  
 F4-40 & F4-04 (4NO or 4NC)
- 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-N

### NC1-N Changeover & Reversal Contactor

- The NC1-N Series Changeover & Reversal Contactor is used in remote motor ( $\leq 45\text{kW}$ ) control application.
- Rating up to 690V, 95A (AC3). ----- (09A, 12A, 18A, 25A, 32A, 40A, 50A, 65A, 80A, 95A)
- Standard: IEC/EN 60947-4-1
- Ambient temp:  $-5 \sim 40\text{ }^\circ\text{C}$
- Coil voltage (AC): 24V, 36V, 48V, 110V, 127V, 220V, 230V, 380V, 415V, 440V, 480V, 500V, 600V, 660V



NC2

### NC2 Contactor

- The NC2 Series Contactor is used in remote motor ( $\leq 450\text{kW}$ ) control application.
- Rating up to 690V, 800A (AC3). ----- (115A, 150A, 185A, 225A, 265A, 330A, 400A, 500A, 630A)
- Standard: IEC/EN 60947-4-1
- Ambient temp:  $-5 \sim 40\text{ }^\circ\text{C}$
- Coil voltage (AC): 110V, 127V, 220V, 230V, 380V, 400V;
- Top mounting auxiliary contacts: F4-20 & F4-02 (2NO & 2NC)  
F4-13 & F4-31 (1NO & 3NC or 3NO & 1NC)  
F4-40 & F4-04 (4NO or 4NC)
- 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.



NC2-N

### NC2-N Changeover & Reversal Contactor

- The NC2-N Series Changeover & Reversal Contactor is used in remote motor ( $\leq 450\text{kW}$ ) control application.
- Rating up to 690V, 800A (AC3). ----- (115A, 150A, 185A, 225A, 265A, 330A, 400A, 500A, 630A)
- Standard: IEC/EN 60947-4-1
- Ambient temp:  $-5 \sim 40\text{ }^\circ\text{C}$
- Coil voltage (AC): 110V, 127V, 220V, 230V, 380V, 400V



NCK3

### NCK3 DP Contactor

- The NCK3 Series DP Contactor is used in remote motor of air-conditioner (<60HP) control application.
- Rating up to 690V, 90A (AC3). ----- (25A, 30A, 32A, 40A, 50A, 60A, 75A, 90A)
- Standard: IEC/EN 60947-4-1
- Poles: 1P, 1P+N, 2P, 3P
- Ambient temp: -5 ~ 40 °C
- Coil voltage (AC): 24V, 110/120V, 220/240V.



NCH8

### NCH8 Modular AC Contactor

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



CJ19

### CJ19 Capacitor Switching Contactor

- The CJ19 Series Contactor is used in remote capacitor ( $\leq 50$ kvar) switch application.
- Rating up to 400V, 95A (AC3). ----- (25A, 32A, 43A, 63A, 95A)
- Standard: IEC/EN 60947-4-1
- Ambient temp: -5 ~ 40 °C
- Coil voltage (AC): 24V, 36V, 48V, 110V, 127V, 220V, 230V, 380V, 415V, 440V, 480V, 500V, 600V, 660V
- CJ19-25: Rating current 25A (AC3/400V);  
Power of controlled capacitor  $\leq 12$ kvar.
- CJ19-32: Rating current 32A (AC3/400V);,  
Power of controlled capacitor  $\leq 18$ kvar.
- CJ19-43: Rating current 43A (AC3/400V);  
Power of controlled capacitor  $\leq 20$ kvar.
- CJ19-63: Rating current 63A (AC3/400V);  
Power of controlled capacitor  $\leq 30$ kvar.
- CJ19-95: Rating current 95A (AC3/400V);  
Power of controlled capacitor  $\leq 50$ kvar.



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

### NRE8 Electronic Overload Relay

- 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 60947-5-1
- Ambient temp: -5 ~ 40 °C
- Assemble with Contactor NC1, NC2 to be a DOL Starter.



NR2

### NR2 Thermal Overload Relay

- The NR2 Series Thermal Overload Relay is used in remote motor control application for overload function.
- Rating up to 690V, 630A (AC3). ----- (11.5A, 25A, 36A, 93A, 150A, 200A, 630A)
- Standard: IEC/EN 60947-5-1
- Ambient temp: -5 ~ 40 °C
- Assemble with Contactor NC1, NC2 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). ----- (0.1~1.16A, 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, 16~25A, 25~40A, 40~63A, 56~80A)
- Standard: IEC/EN 60947-2, IEC/EN 60947-4-1
- Ambient temp: -5 ~ 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)



NQ2

### NQ2 Direct On-line Motor Starter

- The NQ2 Series DOL Motor Starter is used in remote motor ( $\leq 15\text{kW}$ ) start & control application.
- Rating up to 400V, 32A (AC3).----- (12A, 18A, 25A, 32A)
- Standard: IEC/EN 60947-4-1
- Ambient temp: -5 ~ 40 °C
- Coil voltage (AC): 110V, 127V, 220V, 230V, 380V, 400V;  
NQ2-15/1(P, N, NB): Rating current 12A (AC3),  
Motor power (start & control)  $\leq 5.5\text{kW}$   
NQ2-15/2(P, N, NB): Rating current 18A (AC3),  
Motor power (start & control)  $\leq 7.5\text{kW}$   
NQ2-15/3(P, N, NB): Rating current 25A (AC3),  
Motor power (start & control)  $\leq 11\text{kW}$   
NQ2-15/4(P, N, NB): Rating current 32A (AC3),  
Motor power (start & control)  $\leq 15\text{kW}$   
Note: P (with pushbutton), N (reversing), NB (reversing but without thermal relay)



NQ3

### NQ3 DOL Electromagnetic Starter

- The NQ3 Series DOL Motor Starter is used in remote motor ( $< 11\text{kW}$ ) start & control application.
- Rating up to 400V, 22A (AC3). ----- (12A, 32A)
- Standard: IEC/EN 60947-4-1
- Ambient temp: -5 ~ 40 °C
- Coil voltage (AC): 110V, 127V, 220V, 230V, 380V, 400V;  
NQ2-5.5P: Rating current 12A (AC3),  
Motor power (start & control)  $< 5.5\text{kW}$  (400V)  
NQ2-11P: Rating current 32A (AC3),  
Motor power (start & control)  $< 11\text{kW}$  (400V)  
Note: P (with pushbutton)



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 IP54; Drill plan: Φ22mm
- Electrical endurance: 100 × 10<sup>3</sup> circles for Flush & mushroom head type;  
1000 × 10<sup>3</sup> circles for Flush & mushroom other head type;
- Ambient temp: -5 ~ 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 × 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 ~ 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.



NP6



**NP6 Pushbutton**

- The NP6 Series Pilot Device is used in remote circuit control and indication.
- Rating up to 110V, 0.7A (AC-15) or 24V, 0.7A (DC-13)
- Standard: IEC/EN 60947-5-1
- IP40; Drill plan: Φ16mm
- Electrical endurance: 500 × 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 ~ 40 °C
- Button: Either Momentary or Maintained type available
- Head available: Flush head, Mushroom head, selector 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 IP54/40;
- Electrical endurance: 500 × 10<sup>3</sup> circles for Flush & mushroom head type;  
1000 × 10<sup>3</sup> circles for Flush & mushroom other head type;
- Ambient temp: -5 ~ 40 °C
- Electrical endurance: 100 × 10<sup>3</sup> circles for Flush & mushroom head type;  
1000 × 10<sup>3</sup> circles for Flush & mushroom other head type.



### NP3 Pushbutton



NP3

- The NP3 Series Pilot Device is used in remote circuit control.
- Rating up to AC 380V or DC 220V
- Standard: IEC/EN 60947-5-1
- IP65;
- Electrical endurance:  $500 \times 10^3$  circles for Flush & mushroom head type;
- Ambient temp:  $-5 \sim 40$  °C
- Button: Momentary type available

↑	Up	↓	Down
←	Left	→	Right
↖	Front	↗	Back
⌚	Clock-wise	⌚	Anti-clock wise
⌚	Slow	⌚	Fast

- NP3-1 (↑, ↓);
- NP3-1A (ON/OFF, ↑, ↓)
- NP3-1K (ON/Emergency Stop, ↑, ↓);
- NP3-2 (↑, ↓, ←, →);
- NP3-2A (ON/OFF, ↑, ↓, ←, →)
- NP3-2K (ON,/Emergency Stop, ↑, ↓, ←, →);
- NP3-3 (↑, ↓, ←, →, ↖, ↗);
- NP3-3A (ON/OFF, ↑, ↓, ←, →, ↖, ↗)
- NP3-3K (ON/Emergency Stop, ↑, ↓, ←, →, ↖, ↗);
- NP3-4 (↑, ↓, ←, →, ↖, ↗, ⌚, ⌚);
- NP3-4A (ON/OFF, ↑, ↓, ←, →, ↖, ↗, ⌚, ⌚)
- NP3-4K (ON/Emergency Stop, ↑, ↓, ←, →, ↖, ↗, ⌚, ⌚);
- NP3-4 (↑, ↓, ←, →, ↖, ↗, ⌚, ⌚, ⌚, ⌚)



### ND16 Indicator Light



ND16

- The ND16 Series Indicator is used in remote indication.
- Rating up to 400V (AC/DC)
- Standard: IEC/EN 60947-5-1
- IP65;
- Drill plan:  $\Phi 22$ mm
- Electrical endurance:  $30 \times 10^3$  Hours
- Ambient temp:  $-5 \sim 40$  °C
- Head colors available: Red Black Green Blue Yellow;
- ND16-22A(S)/2: For AC/DC application, Flat-platform lampshade;
- ND16-22A(S)/4: For AC application, Flat-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)/4: For AC application, Arc-surface round lampshade;
- Note: (S) for compact type.

### ND16 Buzzer

- ND16-22BK, ND16-22F, ND16-22FS
- ND16-22L, ND16-22LC, ND16-22S



NVF2

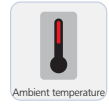
### NVF2 Inverter

● **General**

- NVF2 series inverter is a high-performance open-loop vector inverter of self-developed. It features high starting torque (0.5Hz, 1.5 times rated torque), high overload capacity, convenient operation and forward and reverse PID control.
- It has smaller volume and good environmental adaptability.
- This series includes two types of frequency converters, constant torque type and fan and pump type, and features good load adaptability, stable and reliable operation and automatic energy-saving operation. The products are widely used in electric drive and automation control fields, such as paper making, textile, water supply, municipal administration, food, cement, printing and dyeing and plastic machinery.
- The products are designed and tested in accordance with International standards and tested by simulating the actual service conditions.

● **Technical features**

- Voltage class: 2: 200V series; 4: 400V series
- Input voltage: D: single-phase input; S: three-phase input
- Model: T: constant torque type; P: fan and pump type
- Standard: IEC/EN 61800-2



Ambient temperature



Altitude



No Radiation



No Water spraying



No Pollution



No Direct Sunshine



NJR2

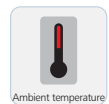
### NJR2 Soft-Starter

● **General**

- NJR2 series soft-starter is especially designed to control high-power thyristor modules and enable soft starting & stopping of (squirrel cage) three-phase AC asynchronous motors.
- It has optional protection functions such as overload, input phase loss, output phase loss, process over-current, process under-current, over-voltage and under-voltage.

● **Technical features**

- Power Voltage: 3-phase AC380V±15%, 50Hz/60Hz±2%
- Starting Current: 1~ 5 times starting current limited.
- Ramp Falling Time: (1~240)s
- Soft starting Reference Voltage: 25%Ue~75%Ue
- Kick Start Time: 0~10(×0.1) (0 for kickless start)
- Starting Frequency: up to 10 times at even interval per hour



Ambient temperature



Altitude



Well-designed ventilation



NJB1-YW

### NJB1-YW Floatless Relay

- NJB1-YW Floatless Relay is applicable for water level automatic control in industrial facilities & equipments, civil water tower, high cistern, underground conservation pool, etc.
- The control of automatic water supply or drainage may be achieved by a single operation of the function switch without modifying the user's connection conditions.
- This product is not applicable for water level control of flammable and explosive liquid, such as oil, chemical liquid, etc.



NJB1-X

### NJB1-X Relay (Three-Phase Unbalance, Phase Sequence, Phase Failure Protection)

- NJB1-X relay (hereinafter called relay) are applied in AC380V~480V control circuits at a frequency of 50Hz/60Hz as protection elements of phase sequence, phase failure and phase unbalance, making or breaking circuits.
- The relay with the true effective value of three phase AC voltage provides more reliable operating protection. The products meet the requirements of standard IEC 60947-5-1.



NJB1-X1

### NJB1-X1 Relay (Phase Sequence, Phase Failure Protection)

- NJB1-X1 relay (phase sequence, phase failure protection) is used as a phase sequence and phase failure protection device in control circuits with an AC voltage of 200V~500V and a frequency of 50Hz to make and break the circuit.
- It cannot monitor the phase failure of motor load.
- The products meet the requirement of standard IEC 60947-5-1



NJB1-Y

### NJB1-Y Single-Phase Voltage Relay

- NJB1-Y single phase voltage relays (hereinafter the relay for short) are applied in AC 220V, 110V, 24V, frequency 50Hz (or 60Hz) and DC 24V control circuits as single phase over-voltage protection or under-voltage protection and indication elements, making or breaking circuits as intended operating values and time.
- The product are in compliance with requirements of standard IEC 60947-5-1



NJB1-S

### NJB1-S Time Delay Relay

- NJB1-S Series Monitoring Protection Relay is applicable for controlling circuit @ A.C. 50Hz/ 60Hz, up to 380V rated supply voltage and up to D.C.24V supply voltage as monitoring protection element to make or break circuit according to preset value.
- NJB1-S time-delay relay is used in controlling circuit as time delay element to make or break circuit according to preset time.



NJBK2

### NJBK2 Motor Protection Relay

- NJBK2 series motor protection relay (hereinafter referred to protector as simply) is applicable for overload, locked-rotor, phase-failure, three phase current unbalance, earthing and PTC temperature protection of AC motor @ A.C.50Hz, less than 660V rated operating voltage and 2A ~ 800A rated operating current for its continuous working or discontinuous working.
- This product meets the requirements of IEC 60947- 4-1



NJBK5

### NJBK5 Motor Controller

- NJBK5 series motor controller (hereinafter referred to as controller) is mainly used in circuits with a frequency of AC 50Hz (or 60Hz), a rated operational voltage of up to 380V and a rated control power of up to 11kW (current up to 22A) to control the direct start and stop of water pumps or motors, provide motors with overload and phase failure protection, and realize automatic liquid level control for civil water towers and reservoirs.
- This product is not applicable to the liquid level control of low-conductivity liquids, such as oil, purified water, inflammable and explosive chemical liquids and high-density sewage.
- Standards: IEC 60947-4-1.



NJBK5-5

### NJBK5-5 Motor Controller

- NJBK5-5 motor controller (hereinafter referred to as controller) is mainly used in circuits with a frequency of AC 50Hz/60Hz, a rated operational voltage of up to 220V and a rated control power of up to 2.2kW (current up to 20A) to control the direct start and stop of single-phase water pumps, provide overload and underload protection (pump runaway protection), and realize automatic liquid level control for civil water towers and reservoirs.
- This product is not applicable to the liquid level control of oil, purified water, inflammable and explosive chemical liquids, corrosive liquids and high-density sewage.
- Standards: IEC 60947-4-1



NJBK6

### NJBK6 Motor Protection Relay

- NJBK6 series motor protection relay is used to provide overload, phase failure, three-phase current unbalance and locked rotor protection for AC motors with a frequency of AC 50Hz, a rated insulation voltage of below 690V and a rated operational current of 1A~36A that operate continuously or intermittently.
- Standards: IEC 60947-4-1

### NJBK7 Motor protection delay



NJBK7

- NJBK7 series motor protection relay (hereinafter referred to as protector) is used to provide overload, locked rotor, phase failure, three-phase current unbalance, ground and PTC temperature protection for AC motors with a frequency of AC 50Hz, a rated insulation voltage of up to 690V and a rated operational current of 80A-800A that operate continuously or intermittently.
- The protector uses flexible Rogowski coil to acquire current and features wide setting current range, high accuracy and convenient installation. The protector has RS485 interface and 4mA-20mA analog transmission interface, permits network communication and can realize remote monitor and control and fault inquiry of motors by means of upper computer. The protector is generally used in combination with AC contactor.
- Standards: GB 14084.4, IEC 60947-4-1

### NJBK9 Motor protection relay



NJBK9

- NJBK9 series motor protection relay (hereinafter referred to as "Pro-tercer") is used for overload protection, locked rotor protection, phase failure protection, three-phase unbalance protection, grounding protection and PTC temperature protection for AC electromotors of a frequency of 50Hz with a rated insulation voltage of up to 690V and a rated operating current of 1A-200A during long-term and discontinuous operation.
- This protector is provided with RS485 interface and 4-20mA current loop transmitter interface for network communication and performs remote monitor & control on the motor and fault query through upper computer.
- This protector is usually used to combine with AC contactor.
- Standards: IEC 60947-4-1

### NJXB3 Relay



NJXB3

- NJXB3 relay is used as an overvoltage, undervoltage, phase failure, phase sequence, three-phase voltage unbalance and PTC temperature protection device in three-phase three-wire control circuits with an AC voltage of 380V and a frequency of 50Hz and three-phase four-wire control circuits with an AC voltage of 220V and a frequency of 50Hz to make and break the circuit.

### NJYB3 Relay



NJYB3

- NJYB3 relay is used to provide overvoltage, undervoltage, phase failure, phase sequence and three-phase unbalance control in three-phase three-wire 380V circuits and three-phase four-wire 220V circuits with a frequency of AC 50Hz. For example, it is used for power control systems, air conditioning systems and motors.
- This relay is a voltage protection relay. After detecting the voltage signal, the relay processes the input signal, judges if there is an overvoltage, undervoltage, phase failure, error-phase or unbalance and controls the operation accurately and stably by means of the built-in microprocessor.



JD-5A(NJBK3)

### JD-5A(NJBK3) Integrated Motor Protector

- JD-5A(NJBK3)Integrated Motor Protector (hereinafter referred to as protector) is applicable for overload, phase failure and three-phase current unbalance protection of AC motor @ A.C.50Hz, less than AC400V rated operating voltage and 1A~400A rated operating current for its continuous working or discontinuous working.
- Protector and AC contactor are generally used cooperatively.
- This product meets the requirements of IEC 60947-4-1.



JD-5

### JD-5 Motor Integrated Protector

- JD-5 Motor Integrated Protector (hereinafter referred to as protector) is applicable for overload and phase-failure protection of AC motor @ A.C.50Hz, less than AC400V rated operating voltage and 0.5A~400A rated operating current for its continuous working or discontinuous working. Protector and AC contactor are generally used cooperatively.
- This product meets the requirements of IEC 60947- 4-1.



NJYB1

### NJYB1 Phase-Failure and Phase-Sequence Protection Relay

- This product is applicable in operating console of facilities for motor protection, circuit protection and controlling large size motor.
- It can detect fault state as overvoltage, undervoltage, phase-failure and phase-sequence through advanced electronic circuit check, and provide reliable protection.



XJ3

### XJ3 Phase-Failure and Phase-Sequence Protective Relay

- XJ3 series phase failure and phase sequence protection relay is used to provide overvoltage, undervoltage and phase failure protection in three-phase AC circuits and phase sequence protection in irreversible transmission devices and features reliable performance, wide application and convenient use.
- The protector starts to function when it is connected to the power control circuit in accordance with the drawing.
- When the fuse of any phase of the three-phase circuit is open or when there is a phase failure in the power supply circuit, the XJ3 operates immediately to control the contact to cut off the power supply of the AC contactor coil of the main circuit so that the main contact of the AC contactor operates to provide the load with phase failure protection.
- When the phases of a three-phase irreversible device with predetermined phase sequence are connected incorrectly due to maintenance or change of the power supply circuit, the XJ3 series will identify the phase sequence, stop supplying power to the power supply circuit and achieve the goal of protecting the device.





NJS6

### NJS6 Time Delay Relay

- NJS6 series time delay relay (hereinafter referred to as relay) is used as a time control element in control circuits with an AC voltage of 240V or below and a frequency of 50Hz and control circuits with a DC voltage of 240V or below to make and break the circuit according to the schedule.



NJS2

### NJS2 Time Delay Relay

- NJS2 Series Time Relay is applicable for controlling circuit @ A.C. 50Hz/60Hz, up to 240V rated supply voltage and up to D.C. 240V rated supply voltage as delay element to make or break circuit according to preset time.



NJS1

### NJS1 Time Delay Relay

- NJS1 Series Time-Delay Relay is applicable for controlling circuit @ A.C. 50Hz/60Hz, up to 380V rated voltage or up to D.C.220V rated voltage as delay element to make or break circuit according to preset time.



NTE8

### 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.



JSS48A

### 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 value.



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.



JSZ3

### 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.



JSZ4

### JSZ4 Time Relay

- Model: JSZ4-YA, JSZ4-NA
- Operating mode: On-delay or on-delay with instantaneous acting
- Contact capacity: Ue/Ie: AC-15 220V/0.75A, 380V/0.47A; DC-13 220V/0.27A; Ith:5A
- Operational voltage: AC50Hz 36V, 110V, 220V, 380V DC24V; (Other voltages available upon request)
- Electrical life:  $1 \times 10^5$
- Mechanical life:  $1 \times 10^6$
- Delay accuracy:  $\leq 10\%$
- Ambient temperature:  $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$
- Mounting type: Panel type, installation type



JSZ6

### 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.



NJJ1

### NJJ1 Counting Relay

- NJJ1 Counting Relay is applicable for controlling circuit @A.C. 50Hz/60Hz, 240V rated voltage of control power supply and D.C. 240V rated voltage of control power supply as counting or counting control element.



NJJ3

### NJJ3 Counting Relay

- NJJ3 Counting Relay is applicable for controlling circuit @ A.C. 50Hz/60Hz, 240V rated voltage of control power supply and D.C. 240V rated voltage of control power supply as counting or counting control element.



NJJ5-J

### NJJ5-J Electronic Counter

- This product adopts microminiature design and is applicable for counting in various circuits.
- Rated voltage AC50Hz/60Hz AC/DC100V-240V, DC24V
- Current failure memory: >10 years
- Power consumption: About 1.5VA
- Installation mode: Panel type
- Ambient temperature: -5°C ~ +40°C



NJJ5-L

### NJJ5-L Electronic Time Accumulator

- This product adopts microminiature design and is applicable for accumulating time in various circuits.



NJJ6

### NJJ6 Counting Relay

- NJJ6 counting relay is used to provide counting and counting control in control circuits with an AC frequency of 50Hz and a rated control voltage of up to 240V and control circuits with a DC rated control supply voltage of up to 240V.



JDM15G

### JDM15G Counting Relay

- JDM15G counting relay is used as a counting or counting control element in control circuits with an AC frequency of 50Hz and a rated control supply voltage of up to 240V and control circuits with a DC rated control supply voltage of up to 240V.



JDM1-48

### JDM1-48 Counting Relay

- JDM1 series counting relay is used as a counting or counting control element in control circuits with an AC frequency of 50Hz and a rated control supply voltage of up to 380V and control circuits with a DC rated control supply voltage of up to 240V.



JDM3

### JDM3 Microminiature Electronic Counter

- JDM3 microminiature electronic counter has built-in lithium battery and small overall dimensions and is used to provide counting in various types of circuits.



SC3L

### SC3L Microminiature Electronic Time Accumulator

- SC3L microminiature electronic time accumulator has built-in lithium battery and small overall dimensions and is used to provide time accumulation in various types of circuits.



NKG3

### NKG3 Time Control Switch

- NKG3 time control switch (hereinafter referred to as time control switch) is used in automatic control circuits with a frequency of AC 50Hz, 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.



NKG2

### NKG2 Time Control Switch

- NKG2 time control switch (hereinafter referred to as time control switch) is used in automatic control circuits with a frequency of AC 50Hz, a rated control supply voltage of up to 220V and a rated operational current of 0.75A to provide timed on-off control for street lamps, advertising lamps and similar equipment.



NKG1

### NKG1 Time Switch

- NKG1 Time Switch is control element with time as control unit and can automatically turn on or turn off power supply of various consumer equipments according to preset time by user. The controlled objects are circuit equipments and household appliances such as street lamps, neon lamps, advertising lamps, manufacturing equipments, broadcast & television equipments, etc., which requires turning on and off at definite time.



KG10D

### KG10D Time Switch

- KG10D Microcomputer Time Switch can automatically turn on or turn off power supply of various consumer equipments according to preset time by user.
- The controlled objects are circuit equipments and household appliances such as street lamps, neon lamps, advertising lamps, manufacturing equipments, broadcast & television equipments, etc., which requires turning on and off at definite time.



KG10M

### KG10M Time Switch

- KG10M Time Switch can automatically turn on or turn off power supply of various consumer equipments according to preset time by user. The controlled objects are circuit equipments and household appliances such as street lamps, neon lamps, advertising lamps, manufacturing equipments, broadcast & television devices etc., which requires turning on and off at definite time.



KG316T

### KG316T Time Switch

- KG316T Time Switch can automatically turn on or turn off power supply of various consumer equipments according to preset time by user. The controlled objects are circuit equipments and household appliances such as street lamps, neon lamps, advertising lamps, manufacturing equipments, broadcast & television equipments, etc., which requires turning on and off at definite time.



NJYW1

### NJYW1 Floatless Relay

- NJYW1 Series Floatless Relay is used in control circuit @A.C. 50Hz/60Hz, up to 380V rated supply voltage for liquid level automatic control at places of civil water tower, high cistern, and underground conservation pool, etc.
- It is capable to realize automatic water supply control or water drainage control according to wiring requirement of user.
- This product is not applicable for level control for liquid with poor conductivity such as oil, pure water, flammable & explosive chemical liquid and high density sewage, etc.



JYB-714

### JYB-714 Floatless Relay

- JYB-714 Series Floatless Relay is used in liquid level automatic control circuit @ AC 50Hz/60Hz, up to 380V rated supply voltage for liquid level automatic control at places of civil water tower, high cistern, and underground conservation pool etc.



Socket

### Time Relay Socket

- Various kinds of socket for different relays



NJX-13FW



**NJX-13FW Miniature Power Relay**

- 3A, 5A, 10A switching capacity
- Wide range of coil ratings
- Fully sealed
- Certificate: CE, UL



JQX-13F



**JQX-13F Miniature High-power Electromagnetic relay**

- Contact switching capability of 10A; a complete range of AC/DC specifications; enclosed in transparent dust cover, a variety of mounting types; various sockets available;
- Specifications with state indicators available;
- Certificate: CQC 03001003918, UL E205607, CE;
- Models of the same type: LY2(N), HH62P(-L).



JZX-22F



**JZX-22F Miniature Power Relay**

- 3A, 5A switching current
- Various sockets available
- With indicator to be selected
- Full range of AC and DC coil
- Certificate: CE, UL



JQX-10F



**JQX-10F Miniature power relay**

- 10A switching current
- Various sockets available
- Wide range of coil ratings
- Certificate: CE, UL





JTX



### JTX Miniature power relay

- 10A switching current
- Various sockets available
- Wide range of coil ratings
- Certificate: CE, UL



JMK



### JMK Miniature power relay

- 10A switching current
- With indicator to be selected
- Full range of AC and DC coil
- Certificate: CE, UL



NJMC1

### NJMC1 pulse relay

- Contact switching current of up to 16A and 32A; a complete range of AC/DC specifications; in conformity with GB/T 21711.1;
- NJMC1 pulse relay is a mechanical bistable relay that changes the contact state by inputting pulse signals.
- Therefore, in comparison with common relays which remain on when the armature is closed, pulse relay features a low power consumption.



Socket

### Power Relay Socket

- Various kinds of socket for different relays



BZMJ

### BZMJ Self-healing Shunt Capacitor

- Electric ratings:  $\leq$ AC1000V;
- Application: For improvement of power factor and power quality;
- Standards: IEC/EN 60831-1:1996
- Rated capacity: 1~60kvar
- Capacity error: -5~+10%
- Filling with innocuous substance



NWC1

### NWC1 Self-healing Shunt Capacitor

- Electric ratings:  $\leq$ AC1000V;
- Application: For improvement of power factor and power quality;
- Standards: IEC/EN 60831-1: 1996
- Rated capacity: 5~40kvar
- Capacity error: -5~+10%;
- Filling with innocuous substance



NWC5

### NWC5 Self-healing Shunt Capacitor

- Electric ratings:  $\leq$ AC1000V;
- Application: Newly developed energy-saving product for improvement of power factor and power quality;
- Standards: IEC/EN 60831-1: 1996
- Rated capacity: 10~25kvar
- Capacity error: -5~+10%
- Filling with innocuous substance



JKF8

### JKF8 Intelligent Low-voltage Reactive Power Compensation Controller

- JKF8 Intelligent Low-Voltage Reactive Power Compensation Controller (hereinafter referred to as "controller") is a dedicated controller which can make compensations for the reactive power of low voltage distribution system.
- Operation voltage:  $400 \pm 10\%$



NDK

### NDK Control Transformer

- Electric ratings: AC 50Hz/60Hz;
- Application: for control power supply of apparatus, partial illumination and indicator light of machine tool and other mechanic equipments.
- Standards: IEC/EN 61558.
- Maximum capacity: 5kVA



JBK5

### JBK5 Control Transformer

- Application: JBK5 series control transformers are suitable for AC circuit of 50Hz/60Hz, used as control sources for various mechanical equipment and general electrical appliances, and used as power supplies for work lighting and signal lamps.
- Standards: IEC/EN 61558.
- Maximum capacity: 2500VA



JBK6

### JBK6 Control Transformer

- Application: JBK6 series control transformers are suitable for AC circuit of 50Hz/60Hz, used as control sources for various mechanical equipment and general electrical appliances, and used as power supplies for work lighting and signal lamps.
- Standards: IEC/EN 61558.
- Maximum capacity: 3000VA



SG

### SG Three-phase Air-immersed Transformer

- Application: SG series Three-phase Air-immersed Transformer, is natural cooling indoor, it is applicable to the circuit of AC 50Hz~60Hz, 1000V and below.
- It can be used in control power of machine tool and mechanical equipment small type power as well as work lighting and signal lamp power.
- Output capacity: 20kVA



BH-0.66 I



### BH-0.66 I Current Transformer

- For busbar and cable
- To be used in combination, with measurement instruments: ammeters, watt-hour meters, measurement units, control relays, etc.
- Max. voltage rating Ue: 660 V
- Secondary current Isn: 5A
- Instrument security factor (FS): 10
- Standards: IEC/EN 60044-1



BH-0.66 II



### BH(SDH)-0.66 II Current Transformer

- For busbar
- To be used in combination with measurement instruments: ammeters, watt-hour meters, measurement units, control relays, etc.
- Max. voltage rating Ue: 660 V
- Secondary current Isn: 5A
- Instrument security factor (FS): 10
- Standards: IEC/EN 60044-1



BH-0.66III



### BH-0.66III Current Transformer

- For busbar and cable
- To be used in combination with measurement instruments: ammeters, watt-hour meters, measurement units, control relays, etc.
- Max. voltage rating Ue: 660 V
- Secondary current Isn: 5A
- Instrument security factor (FS): 10
- Standards: IEC/EN 60044-1



RCT

### RCT Current Transformer

- To be used in combination with measurement instruments: ammeters, watt-hour meters, measurement units, control relays, etc.
- Max. voltage rating  $U_e$ : 660 V
- Secondary current  $I_{sn}$ : 5A
- Instrument security factor (FS): 10
- Standards: IEC/EN 60044-1



MES

### MES Current Transformer

- To be used in combination with measurement instruments: ammeters, watt-hour meters, measurement units, control relays, etc.
- Max. voltage rating  $U_e$ : 660 V
- Secondary current  $I_{sn}$ : 5A
- Instrument security factor (FS): 10
- Standards: IEC/EN 60044-1



JDZ-1

### JDZ-1 Potential Transformer

- Adopting the value of voltage on the primary to the characteristics of metering or protection devices by supplying a secondary voltage that is proportional and lower;
- Used in combination with measurement instruments: ammeters, watt-hour meters, measurement units, control relays, etc.
- Max. voltage rating  $U_e$ : 1.14kV
- Standards: IEC/EN 60044-2



JDG4-0.5

### JDG4-0.5 Potential Transformer

- Adopting the value of voltage on the primary to the characteristics of metering or protection devices by supplying a secondary voltage that is proportional and lower;
- Used in combination with measurement instruments: ammeters, watt-hour meters, measurement units, control relays, etc.
- Max. voltage rating  $U_e$ : 0.5kV
- Standards: IEC/EN 60044-2



TDGC2, TDGC2J  
TSGC2, TSGC2J

### TDGC2, TDGC2J Single-phase Contact Voltage Regulator TSGC2, TSGC2J Three-phase Contact Voltage Regulator (Variable Transformer)

- TDGC2, TDGC2J, TSGC2, TSGC2J type contact voltage regulators are of dry type and self-cooling automatic coupling mode, can be widely applied to industries (metallurgy, chemical, instruments and meters, electromechanical manufacturing, light industry, etc.), scientific experiments, public facilities, household electrical appliances and so on to realize voltage regulation, temperature control, light adjustment, powercontrol, etc.
- Standards: IEC/EN 61558.
- Rated capacity: 0.2 KVA~60KVA
- Rated output current: 0.8A~80A



TND1/TNS1(SVC)

### TND1 (SVC) Single-phase Automatic Voltage Regulator TNS1 (SVC) Three-phase Automatic Voltage Regulator

- TND1/TNS1(SVC) series full-automatic AC voltage regulator collects sample and amplifies it and automaticly control circuit, and drives the servomotor to rotate the rocker arm and brush in required direction, and finally adjusts the output voltage to the rated value, finally reaches the aim of stabilizing the voltage.
- Elegant appearance, compact structure, light weight, low power waste, complete protection functions, stable and reliable, low output waveform distortion and so on.
- Ambient temperature: -15°C ~ +45°C.
- Relative humidity ≤90%(at +25°C).
- Altitude: ≤1000m.
- Working environment: Indoors, be free from chemical deposition, dirt, harmful corrosive medium, or flammable or explosive gas.



TND2

### TND2 Series Single-phase Automatic Voltage Regulator

- When the main voltage is unstable or when the load changes, the AVR will automatically sample and amplify the control circuit.
- This type of voltage stabilizer has advantages of elegant appearance, compact structure, thin thickness, light weight, low power waste, stable and reliable, low output waveform distortion and so on.
- Ambient temperature: -15°C ~ +45°C.
- Relative humidity ≤90%(at +25°C).
- Atmospheric pressure: 86KPa-106KPa.
- Working environment: Indoors, be free from chemical deposition, dirt, harmful corrosive medium, or flammable or explosive gas.

## TZ Series AC Relay-type Voltage Regulator



TDGC2, TDGC2J  
TSGC2, TSGC2J

- TZ series AC Relay-type Voltage Regulator adopts electronic circuitry and control relay to change the transformer tap to adjust the output voltage. The product of series has various functions of protecting for over-voltage and short circuit and so on. It is small volume, elegant appearance and has been widely used in the area where the mains voltage has sharp fluctuation or has sharp seasonal variation. It is the ideal protective device for a great variety of instrument.
- Ambient temperature:  $-15^{\circ}\text{C} \sim +45^{\circ}\text{C}$ ; The average value within 24h shall not exceed  $+35^{\circ}\text{C}$
- Relative humidity: less than 90% ( $25^{\circ}\text{C}$ ).
- Atmospheric pressure: 86kPa $\sim$ 106kPa.
- Rated frequency: 50Hz.

## TNDZ(DBW), TNSZ(SBW) Series Pillar Type AC Automatic Regulator with Compensated



TNDZ(DBW)/TNSZ(SBW)

- Used in the application requiring stable voltage, such as telecommunication, broadcasting & TV, elevator, silicone controlled apparatus, numerical control machine tool, and various production lines, etc.
- Rated capacity: 20 KVA $\sim$ 1200KVA
- Rated output current: 91A $\sim$ 1823A
- Temperature:  $-15^{\circ}\text{C} \sim +45^{\circ}\text{C}$ ;
- Altitude:  $\leq 1000\text{m}$ ;
- Relative humidity: 15% $\sim$ 90% ( $20^{\circ}\text{C}$ ).

## TND3(TSD) Wall-hung Type AC Automatic Voltage Regulator



TND3(TSD)

- TND3(TSD) series wall-mounted AC voltage regulator supplies power for equipment such as computers, duplicating machines, industrial precision equipment, medical apparatuses, household electrical appliances, etc.
- Ambient temperature:  $-15^{\circ}\text{C} \sim +45^{\circ}\text{C}$ .
- Relative humidity  $\leq 90\%$  (at  $+25^{\circ}\text{C}$ ).
- Atmospheric pressure: 86kPa $\sim$ 106 kPa.
- Working environment: Indoors, be free from chemical deposition, dirt, harmful corrosive medium, or flammable or explosive gas.



HH15-QA/QP



### HH15-QA/QP Switch Disconnecter

- Mainly used in the distributing and motor circuit which has high short-circuit current, and acted as main switch or master switch infrequently operated by hand, it is particularly suitable in the relative high class with drawable low voltage complete equipment.
- They provide safety isolation and protection against overcurrent for any low voltage electrical circuit.
- Standard: IEC/EN 60947-3
- Rated current: 125~3150A



NH40



### NH40 Switch Disconnecter

- NH40 series switch-disconnector is applicable for AC 50Hz, rated voltage AC 690V and below, DC 440V and below, rated current up to 3150A.
- It can be applied for manually infrequent making & breaking and disconnecting of the circuit. Products with Ith under 1000A can be used as load break switch. They provide safety isolation for any Low voltage circuit.
- Standard: IEC/EN60947-3.
- Rated current: 16~630A



HH15-QSA



### HH15-QSA Fuse-switch Disconnecter

- Mainly used in the distributing and motor circuit which has high short-circuit current, and acted as main switch or master switch infrequently operated by hand, it is particularly suitable in the relative high class with drawable low voltage complete equipment.
- They provide safety isolation and protection against overcurrent for any low voltage electrical circuit.
- Standard: IEC/EN 60947-3.
- Rated current: 63~630A





NHR17

### NHR17 Fuse-switch Disconnecter

- NHR17 series fuse-switch disconnecter 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

### NHR40 Fuse-switch Disconnecter

- 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



### NHRT40 Vertical Fuse-switch Disconnecter

- 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



HH15/QAS/QPS/QSS



### HH15/QAS/QPS/QSS Changeover Switch

- Mainly used in the distributing and motor circuit which has high short-circuit current, and acted as main switch or master switch infrequently operated by hand, it is particularly suitable in the relative high class with drawable low voltage complete equipment.
- They provide safety isolation and protection against overcurrent for any low voltage electrical circuit.
- Standard: IEC/EN 60947-3.
- Rated current: 125~3150A



### NZ7 Automatic Transfer Switching Equipment



NZ7

- 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



NH40S

### NH40S Changeover Switch

- Mainly used in the distributing and motor circuit which has high short-circuit current, and acted as main switch or master switch infrequently operated by hand, it is particularly suitable in the relative high class with drawable low voltage complete equipment.
- They provide safety isolation and protection against overcurrent for any low voltage electrical circuit.
- Standard: IEC/EN 60947-3.
- Rated current: 160~630A



NH40SZ

### NH40SZ Automatic Changeover Switch

- NH40SZ automatic changeover switch disconnecter can realize automatic and manual changeover between normal and back up power supply power, and stop power supplying to load when changeover process of power supply is carried out.
- The switch is applicable for two circuits power supply and in the condition which requires high quality power supply.
- Standard: IEC/EN 60947-3. 60947-6
- Rated current: 16~1600A



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