



NB1 Miniature Circuit Breaker

General

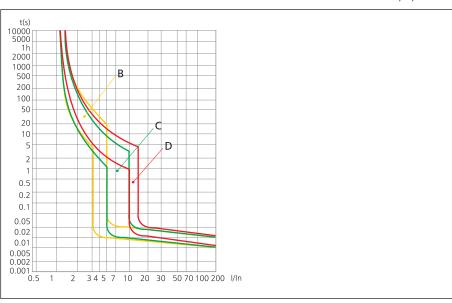
- Short circuit protection
- Overload protection
- Switch
- Isolation
- Contact position indicator
- Advanced current-limit technology
- Heat dissipation gap for better cooling
- Extendable DIN-rail holder for easy installation

Technical features

Standard		IEC/EN 60898-1	IEC/EN 60947-2	UL1077	UL1077
Rated current In	A	1, 2, 3, 4, 20, 25, 32,	6, 10, 16, 40, 50, 63		6, 10, 16, , 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	Α	6000/10000	6k	5k	10k
Energy limiting class		3			
Rated impulse withstand voltage(1.2/50) Uimp	V		40	00	
Thermo-magnetic release characteristic		B, C, D	8-12In, 9.6-14.4In	B, C, D	4-7ln, 7-14ln
Electrical life			4, (000	
Mechanical life			20,	000	
Mounting		On DIN rail E	N 60715 (35mm	n) by means of fa	st clip device
Connection			From top a	ind 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 In: ;
- Classified as follows according to the type of instantaneous release: type B (3-5)In, type C (5-10)In, type D ((10-16)In;

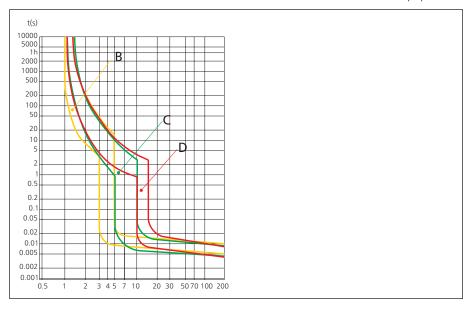
• Technical data

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

Rated current In (A)	Number of poles	Rated voltage Ue (V)	Rated short circuit capacity Icn (A)	
B、C type: 1~40	1	230/400	6000	
-	2, 3, 4	400	6000	
B、C type: 50 60	1	230/400		
by c type. 50 00	2, 3, 4	400	4500	
D type: 1~63	1	230/400	4500	
Б (урс. 1 - 05	2, 3, 4	400		

Curve

B, C, D curve







eBC







CE SAA

eBC **e**B **e**BG Miniature Circuit Breaker

General

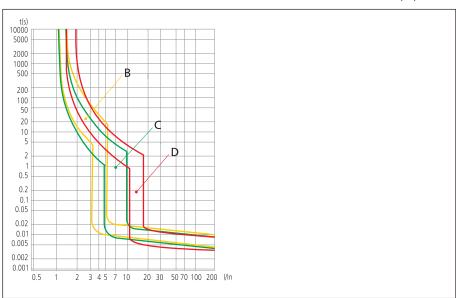
- Short circuit protection
- Overload protection
- Switch
- Isolation
- Economic type breaker
- High cost-effective

Technical features

Standard		IEC/EN 60898-1	IEC/EN 60947-2		
Rated current In	Α	1, 2, 3, 4, 6, 10, 15, 16, 20, 25, 32, 40, 50, 63			
Poles		1P, 2P, 3P, 4P			
Rated voltage Ue	٧	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) Uimp	V	4000			
Thermo-magnetic release characteristic		B, C, D 8-12In			
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			

Curve

B, C, D curve







UB



UB Miniature Circuit Breaker

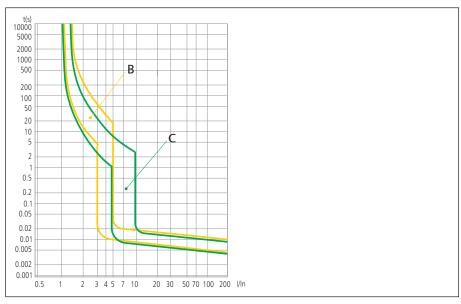
General

- 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	Α	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	Α	6000
Rated impulse withstand voltage(1.2/50) Uimp	V	4000
Thermo-magnetic release characteristic		В, С
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







DZ158

CE & SAA

DZ158 Moulded Case Circuit Breaker

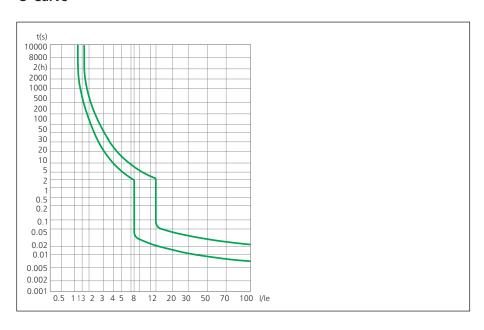
General

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

Technical features

Standard		IEC/EN 60947-2
Rated current In	А	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		8-12In
eta eta dec		1,500 (In=63A, 80A, 100A)
Electrical life		1,000 (In=125A)
Mar Land all'G		8,500 (In=63A, 80A, 100A)
Mechanical life		7,000 (In=125A)
Manusalina		On DIN rail EN 60715 (35mm) by
Mounting		means of fast clip device
Connection		From top

Curve











NBH8 Miniature Circuit Breaker

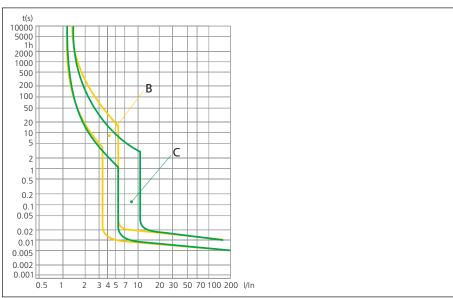
General

- 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	Α	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







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.

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△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

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 In	Α	25, 40, 63, 80, 100
Poles		2P, 4P
Rated voltage Ue	V	230/400~240/415
Rated sensitivity I△n	Α	0.03, 0.1, 0.3
Short-circuit current lcn=l△c	Α	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











NB1L



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

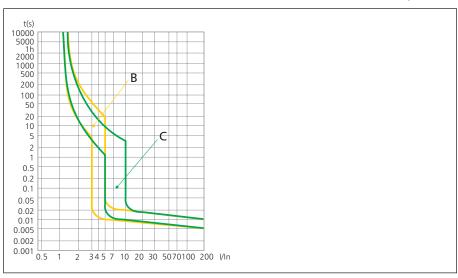
General

- 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			В, С		
Rated current In		MCB+add-on RCCB block	1, 2, 3, 4, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63		
Nated current iii	А	Combined	1~25/6~40		
Poles		MCB+add-on RCCB block	1P+N, 2P		
Poles		Combined	1P+N, 2P, 3P, 3P+N, 4P		
Rated voltage Ue	V	230/400~240/415			
Rated sensitivity I△n	Α	C	0.03, 0.1, 0.3		
Rated short-circuit capacity lcn	Α	6	5,000/10,000		
Break time under I△n	S		≤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)			
Connection		From top (MCB+add-on RCCB block)			

Curve







NB7LE

NB7LE Residual Current Operated Circuit Breaker

General

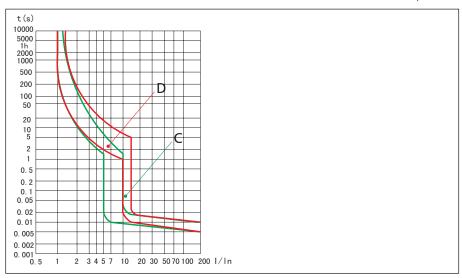
- Protection against risk of fire
- Protection against risk of electric shock
- Protection against overload
- Protection against short circuit
- Contact position indicator

Technical features

Standard		IEC/EN 61009-1			
Rated current In	А	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 Ue	V	230(1P+N, 2P), 440(3P, 3P+N, 4P)			
Rated frequency	Hz	50			
Rated breaking capacity	Α	4500			
Electrical life		4, 000			
Mechanical life			20, 000		

Curve

C, D curve







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

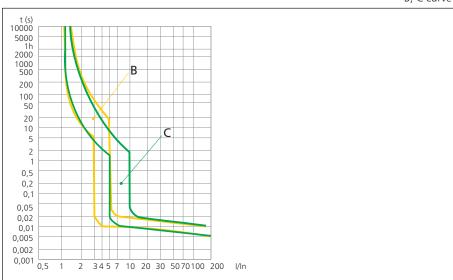
General

- 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		В, С
Rated current In	А	6, 10, 16, 20, 25, 32
Poles		1P+N
Rated voltage Ue	V	240
Rated sensitivity I△n	Α	0.03
Short-circuit current Icn	А	6,000
Break time under I△n	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





NB3LE





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

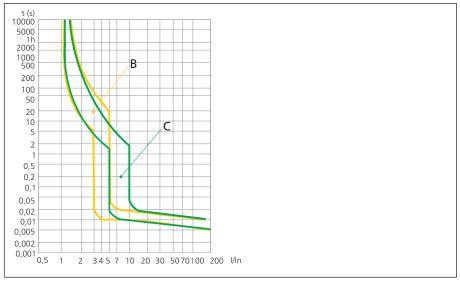
General

- 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		В, С
Rated current In	Α	6, 10, 13, 16, 20, 25, 32, 40
Poles		1P+N
Rated voltage Ue	V	240
Rated sensitivity I△n	Α	0.03
Short-circuit current Icn	Α	10,000
Break time under I△n	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





NB3LEU





NBH8LE



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

General

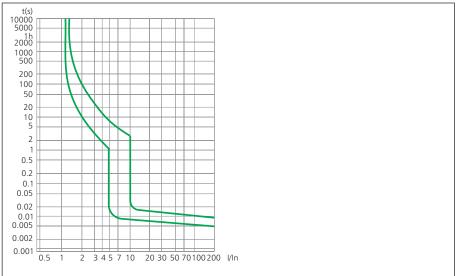
- Protection against risk of fire
- Protection against risk of electric shock
- Protection against overload
- Protection against short circuit

Technical features

Standard		IEC/EN 61009-1
Type (wave form of the earth leakage sensed)		AC
Thermo-magnetic release characteristic		С
Rated current In	Α	1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40
Poles		1P+N
Rated voltage Ue	V	230
Rated sensitivity I△n	А	0.03
Short-circuit current Icn	Α	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









DZ158LE Residual Current Operated Circuit Breaker

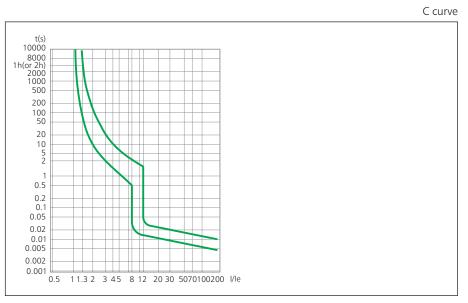
General

- 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		8~12ln
Rated current In	А	63, 80, 100
Poles		1P+N, 2P, 3P, 3P+N, 4P
Rated voltage Ue	V	230/400
Rated sensitivity I△n	А	0.03, 0.1, 0.3
Short-circuit current Icn	А	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





DZ158LE





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 (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.



XF9J

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 (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 (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 Switch Disconnector

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: 20le, t=0.1s
- Electric life: 1500 • Mechanical life: 8500
- Connection: From top and bottom



NH4 Switch Disconnector



- 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



NH2

NH4





NU6- I

NU6 Low-voltage Surge Arrester

General

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

- NU6- I :
- Manufactured according to IEC/EN 61643-1
- Electric ratings: 230/400V, AC50/60Hz, 3-phases
- Shock current limp peak (10/350 µs)(kA): 15kA, 25kA, 40kA
- Max. continuous operational voltage Uc(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 Uc (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
- Uoc (1.2/50µs)(kV): 2kV, 3kV, 4kV, 6kV, 10kV, 20kV
- Max. continuous operational voltage Uc (V): 275V, 320V, 385V





NP9

NP9 Pushbutton

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.

- 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 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



NX2

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



NXW1

NXW5 Wall Mounting Enclosure

General

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

- 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 (mm²)	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

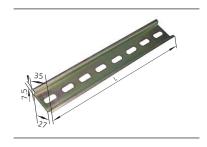


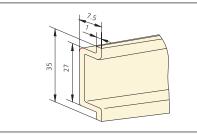
Busbar for RCBO

Model	Number of poles	Cross section (mm²)	Length L (m)
Fork Type	2P	10	1
Pin Type	3P	10	1



DIN Rail





Model	L(m)
DIN Rail	1



NZK1

KEMA

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; $COS\Phi = 0.3 \pm 0.05$; 200 times
- Operational performance:
 - $Ue_0^{+5\%}le; COS\Phi=0.6\pm0.05; 10000 times$



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

- 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; $COS\Phi = 0.3 \pm 0.05$; 200 times
- Operational performance:
 - $Ue_0^{+5\%}$ le; $COS\Phi = 0.6 \pm 0.05$; 10000 times



NM8



NM8, NM8S Adjustable type MCCB

- 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
- $lcs=100\%lcu(ln \le 630A)$, lcs=50%lcu(ln > 630A)
- Circuit breakers and auxiliaries comply with the following international standard: IEC/EN 60947-1: general rules

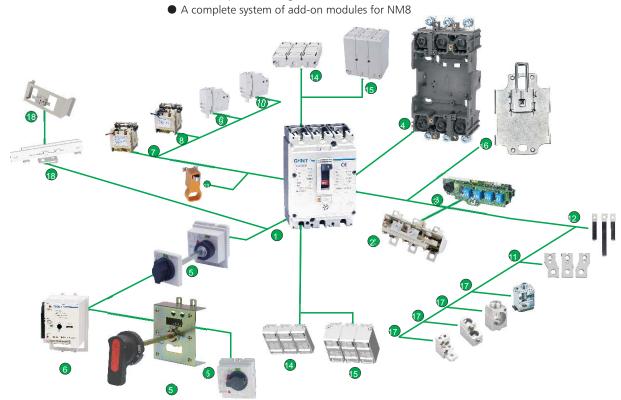
IEC/EN 60947-2: circuit breakers

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).







Motor driven operating mechanism



Under-voltage release

Rear connection plate

DIN rail adaptor



KLINKMANN

Thermo magnetic release

Shunt release

Locking system(padlock)

Cage clamp terminal

Plug-in base

Alarm contact

Short terminal cover

18 Mechanical interlock

5 Rotary manual operating handle

10 Auxiliary contact

Front connection plate

15 Extended terminal cover

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