

Technical data

# Miniature Circuit Breakers

## System pro M



**ABB**

Prior to connection of aluminium conductors ensure that their contact points are cleaned, brushed and coated with grease. The contact terminals must be tighten up after six to eight weeks.

#### **Conditions for Delivery and Sale**

For domestic business, the Standard Terms for Delivery of Products and Services of the Electrical Industry (ABB-Form 2292) shall apply in connection with the Standard Sale Terms (ABB-Form 2327) in their then applicable version. For foreign business, the Standard Terms for Delivery of Products and Services of the Electrical Industry (ABB-Form 2293 German-English, or ABB Form 2294 German-French) shall apply in connection with the Standard Sale Terms (ABB-Form 2381 English) in their then applicable version.

#### **Warranty**

We assume warranty in accordance with the Standard Sale and Delivery Terms. Complaints shall be made in writing eight days following receipt of the goods.

**Technical information and illustrations are not binding and subject to change without notice.**

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# Miniature Circuit Breakers

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## Miniature Circuit Breakers

### System pro M

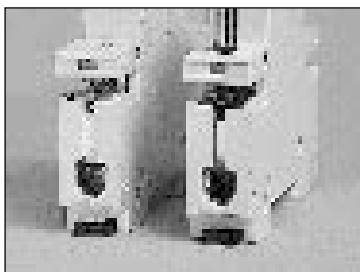
**These are the outstanding features for the S2 Generation.**

- All round protection against contact with live parts in accordance with DIN VDE 106 part 100.
- Delivered with open box terminals with captive screws and lower dualfunction terminal ready for busbar connection.
- Dualfunction terminals enables simultaneous connection of busbar and cable without additional connection pieces.
- Connection capacity for flexible multi- or single core conductors of 0,75 up to 25 mm<sup>2</sup> up to 40 A and 0,75 up to 35 mm<sup>2</sup> for 50 and 63 A. S 280 in general 0,75 up to 35 mm<sup>2</sup>.
- Cross wiring possible with solid round conductor up to 10 mm<sup>2</sup>.
- Positioning of the M.C.B. on the DIN-rail now possible before snapping on, as the mounting clip is on the lower side.
- Accessories can be fitted to the S2... range, on site by the user.
- High short-circuit switching capacity.
- Low let-through energy at the point of fault.
- Rated voltage single pole: 230/400 V AC  
multi pole: 400 V AC

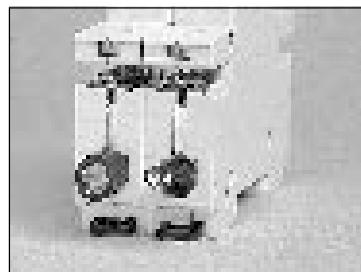
## Miniature Circuit Breakers

### System pro M

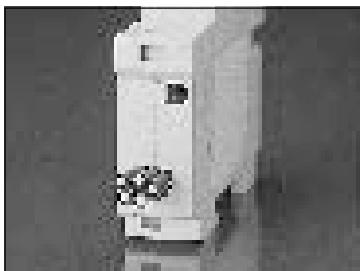
**The new terminal design has the following additional advantages:**



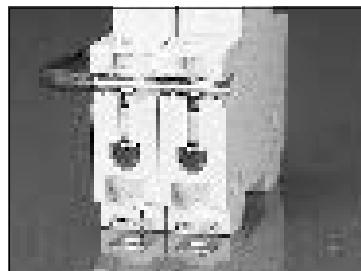
The new dualfunction terminal is delivered in open position for connection of busbars. When screw head is pressed the box terminal below opens fully.



The terminals allow connection of conductors with 0.75 up to 25 mm<sup>2</sup>/35 mm<sup>2</sup> cross-section. Furthermore conductors of different cross-sections can be connected.



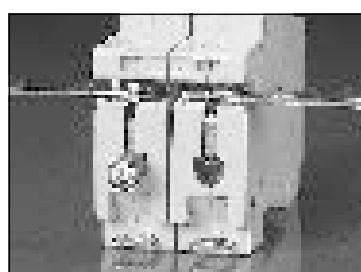
Up to 5 conductors with cross section 1.5 mm<sup>2</sup> each can be connected safely and reliably.



The lower terminal also allows cross-wiring by solid round conductor.



At the lower terminals cross-wiring can be made with comb-busbars up to a thickness of 4 mm or with 3-phase busbar blocks as shown above.



In addition, the incoming cable can be connected without accessories. Extra connection pieces are no longer necessary.

# Miniature Circuit Breakers

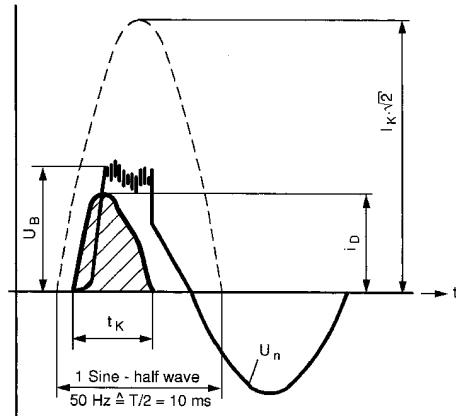
## System pro M

STOTZ M.C.B.'s of the System pro M are equipped with the well proven STOTZ hammer head system and thus offer current limiting to the highest degree.

They offer

- high short-circuit switching capacity
- high selectivity to back up fuses
- in case of short-circuit, low stress on the cable in the point of fault due to the high limitation of the let-through  $\int i^2 dt$  (current heating value).

### Oscillogram of a rupturing process



SK 0130 Z 98

$I_k \cdot \sqrt{2}$  = peak value of the prospective short-circuit current

$i_D$  = max. let-through current of the M.C.B.

$U_n$  = mains voltage

$U_B$  = arc voltage of the M.C.B.

$t_K$  = breaking time of the M.C.B.

### Additional devices for example (more supplementary devices on page 31)

S 230, S 260, S 270, S 280

S 230, S 260, S 270, S 280

#### Disconnecting neutral conductor NA

Unprotected pole (no trip mechanism) is force switched together with the M.C.B.

It can also be used as a normally open contact for signalling the contact position of the M.C.B.

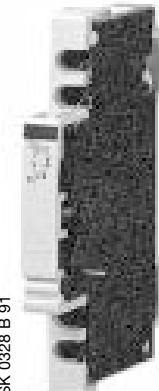
#### Auxiliary contacts H ...

Contact position dependent on that of the M.C.B.

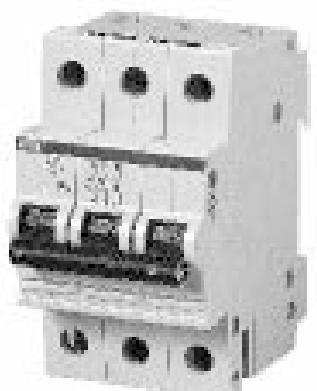
The contacts are potential-free.



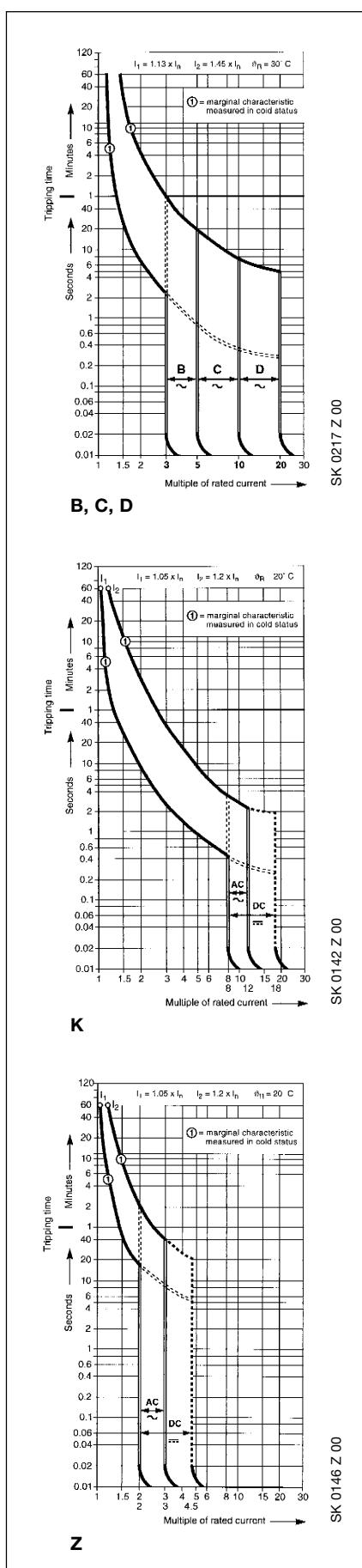
SK 0294 B 91



SK 0328 B 91



SK 0067 B 92



## General

### Brief description

Current limiting M.C.B.'s with undelayed magnetic and delayed thermal trips, with fixed setting. Metal framed trip-free switching mechanism.

### Task

Protection against overheating of electrical wires, cables and appliances in the case of overcurrent due to overload, short-circuit or earth fault in compliance with DIN VDE 0100 part 430.

Protection against dangerous body currents in the case of too high touch voltage due to insulation faults in compliance with DIN VDE 0100 part 410.

### Application

For installation, switching, regulation and metering systems of building installations in commercial and industrial projects.

### Accessories

The S2 ... range can be fitted subsequently with an auxiliary contact. The auxiliary contacts are suitable for switching auxiliary circuits as a function of the M.C.B.'s contact position; with 2 or 3 galvanically separated contacts. The auxiliary contacts are trip-free due to their coupling with the switching mechanism.

## Tripping characteristics and rated currents

### B-, C- and D-Characteristic

The new characteristics acc. EN 60 898 are for line protection . They all have the same thermal settings and differ only in their magnetic tripping values.

The higher magnetic settings of the C- or D-characteristics are for applications with start or high inrush-currents.

### K-Characteristic

For cable and appliance protection.

Rated currents 0.5 to 63 A in 17 steps (S 270) or 0.2 to 63 A in 20 steps (S 280). Motor protection can be achieved by the selection of the M.C.B. with the correct rated current corresponding to the motor data. The electro-magnetic trip is set in such a way that the motor starting current does not lead to tripping.

Due to the higher magnetic non tripping current, in circuits with incandescent lamp groups, mains parallel operated fluorescent lamps or other discharge lamps, the conductor cross-section to be protected can be more economically utilized as compared to a M.C.B. of the same rated current in tripping characteristic B.

### Z-Characteristic

For protection of semiconductor devices and voltage transformer circuits.

# Miniature Circuit Breakers

## System pro M

### Technical data S 230

Specifications:	EN 60 898, DIN VDE 0641 part 11, IEC 898
No. of poles:	1, 2, 3
Tripping characteristics:	acc. to EN 60 898
Rated current $I_n$ :	6 ... 40 A
Rated voltage $U_n$ :	single pole: 230 / 400 V ~ multipole 400 V ~
Max. operating voltage $U_{Bmax}$ :	$U_n + 10 \%$
Min. operating voltage $U_{Bmin}$ :	12 V ~
Rated rupturing capacity acc. to IEC 898, EN 60 898:	see page 15
Selectivity class:	-
Short-circuit rupturing capacity:	see page 15
Frequency:	50 ... 60 Hz, other frequencies see page 14
Insulation acc. DIN VDE 0110 part 1 and 2	
- Overvoltage category:	IV
- Pollution degree:	2
- Surge voltage:	5 kV (1.2/50 µs)
- Surge alternating voltage:	3 kV (50/60 Hz)
Housing:	Moulded plastic group I ( $CTI \geq 600$ ) to DIN IEC 112/VDE 303 part 1 RAL 7035
Switching lever:	Moulded plastic group II ( $400 \leq CTI < 600$ ) black, sealable
Degree of protection acc. to DIN VDE 40 050, IEC 529:	IP 20, when built in into distribution board: IP 40
Depth of unit:	68 mm
Dimensions:	acc. to DIN 43 880, size 1, see page 37
Mounting position:	optional
Mounting:	snap-on fixing on standard profile rails EN 50 022, 35 x 7.5 or screw fixing by means of mounting plate (see accessories)
Connection:	Combi box terminals on top and bottom, safe against unintentional touch acc. to DIN VDE 0106 part 100. Suitable for solid or flexible conductors from 0.75 to 25 mm <sup>2</sup> (till 40 A) and up to 35 mm <sup>2</sup> (for 50 A, 63 A) when no busbar is connected, and up to 16 mm <sup>2</sup> or 25 mm <sup>2</sup> (for 50 A, 63 A) when a max. 3 mm busbar is connected
Thigtening torque:	2 Nm
Mech. service life:	20 000 operations
Service life at rated load:	$I_n < 32 \text{ A}$ : 20 000 operations $I_n \geq 32 \text{ A}$ : 10 000 operations
Climate resistance acc. to DIN VDE 40 046 and IEC 68-2:	constant climatic conditions 23/83, 40/93, 55/20 [°C/RH] variable climatic conditions 25/95 – 40/93 [°C/RH]
Storage temperature:	$T_{max} + 70 \text{ °C}$ , $T_{min} - 40 \text{ °C}$
Ambient temperature:	$T_{max} + 55 \text{ °C}$ , $T_{min} - 25 \text{ °C}$
Shock resistance acc. to DIN IEC 68-2-27 and DIN EN 60 068-2-27:	30 g minimum of 2 impacts duration of shock 13 ms
Vibration resistance acc. to DIN IEC 68-2-6:	5 g, 20 cycles 5 ... 150 ... 5 Hz at $0.8 \cdot I_n$
Weight:	see selection tables

# Miniature Circuit Breakers

## System pro M

### Technical data S 260, S 270

Specifications:	DIN VDE 0641 part 11, IEC 898, EN 60 898, IEC 947-2
No. of poles:	1, 2, 3, 4, 1+NA, 3+NA
Tripping characteristics:	B, C, K, Z
Rated current $I_n$ :	0,5 ... 63 A
Rated voltage $U_n$ :	single pole: 230 / 400 V ~ multipole 400 V ~
Max. operating voltage $U_{Bmax}$ :	AC: $U_n + 10 \%$ , acc. to UL 1077 and CSA 22.2: 480 V ~ DC: 1-pole 60 V ...; 2-pole 110 V ...
Min. operating voltage $U_{Bmin}$ :	12 V ~, 12 V ...
Rated rupturing capacity acc. to IEC 898, EN 60 898:	see page 15
Selectivity class:	S 3
Short-circuit rupturing capacity:	see page 15
Frequency:	50 ... 60 Hz, other frequencies see page 14
Insulation acc. DIN VDE 0110 part 1 and 2	
- Overvoltage category:	III
- Pollution degree:	2
- Surge voltage:	5 kV (1.2/50 µs)
- Surge alternating voltage:	3 kV (50/60 Hz)
Housing:	Moulded plastic group I ( $CTI \geq 600$ ) to DIN IEC 112/VDE 303 part 1 RAL 7035
Switching lever:	Moulded plastic group II ( $400 \leq CTI < 600$ ) black, sealable
Degree of protection acc. to DIN VDE 0100:	IP 20, when built in into distribution board: IP 40
Depth of unit:	68 mm
Dimensions:	acc. to DIN 43 880, size 1, see page 37
Mounting position:	optional
Mounting:	snap-on fixing on standard profile rails EN 50 022, 35 x 7.5 or screw fixing by means of mounting plate (see accessories)
Connection:	Box terminals on top and combi box terminals on bottom, safe against unintentional touch acc. to DIN VDE 0106 part 100. Suitable for solid or flexible conductors from 0,75 mm <sup>2</sup> to 25 mm <sup>2</sup> (max. 16 mm <sup>2</sup> when a max. 3 mm busbar is connected; from 0,75 mm <sup>2</sup> with casing and from 1,5 mm <sup>2</sup> without)
Tightening torque:	2 Nm
Mech. service life:	20 000 operations
Service life at rated load:	$I_n < 32 \text{ A}$ : 20 000 operations $I_n \geq 32 \text{ A}$ : 10 000 operations
Climate resistance acc. to DIN VDE 50 015 and DIN 68 part 2-30:	constant climatic conditions 23/83, 40/93, 55/20 [°C/RH] variable climatic conditions 25/95 – 40/93 [°C/RH]
Storage temperature:	$T_{max} + 70 \text{ °C}$ , $T_{min} - 40 \text{ °C}$
Ambient temperature:	$T_{max} + 55 \text{ °C}$ , $T_{min} - 25 \text{ °C}$
Shock resistance acc. to DIN IEC 68-2-27 and DIN EN 60 068-2-27:	30 g minimum of 2 impacts duration of shock 13 ms
Vibration resistance acc. to DIN IEC 68-2-6 and DIN EN 60 068-2-6:	5 g, 20 cycles 5 ... 150 ... 5 Hz at $0.8 \cdot I_n$
Weight:	see selection tables

# Miniature Circuit Breakers

## System pro M

### Technical data S 280

Specifications:	DIN VDE 0641, DIN VDE 0660 Teil 1, BS 3871, IEC 898, EN 60 898, IEC 947-2
No. of poles:	1, 2, 3, 4, 1+NA, 3+NA
Tripping characteristics:	B, C, K, Z, UC-B, UC-K, UC-Z
Rated current $I_n$ :	0,2 ... 63 A
Rated voltage $U_n$ :	single pole: 230 / 400 V ~ multipole 400 V ~
Max. operating voltage $U_{Bmax}$ :	AC: $U_n + 10\%$ , acc. to UL 1077 and CSA 22.2: 480 V ~ DC: 1-pole 60 V ... S 280 UC: 220 V ... 2-pole 110 V ... S 280 UC: 440 V ...
Min. operating voltage $U_{Bmin}$ :	12 V ~, 12 V ...
Rated rupturing capacity acc. to IEC 898, EN 60 898:	see page 16
Selectivity class:	S 3
Short-circuit rupturing capacity:	see page 16
Frequency:	16 2/3 ... 60 Hz, other frequencies see page 14
Insulation acc. DIN VDE 0110 part 1 and 2	
- Overvoltage category:	III
- Pollution degree:	2
- Surge voltage:	5 kV (1.2/50 µs)
- Surge alternating voltage:	3 kV (50/60 Hz)
Housing:	Moulded plastic group I ( $CTI \geq 600$ ) to DIN IEC 112/VDE 303 part 1 RAL 7035
Switching lever:	Moulded plastic group II ( $400 \leq CTI < 600$ ) black, sealable
Degree of protection acc. to DIN VDE 0100:	IP 20, when built in into distribution board: IP 40
Depth of unit:	68 mm
Dimensions:	acc. to DIN 43 880, size 1, see page 37
Mounting position:	optional
Mounting:	snap-on fixing on standard profile rails EN 50 022, 35 x 7.5 or screw fixing by means of mounting plate (see accessories)
Connection:	Combi box terminals on top and bottom, safe against unintentional touch acc. to DIN VDE 0106 part 100. Suitable for solid or flexible conductors from 0,75 mm <sup>2</sup> to 35 mm <sup>2</sup> (max. 25 mm <sup>2</sup> when a max. 3 mm busbar is connected; from 0,75 mm <sup>2</sup> with casing and from 1,5 mm <sup>2</sup> without)
Thigtening torque:	2 Nm
Mech. service life:	20 000 operations
Service life at rated load:	$I_n < 32\text{ A}$ : 20 000 operations $I_n \geq 32\text{ A}$ : 10 000 operations
Climate resistance acc. to DIN VDE 50 015 and DIN 68 part 2-30:	constant climatic conditions 23/83, 40/93, 55/20 [°C/RH] variable climatic conditions 25/95 – 40/93 [°C/RH]
Storage temperature:	$T_{max} + 70\text{ °C}$ , $T_{min} - 40\text{ °C}$
Ambient temperature:	$T_{max} + 55\text{ °C}$ , $T_{min} - 25\text{ °C}$
Shock resistance acc. to DIN IEC 68-2-27 and DIN EN 60 068-2-27:	30 g minimum of 2 impacts duration of shock 13 ms
Vibration resistance acc. to DIN IEC 68-2-6 and DIN EN 60 068-2-6:	5 g, 20 cycles 5 ... 150 ... 5 Hz at $0.8 \cdot I_n$
Contact position indicator:	OUT = green, ON = red
Weight:	see selection tables

**Technical data S 290**

Specifications:	DIN VDE 0641 Teil 11, EN 60 898, IEC 898
No. of poles:	1, 2, 3 and 4-pole
Tripping characteristics:	C, D, K
Rated current $I_n$ :	80, 100 and 125 A
Rated voltage $U_n$ :	single pole: 230 / 400 V ~ multipole 400 V ~
Max. operating voltage $U_{B\max}$ :	AC: $U_n + 10 \%$ , DC: 1-pole 60 V ... 2-pole 110 V ...
Min. operating voltage $U_{B\min}$ :	12 V ~, 12 V ...
Rated rupturing capacity:	10 kA acc. to DIN VDE 0641
Selectivity class:	S 3
Frequency:	50 ... 60 Hz
Insulation acc. DIN VDE 0110 part 1 and 2	
- Overvoltage category:	III
- Pollution degree:	2
- Surge voltage:	5 kV (1.2/50 $\mu$ s)
- Surge alternating voltage:	3 kV (50/60 Hz)
Housing:	Moulded plastic group I ( $CTI \geq 600$ ) to DIN IEC 112/VDE 303 part 1 RAL 7035
Switching lever:	Moulded plastic group II ( $400 \leq CTI < 600$ ) black, sealable
Degree of protection acc. to DIN VDE 0100:	IP 20, when built in into distribution board: IP 40
Depth of unit:	70 mm
Dimensions:	acc. to DIN 43 880, size 1, see page 37
Mounting position:	optional
Mounting:	snap-on fixing on standard profile rails EN 50 022, 35 x 7.5 or screw fixing by means of mounting plate (see accessories)
Connection:	flexible conductors from 1.5 mm <sup>2</sup> up to 50 mm <sup>2</sup>
Tightening torque:	4,5 Nm
Connection terminals:	Safe against unintentional touch acc. to DIN VDE 0106 part 10
Service life:	10 000 operations (mechanical and electrical)
Climate resistance:	acc. to CEE 27
Storage temperature:	$T_{\max} + 70 \text{ }^{\circ}\text{C}$ , $T_{\min} - 25 \text{ }^{\circ}\text{C}$
Ambient temperature:	$T_{\max} + 45 \text{ }^{\circ}\text{C}$ , $T_{\min} - 5 \text{ }^{\circ}\text{C}$ (at day average temperature $\leq +35 \text{ }^{\circ}\text{C}$ )
Shock resistance acc. to DIN IEC 68-2-27 and DIN EN 60 068-2-27:	30 g minimum of 2 impacts duration of shock 13 ms
Vibration resistance acc. to DIN IEC 68-2-6 and DIN EN 60 068-2-6:	60 m/s <sup>2</sup> at 10 ... 150 ... 5 Hz
Contact position indicator:	OUT = green, ON = red
Disconnection:	acc. to VDE 0660 part 107
Weight:	see selection tables

**Auxiliary contact and Signal contact / Auxiliary contact (acc. DIN VDE 0660 part 200)** $I_{th} = 10 \text{ A}$ **Auxiliary contact S2 – H..**

2 contacts

AC 14	$U_e$	400 V	230 V
	$I_e$	2 A	6 A
DC 12	$U_e$	220 V	110 V
	$I_e$	1 A	1.5 A
DC 13	$U_e$	60 V	24 V
	$I_e$	2 A	4 A

**S2 – H..**

3 contacts

AC 14	$U_e$	400 V	230 V
	$I_e$	1 A	2 A
DC 12	$U_e$	220 V	110 V
	$I_e$	1 A	1.5 A
DC 13	$U_e$	60 V	24 V
	$I_e$	2 A	4 A

**Signal contact / Auxiliary contact S2 – S/H**

AC 14	$U_e$	400 V	230 V
	$I_e$	2 A	6 A
DC 12	$U_e$	220 V	110 V
	$I_e$	0.5 A	1 A
DC 13	$U_e$	60 V	24 V
	$I_e$	1 A	4 A

Min. operating voltage:

24 V ~, 24 V ...

24 V ~, 24 V ...

Min. operating power:

5 VA ①

0,1 VA

Short circuit withstand cap.:

230 V ~ 1000 A with S270 K6

230 V ~ 1000 A with S270 K6

Insulation:

acc. DIN VDE 0110 part 1 and 2

– Overvoltage class:  
– Surge voltage:  
– Pollution degree:

III

acc. DIN VDE 0110 part 1 and 2

4 kV (1,2/50 µs)

III

2

4 kV (1,2/50 µs)

Connection capacity:

up to 2 x 1.5 mm<sup>2</sup>up to 2 x 1.5 mm<sup>2</sup>① The terminal rated operating current is at operation-and environment conditions according to EN 60 204-1/1997 and EN 60 439-1/1994  
at indoor installation: 24 V AC/DC, 5 mA (AC-12, DC-12)**Auxiliary contact S2 – H ... KL  
(Low power)** $I_{th} = 0.5 \text{ A}$ 

AC 12	$U_e$	24 V	12 V
	$I_e$	5 mA	10 mA
DC 12	$U_e$	24 V	12 V
	$I_e$	5 mA	10 mA

Min. operating voltage: 12 V ~, 12 V ...

**Technical data Auxiliary contact S 290-H and signal contact S 290-S**

acc. to DIN VDE 0660 part 200/7. 92; EN 60 947-5 -1

 $I_{th} = 16 \text{ A}$  $U_i = 440 \text{ V}$ Max. rupturing capacity: 230 V/4 A  
acc. to EN 60 947-5-1

Min. operating voltage: 17 V DC

Operating power: min 0,1 VA, max 5 VA

Min. operating current: 5 mA

Insulation acc. DIN VDE 0110 part 1 und 2

Short-circuit withstand capacity: 1000 A with Diazed gL 6 A  
acc. to VDE 0660 part 200 8.3.4

– Overvoltage category: III

Insulation acc. to DIN VDE part 1 and 2

– Pollution degree: 2

– Surge voltage: 4 kV (1,2/50µs)

– Surge alternating voltage: 2,8 kV (50/60 Hz)

– Surge alternating voltage: 2,8 kV (50/60 Hz)

Connection capacity: up to 2 x 1.5 mm<sup>2</sup>Connection capacity: 0,5 up to 2,5 mm<sup>2</sup>

AC 15	$U_e$	415 V	240 V	
	$I_e$	2 A	6 A	
DC 13	$U_e$	220 V	110 V	60 V
	$I_e$	1 A	1 A	3 A

**Undervoltage release S 2 – UA ...**

Type:	S2 – UA 12	S2 – UA 24	S2 – UA 48	S2 – UA 110	S2 – UA 220	S2 – UA 380
Specifications:	IEC 947-1, CEI 17-5, DIN VDE 0660 part 1					
Rated voltage AC:	–	24 V	48 V	110 V	220 – 240 V	380 V
DC:	12 V	24 V	48 V	110 V	220 V	–
Current rating:	10 mA					
Degree of protection acc. to DIN VDE 0100:	IP 20					
Frequency:	50 ... 60 Hz					
Drop away voltage:	0.35 x U <sub>n</sub> ≤ V ≤ 0.7 x U <sub>n</sub>					
Climate resistance:	constant climate conditions 23/83, 40/93, 55/20 [°C/RH]; variable climatic conditions 25/95 – 40/93 [°C/RH]					
Connection capacity:	2 x 1.5 mm <sup>2</sup>					
Max. tightening torque:	0.4 Nm					

**Shunt trip S2 – A**

Type:	S2 – A 1	S2 – A 2
Operating voltages:	12 ... 60 V 24 VA / W ... 600 VA / W	110 ... 415 V AC and 110 ... 250 V DC 40 VA ... 570 VA and 40 W ... 207 W

**Removable base S2 – EST for S 280, I<sub>n</sub> ≤ 32 A**

Depth of unit:	78 mm incl. MCB
Width:	17.5 mm (1 modul)
Length:	150 mm
Degree of protection acc. to DIN VDE 0100:	IP 20
Mounting:	snap-on fixing on standard profile EN 50 022 possibility to take several bases for multipole MCB's
Mounting position:	optional
Mech. service life:	200 plug-ins
Enclosure:	grey, RAL 7035 (self extinguish VO acc. to UL 94)
Connection capacity:	1 ... 10 mm <sup>2</sup>

**Undervoltage release S 290 – UA ...**

Type:	S290 – UA 24	S290 – UA 110	S290 – UA 230
Rated voltage AC:	24 V	110 V	230 V

DC:

24 V

110 V

-

**Shunt trip S290 – A**

Type:	S290 - A 1	S290 - A 2
Operating voltages:	AC 110 - 415 V	DC 24 - 48 V

**Auxiliary contact**

DIN VDE 0660 T 200  
EN 60 947-5-1  
IEC 947-5-1  
U<sub>i</sub> = 440 V; I<sub>th</sub> = 16 A

AC 15	U <sub>e</sub>	240 V
	I <sub>e</sub>	6 A
DC 13	U <sub>e</sub>	220 V
	I <sub>e</sub>	1 A

**Signal contact**

DIN VDE 0660 T 200  
EN 60 947-5-1  
IEC 947-5-1  
U<sub>i</sub> = 440 V; I<sub>th</sub> = 16 A

AC 15	U <sub>e</sub>	240 V
	I <sub>e</sub>	6 A
DC 13	U <sub>e</sub>	220 V
	I <sub>e</sub>	1 A

# Miniature Circuit Breakers

## System pro M

### Tripping characteristics

acc. to	Tripping characteristic	Thermal trips ①			Electromagnetic trips ②		
		Test currents: Low test current $I_1$	High test current $I_2$	Tripping-time	Test currents: hold current surges of	trip at least at	Tripping-time
EN 60 898	B	1.13 · $I_n$	1.45 · $I_n$	> 1 h ③ < 1 h	3 · $I_n$	5 · $I_n$	> 0.1 s < 0.1 s
IEC 898	C	1.13 · $I_n$	1.45 · $I_n$	> 1 h ③ < 1 h	5 · $I_n$	10 · $I_n$	> 0.1 s < 0.1 s
DIN VDE 0641 part 11	D	1.13 · $I_n$	1.45 · $I_n$	> 1 h ③ < 1 h	10 · $I_n$	14 · $I_n$	> 0.1 s < 0.1 s
DIN VDE 0660 part 101	K	1.05 · $I_n$	1.2 · $I_n$	> 1 h ③ < 1 h	8 · $I_n$	12 · $I_n$	> 0.2 s < 0.2 s
EN 60 947 IEC 947-2	Z	1.05 · $I_n$	1.2 · $I_n$	> 1 h ③ < 1 h	2 · $I_n$	3 · $I_n$	> 0.2 s < 0.2 s

① Influence of ambient temperature see below.

② The tripping values for the electromagnetic trip are valid for AC 50 ... 60 Hz.  
For other frequencies see table below.

③ From warm operating condition (After  $I_1 > 1$  h resp. 2h)

### S 280 UC

acc. to	Tripping characteristic	Thermal trips ①			Electromagnetic trips ②		
		Test currents: Low test current $I_1$	High test current $I_2$	Tripping-time	Test currents: hold current surges of	trip at least at	Tripping-time
DIN VDE 0641 part 12	B 6 up to 63 A	1.13 · $I_n$	1.45 · $I_n$	> 1h ③ < 1h	3 · $I_n$	5 · $I_n$	> 0.1 s < 0.1 s
acc. to IEC 947-2	K 0.2 up to 63 A	1.05 · $I_n$	1.2 · $I_n$	> 1h ③ < 1h	10 · $I_n$	14 · $I_n$	> 0.1 s < 0.1 s
acc. to IEC 947-2	Z 0.5 up to 63 A	1.05 · $I_n$	1.2 · $I_n$	> 1h ③ < 1h	2 · $I_n$	3 · $I_n$	> 0.1 s < 0.1 s

① Influence of ambient temperature see below.

② The tripping values for the electromagnetic trip are valid for AC 50 ... 60 Hz.  
For other frequencies see table below.

③ From warm operating condition (After  $I_1 > 1$  h)

### Influence of frequency on electromagnetic trips

The stated tripping values of the electromagnetic trips are valid for a frequency of 50 ... 60 Hz. In case of frequencies deviating from 50 ... 60 Hz as well as a direct current the tripping values are changed by the factor mentioned below.

	AC 100 Hz	200 Hz	400 Hz	DC
Factor approx.	1.1	1.2	1.5	1.5

The tripping values of the thermal trips are independent of the frequency.

### Influence of ambient temperature

The **thermal trips** are calibrated for an ambient temperature of 20°C for K and Z; 30°C for B,- C,- D- characteristic

In the case of temperatures deviating from these values the tripping values

- are reduced in case of higher temperatures
- are increased in case of lower temperatures (see page 27).

The **electromagnetic tripping** is not dependent on temperature.

# Miniature Circuit Breakers

## System pro M

### Short circuit rupturing capacity

Switching sequence acc. to DIN VDE 0641 part 11, EN 60 898, IEC 898  
Ratings with AC in kA / cos φ, with DC in kA / T ms

Range Tripping characteristic		<b>AC</b> 1-phase 133 V ~ kA/cos φ	230 V ~ kA/cos φ	2/3-phase 230 V ~ 133/230 V ~ kA/cos φ	400 V ~ 230/400 V ~ kA/cos φ	<b>DC ①</b> single pole up to 60 V ... kA/T ≤ ms	Max. Back-up protection fuse	Main circuit breaker ②	Max. Short-circuit rupturing capacity of the range
S 260 – B	6 10 ... 20 25 ... 32 40 50 ... 63	10/0.5	6/0.7	10/0.5	6/0.7	10/4	63 A 100 A 100 A 100 A 125 A 160 A	100 A 100 A 100 A 100 A 100 A 100 A	6000 [3]
S 260 – C, D	0.5 ... 2			unlimited			not necessary		unlimited
	3 ... 4 6 8 10 ... 20 25 ... 32 40 50 ... 63	10/0.5	6/0.7	10/0.5	6/0.7	10/4	20 A 40 A 63 A 100 A 100 A 100 A 125 A 160 A	– – 100 A 100 A 100 A 100 A 100 A	6000 [3]
S 270 – B	6 10 ... 20 25 ... 32 40 50 ... 63	10/0.5	10/0.5	10/0.5	10/0.5	10/4	63 A 80 A 100 A 125 A 160 A	100 A 100 A 100 A 100 A 100 A	10 000 [3]
S 270 – C	0.5 ... 2			unlimited			not necessary		unlimited
	3 ... 4 6 8 10 ... 20 25 ... 32 40 50 ... 63	10/0.5	10/0.5	10/0.5	10/0.5	10/4	20 A 40 A 63 A 80 A 100 A 100 A 125 A 160 A	– – 100 A 100 A 100 A 100 A	10 000 [3]
S 270 – K	0.5 ... 2			unlimited			not necessary		unlimited
	3 4 6 ... 10 16 ... 20 25 ... 32 40 50 ... 63	10/0.5	6/0.7	10/0.5	6/0.7	10/4	20 A 25 A 63 A 80 A 100 A 100 A 125 A 160 A	– – 100 A 100 A 100 A 100 A	6000
S 270 – Z	0.5 ... 2			unlimited			not necessary		unlimited
	3 ... 4 6 8 10 ... 16 20 ... 25 32 ... 40 50 ... 63	10/0.5	6/0.7	10/0.5	6/0.7	10/4	20 A 35 A 40 A 63 A 80 A 100 A 125 A	– 100 A 100 A 100 A 100 A 100 A 100 A	6000

# Miniature Circuit Breakers

## System pro M

### Short circuit rupturing capacity

Switching sequence acc. to DIN VDE 0641 part 11, EN 60 898, IEC 898  
Ratings with AC in kA / cos φ, with DC in kA / T ms

Range Tripping characteristic Rated current		AC 1-phase 133 V ~ kA/cos φ	230 V ~ kA/cos φ	2/3-phase 230 V ~ 133/230 V ~ kA/cos φ	400 V ~ 230/400 V ~ kA/cos φ	DC ① single pole up to 60 V ... kA/T ≤ ms	Max. Back-up protection fuse	Main circuit breaker ②	Max. Short-circuit rupturing capacity of the range
S 280 - B	6	15/0.25	10/0.5	15/0.25	10/0.5	10/4	63 A	100 A	up to 25 000
	10 ... 13	25/0.25	25/0.25	25/0.25	25/0.25		80 A	100 A	
	16 ... 25					15/4	100 A	100 A	
	32 ... 40	20/0.25	15/0.25	20/0.25	15/0.25		125 A	100 A	
	50 ... 63	15/0.25	10/0.25	15/0.25	10/0.5	10/4	160 A	100 A	
S 280 - C	0.5 ... 2	unlimited					not necessary		unlimited
	3, 4	15/0.25	10/0.5	15/0.25	10/0.5	10/4	35 A	-	up to 25 000
	6, 8						63 A	100 A	
	10, 13	25/0.25	25/0.25	25/0.25	25/0.25	15/4	80 A	100 A	
	16 ... 25						100 A	100 A	
	32 ... 40	20/0.25	15/0.25	20/0.25	15/0.25	10/4	125 A	100 A	
	50 ... 63	15/0.25	10/0.5	15/0.25	10/0.5		160 A	100 A	
S 280 - K,Z,D	0.2 ... 2 ③	unlimited					not necessary		unlimited
	3	15/0.25	10/0.5	15/0.25	10/0.5	10/4	25 A	-	up to 25 000
	4						35 A	-	
	6						63 A	100 A	
	8						80 A	100 A	
	10 ... 20	25/0.25	25/0.25	25/0.25	25/0.25	15/4	100 A	100 A	
	25 ... 32	20/0.25	15/0.25	20/0.25	15/0.25	15/4	125 A	100 A	
	40 ... 63	15/0.25	10/0.5	15/0.25	10/0.5	10/4	160 A	100 A	

① In symmetrical earth-ground AC networks 2 pole MCB's (two poles in series) are applicable up to 110 V ... . In this case the rated rupturing capacity is one step higher than the 1 pole version. Direction of connection is optional.

② The max. back-up protection is only required if the prospective short circuit current may exceed the short circuit rupturing capacity of the MCB.

③ K from 0.2 A, Z from 0.5 A rated current.

### Short circuit rupturing capacity

Switching sequence according to DIN VDE 0660 Part 101, IEC 947

For the short circuit rupturing capacities listed the time constant  $T = L/R \leq 15$  ms is valid in the case of DC.

In the case of AC for 10 kA;  $\cos \varphi \geq 0.6$  – for 8 and 6 kA:  $\cos \varphi \geq 0.7$  – for 4, 5 and 3 kA:  $\cos \varphi \geq 0.8$  and for 2 kA:  $\cos \varphi \geq 0.9$ .

S 280 UC	1 pole				2/4 pole				Max. fuse ④ for back-up protection; operating classgL (DIN VDE 0636/IEC 269)
for DC	up to 60 V ...	100 V ...	220 V ...	up to 60 V ...	110 V ...	220 V ...	440 V ...		
for AC	up to 60 V ~	127 V ~	240 V ~	up to 60 V ~	127 V ~	240 V ~	415 V ~		
B 6 ... 25 A K, Z 0.2 ... 2 A ⑤ K, Z 3 ... 4 A K, Z 6 ... 8 A K, Z 10 ... 32 A K, Z 40 ... 63 A	10 kA unlimited	10 kA unlimited	6 kA unlimited	10 kA unlimited	10 kA unlimited	10 kA unlimited	6 kA unlimited	100 A not neccessary	
								35 A	
								63 A	
								100 A	
								125 A	

④ Back-up protection is only necessary when, at the point of installation the maximum rated short circuit rupturing capacity is expected to be exceeded.

⑤ Z 0.5 A ... 2 A

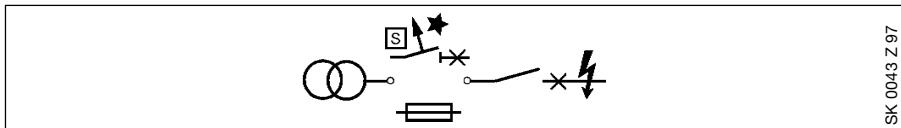
# System pro M

## Miniature Circuit Breakers

Rated current of MCB <b>S 280-UC</b>	<b>Maximum back-up protection</b>			
	MCB S 280 UC – B to fuses gL A	to Main-circuit Breakers S 700-E A	MCB S 280 UC – K, Z to fuses gL A	to Main-circuit Breakers S 700-E A
0.2 ... 2	–	–	not necessary	
3	–	–	35	–
4	–	–	50	–
6	63	100	63	100
8 ... 10	80	100	80	100
16 ... 40	100	100	100	100
50 ... 63	125	100	100	100

### Selectivity in case of overload

The miniature circuit breaker is selective to the back-up fuse in the overcurrent range. For short-circuit selectivity see page 23/25.



Determination of the smallest selective back-up device (main circuit breaker or fuse) to a STOTZ M.C.B.

Smallest rated current of back-up device = rated current of M.C.B. x selective factor

### Selective factors (overload)

M.C.B.			
Characteristic/ S 240/S 260/S 270/S 280 rated current	main circuit breaker S 700	Fuse	
B 6 – B 63 A	E <sub>sel</sub>	K <sub>sel</sub>	gL
C 0.5 – C 6 A	1.4	1.4	-
C 8 – C 32 A			5
C 40 – C 63 A	2.0	1.4	3.2
D 0.5 – D 3 A			2.5
D 4 – D 16 A	2.8	1.4	5
D 25 – D 63 A			4
D 25 – D 63 A			3.2
K 0.5 – K 3 A			5
K 4 – K 20 A	2.4	1.2	2
K 25 – K 63 A			3.2
S 280			
K 0.2 – K 16 A	2.8	1.4	5
K 20 – K 63 A			4
Z 0.5 – Z 10 A			2
Z 16 – Z 63 A	1.15	1.15	1.6

### Examples

Determine for a M.C.B. type B16 the smallest selective back-up device.

#### **S 700 – E<sub>sel</sub>**

$$I_{n \text{ S } 700 \text{ E}} \geq 16 \cdot 1.4 = 22.4 \text{ A}$$

select: S 700 – E 25

#### **S 700 – K<sub>sel</sub>**

$$I_{n \text{ S } 700 \text{ E}} \geq 16 \cdot 1.4 = 22.4 \text{ A}$$

select: S 700 – K 25

#### **Fuse gL**

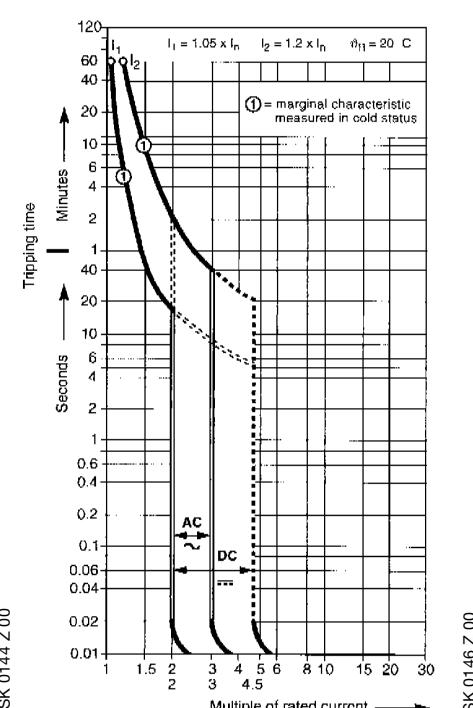
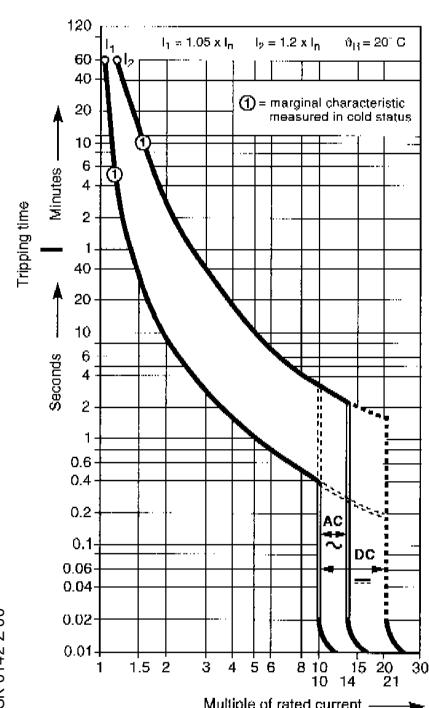
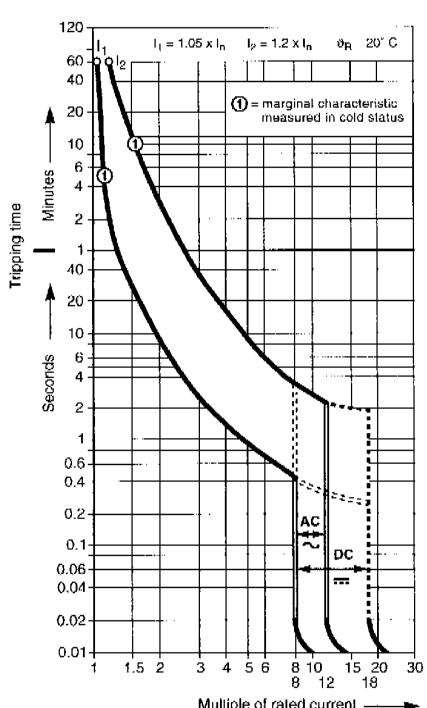
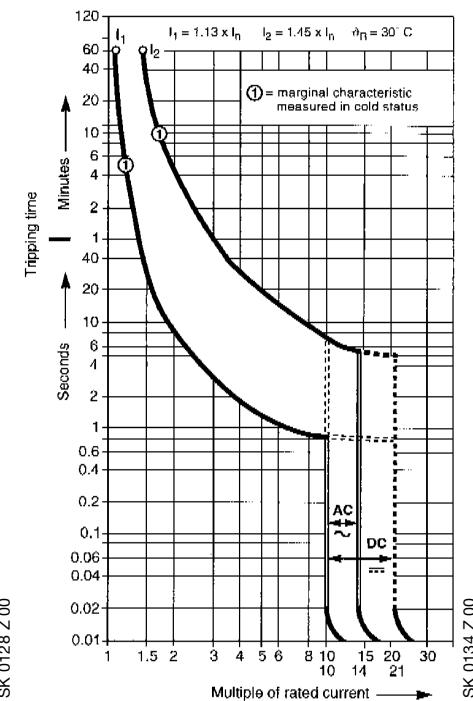
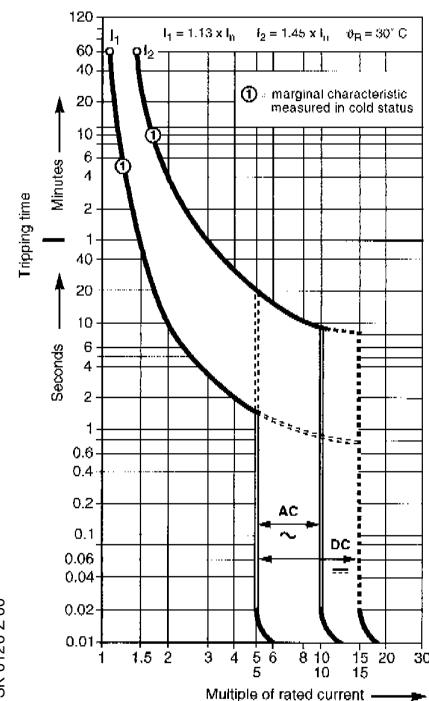
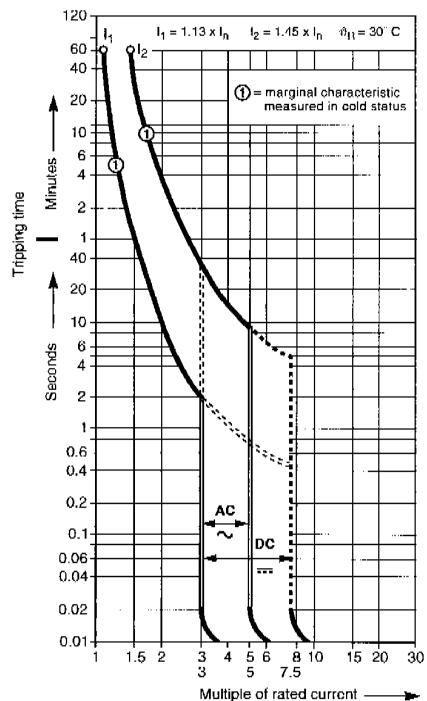
$$I_{n \text{ fuse } gL} > 16 \times 2.0 = 32 \text{ A}$$

select: fuse gL 32 A

# Miniature Circuit Breakers

## System pro M

### Tripping diagrams

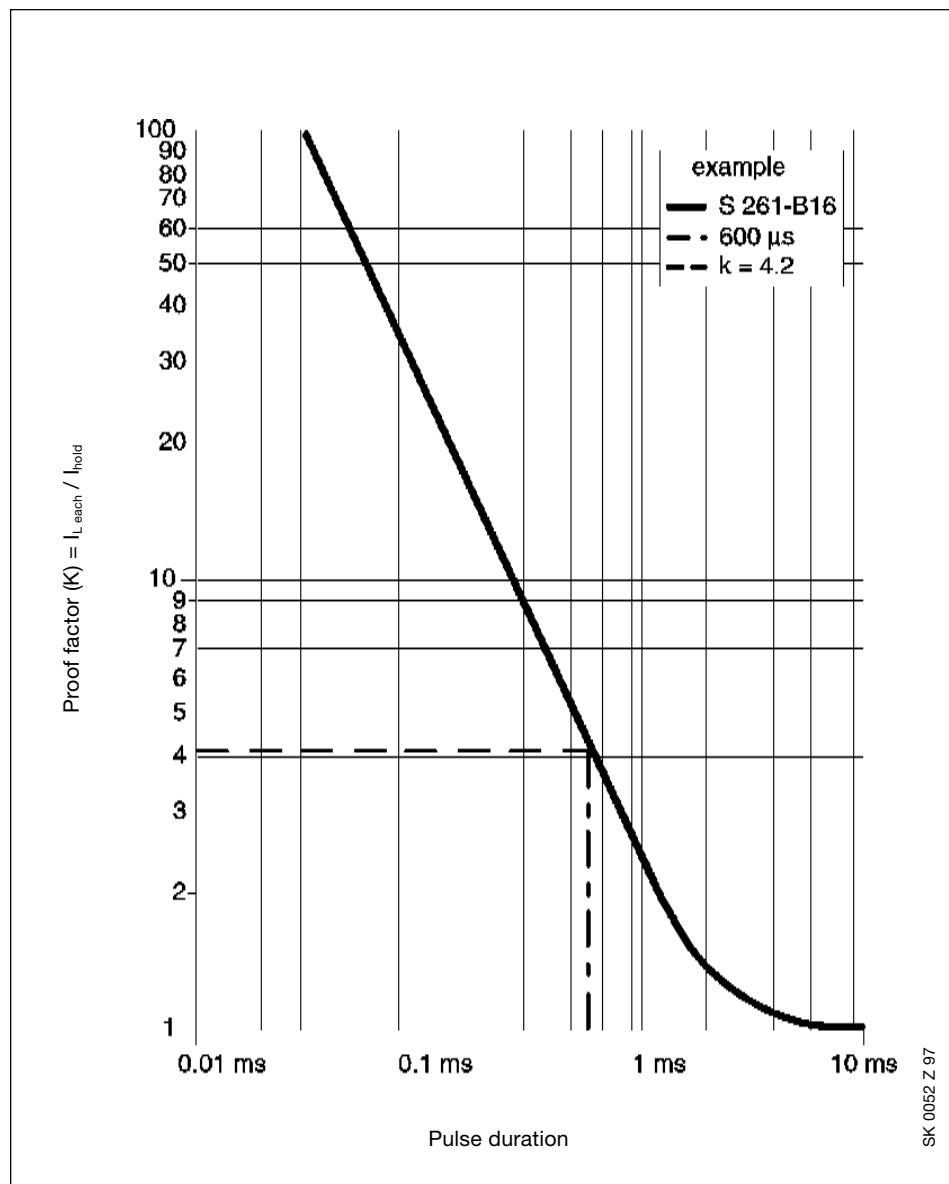


18

# Miniature Circuit Breakers

## System pro M

### Pulse tripping of the STOTZ MBC's acc. to EN 60 898



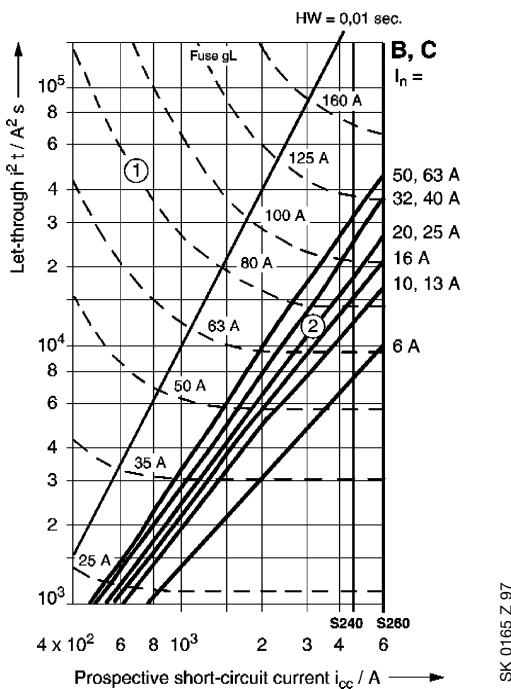
Example: S 261 – B 16	$I_{\text{hold}} = K \cdot I_{\text{hold}}$ ( $I_{\text{hold}} = 3 \cdot I_n$ )	B-Characteristik = $3 \cdot I_n$
	$I_{\text{hold}} = 4.2 \cdot 3 \cdot 16$	C-Characteristik = $5 \cdot I_n$
	$I_{\text{hold}} = 201.6 \text{ A}$	K-Characteristik = $8 \cdot I_n$

# Miniature Circuit Breakers

System pro M

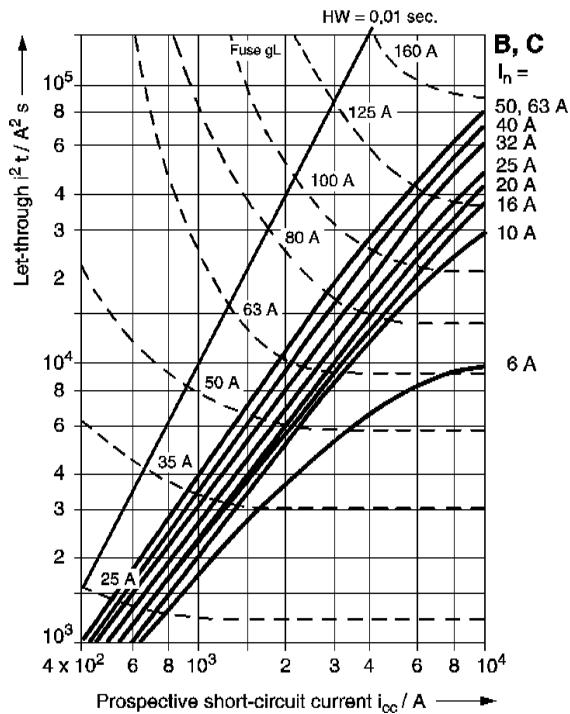
## Diagram of the let-through value $I^2t$

Miniature circuit breakers S 260 B/C



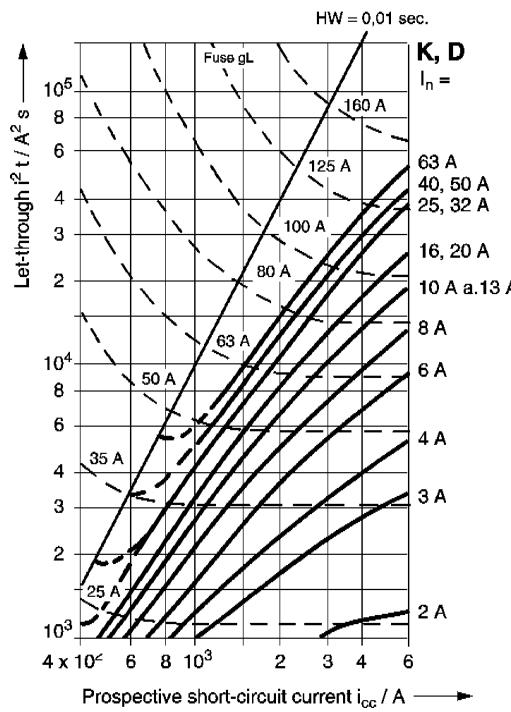
- ① min. melting  $I^2t$  (pre-arcing), e.g.  $I_n = 80$  A gL
- ② max. Let-through  $I^2t$  of M.C.B., e.g. B 20 A

Miniature circuit breakers S 270 B/C

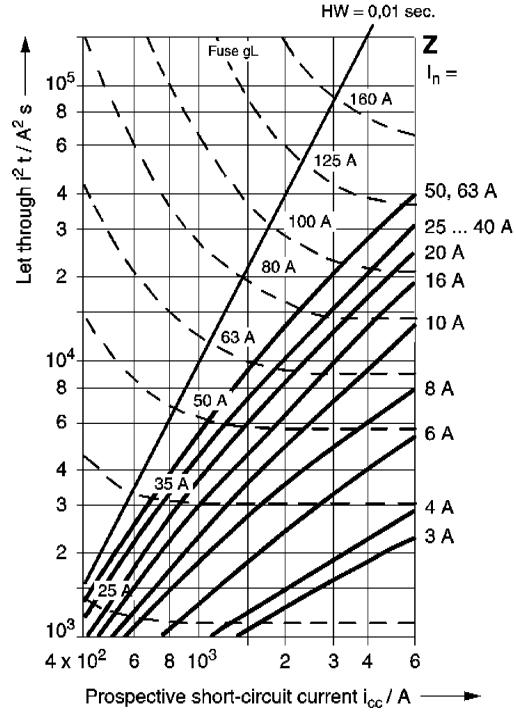


Let through value  $I^2t$  reduce by  
127 V ~ with factor 2.5 – 110 V ~ with factor 3.0

Miniature circuit breakers S 270-K, S 260-D



Miniature circuit breakers S 270-Z

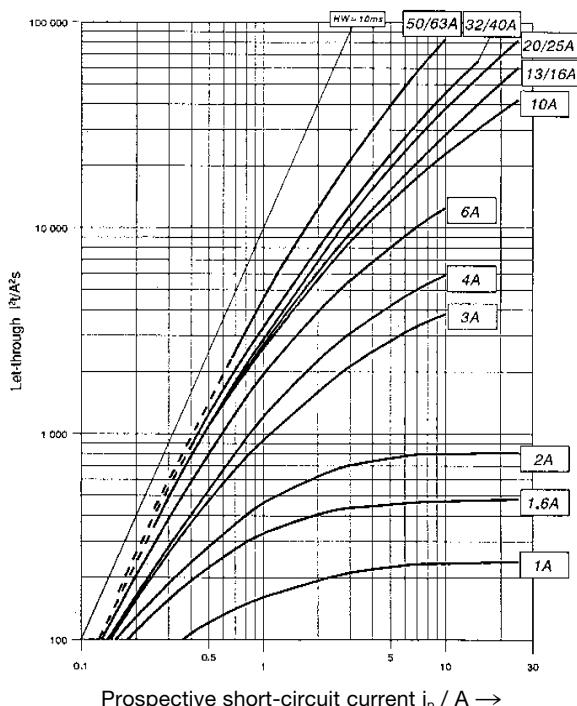


# Miniature Circuit Breakers

## System pro M

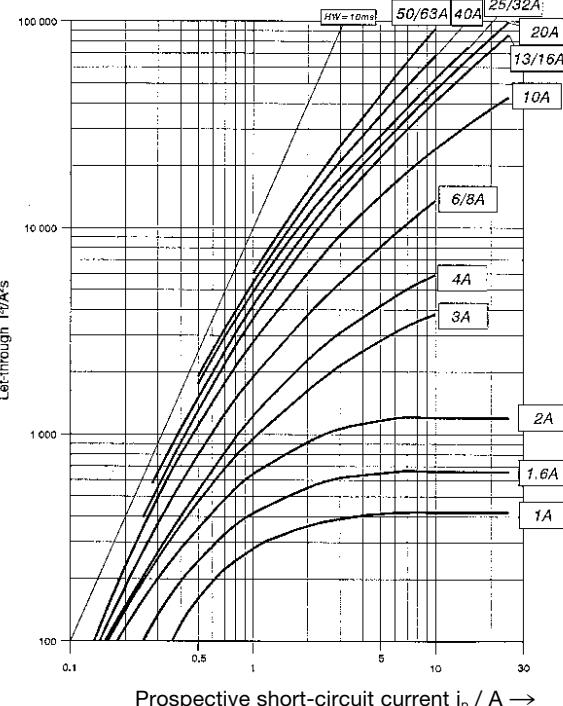
### Diagram of the let-through value $I^2t$

**S 280 B/C**



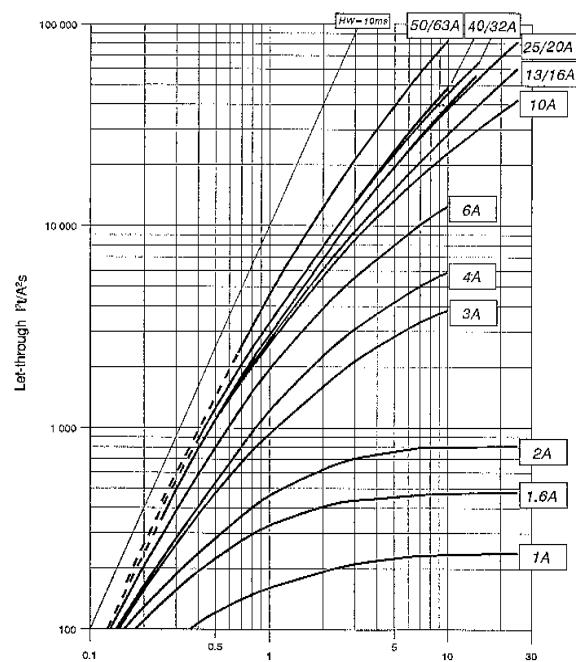
SK 0156 Z 94

**S 280 K/D**



SK 0157 Z 94

**S 280 Z**



SK 0158 Z 94

# Miniature Circuit Breakers

## System pro M

### Internal resistances and power losses of the Miniature Circuit-Breakers

Internal resistances per pole in mΩ

Power losses per pole in W

Type	Rated current A	Range S 230-B, C mΩ	W	Range S 260-B, S 270-B mΩ	W	Range S 260-C, S 270-C mΩ	W	Range S 270-K, S 260-D mΩ	W	Range S 270-Z mΩ	W
<b>S 2</b>	0.5	–	–	–	–	5500	1.4	6340	1.6	10100	2.52
	1	–	–	–	–	1440	1.4	1550	1.6	2270	2.27
	1.6	–	–	–	–	630	1.6	695	1.8	1100	2.81
	2	–	–	–	–	460	1.8	460	1.9	619	2.47
	3	–	–	–	–	150	1.3	165	1.5	202	1.82
	4	–	–	–	–	110	1.8	120	2.0	149	2.38
	6	55	2.0	55	2.0	55	2.0	52	1.9	104	3.74
	8	–	–	–	–	15	1.0	38	2.5	53.9	3.45
	10	13.3	1.3	13.3	1.3	13.3	1.3	12.6	1.26	17.5	1.75
	13	13.3	2.3	13.3	2.3	13.3	2.3	12.6	1.26	–	–
	16	7.0	1.8	7.0	1.8	7.0	1.8	7.7	2.0	10.9	2.80
	20	6.25	2.5	6.25	2.5	6.25	2.5	6.7	2.7	6.0	2.40
	25	5.0	3.2	5.0	3.2	5.0	3.2	4.6	2.9	4.10	2.56
	32	3.6	3.7	3.6	3.7	3.6	3.7	3.5	3.6	2.81	2.88
	40	3.0	4.8	3.0	4.8	3.0	4.8	2.8	4.5	2.55	4.09
	50	–	–	1.2	3.0	1.2	3.0	1.15	2.9	1.77	4.43
	63	–	–	0.9	3.6	1.4	5.6	0.7	5.2	1.31	5.20

	Rated current I <sub>n</sub>	S 280 UC-B mΩ	W	S 280-D S 280-K/S 280 UC-K mΩ	W	S 280-Z/S 280 UC-Z mΩ	W	S 280-B and C ① mΩ	W
<b>S 280</b>	0.2	–	–	33300	1.33	–	–	–	–
	0.3	–	–	19700	1.77	–	–	–	–
	0.5	–	–	5020	1.26	10100	2.52	5500	1.4
	0.75	–	–	2400	1.35	–	–	–	–
	1	–	–	1390	1.39	2270	2.27	1440	1.4
	1.6	–	–	612	1.56	1100	2.81	630	1.6
	2	–	–	450	1.79	619	2.47	460	1.8
	3	–	–	147	1.32	202	1.82	150	1.3
	4	–	–	112	1.79	149	2.38	110	1.8
	6	55	2.0	54.1	1.95	104	3.74	55	2.0
	8	–	–	33.8	2.16	53.9	3.45	15	1.0
	10	13.5	1.35	15.1	1.51	17.5	1.75	13.5	1.35
	13	–	–	–	–	–	–	13.3	2.3
	16	9.7	2.5	8.1	2.07	10.9	2.80	9.7	2.5
	20	6.25	2.5	5.27	2.11	6.0	2.40	6.25	2.5
	25	3.0	1.9	3.97	2.48	4.1	2.56	3.0	1.9
	32	–	–	2.65	2.71	2.81	2.88	2.9	3.7
	40	–	–	2.44	3.90	2.55	4.09	2.0	4.8
	50	–	–	1.15	2.90	1.77	4.43	1.2	3.0
	63	–	–	0.7	5.20	1.31	5.20	1.4	5.6

① 0.5 – 4 A and 8 A rated current only apply to C-characteristic

# Miniature Circuit Breakers

## System pro M

**Maximum permissible fault loop impedance  $Z_s$  for  $U_0 = 230 \text{ V} \sim$  ①  
for compliance with the rupturing conditions prescribed in DIN VDE 0100, part 410**

Rated current $I_n$ A	B		C		D, K		Z	
	< 0.2 s $\Omega$	< 5 s $\Omega$	< 0.2 s $\Omega$	< 5 s $\Omega$	max. $Z_s$ for rupturing time $t_a < 0.2 \text{ s}$	< 0.2 s $\Omega$	< 5 s $\Omega$	< 0.2 s $\Omega$
0.2	—	—	—	—	82.1	110	—	—
0.3	—	—	—	—	54.7	73	—	—
0.5	—	46	70.8	32.8	44	153	153	153
0.75	—	—	—	—	21.9	29.3	—	—
1.0	—	—	23	35.4	16.4	22.0	78.7	78.7
1.6	—	—	14.4	22.1	10.2	13.7	47.9	47.9
2	—	—	11.5	17.7	8.2	11.0	38.3	38.3
3	—	—	7.7	11.8	5.4	7.3	25.5	25.5
4	—	—	5.8	8.8	4.1	5.5	19.1	19.1
6	7.6	7.6	3.8	5.9	2.7	3.6	12.7	12.7
8	—	—	2.8	5.7	2.0	2.7	9.5	9.5
10	4.6	4.6	2.3	3.5	1.6	2.9	4.1	4.1
13	3.5	3.5	1.7	2.7	—	—	—	—
16	2.9	2.9	1.4	2.2	1.0	1.8	4.7	4.7
20	2.3	2.3	1.1	1.7	0.8	1.4	3.8	3.8
25	1.8	1.8	0.9	1.4	0.6	1.1	3.0	3.0
32	1.4	1.4	0.7	1.1	0.5	0.9	2.4	2.4
40	1.1	1.1	0.6	0.9	0.4	0.7	1.9	1.9
50	0.9	0.9	0.5	0.7	0.3	0.6	1.5	1.5
63	0.7	0.7	0.4	0.6	0.25	0.46	1.1	1.1

In those cases where the measured impedances exceed these values an earth fault protection device in acc. with VDE 0664 should be provided as a rupturing device in TN or TT networks.

e.g. STOTZ Residual Current Circuit-Breakers F 372 and F 374 or RCBO multiSTOTZ F 270/6.

①  $U_0$  = rated voltage to earthed conductors: for  $U_0 = 240 \text{ V} \sim Z_s \cdot 1.04$  applies;  
for  $U_0 = 127 \text{ V} \sim Z_s \cdot 0.55$  applies  $Z_S = R_{M.C.B.} + R_{loop}$

The fault loop impedance can be measured with commercially available instruments such as e.g. ABB-METRAWATT type PROFITEST C or PROFITEST 0100 S II.

### Internal resistances and power losses of the MCB s

Internal resistances per pole in mΩ

Power losses per pole in W

S 290	C	
$I_n$	mΩ	W
80 A	1,0	6,4
100 A	0,8	8,0
125 A	0,7	10,9

### Short-circuit selectivity in kA

If the short-circuit does not exceed the rupturing capacity of the MCB selectivity is given up to the stated values.

S 290 - C	to fuses gL / gl ( DIN VDE 0663, IEC 269 / 3 )					
$I_n \downarrow \rightarrow$	100	125	160	200	224	250
80 A	2,5	3,5	5,1	7,5	9,2	10
100 A	-	3,3	4,5	6,5	8,0	10
125 A	-	-	4,5	6,5	8,0	10

### Maximum back-up fuse

The max. fuse for the back-up protection is only necessary, if at the mounting station the prospective short.circuit current could pass the declared short-circuit capacity.

S 290	Maximum back-up fuse S 290-C	
$I_n$	to fuses gL	to main MCB S 700 E
80 A	224	100
100 A	250	-
125 A	-	-

S 290	C	
	max. $Z_s$ for rupturing time $t_a < 0.2 \text{ s}$ and $< 5 \text{ s}$	
$I_n$	< 0.2 s $\Omega$	< 5 s $\Omega$
80 A	0,3	0,6
100 A	0,2	0,4
125 A	0,16	0,3

# Miniature Circuit Breakers

## System pro M

### Short-circuit selectivity

If the short-circuit current does not exceed the rupturing capacity of the M.C.B. selectivity is given up to the stated values.

Miniature Circuit Breakers		Short-circuit selectivity in kA								to fuses, characteristic gL/gl (DIN VDE 0636; IEC 269/3)									
										SK 0113 Z 93									
$I_n$ A	S 700	SK 0041 Z 97																	
		20	25	35	40	50	63	80	100	20	25	35	50	63	80	100	125	160	
S 230-B <sup>①</sup> -C	6	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	no selectivity	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0	
	10	3,0	3,0	3,0	3,0	3,0	3,0	3,0	3,0										
	16		3,0	3,0	3,0	3,0	3,0	3,0	3,0										
	20			3,0	3,0	3,0	3,0	3,0	3,0										
	25				3,0	3,0	3,0	3,0	3,0										
	32					3,0	3,0	3,0	3,0										
	40						3,0	3,0	3,0										
										on request									
S 260-B <sup>①</sup> -C <sup>②</sup>	$\leq 2$	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15	1.2	4	> 15	> 15	> 15	> 15	> 15	> 15	> 15	
	3	6	6	6	6	6	6	6	6	0.7	1.2	4.6	6	6	6	6	6	6	
	4	6	6	6	6	6	6	6	6	0.6	0.9	2.8	6	6	6	6	6	6	
	6	6	6	6	6	6	6	6	6	0.5	0.8	2	3.3	5.5	6	6	6	6	
	8	6	6	6	6	6	6	6	6	0.4	0.7	1.7	2.8	4.5	6	6	6	6	
	10	6	6	6	6	6	6	6	6	0.4	0.7	1.5	2.5	3.5	5	6	6	6	
	13	6	6	6	6	6	6	6	6		0.7	1.5	2.5	3.5	5	6	6	6	
	16		6	6	6	6	6	6	6			1.3	2	2.9	4.1	6	6	6	
	20			6	6	6	6	6	6				1.8	2.6	3.5	5	6	6	
	25				6	6	6	6	6				1.8	2.6	3.5	5	6	6	
	32					6	6	6	6					2.2	3	4	6	6	
	40						6	6	6						2.5	4	6	6	
	50/63	no selectivity				6	6	no selectivity							3.5	5	6		
S 260-D	$\leq 2$	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15	0.7	1.2	4.6	6	6	6	6	6	6	
	3	6	6	6	6	6	6	6	6	0.6	0.9	2.8	6	6	6	6	6	6	
	4	6	6	6	6	6	6	6	6			0.7	1.7	3	5.9	6	6	6	
	6	6	6	6	6	6	6	6	6				1.3	2.2	3.6	6	6	6	
	8		6	6	6	6	6	6	6					1.7	2.5	4	6	6	
	10			6	6	6	6	6	6						1.6	2.2	3.1	4.6	6
	13				6	6	6	6	6							2.2	3.1	4.6	6
	16					6	6	6	6								3.1	4.6	6
	20						6	6	6								2.6	3.5	6
	25							6	6									3.5	6
	32								6										5.5
	40/50	no selectivity								no selectivity									
	63	no selectivity																	

<sup>①</sup> For the B-characteristic all values are valid, for the C-characteristic only the grey fields.

<sup>②</sup> Smaller currents below 6 A are only valid for C-characteristic.

<sup>③</sup> The current 8 A are only valid for C-characteristic.

# Miniature Circuit Breakers

## System pro M

### Short-circuit selectivity

If the short-circuit current does not exceed the rupturing capacity of the M.C.B. selectivity is given up to the stated values.

Miniature Circuit Breakers	Short-circuit selectivity in kA to main circuit breakers S 700									to fuses, characteristic gL/gl (DIN VDE 0636; IEC 269/3)								
	I <sub>n</sub> A	20	25	35	40	50	63	80	100	20	25	35	50	63	80	100	125	160
S 270-B <sup>①</sup>	≤ 2	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15	1.2	4	> 15	> 15	> 15	> 15	> 15	> 15	> 15
	-C <sup>②</sup>	3	10	10	10	10	10	10	10	0.7	1.2	4.6	10	10	10	10	10	10
		4	10	10	10	10	10	10	10	0.6	0.9	2.8	7	10	10	10	10	10
		6	10	10	10	10	10	10	10	0.5	0.8	1.7	3.1	7	10	10	10	10
		10	10	10	10	10	10	10	10	0.4	0.7	1.4	2.3	3.4	4.8	7.5	10	10
		13	10	10	10	10	10	10	10		0.7	1.4	2.3	3.4	4.8	7.5	10	10
		16		10	10	10	10	10	10			1.3	2	2.9	4.2	6	9.5	10
		20			10	10	10	10	10				1.9	2.7	3.8	5.6	8.5	10
		25				10	10	10	10				1.8	2.6	3.6	5.4	8	10
		32					10	10	10					2.4	3.2	4.2	6.8	10
		40						10	10						3.2	4.2	6.8	9.5
50/63 no selectivity								10	10	no selectivity						3.8	5.7	8.5

S 270-K	≤ 2	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15	1.2	4	> 15	> 15	> 15	> 15	> 15	> 15	> 15
	3	6	6	6	6	6	6	6	6	0.7	1.2	4.6	6	6	6	6	6	6
	4	6	6	6	6	6	6	6	6	0.6	0.9	2.8	6	6	6	6	6	6
	6	6	6	6	6	6	6	6	6		0.7	1.7	3	5.9	6	6	6	6
	8	6	6	6	6	6	6	6	6		1.3	2.2	3.6	6	6	6	6	6
	10/13		6	6	6	6	6	6	6			1.7	2.5	4	6	6	6	6
	16			6	6	6	6	6	6				2.2	3.1	4.6	6	6	6
	20				6	6	6	6	6				3.1	4.6	6	6	6	6
	25					6	6	6	6				2.6	3.5	6	6	6	6
	32						6	6	6					3.5	6	6	6	6
	40/50							6						5.5	6			
63 no selectivity										no selectivity							6	

S 270-Z	≤ 2	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15	
	3	6	6	6	6	6	6	6	6	0.7	1.8	6	6	6	6	6	6	6	
	4	6	6	6	6	6	6	6	6	0.6	1.3	6	6	6	6	6	6	6	
	6	6	6	6	6	6	6	6	6	0.5	0.9	2.7	6	6	6	6	6	6	
	8	6	6	6	6	6	6	6	6	0.5	0.6	1.7	3.8	6	6	6	6	6	
	10	6	6	6	6	6	6	6	6	0.4	0.6	1.3	2.4	4	6	6	6	6	
	16	6	6	6	6	6	6	6	6		0.5	1.1	1.7	3	4.5	6	6	6	
	20		6	6	6	6	6	6	6		0.9	1.5	2.3	3.5	5.2	6	6	6	
	25			6	6	6	6	6	6			1.4	2	3	4	6	6	6	
	32				6	6	6	6	6		1.4	2	3	4	6	6	6	6	
	40					6	6	6	6			2	3	4	6	6	6	6	
50/63 no selectivity						6	6	6	6	no selectivity						2.2	3.5	5.8	6

① For the B-characteristic all values are valid, for the C-characteristic only the grey fields.

② Smaller currents below 6 A are only valid for C-characteristic.

# Miniature Circuit Breakers

## System pro M

### Short-circuit selectivity

If the short-circuit current does not exceed the rupturing capacity of the M.C.B. selectivity is given up to the stated values.

Miniature Circuit Breakers	Short-circuit selectivity in kA to main circuit breakers S 700								to fuses, characteristic gL/gl (DIN VDE 0636; IEC 269/3)										
	I <sub>n</sub> A	20	25	35	40	50	63	80	100	20	25	35	50	63	80	100	125	160	
S 280-B <sup>①</sup> ≤ 2	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15	1.2	4	> 15	> 15	> 15	> 15	> 15	> 15	> 15		
-C <sup>②</sup>	3	10	10	10	10	10	10	10	0.7	1.2	4.6	10	10	10	10	10	10		
	4	10	10	10	10	10	10	10	0.6	0.9	2.8	7	10	10	10	10	10		
	6	10	10	10	10	10	10	10	0.5	0.8	1.7	3.1	7	10	10	10	10		
	10	10	10	10	10	10	10	10	0.4	0.7	1.4	2.3	3.4	4.8	7.5	10	10		
	13	10	10	10	10	10	10	10	0.7	1.4	2.3	3.4	4.8	7.5	10	10	10		
	16	10	10	10	10	10	10	10	10		1.3	2	2.9	4.2	6	9.5	10		
	20		10	10	10	10	10	10	10		1.9	2.7	3.8	5.6	8.5	10			
	25		10	10	10	10	10	10	10		1.8	2.6	3.6	5.4	8	10			
	32			10	10	10	10	10	10		2.4	3.2	4.2	6.8	10				
	40				10	10	10	10	10			3.2	4.2	6.8	9.5				
	50/63	no selectivity								10	10	no selectivity							
																3.8	5.7	8.5	

S 280-D	≤ 2	> 15	> 15	> 15	> 15	> 15	> 15	> 15	1.2	4	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15
-K	3	10	10	10	10	10	10	10	0.7	1.2	4.6	10	10	10	10	10	10	10
	4	10	10	10	10	10	10	10	0.6	0.9	2.8	7	10	10	10	10	10	10
	6	10	10	10	10	10	10	10		0.7	1.7	3	5.9	10	10	10	10	10
	8	10	10	10	10	10	10	10		1.3	2.2	3.6	6	10	10	10	10	10
	10/13	10	10	10	10	10	10	10			1.7	2.5	4	6.5	10	10		
	16			10	10	10	10	10			2.2	3.1	4.6	10	10			
	20				10	10	10	10			3.1	4.6	10	10				
	25					10	10	10			2.6	3.5	6	10				
	32						10	10				3.5	6	10				
	40/50							10					5.5	9				
	63	no selectivity								no selectivity								7.5

S 280-Z	≤ 2	> 15	> 15	> 15	> 15	> 15	> 15	> 15	1.2	4	> 15	> 15	> 15	> 15	> 15	> 15	> 15	> 15		
	3	10	10	10	10	10	10	10	0.7	1.8	10	10	10	10	10	10	10	10		
	4	10	10	10	10	10	10	10	0.6	1.3	7	10	10	10	10	10	10	10		
	6	10	10	10	10	10	10	10	0.5	0.9	2.7	6	10	10	10	10	10	10		
	8	10	10	10	10	10	10	10	0.5	0.6	1.7	3.8	8	10	10	10	10	10		
	10	10	10	10	10	10	10	10	0.4	0.6	1.3	2.4	4	7	10	10	10	10		
	16	10	10	10	10	10	10	10		0.5	1.1	1.7	3	4.5	7.5	10	10	10		
	20	10	10	10	10	10	10	10			0.9	1.5	2.3	3.5	5.2	9.5	10			
	25			10	10	10	10	10			1.4	2	3	4	7	10				
	32				10	10	10	10			1.4	2	3	4	7	10				
	40					10	10	10				2	3	4	7	10				
	50/63	no selectivity								10	10	10	no selectivity							
													2.2	3.5	5.8	10				

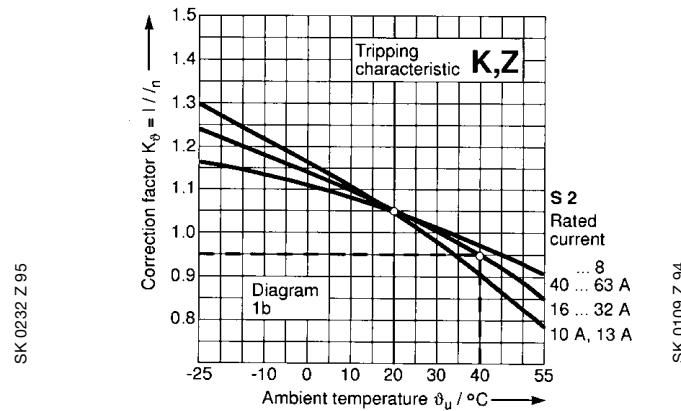
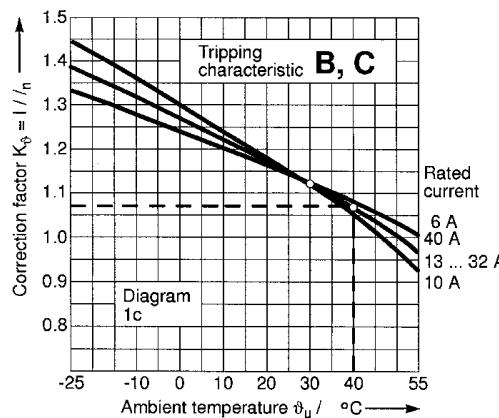
① For the B-characteristic all values are valid, for the C-characteristic only the grey fields.

② Smaller currents below 6 A are only valid for C-characteristic.

# Miniature Circuit Breakers

## System pro M

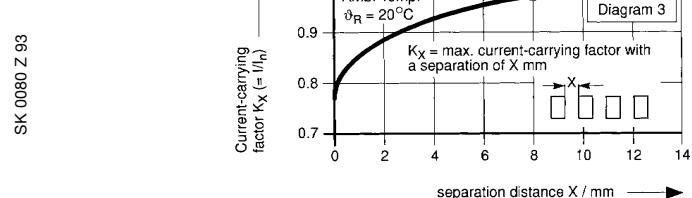
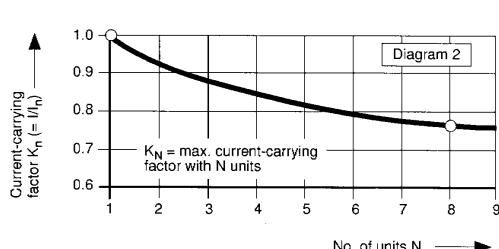
### Current-carrying capacity of the MCB's as a function of the ambient temperature



### Mutual thermal influence in the case of simultaneous load

MCB's mounted in a row side by side

MCB's mounted with a separating distance X



Load data	from diagram	Calculation	Example
Rated current and characteristic of M.C.B. Continuous load Number of M.C.B.'s / Mounting distance		$I_n / B, C, D, K, Z$ $\vartheta_R$ $N / X$	16 A – B 40 °C 8 pieces / 0 and 8 mm
Load $\leq 1 \text{ h}$ Continuous load $> 1 \text{ h}$	1 a resp. 1 b	$I = I_n \cdot K_\theta$ $I = 0.9 \cdot I_n \cdot K_\theta$	$16 \cdot 1.07 = 17.1 \text{ A}$ $0.9 \cdot 16 \cdot 1.07 = 15.4 \text{ A}$
Continuous load, N M.C.B.'s, Distance 0 Continuous load, N M.C.B.'s, Distance X	2 3	$I = 0.9 \cdot K_\theta \cdot K_N$ $I = 0.9 \cdot K_\theta \cdot K_X$	$0.9 \cdot 16 \cdot 1.07 \cdot 0.77 = 11.9 \text{ A}$ $0.9 \cdot 16 \cdot 1.07 \cdot 0.98 = 15.1 \text{ A}$

# Miniature Circuit Breakers

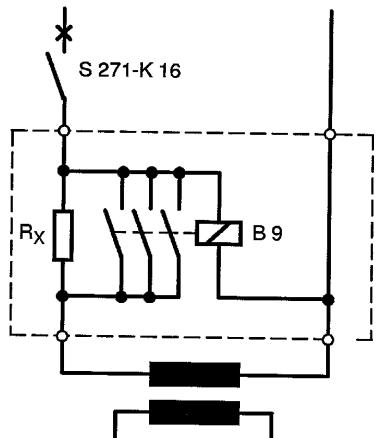
## System pro M

### Examples for application

#### Reduction of making current peaks

The making time of a contactor type B 9 is 9 ... 17 ms. If this time is not sufficient, a delay-on energisation timer (0.1 ... 40 s) may be snapped onto the contactor without problems.

The resistor  $R_x$  has to be selected according to the requirements (see determination of  $R_x$ ).

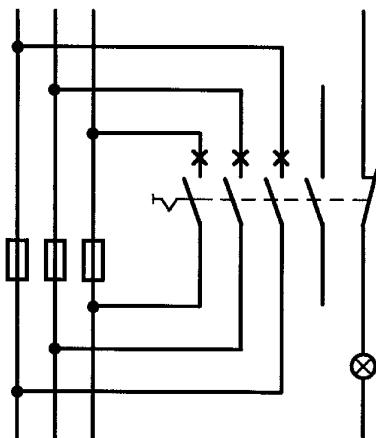


SK 0112 Z 94

#### Monitoring of fuses

The M.C.B. S 270-K 0.5 is especially suitable for the monitoring of fuses, since, due to its high internal resistance it has an unlimited switching capacity.

In case of planned switching, e.g. withdrawl of the fuse cartridges or opening of the disconnector it must be ensured that the M.C.B. also is switched off.



SK 0209 Z 95

#### Determination of $R_x$ :

$$R_x > \frac{1.1 U_n}{I_H}$$

$U_n$  = Mains voltage

$I_H$  = electromagn. non tripping current of S 271-K ( $8 \times I_n$ ) see table on page 14

### Protection of lamps

#### 1. Thungsten lamps and fluorescent tubes

In the following table is indicated the maximum allowed number of fluorescent lamps, which can be protected with a single pole M.C.B. For unit multi pole M.C.B.'s this number is reduced by 20%.

Miniature circuit breakers with K and C characteristic, can carry their rated current  $I_n$  when protecting:

Tungsten lamps

- Fluorescent lamps
  - a) non compensated
  - b) parallel compensated
  - c) electronic ballast

#### 2. High pressure lamps

Starting load: appr.  $1.7 \times$  nominal current of lamp.

Recovery time: 3 ... 5 min. Dependent on lamps type, cable impedance and starting moment a rectifier effect can overlay the starting current of lamps for some half waves.

In the worst case starting currents of approx.  $15 \times$  rated current of lamp may occur. To prevent nuisance tripping, M.C.B.'s with K characteristics may only be loaded with 0.6 times rated current of lamps.

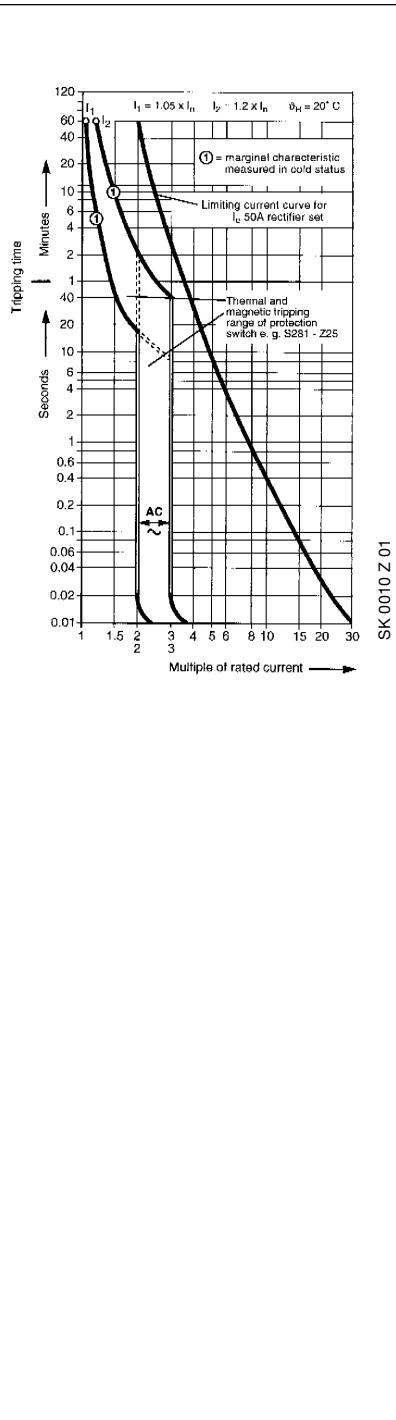
The indicated load factor refers to the worst case of application (position near trafo, low cable impedances).

Characteristic / rated current	non compensated KVG			parallel compensated KVG			EVG 1		
	18/20 W	36/40 W	58/65 W	18/20 W	36/40 W	58/65 W	18/20 W	36/40 W	58/65 W
10	27	23	15	32	32	20	18	18	8
16	43	37	24	51	51	33	26	26	12
20	53	46	30	64	64	41	33	33	15
25	66	58	37	82	82	53	42	42	19

1 Version with 2 tubes, swiched together

KVG: conventional ballast

EVG: electronic ballast



## Thermal trips

acc. DIN VDE 0660 Part 104, Type 1

Tripping time at  $1.05 \cdot I_n > 1$  h

$1.2 \cdot I_n < 1$  h

## Electromagnetic trips

Tripping time at  $2 \cdot I_n \sim > 0.2$  s

$3 \cdot I_n \sim < 0.1$  s

$5 \cdot I_n \dots < 0.2$  s

S 280 Z $I_n$ A	hold current surges of	break undelayed at	
		AC and DC $\geq 48\%$ ripple	DC $\leq 5\%$ ripple
0.5 A	1 A	1.5 A	2.4 A
1 A	2 A	3.0 A	4.8 A
1.6 A	3.2 A	4.8 A	7.7 A
2 A	4 A	6 A	9 A
3 A	6 A	9 A	15 A
4 A	8 A	12 A	19 A
6 A	12 A	18 A	29 A
8 A	16 A	24 A	38 A
10 A	20 A	30 A	48 A
16 A	32 A	48 A	77 A
20 A	40 A	60 A	96 A
25 A	50 A	75 A	120 A
32 A	64 A	96 A	153 A
40 A	80 A	120 A	192 A
50 A	100 A	150 A	240 A
63 A	126 A	189 A	120 A

## Overcurrent protection of an electronic load disconnecting relay $I_e = 50$ A with a MCB S 281-Z 25

In the short circuit range must be additional balanced the  $I^2t$  value of the S 281-Z 25 at the short-circuit current X with the  $I^2t$  value of the electronic load disconnecting relay (10 ms-value).

# High rupturing capacity M.C.B.'s

## S 280 UC Range

### System pro M

The M.C.B.'s type S 280 UC can be used up to 220 V ... for single pole M.C.B.'s or up to 440 V ... for 2 pole or for 4 pole M.C.B.'s with series connection of 2 poles.

The S 280 UC version differs from the standard S 280 M.C.B. in that it is fitted with a permanent magnet which assists in the forced extinguishing of the arc. It is therefore important that care is taken to observe the correct polarity and current flow direction when connecting these M.C.B.'s.

If voltages of over 220 V ... to earth are to be switched then for single pole switching a 2 pole M.C.B. S 280 UC and for all pole switching a 4 pole M.C.B. S 280 should be used.

### Example for max. permissible voltages between leads in relation to the number of poles and switching:

max. voltage between the leads	220 V ...	440 V ...	440 V ...	440 V ...	440 V ... (voltage reversal)
max. voltage between leads and earth	220 V ...	220 V ...	440 V ...	220 V ...	220 V ...
M.C.B.	1 pole S 281 UC	2 pole S 282 UC	2 pole S 282 UC	2 pole S 282 UC	4 pole S 284 UC
Supply-input below					
Supply-input above					

① Negative pole connected to earth

② Positive pole connected to earth

SK 0114 Z 94

SK 0115 Z 94

### Examples for various high voltages between a connecting lead and earth with equal voltages between the leads:

max. voltage between the leads	440 V ... All pole switching	440 V ... All pole switching	440 V ... All pole switching
max. voltage between the leads and earth	220 V supply symmetrically earthed	440 V Mains unearthed or unsymmetrically earthed	440 V Mains unearthed or unsymmetrically earthed
M.C.B.	2 pole S 282 UC	2 pole S 282 UC	4 pole S 284 UC

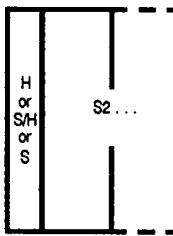
SK 0196 Z 98

# Miniature Circuit Breakers

## System pro M

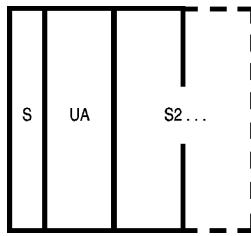
### Add-on possibilities of supplementary devices to M.C.B.'s (Examples)

to be fitted direct on to the M.C.B.

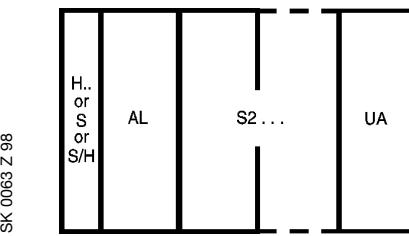


SK 0151 Z 94

Auxiliary contact H.. or  
combined signal contact/  
auxiliary contact S/H or  
signal contacts

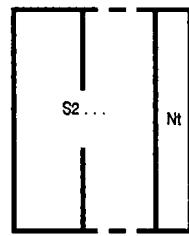


Signal contact or  
undervoltage release UA



Shunt trip or undervoltage  
release and auxiliary contact  
or combined signal contact/  
aux. contact or signal contact

separate mounting



SK 0154 Z 94

Hand operated neutral

### Supplementary devices for subsequent mounting



S 2-H 11

SK 0328 B 91



S 2-H 11X

#### Auxiliary contact S 2 – H...

The auxiliary contact can be built on subsequently to the M.C.B.

The switching position of the auxiliary contact depends on the position of the M.C.B. (ON-OFF). Because of coupling to the switching mechanism of the M.C.B. the auxiliary contact offers a trip free feature.

The auxiliary contact can be delivered either with screw- or plug in connections, the auxiliary contact with 3 potential free contacts only in screw-in connection.

#### Signal contact S 2 – S

It signals the tripping caused by overload earth fault or short circuit current however there is no signal when the M.C.B. is switched OFF manually. With a red handle which allows resetting of the trip signal without the M.C.B. being switched on. It has also a test button for checking the control circuit without interrupting the main circuit.

#### Undervoltage release S 2 – UA ..

For remote tripping of the M.C.B. Only in case of substained voltage the relay allows to switch on the M.C.B. The undervoltage release trips the M.C.B. if the supply voltage is interrupted or switched off (suitable for emergency off circuits).

#### Shunt trip S 2 – A .

For remote tripping of the M.C.B. by applying a control voltage. The shunt trip contains a relay with an integrated contact, that opens after the M.C.B. has tripped and interrupts the control voltage of the relays, this prevents the flow of current in case of substained control voltage.



SK 0330 B 91

S 2-S...



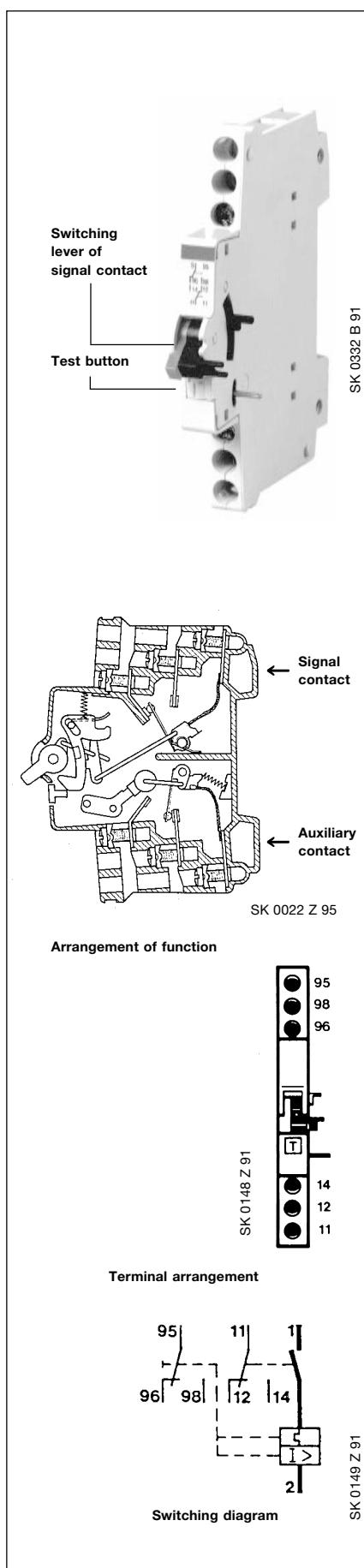
SK 0331 B 91

S2-NT

### Supplementary devices for separate mounting

#### Hand operated neutral

The hand operated neutral has to be mounted to the right hand side of the M.C.B. and be snapped on to the DIN rail. It is used for measuring duties where the neutral conductor must be in the open position. Due to the special design of the handle – when switching ON the M.C.B. – the neutral will make before the M.C.B. is closed.



### Supplementary devices for subsequent mounting

#### Combined signal contact/auxiliary contact S/H

The combined signal contact/auxiliary contact can easily be built-on subsequently to M.C.B.'s of the range S 260/S 270/S 280.

The signal unit and the auxiliary unit have a potential free changeover contact.

The contacts are trip free.

#### The signal contact

- signals the tripping caused by overload earth fault or short circuit current however there is no signal when the M.C.B. is switched OFF manually.
- has a red handle which allows resetting of the trip signal without the M.C.B. being switched on.
- has a test button for checking the control circuit without interrupting the main circuit.

#### The auxiliary contact

- signals a trip caused by overload, earth fault and short circuit current as well as the manual switching OFF of the M.C.B.

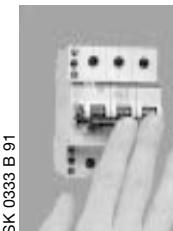
#### Applications

- for insulation measuring when the M.C.B. is switched OFF, in this case only the auxiliary contact switches, however, the signal contact remains in its position.
- for testing purposes of the control circuit. The signal contact is switched OFF by pressing the test button "T" and can be reset by operating the red toggle, the main circuit will not be interrupted.
- the signal contact can be reset in order to switch OFF an acoustic signal, without switching the M.C.B.

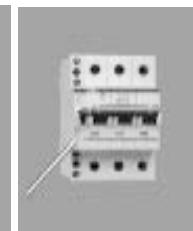
The multipurpose function of the combined signal contact/auxiliary contact S2-H is excellent.

Testing the main circuit without signalling

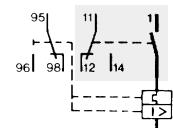
Testing the signal circuit without service interruption



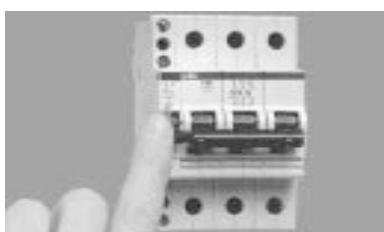
SK 0333 B 91  
Manual operation



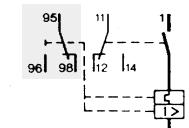
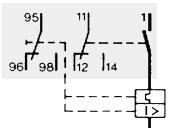
SK 0334 B 91  
Pressing Test "T"



SK 0150 Z 91  
After short circuit or overload,  
resetting of the signal



SK 0335 B 91  
Press red signal contact handle  
to the top position



SK 0151 Z 91

### Auxiliary contacts, signal contact or combined signal contact/auxiliary contact

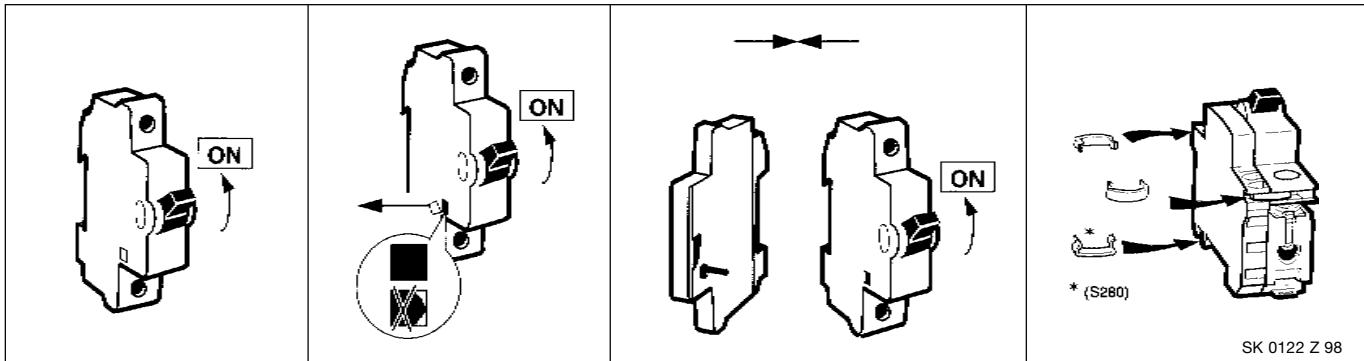
The M.C.B.'s S 260/S 270/S 280 range can subsequently be fitted with an auxiliary contact, signal contact or combined signal contact/auxiliary contact.

Ordering details see selection table.

The auxiliary contact blocks are supplied with the contact arrangement 1 NO + 1 NC, 2 NO or 2 NC.

The combined signal contact/auxiliary contact have each a potential free changeover contact.

#### Fitting of auxiliary contact



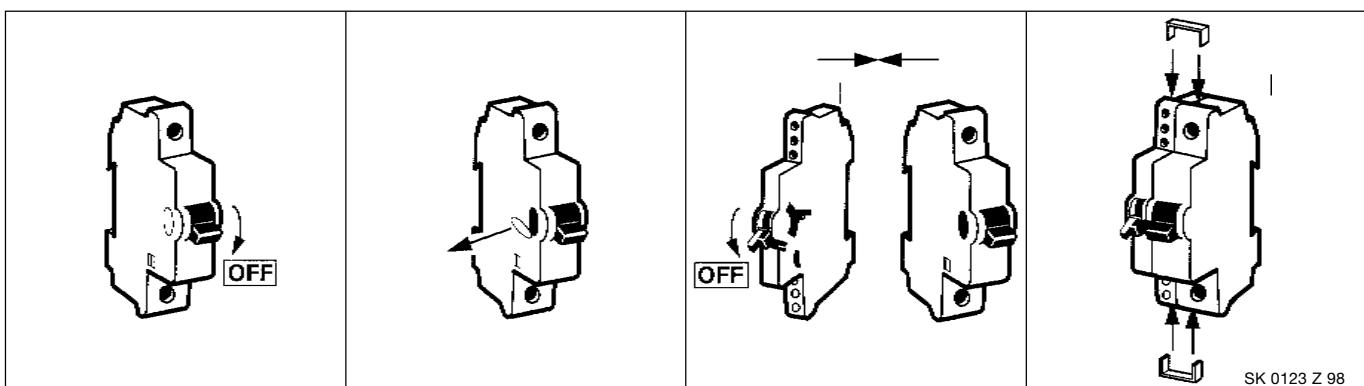
Bring the M.C.B.'s handle to the ON position

Break out the opening at the M.C.B.

Place the auxiliary contact to the M.C.B. ...

SK 0122 Z 98

#### Fitting of signal contact



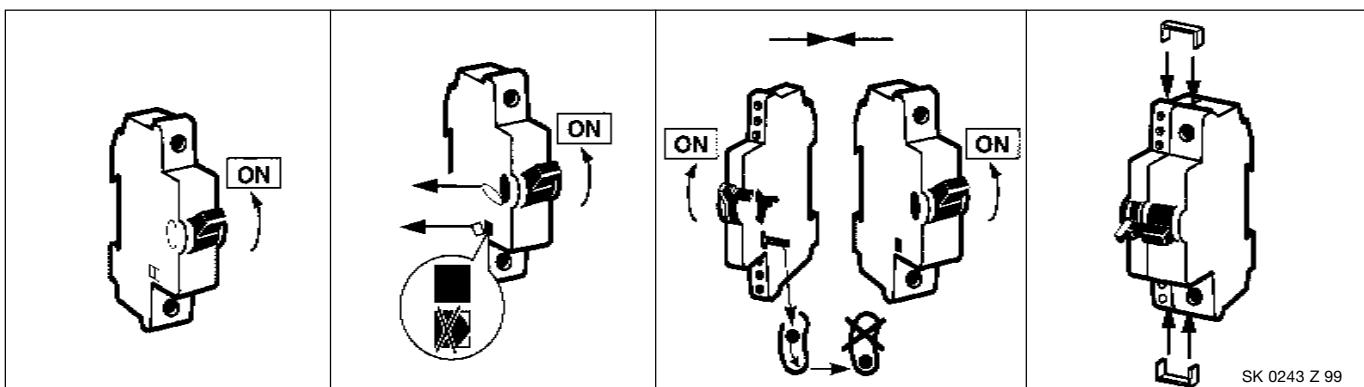
Bring the M.C.B.'s handle to the OFF position

Break out the opening at the M.C.B.

Place the signal contact to the M.C.B. ...

SK 0123 Z 98

#### Fitting of combined signal contact/auxiliary contact



Bring the M.C.B.'s handle to the ON position

Break out the opening at the M.C.B. and remove the window

Bring the handle to the ON position; bring the metal pin in position as marked with an arrow, place the signal contact/auxiliary contact to the M.C.B. ...

... and fix it with spring clamps

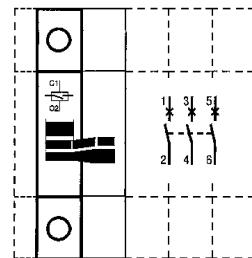
SK 0243 Z 99

### Shunt trip

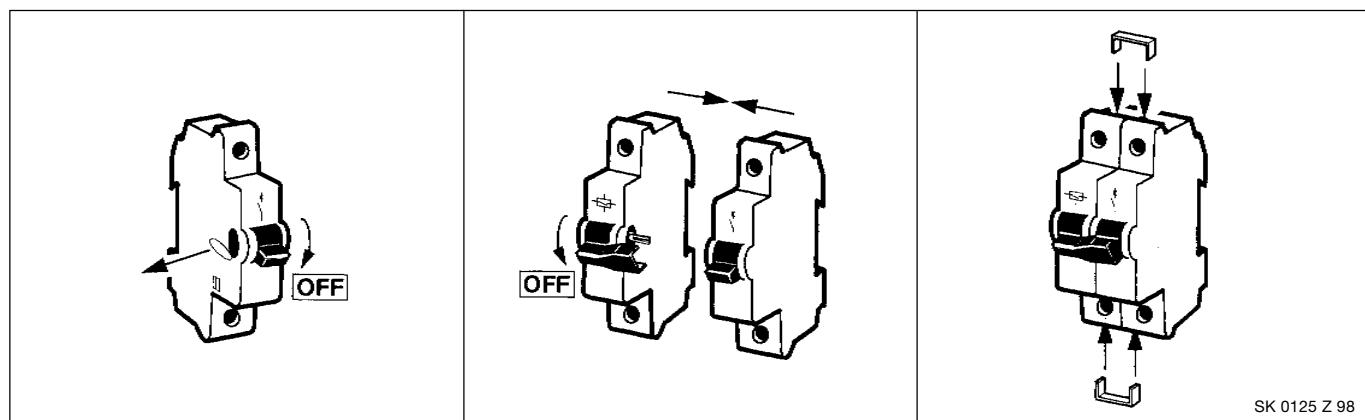
The M.C.B.'s S 260, S 270 and S 280 range can be subsequently be fitted with a shunt trip.

Mounting always to the left hand side of the M.C.B.

If auxiliary contacts or the combined signal contact/auxiliary contact are to be fitted these must be fitted on left hand side of the shunt trip.



SK 0122 Z 94



Bring the M.C.B.'s handle to the OFF position and remove the cover at the M.C.B.

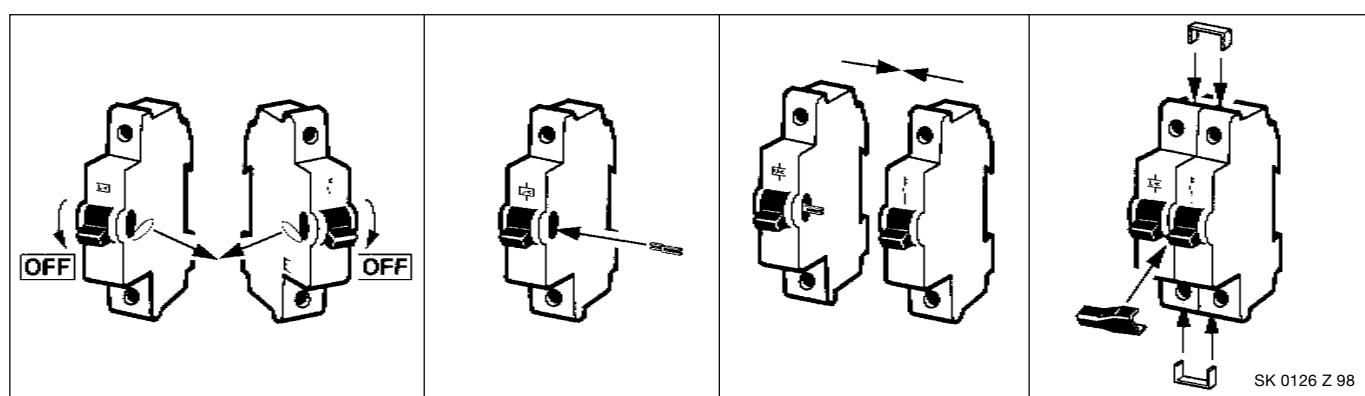
Bring the shunt trip's handle in the OFF position, place the shunt trip to the M.C.B. ...

... and fix it with spring clamps

The possible fitting of an auxiliary contact or combined signal contact/auxiliary contact is described on page 32.

### Under voltage release

#### Fitting of undervoltage release



Bring the undervoltage relais and M.C.B.'s handle in OFF position and remove the covers.

Fit the connection lever in the housing of the M.C.B. ...

Place the undervoltage release to the M.C.B. ...

... fix it with spring clamps and install the switch lever.

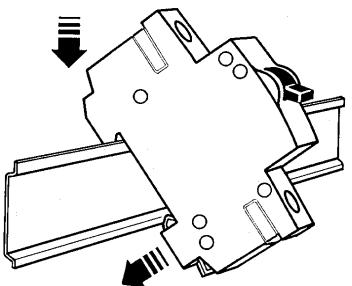


Fig. 1 Mounting

SK 0134 Z 94

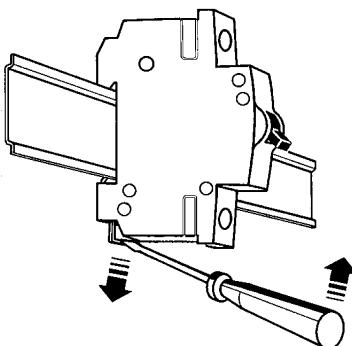


Fig. 2 Removal

SK 0133 Z 94

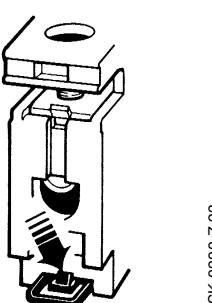


Fig. 3

SK 0200 Z 93

### Technical Data see page 8/10

#### Mounting

Arbitrary mounting position using snap-on fixing to standard mounting rail EN 50 022 35 x 7.5 mm. The slide bolt located on the bottom side of the M.C.B. engaged in the external position. The engagement is triggered off by pressure on the middle part of the slide bolt only S 280 (see Fig. 3).

Separate mounting by means of:

- Mounting rail with 2 screw fixing holes.

- Mounting kit with terminal covers.

- Mounting kit for flange mounting with special terminals for rear connection.

#### Connection

Cable cross section see page 8/10.

When connecting cables it must be ensured that the cable is rigidly fixed and is not likely to be moved by other components or is subject to excessive vibration.

Max. tightening torque 2 Nm for main terminals, and 0.5 Nm for auxiliary terminals.

#### Operation

The M.C.B.'s are switched on by operation of the switch toggle to the upper position i.e. towards the type label in the position "I" ON is visible on the switch toggle. At the S 280 the contact position indicator turns from red to green.

If the M.C.B. can be reclosed soon after a trip it can be assumed that the reason for tripping was an overload. If the M.C.B. trips instantly again when reclosed after a trip, wait for a while and try again. A repeated instant trip indicates a short-circuit or earthfault in the circuit.

No attempt should be made to continually reclose on to an existing short-circuit or earth fault. The M.C.B.'s are fitted with a trip free mechanism i.e. they even trip under fault conditions also when the switch handle is held to the "I" (ON) position by force.

#### Cleaning

M.C.B.'s which may have become soiled during assembly work in the switchboard can be cleaned with a damp and soapy cloth. On no account corrosive or similar solvents should be used.

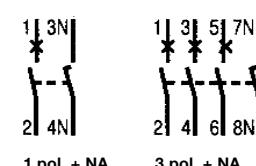
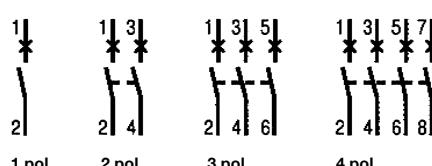
#### Maintenance

STOTZ M.C.B.'s are maintenance free.

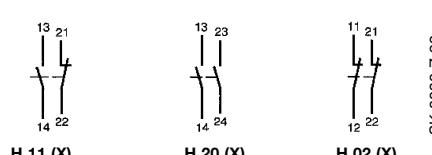
In case of opening the M.C.B., the right to claim under guarantee expires.

#### Connection diagrams

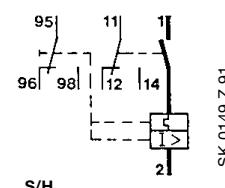
Input optional from top or bottom. Terminal markings acc. EN 50 005.



SK 0105 Z 93

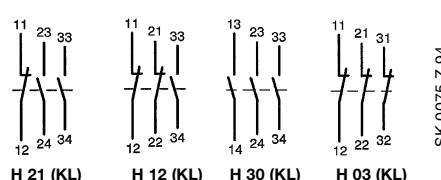


SK 0030 Z 92

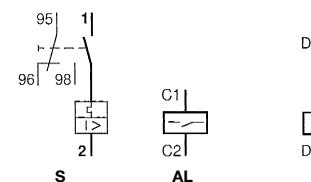


S/H

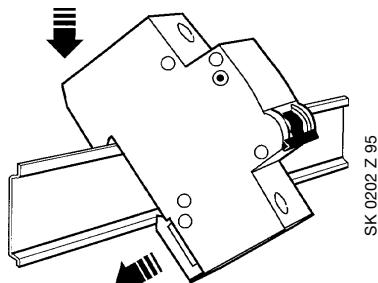
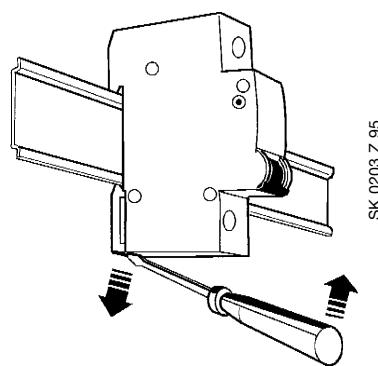
SK 0149 Z 91



SK 0075 Z 94



SK 0118 Z 93

**Technical Data** see page 11
**Fig. 1 Mounting****Fig. 2 Removal**
**Mounting**

Arbitrary mounting position using snap-on fixing to standard mounting rail EN 50 022 35 x 7.5 mm.

**Connection**

When connecting cables it must be ensured that the cable is rigidly fixed and is not likely to be moved by other components or is subject to excessive vibration.  
Max. tightening torque 4.5 Nm for main terminals, and 0.5 Nm for auxiliary terminals.

**Operation**

The M.C.B.'s are switched on by operation of the switch toggle to the upper position i.e. towards the type label in the position "I". The contact position indicator turns from red to green.  
If the M.C.B. can be reclosed soon after a trip it can be assumed that the reason for tripping was an overload. If the M.C.B. trips instantly again when reclosed after a trip, wait for a while and try again. A repeated instant trip indicates a short-circuit or earthfault in the circuit.  
No attempt should be made to continually reclose on to an existing short-circuit or earth fault.  
The M.C.B.'s are fitted with a trip free mechanism i.e. they even trip under fault conditions also when the switch handle is held to the "I" position.

**Cleaning**

M.C.B.'s which may have become soiled during assembly work in the switchboard can be cleaned with a damp and soapy cloth. On no account corrosive or similar solvents should be used.

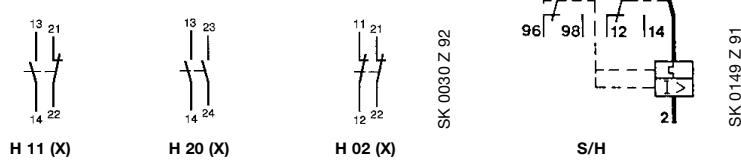
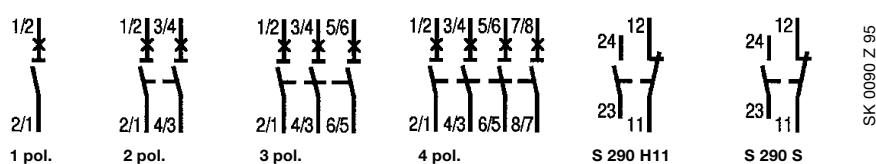
**Maintenance**

STOTZ M.C.B.'s are maintenance free.

In case of opening the M.C.B., the right to claim under guarantee expires.

**Connection diagrams**

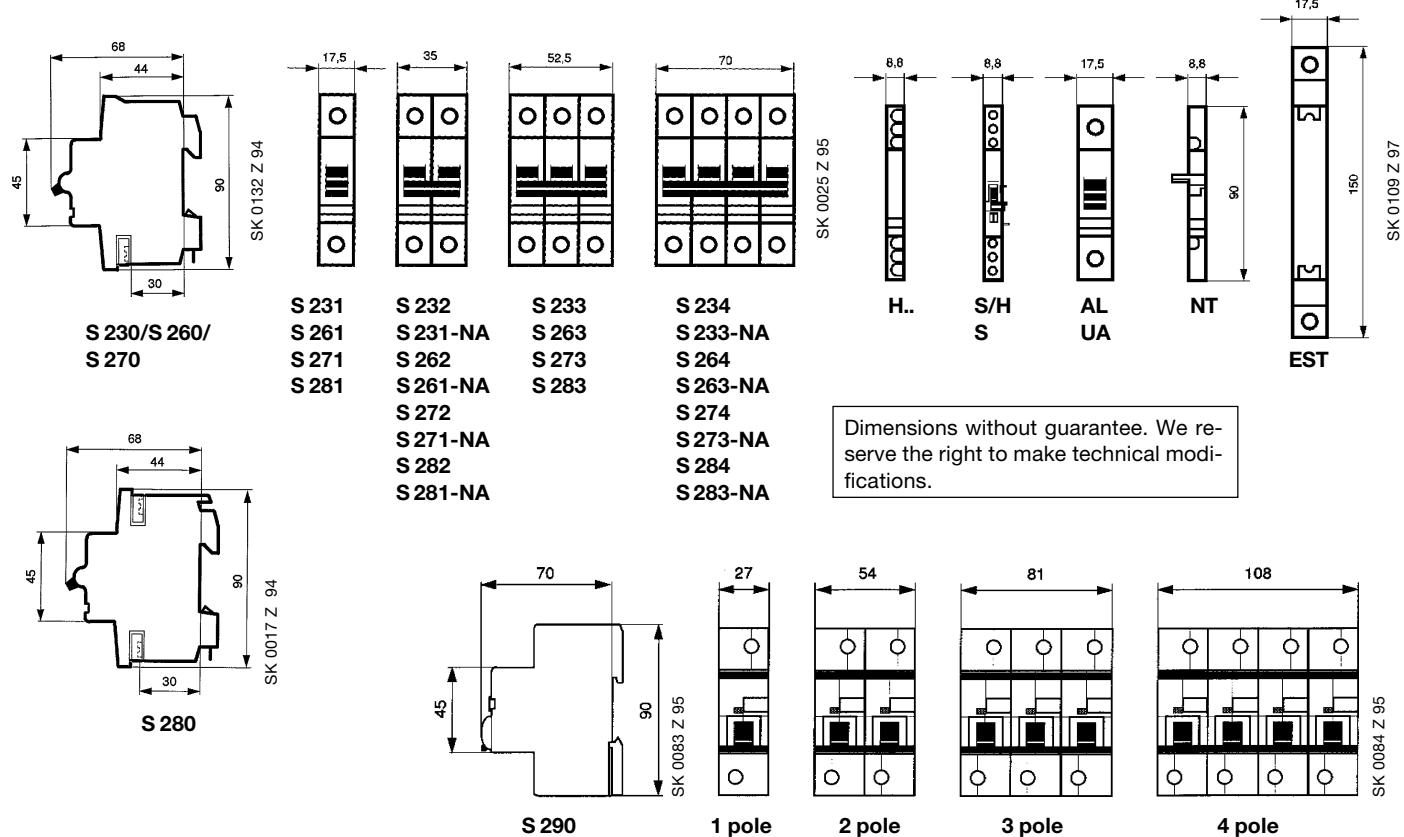
Input optional from top or bottom. Terminal markings acc. EN 50 005.



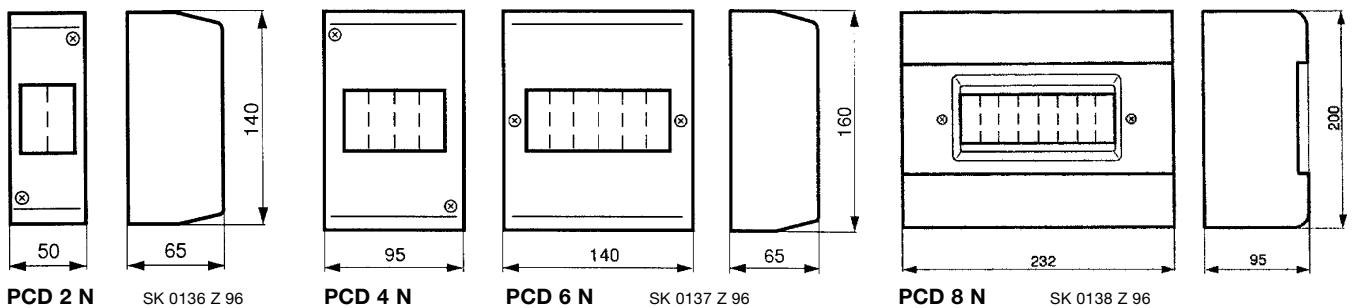
## System pro M

# Miniature Circuit Breaker Dimensions

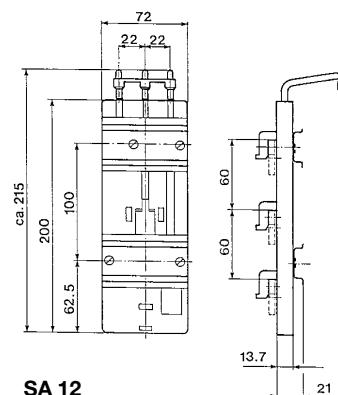
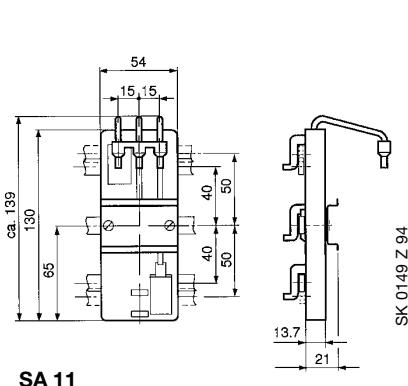
### Miniature Circuit Breaker S 230, S 260, S 270, S 280 and S 290



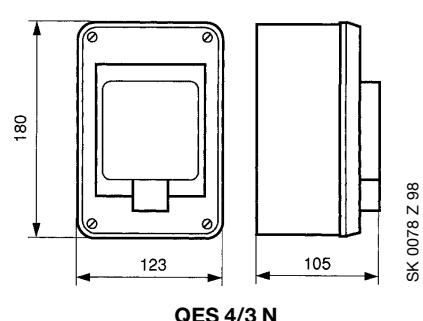
### Terminal covers



### Busbar adapter



### Enclosure of moulded plastic

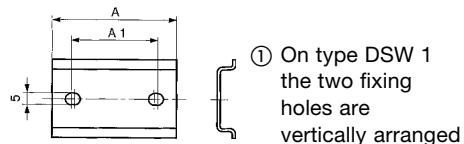


# Miniature Circuit Breaker

System pro M

**Dimensions in mm**

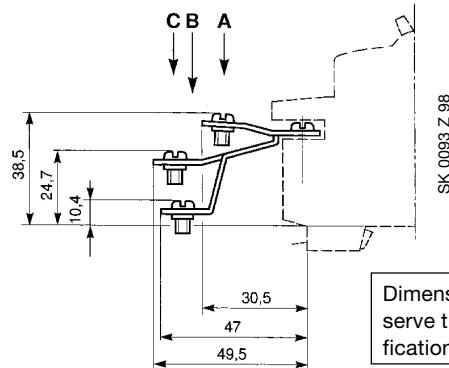
## Mounting plates



SK 0150 Z 93

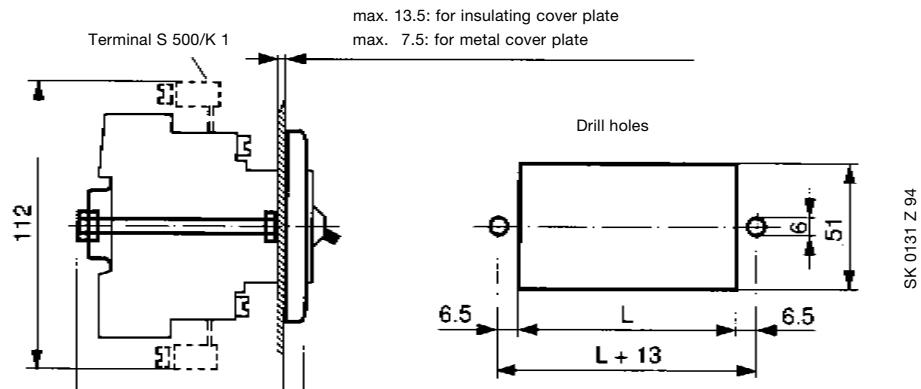
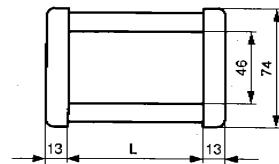
Type	A	A1
DSW 1 ①	17.5	15
DSW 2	35	20
DSW 3	52.5	37.5
DSW 4	70	55
DSW 6	105	90

## Extended flat terminals



Dimensions without guarantee. We re-  
serve the right to make technical modi-  
fications.

## Flush frame



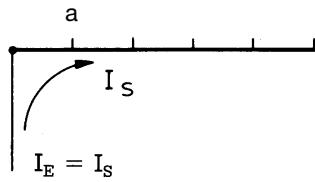
### Technical Data

Busbar material:	SF-Cu
Insulation material:	Plastic, temperature resistant $\geq 90^\circ\text{C}$ non inflammable, self extinguishing
Cross sections of busbars:	10, 12, 16, 20, 24 and 36 mm <sup>2</sup>
Rated voltage:	440 V
Insulation voltage:	> 3 kV
Max. short.circuit capacity:	25 kA
Climatic resistance:	acc. to DIN 40 046 resp. IEC 68-2  Constant climate: 23/83; 40/93; 55/20 Changing climate: 25/85; 40/93 [°C/RH]
Standards:	DIN VDE 0606 (wiring material) DIN VDE 0606 part 504 (consumer units)
Max. busbar current $I_s/\text{Phase}$ depending on cross section of busbar:	10 mm <sup>2</sup> : 50 A 12 mm <sup>2</sup> : 55 A 16 mm <sup>2</sup> : 65 A 20 mm <sup>2</sup> : 75 A 24 mm <sup>2</sup> : 85 A 36 mm <sup>2</sup> : 110 A
	} per branch

### Maximum load depending on supply connection point

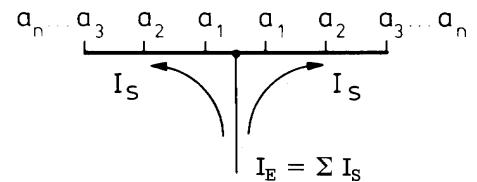
Cross section of busbar	mm <sup>2</sup>	Comb-busbars						Busbar blocks					
		10	12	16	20	24	36	10	12	16	20	24	36
① max. supply current $I_s$ / Phase	A	50	55	—	75	85	110	50	—	65	—	—	—
Connection cross section	mm <sup>2</sup>	10	16	—	25	25	35	10	—	16	—	—	—
② max. supply current $I_s$ / Phase	A	100	110	—	150 <sup>†</sup>	170 <sup>†</sup>	220 <sup>†</sup>	110	—	130 <sup>†</sup>	—	—	—
Connection cross section	mm <sup>2</sup>	25	35	—	2 x 25	2 x 25	2 x 35	25	—	35	—	—	—

① Supply connection at the end of the busbar



SK 0062 Z 91

② Supply connection along the busbar or at the centre



SK 0063 Z 91

\* If supply connection is at the centre via the M.C.B.-terminals, care has to be taken that the max. current for each supply point does not exceed the values as stated by the manufacturers. For example: for STOTZ-M.C.B.'s of ranges S 240, S 260 and S 270: max. 110 A, for M.C.B.'s S 280 range: max. 140 A.

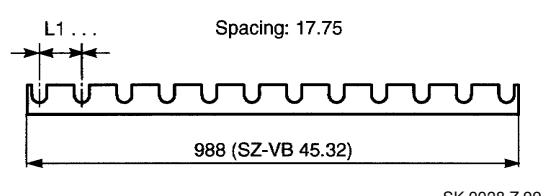
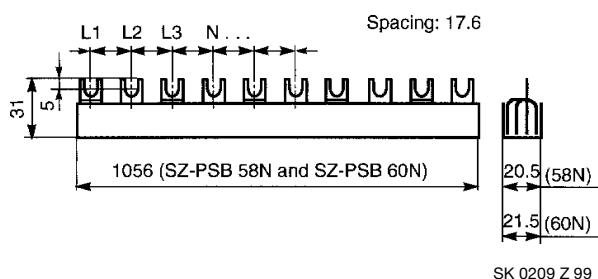
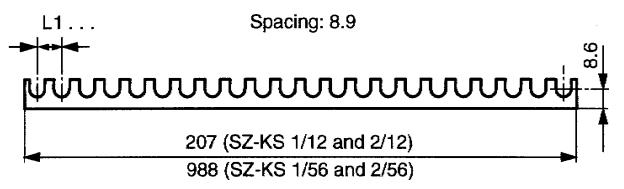
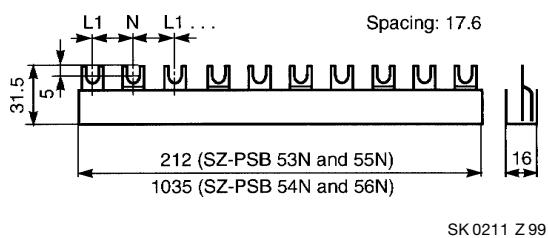
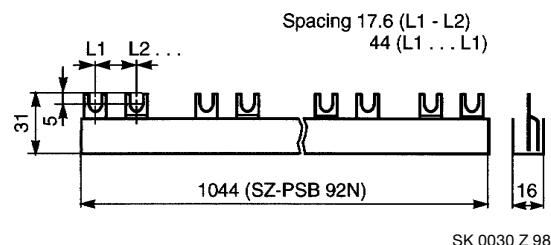
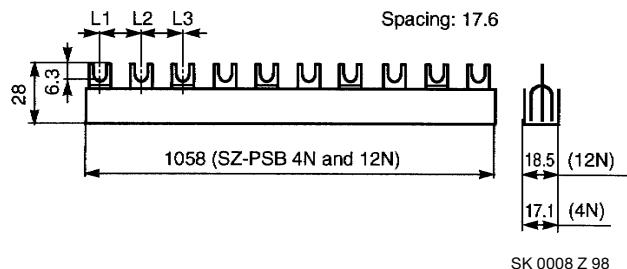
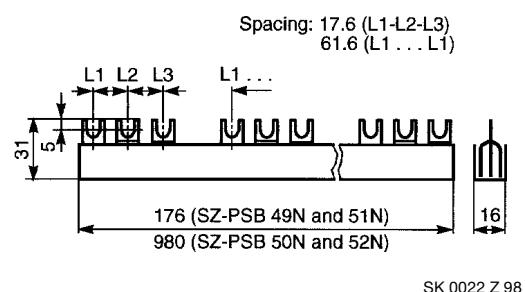
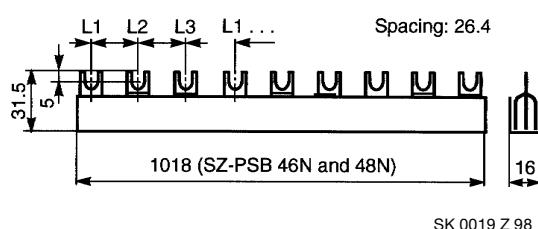
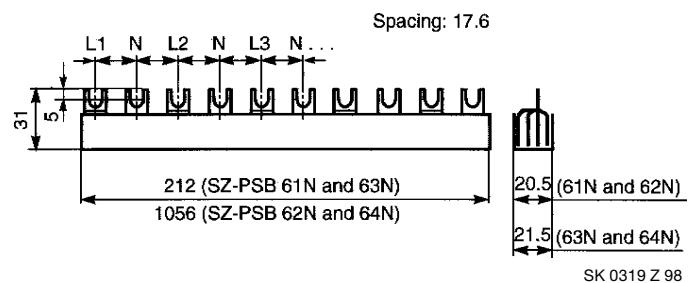
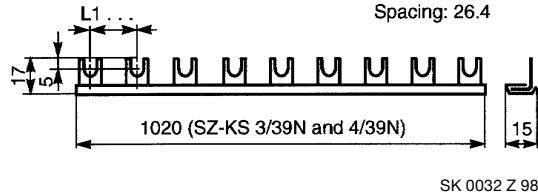
Further care has to be taken that the sum of each branch currents  $a_1 \dots a_n$  does not exceed the max. busbar load  $I_s$  / Phase, mentioned in above table.

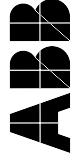
# Miniature Circuit Breaker

## Comb-busbars and busbar blocks

System pro M

### Dimensions in mm





## Approvals and certifications by classification societies

### Miniature Circuit Breakers

Type	Approvals										Ship classification associations					
	CH SEV	DK DEMKO	N NEMKO	S SEMKO	SF EL.	CDN CSA inspect.	USA KEMA EUR	NL KEMA	A ÖVE	B CEBEC	F CEBEC	D VDE	PL BBJ	CZ EYU	GB GOST	N LRS
S 230									■				■			
S 260, B, C 1 - 4 pol.	■	■	○	■	■	■	■	■	■	■	■	■	■	■	■	■
S 260, B, C 1 + 3 pol. + NA	■	■	○	■	■	S 277/480 V AC, B, C	■	■	■	■	■	■	■	■	■	■
S 270, B, C 1 - 4 pol.	■	■	○	■	○			■	■	■	■	■	■	■	■	■
S 270, B, C 1 + 3 pol. + NA	■	■	○	■	○			■	■	■	■	■	■	■	■	■
S 270, K 1 - 3pol	■	■		■	■	S 277/480 V AC, K, Z		■	■	■	■	■	■	■	■	■
S 280, B, C 1 - 4 pol.	■	■	○	■	○			■	■	■	■	■	■	■	■	■
S 280, B, C 1 + 3pol. + NA	■	■	○	■	○			■	■	■	■	■	■	■	■	■
S 280, K 1 - 4 pol.	■	■		■	■			■	■	■	■	■	■	■	■	■
S 280, Z 1 - 4pol.		■				S 277/480 V AC				■						
S 280 UC, K, Z 1 + 2 pol.														■	■	■
S 280 UC - B 1 + 2 pol.															□	
S 290, C																on request

■ Approved    □ Submitted for approval / planned to be submitted    △ Approved variants on request    ○ Approval not required

### Selection table

No. of poles	Rated current I <sub>n</sub> A	Ordering details		<b>bbn 40 16779 EAN</b>	<b>Price 1 piece DM</b>	Price group	Weight 1 piece kg	Pack. unit pcs.
		Type No.	Order code					
1	6	<b>S 231-B 6</b>	GH S2311001 R0065	<b>01550 9</b>				
	10	<b>S 231-B 10</b>	GH S231 0001 R0105	<b>01560 8</b>				
	16	<b>S 231-B 16</b>	GH S231 0001 R0165	<b>01580 6</b>				
	20	<b>S 231-B 20</b>	GH S231 0001 R0205	<b>01590 5</b>				
	25	<b>S 231-B 25</b>	GH S231 0001 R0255	<b>01600 1</b>				
	U <sub>Bmax</sub> 440 V ~ 60 V ...	<b>S 231-B 32</b>	GH S231 0001 R0325	<b>01610 0</b>				
		<b>S 231-B 40</b>	GH S231 0001 R0405	<b>01620 9</b>				
	2	<b>S 232-B 6</b>	GH S232 1001 R0065	<b>01760 2</b>				
		<b>S 232-B 10</b>	GH S232 0001 R0105	<b>01770 1</b>				
		<b>S 232-B 16</b>	GH S232 0001 R0165	<b>01790 9</b>				
		<b>S 232-B 20</b>	GH S232 0001 R0205	<b>01800 5</b>				
		<b>S 232-B 25</b>	GH S232 0001 R0255	<b>01810 4</b>				
		U <sub>Bmax</sub> 440 V ~ 110 V ...	<b>S 232-B 32</b>	GH S232 0001 R0325	<b>01820 3</b>			
			<b>S 232-B 40</b>	GH S232 0001 R0405	<b>01830 2</b>			
	3	<b>S 233-B 6</b>	GH S233 0001 R0065	<b>01970 5</b>				
		<b>S 233-B 10</b>	GH S233 0001 R0105	<b>01980 4</b>				
		<b>S 233-B 16</b>	GH S233 0001 R0165	<b>02000 8</b>				
		<b>S 233-B 20</b>	GH S233 0001 R0205	<b>02010 7</b>				
		<b>S 233-B 25</b>	GH S233 0001 R0255	<b>02020 6</b>				
		U <sub>Bmax</sub> 440 V ~	<b>S 233-B 32</b>	GH S233 0001 R0325	<b>02030 5</b>			
			<b>S 233-B 40</b>	GH S233 0001 R0405	<b>02040 4</b>			

① suitable for continuous flow water heater 12 kW

② suitable for continuous flow water heater 18 kW

③ suitable for continuous flow water heater 21, 24 and 27 kW

### Selection table

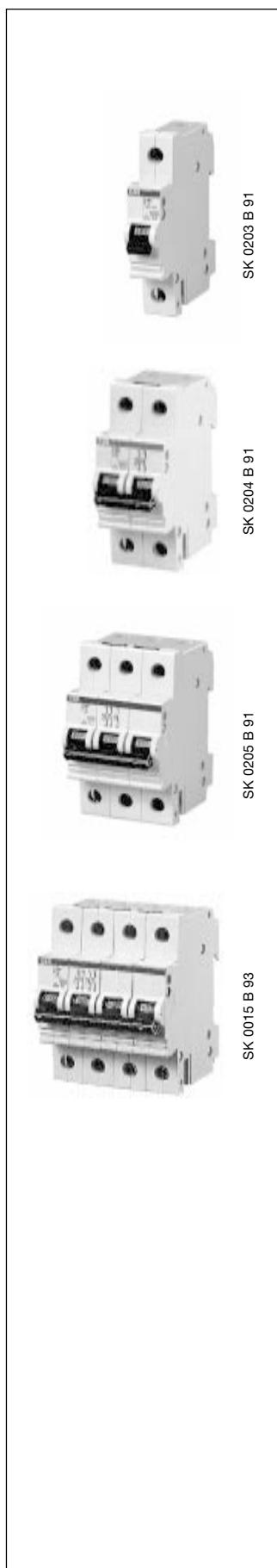
No. of poles	Rated current I <sub>n</sub> A	Ordering details		<b>bbn 40 16779 EAN</b>	<b>Price 1 piece DM</b>	Price group	Weight 1 piece kg	Pack. unit pcs.
		Type No.	Order code					
1	6	<b>S 231-C 6</b>	GH S231 1001 R0064	<b>01440 5</b>				
	10	<b>S 231-C 10</b>	GH S231 0001 R0104	<b>01460 1</b>				
	16	<b>S 231-C 16</b>	GH S231 0001 R0164	<b>01480 9</b>				
	20	<b>S 231-C 20</b>	GH S231 0001 R0204	<b>01490 8</b>				
	25	<b>S 231-C 25</b>	GH S231 0001 R0254	<b>01500 4</b>				
	U <sub>Bmax</sub> 440 V ~ 60 V ...	<b>S 231-C 32</b>	GH S231 0001 R0324	<b>01510 3</b>				
		<b>S 231-C 40</b>	GH S231 0001 R0404	<b>01520 2</b>				
	2	<b>S 232-C 6</b>	GH S232 0001 R0064	<b>01650 6</b>				
		<b>S 232-C 10</b>	GH S232 0001 R0104	<b>01670 4</b>				
		<b>S 232-C 16</b>	GH S232 0001 R0164	<b>01690 2</b>				
		<b>S 232-C 20</b>	GH S232 0001 R0204	<b>01700 8</b>				
		<b>S 232-C 25</b>	GH S232 0001 R0254	<b>01710 7</b>				
		U <sub>Bmax</sub> 440 V ~ 110 V ...	<b>S 232-C 32</b>	GH S232 0001 R0324	<b>01720 6</b>			
			<b>S 232-C 40</b>	GH S232 0001 R0404	<b>01730 5</b>			
	3	<b>S 233-C 6</b>	GH S233 0001 R0064	<b>01860 9</b>				
		<b>S 233-C 10</b>	GH S233 0001 R0104	<b>01880 7</b>				
		<b>S 233-C 16</b>	GH S233 0001 R0164	<b>01900 2</b>				
		<b>S 233-C 20</b>	GH S233 0001 R0204	<b>01910 1</b>				
		<b>S 233-C 25</b>	GH S233 0001 R0254	<b>01920 0</b>				
		U <sub>Bmax</sub> 440 V ~	<b>S 233-C 32</b>	GH S233 0001 R0324	<b>01930 9</b>			
			<b>S 233-C 40</b>	GH S233 0001 R0404	<b>01940 8</b>			

① suitable for continuous flow water heater 12 kW

② suitable for continuous flow water heater 18 kW

③ suitable for continuous flow water heater 21, 24 and 27 kW

④ U<sub>bmax</sub> 110 V ... with 2 poles connected in series



### Selection table

No. of poles	Rated current I <sub>n</sub> A	Ordering details		bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
		Type No.	Order code					
1	6	<b>S 261-B 6</b>	GH S261 0001 R0065	<b>34130 6</b>			0.125	10/40
	10	<b>S 261-B 10</b>	GH S261 0001 R0105	<b>34170 2</b>				
	13	<b>S 261-B 13</b>	GH S261 0001 R0135	<b>34190 0</b>				
	16 *	<b>S 261-B 16</b>	GH S261 0001 R0165	<b>34220 4</b>				
	16 **	<b>S 261-B 16</b>	GH S261 0001 R0165	<b>34400 0</b>				
	20 ①	<b>S 261-B 20</b>	GH S261 0001 R0205	<b>34250 1</b>				
	25	<b>S 261-B 25</b>	GH S261 0001 R0255	<b>34280 8</b>				
	32 ②	<b>S 261-B 32</b>	GH S261 0001 R0325	<b>34300 3</b>				
	U <sub>Bmax</sub> 440 V ~ 60 V ...	<b>S 261-B 40</b>	GH S261 0001 R0405	<b>34330 0</b>				
		<b>S 261-B 50</b>	GH S261 0001 R0505	<b>34350 8</b>			0.145	
		<b>S 261-B 63</b>	GH S261 0001 R0635	<b>34370 6</b>				
2	6	<b>S 262-B 6</b>	GH S262 0001 R0065	<b>35060 5</b>			0.250	5/20
	10	<b>S 262-B 10</b>	GH S262 0001 R0105	<b>35100 8</b>				
	13	<b>S 262-B 13</b>	GH S262 0001 R0135	<b>35120 6</b>				
	16	<b>S 262-B 16</b>	GH S262 0001 R0165	<b>35150 3</b>				
	U <sub>Bmax</sub> 440 V ~ 125 V ...	<b>S 262-B 20</b>	GH S262 0001 R0205	<b>35180 0</b>				
		<b>S 262-B 25</b>	GH S262 0001 R0255	<b>35210 4</b>				
		<b>S 262-B 32</b>	GH S262 0001 R0325	<b>35240 1</b>				
	④	<b>S 262-B 40</b>	GH S262 0001 R0405	<b>35260 9</b>				
		<b>S 262-B 50</b>	GH S262 0001 R0505	<b>35280 7</b>			0.290	
		<b>S 262-B 63</b>	GH S262 0001 R0635	<b>35300 2</b>				
3	6	<b>S 263-B 6</b>	GH S263 0001 R0065	<b>35620 1</b>			0.375	3/12
	10	<b>S 263-B 10</b>	GH S263 0001 R0105	<b>35660 7</b>				
	13	<b>S 263-B 13</b>	GH S263 0001 R0135	<b>35680 5</b>				
	16	<b>S 263-B 16</b>	GH S263 0001 R0165	<b>35710 9</b>				
	①	<b>S 263-B 20</b>	GH S263 0001 R0205	<b>35740 6</b>				
		<b>S 263-B 25</b>	GH S263 0001 R0255	<b>35770 3</b>				
		<b>S 263-B 32</b>	GH S263 0001 R0325	<b>35800 7</b>				
	U <sub>Bmax</sub> 440 V ~	<b>S 263-B 40</b>	GH S263 0001 R0405	<b>35820 5</b>				
		<b>S 263-B 50</b>	GH S263 0001 R0505	<b>35840 3</b>			0.435	
		<b>S 263-B 63</b>	GH S263 0001 R0635	<b>35860 1</b>				
4	6	<b>S 264-B 6</b>	GH S264 0001 R0065	<b>72060 6</b>			0.500	2
	10	<b>S 264-B 10</b>	GH S264 0001 R0105	<b>72070 5</b>				
	13	<b>S 264-B 13</b>	GH S264 0001 R0135	<b>75810 4</b>				
	16	<b>S 264-B 16</b>	GH S264 0001 R0165	<b>67310 0</b>				
	②	<b>S 264-B 20</b>	GH S264 0001 R0205	<b>72080 4</b>				
		<b>S 264-B 25</b>	GH S264 0001 R0255	<b>67320 9</b>				
		<b>S 264-B 32</b>	GH S264 0001 R0325	<b>67330 8</b>				
	④	<b>S 264-B 40</b>	GH S264 0001 R0405	<b>72120 7</b>				
		<b>S 264-B 50</b>	GH S264 0001 R0505	<b>67340 7</b>			0.580	
		<b>S 264-B 63</b>	GH S264 0001 R0635	<b>67350 6</b>				

- ① Suitable for continuous flow water heater 12 kW
- ② Suitable for continuous flow water heater 18 kW
- ③ Suitable for continuous flow water heater 21, 24 and 27 kW
- ④ U<sub>Bmax</sub> 125 V ... with 2 poles connected in series
- ⑤ large pack B 16 = 5000 pieces

\* only suitable for addition of auxiliary contacts S2-H... or S2-H...X

\*\* suitable for addition of all supplementary add on devices

### M.C.B.'s with disconnecting neutral NA

No. of poles	Rated current I <sub>n</sub> A	Ordering details		bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
<b>1 + NA</b>	6	<b>S 261-B 6 NA</b>	GH S261 0103 R0065	<b>34660 8</b>			0.250	5
	10	<b>S 261-B 10 NA</b>	GH S261 0103 R0105	<b>34680 6</b>				
	13	<b>S 261-B 13 NA</b>	GH S261 0103 R0135	<b>34690 5</b>				
	16	<b>S 261-B 16 NA</b>	GH S261 0103 R0165	<b>34710 0</b>				
	20 ①	<b>S 261-B 20 NA</b>	GH S261 0103 R0205	<b>34730 8</b>				
	25	<b>S 261-B 25 NA</b>	GH S261 0103 R0255	<b>34750 6</b>				
	32 ②	<b>S 261-B 32 NA</b>	GH S261 0103 R0325	<b>34760 5</b>				
$U_{\max}$ 440 V ~	40 ③	<b>S 261-B 40 NA</b>	GH S261 0103 R0405	<b>34780 3</b>			0.290	
60 V ...	50	<b>S 261-B 50 NA</b>	GH S261 0103 R0505	<b>65750 6</b>				
	63	<b>S 261-B 63 NA</b>	GH S261 0103 R0635	<b>65760 5</b>				
<b>3 + NA</b>	6	<b>S 263-B 6 NA</b>	GH S263 0103 R0065	<b>36130 4</b>			0.500	2
	10	<b>S 263-B 10 NA</b>	GH S263 0103 R0105	<b>36150 2</b>				
	13	<b>S 263-B 13 NA</b>	GH S263 0103 R0135	<b>36160 1</b>				
	16	<b>S 263-B 16 NA</b>	GH S263 0103 R0165	<b>36180 9</b>				
	20 ①	<b>S 263-B 20 NA</b>	GH S263 0103 R0205	<b>36200 4</b>				
	25	<b>S 263-B 25 NA</b>	GH S263 0103 R0255	<b>36220 2</b>				
	32 ②	<b>S 263-B 32 NA</b>	GH S263 0103 R0325	<b>36240 0</b>				
$U_{\max}$ 440 V ~	40 ③	<b>S 263-B 40 NA</b>	GH S263 0103 R0405	<b>36250 9</b>			0.580	
60 V ...	50	<b>S 263-B 50 NA</b>	GH S263 0103 R0505	<b>65770 4</b>				
	63	<b>S 263-B 63 NA</b>	GH S263 0103 R0635	<b>65780 3</b>				

① Suitable for continuous flow water heater 12 kW

② Suitable for continuous flow water heater 18 kW

③ Suitable for continuous flow water heater 21, 24 and 27 kW



SK 0206 B 91



SK 0207 B 91



### Selection table

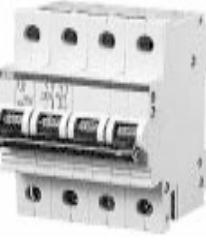
No. of poles	Rated current I <sub>n</sub> A	Ordering details		bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.		
		Type No.	Order code							
    	<b>U<sub>Bmax</sub></b> 440 V ~ 60 V ...  <b>U<sub>Bmax</sub></b> 440 V ~ 125 V ...  <b>U<sub>Bmax</sub></b> 440 V ~ 440 V ...	1	0.5 1 1.6	<b>S 261-C 0.5</b> <b>S 261-C 1</b> <b>S 261-C 1.6</b>	GH S261 0001 R0984 GH S261 0001 R0014 GH S261 0001 R0974	<b>34390 4</b> <b>34070 5</b> <b>34380 5</b>		0.125	10/40	
		2	2	<b>S 261-C 2</b>	GH S261 0001 R0024	<b>34080 4</b>				
		3	3	<b>S 261-C 3</b>	GH S261 0001 R0034	<b>34090 3</b>				
		4	4	<b>S 261-C 4</b>	GH S261 0001 R0044	<b>34100 9</b>				
		6	6	<b>S 261-C 6</b>	GH S261 0001 R0064	<b>34120 7</b>				
		8	<b>S 261-C 8</b>	GH S261 0001 R0084	<b>34140 5</b>					
		10	<b>S 261-C 10</b>	GH S261 0001 R0104	<b>34160 3</b>					
		13	<b>S 261-C 13</b>	GH S261 0001 R0134	<b>34180 1</b>					
		16	<b>S 261-C 16</b>	GH S261 0001 R0164	<b>34210 5</b>					
		20 ①	<b>S 261-C 20</b>	GH S261 0001 R0204	<b>34240 2</b>					
		25	<b>S 261-C 25</b>	GH S261 0001 R0254	<b>34270 9</b>					
		32 ②	<b>S 261-C 32</b>	GH S261 0001 R0324	<b>34290 7</b>					
		40 ③	<b>S 261-C 40</b>	GH S261 0001 R0404	<b>34320 1</b>					
		50	<b>S 261-C 50</b>	GH S261 0001 R0504	<b>34340 9</b>				0.145	
		63	<b>S 261-C 63</b>	GH S261 0001 R0634	<b>34360 7</b>					
		    	<b>U<sub>Bmax</sub></b> 440 V ~ 60 V ...  <b>U<sub>Bmax</sub></b> 440 V ~ 125 V ...  <b>U<sub>Bmax</sub></b> 440 V ~ 440 V ...	2	0.5 1 1.6	<b>S 262-C 0.5</b> <b>S 262-C 1</b> <b>S 262-C 1.6</b>	GH S262 0001 R0984 GH S262 0001 R0014 GH S262 0001 R0974	<b>35320 0</b> <b>35000 1</b> <b>35310 1</b>		0.250
2	2			<b>S 262-C 2</b>	GH S262 0001 R0024	<b>35010 0</b>				
3	3			<b>S 262-C 3</b>	GH S262 0001 R0034	<b>35020 9</b>				
4	4			<b>S 262-C 4</b>	GH S262 0001 R0044	<b>35030 8</b>				
6	<b>S 262-C 6</b>			GH S262 0001 R0064	<b>35050 6</b>					
8	<b>S 262-C 8</b>			GH S262 0001 R0084	<b>35070 4</b>					
10	<b>S 262-C 10</b>			GH S262 0001 R0104	<b>35090 2</b>					
13	<b>S 262-C 13</b>			GH S262 0001 R0134	<b>35110 7</b>					
16	<b>S 262-C 16</b>			GH S262 0001 R0164	<b>35140 4</b>					
20	<b>S 262-C 20</b>			GH S262 0001 R0204	<b>35170 1</b>					
25	<b>S 262-C 25</b>			GH S262 0001 R0254	<b>35200 5</b>					
32	<b>S 262-C 32</b>			GH S262 0001 R0324	<b>35230 2</b>					
40	<b>S 262-C 40</b>			GH S262 0001 R0404	<b>35250 0</b>					
50	<b>S 262-C 50</b>			GH S262 0001 R0504	<b>35270 8</b>				0.290	
63	<b>S 262-C 63</b>			GH S262 0001 R0634	<b>35290 6</b>					
    	<b>U<sub>Bmax</sub></b> 440 V ~ 60 V ...  <b>U<sub>Bmax</sub></b> 440 V ~ 125 V ...  <b>U<sub>Bmax</sub></b> 440 V ~ 440 V ...			3	0.5 1 1.6	<b>S 263-C 0.5</b> <b>S 263-C 1</b> <b>S 263-C 1.6</b>	GH S263 0001 R0984 GH S263 0001 R0014 GH S263 0001 R0974	<b>35880 9</b> <b>35560 0</b> <b>35870 0</b>		0.375
		2	<b>S 263-C 2</b>	GH S263 0001 R0024	<b>35570 9</b>					
		3	<b>S 263-C 3</b>	GH S263 0001 R0034	<b>35580 8</b>					
		4	<b>S 263-C 4</b>	GH S263 0001 R0044	<b>35590 7</b>					
		6	<b>S 263-C 6</b>	GH S263 0001 R0064	<b>35610 2</b>					
		8	<b>S 263-C 8</b>	GH S263 0001 R0084	<b>35630 0</b>					
		10	<b>S 263-C 10</b>	GH S263 0001 R0104	<b>35650 8</b>					
		13	<b>S 263-C 13</b>	GH S263 0001 R0134	<b>35670 6</b>					
		16	<b>S 263-C 16</b>	GH S263 0001 R0164	<b>35700 0</b>					
		20 ①	<b>S 263-C 20</b>	GH S263 0001 R0204	<b>35730 7</b>					
		25	<b>S 263-C 25</b>	GH S263 0001 R0254	<b>35760 4</b>					
		32 ②	<b>S 263-C 32</b>	GH S263 0001 R0324	<b>35790 1</b>					
		40 ③	<b>S 263-C 40</b>	GH S263 0001 R0404	<b>35810 6</b>					
		50	<b>S 263-C 50</b>	GH S263 0001 R0504	<b>35830 4</b>					
		63	<b>S 263-C 63</b>	GH S263 0001 R0634	<b>35850 2</b>				0.435	

① Suitable for continuous flow water heater 12 kW

② Suitable for continuous flow water heater 18 kW

③ Suitable for continuous flow water heater 21, 24 and 27 kW

④ U<sub>Bmax</sub> 125 V ... with 2 poles connected in series



SK 0016 B 93

No. of poles	Rated current I <sub>n</sub> , A	Ordering details		bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
		Type No.	Order code					
4	0.5	<b>S 264-C 0.5</b>	GH S264 0001 R0984	75830 2				
	1	<b>S 264-C 1</b>	GH S264 0001 R0014	73460 3				
	1.6	<b>S 264-C 1.6</b>	GH S264 0001 R0974	73470 2				
	2	<b>S 264-C 2</b>	GH S264 0001 R0024	67360 5				
	3	<b>S 264-C 3</b>	GH S264 0001 R0034	67370 4				
	4	<b>S 264-C 4</b>	GH S264 0001 R0044	67380 3				
	6	<b>S 264-C 6</b>	GH S264 0001 R0064	67390 2				
	8	<b>S 264-C 8</b>	GH S264 0001 R0084	73480 1				
	10	<b>S 264-C 10</b>	GH S264 0001 R0104	72090 3				
	13	<b>S 264-C 13</b>	GH S264 0001 R0134	73490 0				
	16	<b>S 264-C 16</b>	GH S264 0001 R0164	67400 8				
	20	<b>S 264-C 20</b>	GH S264 0001 R0204	67410 7				
	25	<b>S 264-C 25</b>	GH S264 0001 R0254	72100 9				
	32	<b>S 264-C 32</b>	GH S264 0001 R0324	67420 6				
	40	<b>S 264-C 40</b>	GH S264 0001 R0404	72110 8				
$U_{B\max}$ 440 V ~ 125 V ... <sup>(4)</sup>	50	<b>S 264-C 50</b>	GH S264 0001 R0504	36470 1				
	63	<b>S 264-C 63</b>	GH S264 0001 R0634	36480 0				

### M.C.B.'s with disconnecting neutral NA



SK 0011 B 93

1 + NA	0.5	<b>S 261-C 0.5 NA</b>	GH S261 0103 R0984	66080 3			0.250	5
	1	<b>S 261-C 1 NA</b>	GH S261 0103 R0014	66090 2				
	1.6	<b>S 261-C 1.6 NA</b>	GH S261 0103 R0974	66100 8				
	2	<b>S 261-C 2 NA</b>	GH S261 0103 R0024	66110 7				
	3	<b>S 261-C 3 NA</b>	GH S261 0103 R0034	66120 6				
	4	<b>S 261-C 4 NA</b>	GH S261 0103 R0044	66130 5				
	6	<b>S 261-C 6 NA</b>	GH S261 0103 R0064	65910 4				
	8	<b>S 261-C 8 NA</b>	GH S261 0103 R0084	66140 4				
	10	<b>S 261-C 10 NA</b>	GH S261 0103 R0104	65920 3				
	13	<b>S 261-C 13 NA</b>	GH S261 0103 R0134	65930 2				
	16	<b>S 261-C 16 NA</b>	GH S261 0103 R0164	65940 1				
	20 <sup>(1)</sup>	<b>S 261-C 20 NA</b>	GH S261 0103 R0204	65950 0				
	25	<b>S 261-C 25 NA</b>	GH S261 0103 R0254	65960 9				
	32 <sup>(2)</sup>	<b>S 261-C 32 NA</b>	GH S261 0103 R0324	65970 8				
	40 <sup>(3)</sup>	<b>S 261-C 40 NA</b>	GH S261 0103 R0404	65980 7				
$U_{B\max}$ 440 V ~ 60 V ... <sup>(4)</sup>	50	<b>S 261-C 50 NA</b>	GH S261 0103 R0504	67430 5			0.290	
	63	<b>S 261-C 63 NA</b>	GH S261 0103 R0634	67440 4				
3 + NA	0.5	<b>S 263-C 0.5 NA</b>	GH S263 0103 R0984	66150 3			0.500	2
	1	<b>S 263-C 1 NA</b>	GH S263 0103 R0014	66160 2				
	1.6	<b>S 263-C 1.6 NA</b>	GH S263 0103 R0974	66170 1				
	2	<b>S 263-C 2 NA</b>	GH S263 0103 R0024	66180 0				
	3	<b>S 263-C 3 NA</b>	GH S263 0103 R0034	66190 9				
	4	<b>S 263-C 4 NA</b>	GH S263 0103 R0044	66200 5				
	6	<b>S 263-C 6 NA</b>	GH S263 0103 R0064	65990 6				
	8	<b>S 263-C 8 NA</b>	GH S263 0103 R0084	66210 4				
	10	<b>S 263-C 10 NA</b>	GH S263 0103 R0104	66010 0				
	13	<b>S 263-C 13 NA</b>	GH S263 0103 R0134	66020 9				
	16	<b>S 263-C 16 NA</b>	GH S263 0103 R0164	66030 8				
	20 <sup>(1)</sup>	<b>S 263-C 20 NA</b>	GH S263 0103 R0204	66040 7				
	25	<b>S 263-C 25 NA</b>	GH S263 0103 R0254	66050 6				
	32 <sup>(2)</sup>	<b>S 263-C 32 NA</b>	GH S263 0103 R0324	66060 5				
	40 <sup>(3)</sup>	<b>S 263-C 40 NA</b>	GH S263 0103 R0404	66070 4				
	50	<b>S 263-C 50 NA</b>	GH S263 0103 R0504	67450 3				
	63	<b>S 263-C 63 NA</b>	GH S263 0103 R0634	67460 2				

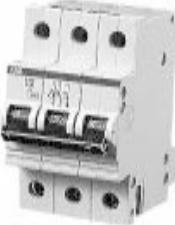
<sup>(1)</sup> Suitable for continuous flow water heater 12 kW

<sup>(2)</sup> Suitable for continuous flow water heater 18 kW

<sup>(3)</sup> Suitable for continuous flow water heater 21, 24 and 27 kW

<sup>(4)</sup>  $U_{B\max}$  125 V ... with 2 poles connected in series

### Selection table

No. of poles	Rated current I <sub>n</sub> A	Ordering details	bvn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
	U <sub>Bmax</sub> 440 V ~ 60 V ...	Type No.	Order code				
		<b>S 261-D 0.5</b>	GH S261 0001 R0981	<b>67470 1</b>			0.125
		<b>S 261-D 1</b>	GH S261 0001 R0011	<b>67480 0</b>			
		<b>S 261-D 1.6</b>	GH S261 0001 R0971	<b>67490 9</b>			
		<b>S 261-D 2</b>	GH S261 0001 R0021	<b>67500 5</b>			
		<b>S 261-D 3</b>	GH S261 0001 R0031	<b>67510 4</b>			
		<b>S 261-D 4</b>	GH S261 0001 R0041	<b>67520 3</b>			
		<b>S 261-D 6</b>	GH S261 0001 R0061	<b>67530 2</b>			
		<b>S 261-D 8</b>	GH S261 0001 R0081	<b>67540 1</b>			
		<b>S 261-D 10</b>	GH S261 0001 R0101	<b>67550 0</b>			
		<b>S 261-D 13</b>	GH S261 0001 R0131	<b>76030 5</b>			
		<b>S 261-D 16</b>	GH S261 0001 R0161	<b>67560 9</b>			
		<b>S 261-D 20</b>	GH S261 0001 R0201	<b>67570 8</b>			
		<b>S 261-D 25</b>	GH S261 0001 R0251	<b>67580 7</b>			
		<b>S 261-D 32</b>	GH S261 0001 R0321	<b>67600 2</b>			
		<b>S 261-D 40</b>	GH S261 0001 R0401	<b>67610 1</b>			
		<b>S 261-D 50</b>	GH S261 0001 R0501	<b>67620 0</b>			0.145
		<b>S 261-D 63</b>	GH S261 0001 R0631	<b>67630 9</b>			
	U <sub>Bmax</sub> 440 V ~ 125 V ... ①	Type No.	Order code				
		<b>S 262-D 0.5</b>	GH S262 0001 R0981	<b>67640 8</b>			0.250
		<b>S 262-D 1</b>	GH S262 0001 R0011	<b>67650 7</b>			
		<b>S 262-D 1.6</b>	GH S262 0001 R0971	<b>67660 6</b>			
		<b>S 262-D 2</b>	GH S262 0001 R0021	<b>67670 5</b>			
		<b>S 262-D 3</b>	GH S262 0001 R0031	<b>67680 4</b>			
		<b>S 262-D 4</b>	GH S262 0001 R0041	<b>67690 3</b>			
		<b>S 262-D 6</b>	GH S262 0001 R0061	<b>67700 9</b>			
		<b>S 262-D 8</b>	GH S262 0001 R0081	<b>67710 8</b>			
		<b>S 262-D 10</b>	GH S262 0001 R0101	<b>67720 7</b>			
		<b>S 262-D 13</b>	GH S262 0001 R0131	<b>76040 4</b>			
		<b>S 262-D 16</b>	GH S262 0001 R0161	<b>67730 6</b>			
		<b>S 262-D 20</b>	GH S262 0001 R0201	<b>67740 5</b>			
		<b>S 262-D 25</b>	GH S262 0001 R0251	<b>67750 4</b>			
		<b>S 262-D 32</b>	GH S262 0001 R0321	<b>67760 3</b>			
		<b>S 262-D 40</b>	GH S262 0001 R0401	<b>67770 2</b>			
		<b>S 262-D 50</b>	GH S262 0001 R0501	<b>67780 1</b>			0.290
		<b>S 262-D 63</b>	GH S262 0001 R0631	<b>67790 0</b>			
	U <sub>Bmax</sub> 440 V ~ 125 V ... ①	Type No.	Order code				
		<b>S 263-D 0.5</b>	GH S263 0001 R0981	<b>67800 6</b>			0.375
		<b>S 263-D 1</b>	GH S263 0001 R0011	<b>67810 5</b>			
		<b>S 263-D 1.6</b>	GH S263 0001 R0971	<b>67820 4</b>			
		<b>S 263-D 2</b>	GH S263 0001 R0021	<b>67830 3</b>			
		<b>S 263-D 3</b>	GH S263 0001 R0031	<b>67860 0</b>			
		<b>S 263-D 4</b>	GH S263 0001 R0041	<b>67870 9</b>			
		<b>S 263-D 6</b>	GH S263 0001 R0061	<b>67880 8</b>			
		<b>S 263-D 8</b>	GH S263 0001 R0081	<b>67890 7</b>			
		<b>S 263-D 10</b>	GH S263 0001 R0101	<b>67850 1</b>			
		<b>S 263-D 13</b>	GH S263 0001 R0131	<b>76050 3</b>			
		<b>S 263-D 16</b>	GH S263 0001 R0161	<b>67900 3</b>			
		<b>S 263-D 20</b>	GH S263 0001 R0201	<b>67910 2</b>			
		<b>S 263-D 25</b>	GH S263 0001 R0251	<b>67920 1</b>			
		<b>S 263-D 32</b>	GH S263 0001 R0321	<b>67930 0</b>			
		<b>S 263-D 40</b>	GH S263 0001 R0401	<b>67940 9</b>			
		<b>S 263-D 50</b>	GH S263 0001 R0501	<b>67950 8</b>			0.435
		<b>S 263-D 63</b>	GH S263 0001 R0631	<b>67840 2</b>			

① U<sub>Bmax</sub> 125 V ... with 2 poles connected in series

**Selection table**

No. of poles	Rated current I <sub>n</sub> A	Ordering details	bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
4	0.5	<b>S 264-D 0.5</b>	GH S264 0001 R0981	<b>67960 7</b>			0.500
	1	<b>S 264-D 1</b>	GH S264 0001 R0011	<b>67980 5</b>			
	1.6	<b>S 264-D 1.6</b>	GH S264 0001 R0971	<b>67970 6</b>			
	2	<b>S 264-D 2</b>	GH S264 0001 R0021	<b>67990 4</b>			
	3	<b>S 264-D 3</b>	GH S264 0001 R0031	<b>68000 9</b>			
	4	<b>S 264-D 4</b>	GH S264 0001 R0041	<b>68010 8</b>			
	6	<b>S 264-D 6</b>	GH S264 0001 R0061	<b>68020 7</b>			
	8	<b>S 264-D 8</b>	GH S264 0001 R0081	<b>68030 6</b>			
	10	<b>S 264-D 10</b>	GH S264 0001 R0101	<b>68040 5</b>			
	13	<b>S 264-D 13</b>	GH S264 0001 R0131	<b>76060 2</b>			
	16	<b>S 264-D 16</b>	GH S264 0001 R0161	<b>68050 4</b>			
	20	<b>S 264-D 20</b>	GH S264 0001 R0201	<b>68060 3</b>			
	25	<b>S 264-D 25</b>	GH S264 0001 R0251	<b>68070 2</b>			
	32	<b>S 264-D 32</b>	GH S264 0001 R0321	<b>68080 1</b>			
	40	<b>S 264-D 40</b>	GH S264 0001 R0401	<b>68090 0</b>			
	50	<b>S 264-D 50</b>	GH S264 0001 R0501	<b>68100 6</b>			0.580
①	63	<b>S 264-D 63</b>	GH S264 0001 R0631	<b>68110 5</b>			

**M.C.B.'s with disconnecting neutral NA**

SK 0017 B 93	U <sub>Bmax</sub> 440 V ~ 125 V ... ①	1 + NA	0.5	<b>S 261-D 0.5 NA</b>	GH S261 0103 R0981	<b>68120 4</b>			0.250	5
			1	<b>S 261-D 1 NA</b>	GH S261 0103 R0011	<b>68140 2</b>				
			1.6	<b>S 261-D 1.6 NA</b>	GH S261 0103 R0971	<b>68130 3</b>				
			2	<b>S 261-D 2 NA</b>	GH S261 0103 R0021	<b>68150 1</b>				
			3	<b>S 261-D 3 NA</b>	GH S261 0103 R0031	<b>68160 0</b>				
			4	<b>S 261-D 4 NA</b>	GH S261 0103 R0041	<b>68170 9</b>				
			6	<b>S 261-D 6 NA</b>	GH S261 0103 R0061	<b>68180 8</b>				
			8	<b>S 261-D 8 NA</b>	GH S261 0103 R0081	<b>68190 7</b>				
			10	<b>S 261-D 10 NA</b>	GH S261 0103 R0101	<b>68200 3</b>				
			13	<b>S 261-D 13 NA</b>	GH S261 0103 R0131	<b>76070 1</b>				
			16	<b>S 261-D 16 NA</b>	GH S261 0103 R0161	<b>68210 2</b>				
			20	<b>S 261-D 20 NA</b>	GH S261 0103 R0201	<b>68220 1</b>				
			25	<b>S 261-D 25 NA</b>	GH S261 0103 R0251	<b>68230 0</b>				
			32	<b>S 261-D 32 NA</b>	GH S261 0103 R0321	<b>68240 9</b>				
			40	<b>S 261-D 40 NA</b>	GH S261 0103 R0401	<b>68250 8</b>				
SK 0039 B 93	U <sub>Bmax</sub> 440 V ~ 60 V ...	3 + NA	50	<b>S 261-D 50 NA</b>	GH S261 0103 R0501	<b>68260 7</b>			0.290	
			63	<b>S 261-D 63 NA</b>	GH S261 0103 R0631	<b>68270 6</b>				
			0.5	<b>S 263-D 0.5 NA</b>	GH S263 0103 R0981	<b>68280 5</b>			0.500	2
			1	<b>S 263-D 1 NA</b>	GH S263 0103 R0011	<b>68300 0</b>				
			1.6	<b>S 263-D 1.6 NA</b>	GH S263 0103 R0971	<b>68290 4</b>				
			2	<b>S 263-D 2 NA</b>	GH S263 0103 R0021	<b>68310 9</b>				
			3	<b>S 263-D 3 NA</b>	GH S263 0103 R0031	<b>68320 8</b>				
			4	<b>S 263-D 4 NA</b>	GH S263 0103 R0041	<b>68330 7</b>				
			6	<b>S 263-D 6 NA</b>	GH S263 0103 R0061	<b>68340 6</b>				
			8	<b>S 263-D 8 NA</b>	GH S263 0103 R0081	<b>68350 5</b>				
			10	<b>S 263-D 10 NA</b>	GH S263 0103 R0101	<b>68370 3</b>				
			13	<b>S 263-D 13 NA</b>	GH S263 0103 R0131	<b>76080 0</b>				
			16	<b>S 263-D 16 NA</b>	GH S263 0103 R0161	<b>68380 2</b>				
			20	<b>S 263-D 20 NA</b>	GH S263 0103 R0201	<b>68390 1</b>				
			25	<b>S 263-D 25 NA</b>	GH S263 0103 R0251	<b>68400 7</b>				
			32	<b>S 263-D 32 NA</b>	GH S263 0103 R0321	<b>68410 6</b>				
			40	<b>S 263-D 40 NA</b>	GH S263 0103 R0401	<b>68420 5</b>				
SK 0040 B 93	U <sub>Bmax</sub> 440 V ~	3 + NA	50	<b>S 263-D 50 NA</b>	GH S263 0103 R0501	<b>68430 4</b>			0.580	
			63	<b>S 263-D 63 NA</b>	GH S263 0103 R0631	<b>68440 3</b>				

① U<sub>Bmax</sub> 125 V ... with 2 poles connected in series

### Selection table

No. of poles	Rated current I <sub>n</sub> A	Ordering details		bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
		Type No.	Order code					
1	0.5	<b>S 271-K 0.5</b>	GH S271 0001 R0157	<b>36750 4</b>			0.125	10/40
	1	<b>S 271-K 1</b>	GH S271 0001 R0217	<b>36800 6</b>				
	1.6	<b>S 271-K 1.6</b>	GH S271 0001 R0257	<b>36830 3</b>				
	2	<b>S 271-K 2</b>	GH S271 0001 R0277	<b>36850 1</b>				
	3	<b>S 271-K 3</b>	GH S271 0001 R0317	<b>36870 9</b>				
	4	<b>S 271-K 4</b>	GH S271 0001 R0337	<b>36900 3</b>				
	6	<b>S 271-K 6</b>	GH S271 0001 R0377	<b>36920 1</b>				
	8	<b>S 271-K 8</b>	GH S271 0001 R0407	<b>36940 9</b>				
	10	<b>S 271-K 10</b>	GH S271 0001 R0427	<b>36960 7</b>				
	13	<b>S 271-K 13</b>	GH S271 0001 R0447	<b>36950 0</b>				
	16	<b>S 271-K 16</b>	GH S271 0001 R0467	<b>36980 5</b>				
	20	<b>S 271-K 20</b>	GH S271 0001 R0487	<b>37000 9</b>				
	25	<b>S 271-K 25</b>	GH S271 0001 R0517	<b>37020 7</b>				
	32	<b>S 271-K 32</b>	GH S271 0001 R0537	<b>37040 5</b>				
	40	<b>S 271-K 40</b>	GH S271 0001 R0557	<b>37050 4</b>				
	50	<b>S 271-K 50</b>	GH S271 0001 R0577	<b>37060 3</b>			0.145	
	63	<b>S 271-K 63</b>	GH S271 0001 R0607	<b>37070 2</b>				
2	0.5	<b>S 272-K 0.5</b>	GH S272 0001 R0157	<b>38630 7</b>			0.250	5/20
	1	<b>S 272-K 1</b>	GH S272 0001 R0217	<b>38670 3</b>				
	1.6	<b>S 272-K 1.6</b>	GH S272 0001 R0257	<b>38700 7</b>				
	2	<b>S 272-K 2</b>	GH S272 0001 R0277	<b>38720 5</b>				
	3	<b>S 272-K 3</b>	GH S272 0001 R0317	<b>38740 3</b>				
	4	<b>S 272-K 4</b>	GH S272 0001 R0337	<b>38770 0</b>				
	6	<b>S 272-K 6</b>	GH S272 0001 R0377	<b>38790 8</b>				
	8	<b>S 272-K 8</b>	GH S272 0001 R0407	<b>38810 3</b>				
	10	<b>S 272-K 10</b>	GH S272 0001 R0427	<b>38830 1</b>				
	13	<b>S 272-K 13</b>	GH S272 0001 R0447	<b>96960 9</b>				
	16	<b>S 272-K 16</b>	GH S272 0001 R0467	<b>38850 9</b>				
	20	<b>S 272-K 20</b>	GH S272 0001 R0487	<b>38870 7</b>				
	25	<b>S 272-K 25</b>	GH S272 0001 R0517	<b>38890 5</b>				
	32	<b>S 272-K 32</b>	GH S272 0001 R0537	<b>38910 0</b>				
	40	<b>S 272-K 40</b>	GH S272 0001 R0557	<b>38920 9</b>				
	50	<b>S 272-K 50</b>	GH S272 0001 R0577	<b>38930 8</b>			0.290	
	63	<b>S 272-K 63</b>	GH S272 0001 R0607	<b>38940 7</b>				
3	0.5	<b>S 273-K 0.5</b>	GH S273 0001 R0157	<b>39930 7</b>			0.375	3/12
	1	<b>S 273-K 1</b>	GH S273 0001 R0217	<b>39970 3</b>				
	1.6	<b>S 273-K 1.6</b>	GH S273 0001 R0257	<b>39990 1</b>				
	2	<b>S 273-K 2</b>	GH S273 0001 R0277	<b>40000 3</b>				
	3	<b>S 273-K 3</b>	GH S273 0001 R0317	<b>40010 2</b>				
	4	<b>S 273-K 4</b>	GH S273 0001 R0337	<b>40030 0</b>				
	6	<b>S 273-K 6</b>	GH S273 0001 R0377	<b>40040 9</b>				
	8	<b>S 273-K 8</b>	GH S273 0001 R0407	<b>40050 8</b>				
	10	<b>S 273-K 10</b>	GH S273 0001 R0427	<b>40060 7</b>				
	13	<b>S 273-K 13</b>	GH S273 0001 R0447	<b>96970 8</b>				
	16	<b>S 273-K 16</b>	GH S273 0001 R0467	<b>40070 6</b>				
	20	<b>S 273-K 20</b>	GH S273 0001 R0487	<b>40080 5</b>				
	25	<b>S 273-K 25</b>	GH S273 0001 R0517	<b>40090 4</b>				
	32	<b>S 273-K 32</b>	GH S273 0001 R0537	<b>40100 0</b>				
	40	<b>S 273-K 40</b>	GH S273 0001 R0557	<b>40110 9</b>				
	50	<b>S 273-K 50</b>	GH S273 0001 R0577	<b>40120 8</b>			0.435	
	63	<b>S 273-K 63</b>	GH S273 0001 R0607	<b>40130 7</b>				

① U<sub>Bmax</sub> 125 V ... with 2 poles connected in series

### Selection table

No. of poles	Rated current I <sub>n</sub> , A	Ordering details		<b>bbn</b> 40 12233 EAN	<b>Price</b> 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
		Type No.	Order code					
4	0.5	<b>S 274-K 0.5</b>	GH S274 0001 R0157	<b>41620 2</b>			0.500	2
	1	<b>S 274-K 1</b>	GH S274 0001 R0217	<b>41650 9</b>				
	1.6	<b>S 274-K 1.6</b>	GH S274 0001 R0257	<b>41670 7</b>				
	2	<b>S 274-K 2</b>	GH S274 0001 R0277	<b>41680 6</b>				
	3	<b>S 274-K 3</b>	GH S274 0001 R0317	<b>41690 5</b>				
	4	<b>S 274-K 4</b>	GH S274 0001 R0337	<b>41710 0</b>				
	6	<b>S 274-K 6</b>	GH S274 0001 R0377	<b>41720 9</b>				
	8	<b>S 274-K 8</b>	GH S274 0001 R0407	<b>41730 8</b>				
	10	<b>S 274-K 10</b>	GH S274 0001 R0427	<b>41727 7</b>				
	13	<b>S 274-K 13</b>	GH S274 0001 R0447	<b>83830 1</b>				
	16	<b>S 274-K 16</b>	GH S274 0001 R0467	<b>41750 6</b>				
	20	<b>S 274-K 20</b>	GH S274 0001 R0487	<b>41760 5</b>				
	25	<b>S 274-K 25</b>	GH S274 0001 R0517	<b>41770 4</b>				
	32	<b>S 274-K 32</b>	GH S274 0001 R0537	<b>41780 3</b>				
	40	<b>S 274-K 40</b>	GH S274 0001 R0557	<b>41790 2</b>				
	50	<b>S 274-K 50</b>	GH S274 0001 R0577	<b>41800 8</b>			0.580	
	63	<b>S 274-K 63</b>	GH S274 0001 R0607	<b>41810 7</b>				

### M.C.B.'s with disconnecting neutral NA

1 + NA	0.5	<b>S 271-K 0.5 NA</b>	GH S271 0103 R0157	<b>37640 7</b>			0.250	5
	1	<b>S 271-K 1 NA</b>	GH S271 0103 R0217	<b>37670 4</b>				
	1.6	<b>S 271-K 1.6 NA</b>	GH S271 0103 R0257	<b>37690 2</b>				
	2	<b>S 271-K 2 NA</b>	GH S271 0103 R0277	<b>37700 8</b>				
	3	<b>S 271-K 3 NA</b>	GH S271 0103 R0317	<b>37710 7</b>				
	4	<b>S 271-K 4 NA</b>	GH S271 0103 R0337	<b>37730 5</b>				
	6	<b>S 271-K 6 NA</b>	GH S271 0103 R0377	<b>37740 4</b>				
	8	<b>S 271-K 8 NA</b>	GH S271 0103 R0407	<b>37750 3</b>				
	10	<b>S 271-K 10 NA</b>	GH S271 0103 R0427	<b>37760 2</b>				
	13	<b>S 271-K 13 NA</b>	GH S271 0103 R0447	<b>96980 7</b>				
	16	<b>S 271-K 16 NA</b>	GH S271 0103 R0467	<b>37770 1</b>				
	20	<b>S 271-K 20 NA</b>	GH S271 0103 R0487	<b>37780 0</b>				
	25	<b>S 271-K 25 NA</b>	GH S271 0103 R0517	<b>37790 9</b>				
	32	<b>S 271-K 32 NA</b>	GH S271 0103 R0537	<b>37800 5</b>				
	40	<b>S 271-K 40 NA</b>	GH S271 0103 R0557	<b>37810 4</b>				
	50	<b>S 271-K 50 NA</b>	GH S271 0103 R0577	<b>65710 0</b>			0.290	
	63	<b>S 271-K 63 NA</b>	GH S271 0103 R0607	<b>65720 9</b>				
3 + NA	0.5	<b>S 273-K 0.5 NA</b>	GH S273 0103 R0157	<b>40690 6</b>			0.500	2
	1	<b>S 273-K 1 NA</b>	GH S273 0103 R0217	<b>40730 9</b>				
	1.6	<b>S 273-K 1.6 NA</b>	GH S273 0103 R0257	<b>40750 7</b>				
	2	<b>S 273-K 2 NA</b>	GH S273 0103 R0277	<b>40760 6</b>				
	3	<b>S 273-K 3 NA</b>	GH S273 0103 R0317	<b>40770 5</b>				
	4	<b>S 273-K 4 NA</b>	GH S273 0103 R0337	<b>40790 3</b>				
	6	<b>S 273-K 6 NA</b>	GH S273 0103 R0377	<b>40800 9</b>				
	8	<b>S 273-K 8 NA</b>	GH S273 0103 R0407	<b>40810 8</b>				
	10	<b>S 273-K 10 NA</b>	GH S273 0103 R0427	<b>40820 7</b>				
	13	<b>S 273-K 13 NA</b>	GH S273 0103 R0447	<b>96990 6</b>				
	16	<b>S 273-K 16 NA</b>	GH S273 0103 R0467	<b>40830 6</b>				
	20	<b>S 273-K 20 NA</b>	GH S273 0103 R0487	<b>40840 5</b>				
	25	<b>S 273-K 25 NA</b>	GH S273 0103 R0517	<b>40850 4</b>				
	32	<b>S 273-K 32 NA</b>	GH S273 0103 R0537	<b>40860 3</b>				
	40	<b>S 273-K 40 NA</b>	GH S273 0103 R0557	<b>40870 2</b>				
	50	<b>S 273-K 50 NA</b>	GH S273 0103 R0577	<b>65730 8</b>			0.580	
	63	<b>S 273-K 63 NA</b>	GH S273 0103 R0607	<b>65740 7</b>				

① U<sub>Bmax</sub> 125 V ... with 2 poles connected in series

**Selection table**

No. of poles	Rated current I <sub>n</sub> A	Ordering details	bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
		Type No.	Order code				
1 U <sub>Bmax</sub>	15	<b>S 271-KS 15</b>	GH S271 0011 R0459				
440 V ~	30	<b>S 271-KS 30</b>	GH S271 0011 R0529				
60 V ...	60	<b>S 271-KS 60</b>	GH S271 0011 R0589				
2 U <sub>Bmax</sub> ①	15	<b>S 272-KS 15</b>	GH S272 0011 R0459				
440 V ~	30	<b>S 272-KS 30</b>	GH S272 0011 R0529				
125 V ...	60	<b>S 272-KS 60</b>	GH S272 0011 R0589				
3 U <sub>Bmax</sub>	15	<b>S 273-KS 15</b>	GH S273 0011 R0459				
440 V ~	30	<b>S 273-KS 30</b>	GH S273 0011 R0529				
60	<b>S 273-KS 60</b>	GH S273 0011 R0589					
4 U <sub>Bmax</sub> ①	15	<b>S 274-KS 15</b>	GH S274 0011 R0459				
440 V ~	30	<b>S 274-KS 30</b>	GH S274 0011 R0529				
125 V ...	60	<b>S 274-KS 60</b>	GH S274 0011 R0589				

① U<sub>Bmax</sub> 125 V ... with 2 poles connected in series**Selection table**

No. of poles	Rated current I <sub>n</sub> A	Ordering details	bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
		Type No.	Order code				
1	0.5	<b>S 271-Z 0.5</b>	GH S271 0001 R0158	<b>36760 3</b>			
	1	<b>S 271-Z 1</b>	GH S271 0001 R0218	<b>36810 5</b>			
	1.6	<b>S 271-Z 1.6</b>	GH S271 0001 R0258	<b>36840 2</b>			
	2	<b>S 271-Z 2</b>	GH S271 0001 R0278	<b>36860 0</b>			
	3	<b>S 271-Z 3</b>	GH S271 0001 R0318	<b>36880 8</b>			
	4	<b>S 271-Z 4</b>	GH S271 0001 R0338	<b>36910 2</b>			
	6	<b>S 271-Z 6</b>	GH S271 0001 R0378	<b>36930 0</b>			
	8	<b>S 271-Z 8</b>	GH S271 0001 R0408	<b>36950 8</b>			
	10	<b>S 271-Z 10</b>	GH S271 0001 R0428	<b>36970 6</b>			
	16	<b>S 271-Z 16</b>	GH S271 0001 R0468	<b>36990 4</b>			
	20	<b>S 271-Z 20</b>	GH S271 0001 R0488	<b>37010 8</b>			
	25	<b>S 271-Z 25</b>	GH S271 0001 R0518	<b>37030 6</b>			
	32	<b>S 271-Z 32</b>	GH S271 0001 R0538	<b>65300 3</b>			
	40	<b>S 271-Z 40</b>	GH S271 0001 R0558	<b>65310 2</b>			
	50	<b>S 271-Z 50</b>	GH S271 0001 R0578	<b>65320 1</b>			
	63	<b>S 271-Z 63</b>	GH S271 0001 R0608	<b>65340 9</b>			
2	0.5	<b>S 272-Z 0.5</b>	GH S272 0001 R0158	<b>38640 6</b>			
	1	<b>S 272-Z 1</b>	GH S272 0001 R0218	<b>38680 2</b>			
	1.6	<b>S 272-Z 1.6</b>	GH S272 0001 R0258	<b>38710 6</b>			
	2	<b>S 272-Z 2</b>	GH S272 0001 R0278	<b>38730 4</b>			
	3	<b>S 272-Z 3</b>	GH S272 0001 R0318	<b>38750 2</b>			
	4	<b>S 272-Z 4</b>	GH S272 0001 R0338	<b>38780 9</b>			
	6	<b>S 272-Z 6</b>	GH S272 0001 R0378	<b>38800 4</b>			
	8	<b>S 272-Z 8</b>	GH S272 0001 R0408	<b>38820 2</b>			
	10	<b>S 272-Z 10</b>	GH S272 0001 R0428	<b>38840 0</b>			
	16	<b>S 272-Z 16</b>	GH S272 0001 R0468	<b>38860 8</b>			
	20	<b>S 272-Z 20</b>	GH S272 0001 R0488	<b>38880 6</b>			
	25	<b>S 272-Z 25</b>	GH S272 0001 R0518	<b>38900 1</b>			
	32	<b>S 272-Z 32</b>	GH S272 0001 R0538	<b>65350 8</b>			
	40	<b>S 272-Z 40</b>	GH S272 0001 R0558	<b>65360 7</b>			
	50	<b>S 272-Z 50</b>	GH S272 0001 R0578	<b>65370 6</b>			
	63	<b>S 272-Z 63</b>	GH S272 0001 R0608	<b>65380 5</b>			

① U<sub>Bmax</sub> 125 V ... with poles connected in series



### Selection table

No. of poles	Rated current I <sub>n</sub> A	Ordering details		bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.			
3	0.5	<b>S 273-Z 0.5</b>	GH S273 0001 R0158	<b>65390 4</b>			0.390	3/12			
	1	<b>S 273-Z 1</b>	GH S273 0001 R0218	<b>65400 0</b>							
	1.6	<b>S 273-Z 1.6</b>	GH S273 0001 R0258	<b>65410 9</b>							
	2	<b>S 273-Z 2</b>	GH S273 0001 R0278	<b>65420 8</b>							
	3	<b>S 273-Z 3</b>	GH S273 0001 R0318	<b>65430 7</b>							
	4	<b>S 273-Z 4</b>	GH S273 0001 R0338	<b>65440 6</b>							
	6	<b>S 273-Z 6</b>	GH S273 0001 R0378	<b>65450 5</b>							
	8	<b>S 273-Z 8</b>	GH S273 0001 R0408	<b>65460 4</b>							
	10	<b>S 273-Z 10</b>	GH S273 0001 R0428	<b>65470 3</b>							
	16	<b>S 273-Z 16</b>	GH S273 0001 R0468	<b>65480 2</b>							
	20	<b>S 273-Z 20</b>	GH S273 0001 R0488	<b>65490 1</b>							
	25	<b>S 273-Z 25</b>	GH S273 0001 R0518	<b>65500 7</b>							
	32	<b>S 273-Z 32</b>	GH S273 0001 R0538	<b>65510 6</b>							
	40	<b>S 273-Z 40</b>	GH S273 0001 R0558	<b>65520 5</b>							
	50	<b>S 273-Z 50</b>	GH S273 0001 R0578	<b>65530 4</b>							
	U <sub>Bmax</sub> 440 V ~	63	<b>S 273-Z 63</b>	GH S273 0001 R0608	<b>65540 3</b>					0.480	
	4	0.5	<b>S 274-Z 0.5</b>	GH S274 0001 R0158	<b>65550 2</b>					0.520	2
		1	<b>S 274-Z 1</b>	GH S274 0001 R0218	<b>65560 1</b>						
		1.6	<b>S 274-Z 1.6</b>	GH S274 0001 R0258	<b>65570 0</b>						
		2	<b>S 274-Z 2</b>	GH S274 0001 R0278	<b>65580 9</b>						
3		<b>S 274-Z 3</b>	GH S274 0001 R0318	<b>65590 8</b>							
4		<b>S 274-Z 4</b>	GH S274 0001 R0338	<b>65600 4</b>							
6		<b>S 274-Z 6</b>	GH S274 0001 R0378	<b>65610 3</b>							
8		<b>S 274-Z 8</b>	GH S274 0001 R0408	<b>65620 2</b>							
10		<b>S 274-Z 10</b>	GH S274 0001 R0428	<b>65630 1</b>							
16		<b>S 274-Z 16</b>	GH S274 0001 R0468	<b>65640 0</b>							
20		<b>S 274-Z 20</b>	GH S274 0001 R0488	<b>65650 9</b>							
25		<b>S 274-Z 25</b>	GH S274 0001 R0518	<b>65660 8</b>							
32		<b>S 274-Z 32</b>	GH S274 0001 R0538	<b>65670 7</b>							
40		<b>S 274-Z 40</b>	GH S274 0001 R0558	<b>65680 6</b>							
50		<b>S 274-Z 50</b>	GH S274 0001 R0578	<b>65690 5</b>							
①	63	<b>S 274-Z 63</b>	GH S274 0001 R0608	<b>65700 1</b>			0.640				

① U<sub>Bmax</sub> 125 V ... with 2 poles connected in series



SK 0336 B 91



SK 0337 B 91

**Selection table**

No. of poles	Rated current I <sub>n</sub> A	Ordering details Type No.	Order code	bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
SK 0019 B 93	6	<b>S 271-B 6</b>	GH S271 0001 R0065	<b>68580 6</b>			0.125	10/40
	10	<b>S 271-B 10</b>	GH S271 0001 R0105	<b>68590 5</b>				
	13	<b>S 271-B 13</b>	GH S271 0001 R0135	<b>68530 1</b>				
	16	<b>S 271-B 16</b>	GH S271 0001 R0165	<b>37770 2</b>				
	20 ①	<b>S 271-B 20</b>	GH S271 0001 R0205	<b>68600 1</b>				
	25	<b>S 271-B 25</b>	GH S271 0001 R0255	<b>68540 0</b>				
	32 ②	<b>S 271-B 32</b>	GH S271 0001 R0325	<b>68550 9</b>				
	U <sub>Bmax</sub> 440 V ~ 60 V ...	<b>S 271-B 40</b>	GH S271 0001 R0405	<b>68610 0</b>			0.145	
	40 ③	<b>S 271-B 50</b>	GH S271 0001 R0505	<b>68560 8</b>				
	50	<b>S 271-B 63</b>	GH S271 0001 R0635	<b>68570 7</b>				
SK 0031 B 93	6	<b>S 272-B 6</b>	GH S272 0001 R0065	<b>68620 9</b>			0.250	5/20
	10	<b>S 272-B 10</b>	GH S272 0001 R0105	<b>68630 8</b>				
	13	<b>S 272-B 13</b>	GH S272 0001 R0135	<b>68660 5</b>				
	16	<b>S 272-B 16</b>	GH S272 0001 R0165	<b>64810 8</b>				
	20	<b>S 272-B 20</b>	GH S272 0001 R0205	<b>68640 7</b>				
	25	<b>S 272-B 25</b>	GH S272 0001 R0255	<b>68670 4</b>				
	32	<b>S 272-B 32</b>	GH S272 0001 R0325	<b>68680 3</b>				
	U <sub>Bmax</sub> 440 V ~ 125 V ...	<b>S 272-B 40</b>	GH S272 0001 R0405	<b>68650 6</b>			0.290	
	40 ④	<b>S 272-B 50</b>	GH S272 0001 R0505	<b>68690 2</b>				
	50	<b>S 272-B 63</b>	GH S272 0001 R0635	<b>68700 8</b>				
SK 0022 B 93	6	<b>S 273-B 6</b>	GH S273 0001 R0065	<b>68740 4</b>			0.375	3/12
	10	<b>S 273-B 10</b>	GH S273 0001 R0105	<b>68730 5</b>				
	13	<b>S 273-B 13</b>	GH S273 0001 R0135	<b>68750 3</b>				
	16	<b>S 273-B 16</b>	GH S273 0001 R0165	<b>39940 6</b>				
	20	<b>S 273-B 20</b>	GH S273 0001 R0205	<b>68720 6</b>				
	25	<b>S 273-B 25</b>	GH S273 0001 R0255	<b>68760 2</b>				
	32	<b>S 273-B 32</b>	GH S273 0001 R0325	<b>68770 1</b>				
	U <sub>Bmax</sub> 440 V ~	<b>S 273-B 40</b>	GH S273 0001 R0405	<b>68710 7</b>			0.435	
	40	<b>S 273-B 50</b>	GH S273 0001 R0505	<b>68780 0</b>				
	50	<b>S 273-B 63</b>	GH S273 0001 R0635	<b>68790 9</b>				
SK 0032 B 93	6	<b>S 274-B 6</b>	GH S274 0001 R0065	<b>68800 5</b>			0.500	2
	10	<b>S 274-B 10</b>	GH S274 0001 R0105	<b>68810 4</b>				
	13	<b>S 274-B 13</b>	GH S274 0001 R0135	<b>68840 1</b>				
	16	<b>S 274-B 16</b>	GH S274 0001 R0165	<b>68850 0</b>				
	20	<b>S 274-B 20</b>	GH S274 0001 R0205	<b>68820 3</b>				
	25	<b>S 274-B 25</b>	GH S274 0001 R0255	<b>68860 9</b>				
	32	<b>S 274-B 32</b>	GH S274 0001 R0325	<b>68870 8</b>				
	U <sub>Bmax</sub> 440 V ~	<b>S 274-B 40</b>	GH S274 0001 R0405	<b>68830 2</b>				
	40 ④	<b>S 274-B 50</b>	GH S274 0001 R0505	<b>68880 7</b>				
	50	<b>S 274-B 63</b>	GH S274 0001 R0635	<b>68890 6</b>			0.5890	

① Suitable for continuous flow water heater 12 kW

② Suitable for continuous flow water heater 18 kW

③ Suitable for continuous flow water heater 21, 24 and 27 kW

### Selection table

#### M.C.B.'s with disconnecting neutral NA

No. of poles	Rated current I <sub>n</sub> A	Ordering details	bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
		Type No.	Order code				
<b>1+NA</b>	6	<b>S 271-B 6 NA</b>	GH S271 0103 R0065	<b>68450 2</b>			
	10	<b>S 271-B 10 NA</b>	GH S271 0103 R0105	<b>68460 1</b>			
	13	<b>S 271-B 13 NA</b>	GH S271 0103 R0135	<b>68470 0</b>			
	16	<b>S 271-B 16 NA</b>	GH S271 0103 R0165	<b>68480 9</b>			
	20 ①	<b>S 271-B 20 NA</b>	GH S271 0103 R0205	<b>68490 8</b>			
	25	<b>S 271-B 25 NA</b>	GH S271 0103 R0255	<b>68500 4</b>			
	32 ②	<b>S 271-B 32 NA</b>	GH S271 0103 R0325	<b>68510 3</b>			
	40 ③	<b>S 271-B 40 NA</b>	GH S271 0103 R0405	<b>68520 2</b>			
	50	<b>S 271-B 50 NA</b>	GH S271 0103 R0505	<b>76010 7</b>			0.290
	63	<b>S 271-B 63 NA</b>	GH S271 0103 R0635	<b>76020 6</b>			
<b>3+NA</b>	6	<b>S 273-B 6 NA</b>	GH S273 0103 R0065	<b>68900 2</b>			
	10	<b>S 273-B 10 NA</b>	GH S273 0103 R0105	<b>68910 1</b>			
	13	<b>S 273-B 13 NA</b>	GH S273 0103 R0135	<b>68920 0</b>			
	16	<b>S 273-B 16 NA</b>	GH S273 0103 R0165	<b>68930 9</b>			
	20 ①	<b>S 273-B 20 NA</b>	GH S273 0103 R0205	<b>68940 8</b>			
	25	<b>S 273-B 25 NA</b>	GH S273 0103 R0255	<b>68950 7</b>			
	32 ②	<b>S 273-B 32 NA</b>	GH S273 0103 R0325	<b>68960 6</b>			
	40 ③	<b>S 273-B 40 NA</b>	GH S273 0103 R0405	<b>68970 5</b>			
	50	<b>S 273-B 50 NA</b>	GH S273 0103 R0505	<b>68980 4</b>			0.580
	63	<b>S 273-B 63 NA</b>	GH S273 0103 R0635	<b>68990 3</b>			

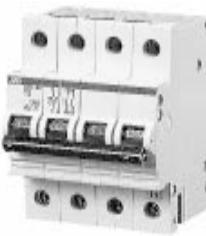
① Suitable for continuous flow water heater 12 kW

② Suitable for continuous flow water heater 18 kW

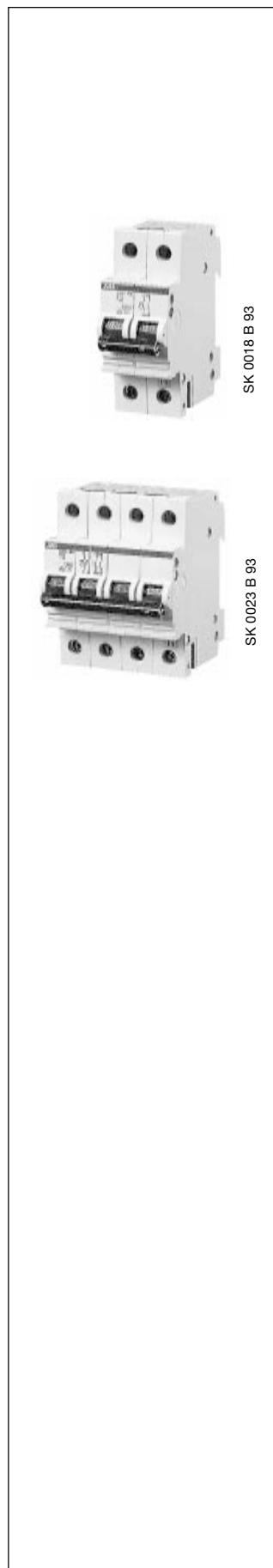
③ Suitable for continuous flow water heater 21, 24 and 27 kW



SK 0018 B 93



SK 0023 B 93



### Selection table

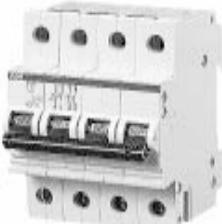
No. of poles	Rated current I <sub>n</sub> A	Ordering details Type No.	Order code	bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
1	0.5	<b>S 271-C 0.5</b>	GH S271 0001 R0984	<b>69000 8</b>				
	1	<b>S 271-C 1</b>	GH S271 0001 R0014	<b>69040 4</b>				
	1.6	<b>S 271-C 1.6</b>	GH S271 0001 R0974	<b>69050 3</b>				
	2	<b>S 271-C 2</b>	GH S271 0001 R0024	<b>69060 2</b>				
	3	<b>S 271-C 3</b>	GH S271 0001 R0034	<b>69070 1</b>				
	4	<b>S 271-C 4</b>	GH S271 0001 R0044	<b>69110 4</b>				
	6	<b>S 271-C 6</b>	GH S271 0001 R0064	<b>69120 3</b>				
	8	<b>S 271-C 8</b>	GH S271 0001 R0084	<b>69130 2</b>				
	10	<b>S 271-C 10</b>	GH S271 0001 R0104	<b>69010 7</b>				
	13	<b>S 271-C 13</b>	GH S271 0001 R0134	<b>69140 1</b>				
	16	<b>S 271-C 16</b>	GH S271 0001 R0164	<b>69160 9</b>				
	20 ①	<b>S 271-C 20</b>	GH S271 0001 R0204	<b>69170 8</b>				
	25	<b>S 271-C 25</b>	GH S271 0001 R0254	<b>69020 6</b>				
	32 ②	<b>S 271-C 32</b>	GH S271 0001 R0324	<b>69180 7</b>				
	40 ③	<b>S 271-C 40</b>	GH S271 0001 R0404	<b>69030 5</b>				
	U <sub>Bmax</sub> 440 V ~ 60 V ...	<b>S 271-C 50</b>	GH S271 0001 R0504	<b>69190 6</b>			0.145	
		<b>S 271-C 63</b>	GH S271 0001 R0634	<b>69210 1</b>				
2	0.5	<b>S 272-C 0.5</b>	GH S272 0001 R0984	<b>69270 5</b>				
	1	<b>S 272-C 1</b>	GH S272 0001 R0014	<b>69280 4</b>				
	1.6	<b>S 272-C 1.6</b>	GH S272 0001 R0974	<b>69290 3</b>				
	2	<b>S 272-C 2</b>	GH S272 0001 R0024	<b>69300 9</b>				
	3	<b>S 272-C 3</b>	GH S272 0001 R0034	<b>69310 8</b>				
	4	<b>S 272-C 4</b>	GH S272 0001 R0044	<b>69320 7</b>				
	6	<b>S 272-C 6</b>	GH S272 0001 R0064	<b>69330 6</b>				
	8	<b>S 272-C 8</b>	GH S272 0001 R0084	<b>69340 5</b>				
	10	<b>S 272-C 10</b>	GH S272 0001 R0104	<b>69260 6</b>				
	13	<b>S 272-C 13</b>	GH S272 0001 R0134	<b>69350 4</b>				
	16	<b>S 272-C 16</b>	GH S272 0001 R0164	<b>69360 3</b>				
	20	<b>S 272-C 20</b>	GH S272 0001 R0204	<b>69370 2</b>				
	25	<b>S 272-C 25</b>	GH S272 0001 R0254	<b>69250 7</b>				
	32	<b>S 272-C 32</b>	GH S272 0001 R0324	<b>69380 1</b>				
	40	<b>S 272-C 40</b>	GH S272 0001 R0404	<b>69240 8</b>				
	U <sub>Bmax</sub> 440 V ~ 125 V ... ④	<b>S 272-C 50</b>	GH S272 0001 R0504	<b>69390 0</b>			0.290	
		<b>S 272-C 63</b>	GH S272 0001 R0634	<b>69400 6</b>				
3	0.5	<b>S 273-C 0.5</b>	GH S273 0001 R0984	<b>69410 5</b>				
	1	<b>S 273-C 1</b>	GH S273 0001 R0014	<b>69460 0</b>				
	1.6	<b>S 273-C 1.6</b>	GH S273 0001 R0974	<b>69450 1</b>				
	2	<b>S 273-C 2</b>	GH S273 0001 R0024	<b>69470 9</b>				
	3	<b>S 273-C 3</b>	GH S273 0001 R0034	<b>69480 8</b>				
	4	<b>S 273-C 4</b>	GH S273 0001 R0044	<b>69490 7</b>				
	6	<b>S 273-C 6</b>	GH S273 0001 R0064	<b>69500 3</b>				
	8	<b>S 273-C 8</b>	GH S273 0001 R0084	<b>69510 2</b>				
	10	<b>S 273-C 10</b>	GH S273 0001 R0104	<b>69420 4</b>				
	13	<b>S 273-C 13</b>	GH S273 0001 R0134	<b>69520 1</b>				
	16	<b>S 273-C 16</b>	GH S273 0001 R0164	<b>64820 7</b>				
	20 ①	<b>S 273-C 20</b>	GH S273 0001 R0204	<b>69530 0</b>				
	25	<b>S 273-C 25</b>	GH S273 0001 R0254	<b>69430 3</b>				
	32 ②	<b>S 273-C 32</b>	GH S273 0001 R0324	<b>69540 9</b>				
	40 ③	<b>S 273-C 40</b>	GH S273 0001 R0404	<b>69440 2</b>				
	U <sub>Bmax</sub> 440 V ~ 125 V ... ④	<b>S 273-C 50</b>	GH S273 0001 R0504	<b>69550 8</b>			0.435	
		<b>S 273-C 63</b>	GH S273 0001 R0634	<b>69560 7</b>				

① Suitable for continuous flow water heater 12 kW

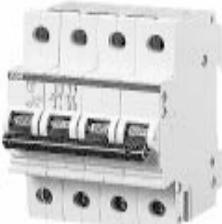
② Suitable for continuous flow water heater 18 kW

③ Suitable for continuous flow water heater 21, 24 and 27 kW

④ U<sub>Bmax</sub> 125 V ... with 2 poles connected in series



**SK 0026 B 93**

No. of poles	Rated current I <sub>n</sub> A	Ordering details		<b>bbn 40 12233 EAN</b>	<b>Price 1 piece DM</b>	<b>Price group</b>	<b>Weight 1 piece kg</b>	<b>Pack. unit pcs.</b>
		Type No.	Order code					
  U <sub>Bmax</sub> 440 V ~ 125 V ... ④	4	0.5	<b>S 274-C 0.5</b>	GH S274 0001 R0984	<b>69570 6</b>			0.500
		1	<b>S 274-C 1</b>	GH S274 0001 R0014	<b>69630 7</b>			
		1.6	<b>S 274-C 1.6</b>	GH S274 0001 R0974	<b>69610 9</b>			
		2	<b>S 274-C 2</b>	GH S274 0001 R0024	<b>69920 9</b>			
		3	<b>S 274-C 3</b>	GH S274 0001 R0034	<b>69930 8</b>			
		4	<b>S 274-C 4</b>	GH S274 0001 R0044	<b>69960 5</b>			
		6	<b>S 274-C 6</b>	GH S274 0001 R0064	<b>69980 3</b>			
		8	<b>S 274-C 8</b>	GH S274 0001 R0084	<b>70000 4</b>			
		10	<b>S 274-C 10</b>	GH S274 0001 R0104	<b>69580 5</b>			
		13	<b>S 274-C 13</b>	GH S274 0001 R0134	<b>70020 2</b>			
		16	<b>S 274-C 16</b>	GH S274 0001 R0164	<b>70030 1</b>			
		20	<b>S 274-C 20</b>	GH S274 0001 R0204	<b>70050 9</b>			
		25	<b>S 274-C 25</b>	GH S274 0001 R0254	<b>69590 4</b>			
		32	<b>S 274-C 32</b>	GH S274 0001 R0324	<b>70070 7</b>			
		40	<b>S 274-C 40</b>	GH S274 0001 R0404	<b>69600 0</b>			
  U <sub>Bmax</sub> 440 V ~ 60 V ...	50	<b>S 274-C 50</b>	GH S274 0001 R0504	<b>70080 6</b>				0.580
	63	<b>S 274-C 63</b>	GH S274 0001 R0634	<b>70100 1</b>				

### M.C.B.'s with disconnecting neutral NA



**SK 0004 B 93**

  U <sub>Bmax</sub> 440 V ~ 60 V ... ①	1 + NA	0.5	<b>S 271-C 0.5 NA</b>	GH S271 0103 R0984	<b>69080 0</b>			0.250	5
		1	<b>S 271-C 1 NA</b>	GH S271 0103 R0014	<b>69090 9</b>				
		1.6	<b>S 271-C 1.6 NA</b>	GH S271 0103 R0974	<b>69100 5</b>				
		2	<b>S 271-C 2 NA</b>	GH S271 0103 R0024	<b>69150 0</b>				
		3	<b>S 271-C 3 NA</b>	GH S271 0103 R0034	<b>69200 2</b>				
		4	<b>S 271-C 4 NA</b>	GH S271 0103 R0044	<b>69220 0</b>				
		6	<b>S 271-C 6 NA</b>	GH S271 0103 R0064	<b>69230 9</b>				
		8	<b>S 271-C 8 NA</b>	GH S271 0103 R0084	<b>69620 8</b>				
		10	<b>S 271-C 10 NA</b>	GH S271 0103 R0104	<b>69640 6</b>				
		13	<b>S 271-C 13 NA</b>	GH S271 0103 R0134	<b>69650 5</b>				
		16	<b>S 271-C 16 NA</b>	GH S271 0103 R0164	<b>69660 4</b>				
		20 ①	<b>S 271-C 20 NA</b>	GH S271 0103 R0204	<b>69670 3</b>				
		25	<b>S 271-C 25 NA</b>	GH S271 0103 R0254	<b>69680 2</b>				
		32 ②	<b>S 271-C 32 NA</b>	GH S271 0103 R0324	<b>69690 1</b>				
		40 ③	<b>S 271-C 40 NA</b>	GH S271 0103 R0404	<b>69700 7</b>				
  U <sub>Bmax</sub> 440 V ~ 60 V ... ②	3 + NA	50	<b>S 271-C 50 NA</b>	GH S271 0103 R0504	<b>69710 6</b>			0.290	
		63	<b>S 271-C 63 NA</b>	GH S271 0103 R0634	<b>69720 9</b>				
		0.5	<b>S 273-C 0.5 NA</b>	GH S273 0103 R0984	<b>69730 4</b>			0.500	2
		1	<b>S 273-C 1 NA</b>	GH S273 0103 R0014	<b>69740 3</b>				
		1.6	<b>S 273-C 1.6 NA</b>	GH S273 0103 R0974	<b>69750 2</b>				
		2	<b>S 273-C 2 NA</b>	GH S273 0103 R0024	<b>69760 1</b>				
		3	<b>S 273-C 3 NA</b>	GH S273 0103 R0034	<b>69770 0</b>				
		4	<b>S 273-C 4 NA</b>	GH S273 0103 R0044	<b>69780 9</b>				
		6	<b>S 273-C 6 NA</b>	GH S273 0103 R0064	<b>69790 8</b>				
		8	<b>S 273-C 8 NA</b>	GH S273 0103 R0084	<b>69800 4</b>				
		10	<b>S 273-C 10 NA</b>	GH S273 0103 R0104	<b>69810 3</b>				
		13	<b>S 273-C 13 NA</b>	GH S273 0103 R0134	<b>69820 2</b>				
		16	<b>S 273-C 16 NA</b>	GH S273 0103 R0164	<b>64830 1</b>				
		20 ①	<b>S 273-C 20 NA</b>	GH S273 0103 R0204	<b>69840 0</b>				
		25	<b>S 273-C 25 NA</b>	GH S273 0103 R0254	<b>69850 9</b>				
		32 ②	<b>S 273-C 32 NA</b>	GH S273 0103 R0324	<b>69860 8</b>				
		40 ③	<b>S 273-C 40 NA</b>	GH S273 0103 R0404	<b>69870 7</b>				
		50	<b>S 273-C 50 NA</b>	GH S273 0103 R0504	<b>69880 6</b>			0.580	
		63	<b>S 273-C 63 NA</b>	GH S273 0103 R0634	<b>69890 5</b>				

① Suitable for continuous flow water heater 12 kW

② Suitable for continuous flow water heater 18 kW

③ Suitable for continuous flow water heater 21, 24 and 27 kW

④ U<sub>Bmax</sub> 125 V ... with 2 poles connected in series

Selection table								
	No. of poles	Rated current I <sub>n</sub> A	Ordering details	bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
		Type No.	Order code					
SK 0305 B 91	U <sub>Bmax</sub> 440 V ~ 60 V ...	1	S 281-B 6 S 281-B 10 S 281-B 13  S 281-B 16 S 281-B 20 S 281-B 25  S 281-B 32 S 281-B 40 S 281-B 50  S 281-B 63	GH S281 0001 R0065 GH S281 0001 R0105 GH S281 0001 R0135  GH S281 0001 R0165 GH S281 0001 R0205 GH S281 0001 R0255  GH S281 0001 R0325 GH S281 0001 R0405 GH S281 0001 R0505  GH S281 0001 R0635	43100 7 43150 2 43190 8  43240 0 43280 6 43330 8  43420 6 43500 5 65830 5  64860 3		0.130	10/40
		2	S 282-B 6 S 282-B 10 S 282-B 13  S 282-B 16 S 282-B 20 S 282-B 25  S 282-B 32 S 282-B 40 S 282-B 50  S 282-B 63	GH S282 0001 R0065 GH S282 0001 R0105 GH S282 0001 R0135  GH S282 0001 R0165 GH S282 0001 R0205 GH S282 0001 R0255  GH S282 0001 R0325 GH S282 0001 R0405 GH S282 0001 R0505  GH S282 0001 R0635	44760 2 44810 4 44850 0  44900 2 44940 8 44990 3  45080 0 45150 0 65840 4  65850 3		0.260	5/20
		3	S 283-B 6 S 283-B 10 S 283-B 13  S 283-B 16 S 283-B 20 S 283-B 25  S 283-B 32 S 283-B 40 S 283-B 50  S 283-B 63	GH S283 0001 R0065 GH S283 0001 R0105 GH S283 0001 R0135  GH S283 0001 R0165 GH S283 0001 R0205 GH S283 0001 R0255  GH S283 0001 R0325 GH S283 0001 R0405 GH S283 0001 R0505  GH S283 0001 R0635	45950 6 46000 7 46040 3  46090 8 46130 1 46180 6  46270 4 46340 4 65860 2  65870 1		0.390	3/12
		4	S 284-B 6 S 284-B 10 S 284-B 13  S 284-B 16 S 284-B 20 S 284-B 25  S 284-B 32 S 284-B 40 S 284-B 50  S 284-B 63	GH S284 0001 R0065 GH S284 0001 R0105 GH S284 0001 R0135  GH S284 0001 R0165 GH S284 0001 R0205 GH S284 0001 R0255  GH S284 0001 R0325 GH S284 0001 R0405 GH S284 0001 R0505  GH S284 0001 R0635	47620 6 47650 3 47680 0  47720 3 47750 0 47790 6  47870 5 47930 6 48030 2  48150 7		0.520	2
		①	U <sub>Bmax</sub> 125 V ... with 2 poles connected in series					
		②	max. rated rupturing capacity of the range					

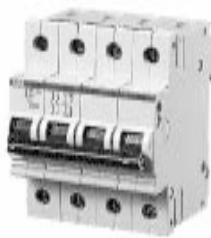
**Selection table**

No. of poles	Rated current I <sub>n</sub> A	Ordering details	bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
<b>M.C.B's with disconnecting neutral NA</b>							
1 + NA  U <sub>max</sub> 440 V ~ 60 V ...	6	<b>S 281-B 6 NA</b>	GH S281 0103 R0065	<b>69900 1</b>			0.260
	10	<b>S 281-B 10 NA</b>	GH S281 0103 R0105	<b>69910 0</b>			
	13	<b>S 281-B 13 NA</b>	GH S281 0103 R0135	<b>69940 7</b>			
	16	<b>S 281-B 16 NA</b>	GH S281 0103 R0165	<b>69950 6</b>			
	20	<b>S 281-B 20 NA</b>	GH S281 0103 R0205	<b>69970 4</b>			
	25	<b>S 281-B 25 NA</b>	GH S281 0103 R0255	<b>69990 2</b>			
	32	<b>S 281-B 32 NA</b>	GH S281 0103 R0325	<b>70370 8</b>			
	40	<b>S 281-B 40 NA</b>	GH S281 0103 R0405	<b>70040 0</b>			
	50	<b>S 281-B 50 NA</b>	GH S281 0103 R0505	<b>70060 8</b>			0.320
	63	<b>S 281-B 63 NA</b>	GH S281 0103 R0635	<b>70090 5</b>			
3 + NA  U <sub>max</sub> 440 V ~	6	<b>S 283-B 6 NA</b>	GH S283 0103 R0065	<b>76380 1</b>			0.520
	10	<b>S 283-B 10 NA</b>	GH S283 0103 R0105	<b>70120 9</b>			
	13	<b>S 283-B 13 NA</b>	GH S283 0103 R0135	<b>70130 8</b>			
	16	<b>S 283-B 16 NA</b>	GH S283 0103 R0165	<b>70140 7</b>			
	20	<b>S 283-B 20 NA</b>	GH S283 0103 R0205	<b>70150 6</b>			
	25	<b>S 283-B 25 NA</b>	GH S283 0103 R0255	<b>70160 5</b>			
	32	<b>S 283-B 32 NA</b>	GH S283 0103 R0325	<b>70110 0</b>			
	40	<b>S 283-B 40 NA</b>	GH S283 0103 R0405	<b>70170 4</b>			
	50	<b>S 283-B 50 NA</b>	GH S283 0103 R0505	<b>70180 3</b>			0.640
	63	<b>S 283-B 63 NA</b>	GH S283 0103 R0635	<b>70190 2</b>			

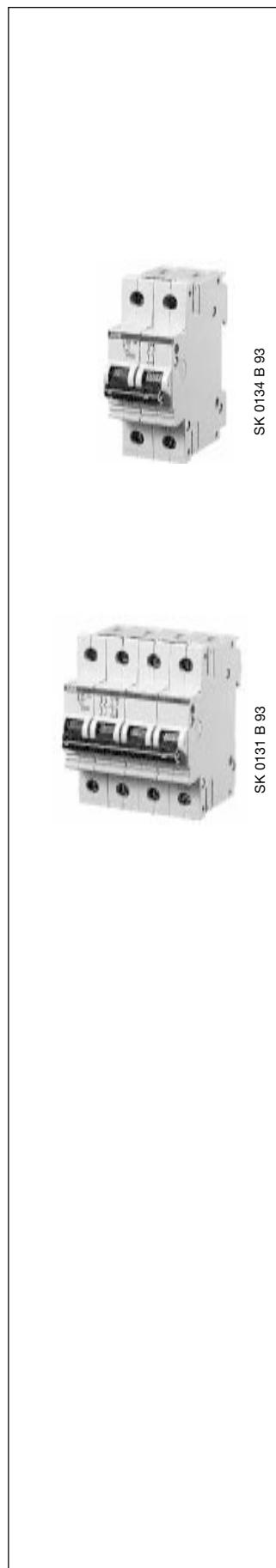
① max. rated rupturing capacity of the range



SK 0134 B 93



SK 0131 B 93

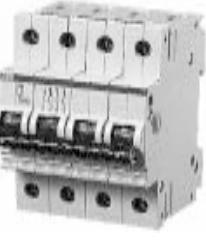


**Selection table**

No. of poles	Rated current I <sub>n</sub> A	Ordering details Type No.	Order code	bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
1	0.5	<b>S 281-C 0.5</b>	GH S281 0001 R0984	<b>43720 7</b>			0.130	10/40
	1	<b>S 281-C 1</b>	GH S281 0001 R0014	<b>43040 6</b>				
	1.6	<b>S 281-C 1.6</b>	GH S281 0001 R0974	<b>43710 8</b>				
	2	<b>S 281-C 2</b>	GH S281 0001 R0024	<b>43050 5</b>				
	3	<b>S 281-C 3</b>	GH S281 0001 R0034	<b>43060 4</b>				
	4	<b>S 281-C 4</b>	GH S281 0001 R0044	<b>43070 3</b>				
	6	<b>S 281-C 6</b>	GH S281 0001 R0064	<b>43090 1</b>				
	8	<b>S 281-C 8</b>	GH S281 0001 R0084	<b>43110 6</b>				
	10	<b>S 281-C 10</b>	GH S281 0001 R0104	<b>43140 3</b>				
	13	<b>S 281-C 13</b>	GH S281 0001 R0134	<b>43180 9</b>				
	16	<b>S 281-C 16</b>	GH S281 0001 R0164	<b>43230 1</b>				
	20	<b>S 281-C 20</b>	GH S281 0001 R0204	<b>43270 7</b>				
	25	<b>S 281-C 25</b>	GH S281 0001 R0254	<b>43320 9</b>				
	32	<b>S 281-C 32</b>	GH S281 0001 R0324	<b>43410 7</b>				
	40	<b>S 281-C 40</b>	GH S281 0001 R0404	<b>43490 9</b>				
	U <sub>Bmax</sub> 440 V ~	<b>S 281-C 50</b>	GH S281 0001 R0504	<b>64850 4</b>			0.160	
	60 V ...	<b>S 281-C 63</b>	GH S281 0001 R0634	<b>65790 2</b>				
2	0.5	<b>S 282-C 0.5</b>	GH S282 0001 R0984	<b>45360 3</b>			0.260	5/20
	1	<b>S 282-C 1</b>	GH S282 0001 R0014	<b>44700 8</b>				
	1.6	<b>S 282-C 1.6</b>	GH S282 0001 R0974	<b>45350 4</b>				
	2	<b>S 282-C 2</b>	GH S282 0001 R0024	<b>44710 7</b>				
	3	<b>S 282-C 3</b>	GH S282 0001 R0034	<b>44720 6</b>				
	4	<b>S 282-C 4</b>	GH S282 0001 R0044	<b>44730 5</b>				
	6	<b>S 282-C 6</b>	GH S282 0001 R0064	<b>44750 3</b>				
	8	<b>S 282-C 8</b>	GH S282 0001 R0084	<b>44770 1</b>				
	10	<b>S 282-C 10</b>	GH S282 0001 R0104	<b>44800 5</b>				
	13	<b>S 282-C 13</b>	GH S282 0001 R0134	<b>44840 1</b>				
	16	<b>S 282-C 16</b>	GH S282 0001 R0164	<b>44890 6</b>				
	20	<b>S 282-C 20</b>	GH S282 0001 R0204	<b>44930 9</b>				
	25	<b>S 282-C 25</b>	GH S282 0001 R0254	<b>44980 4</b>				
	32	<b>S 282-C 32</b>	GH S282 0001 R0324	<b>45070 1</b>				
	40	<b>S 282-C 40</b>	GH S282 0001 R0404	<b>45140 1</b>				
	U <sub>Bmax</sub> 440 V ~	<b>S 282-C 50</b>	GH S282 0001 R0504	<b>65810 7</b>			0.320	
	125 V ...	<b>S 282-C 63</b>	GH S282 0001 R0634	<b>65820 6</b>				
3	0.5	<b>S 283-C 0.5</b>	GH S283 0001 R0984	<b>46550 7</b>			0.390	3/12
	1	<b>S 283-C 1</b>	GH S283 0001 R0014	<b>45890 5</b>				
	1.6	<b>S 283-C 1.6</b>	GH S283 0001 R0974	<b>46540 8</b>				
	2	<b>S 283-C 2</b>	GH S283 0001 R0024	<b>45900 1</b>				
	3	<b>S 283-C 3</b>	GH S283 0001 R0034	<b>45910 0</b>				
	4	<b>S 283-C 4</b>	GH S283 0001 R0044	<b>45920 9</b>				
	6	<b>S 283-C 6</b>	GH S283 0001 R0064	<b>45940 7</b>				
	8	<b>S 283-C 8</b>	GH S283 0001 R0084	<b>45960 5</b>				
	10	<b>S 283-C 10</b>	GH S283 0001 R0104	<b>45990 2</b>				
	13	<b>S 283-C 13</b>	GH S283 0001 R0134	<b>46030 4</b>				
	16	<b>S 283-C 16</b>	GH S283 0001 R0164	<b>46080 9</b>				
	20	<b>S 283-C 20</b>	GH S283 0001 R0204	<b>46120 2</b>				
	25	<b>S 283-C 25</b>	GH S283 0001 R0254	<b>46170 7</b>				
	32	<b>S 283-C 32</b>	GH S283 0001 R0324	<b>46260 5</b>				
	40	<b>S 283-C 40</b>	GH S283 0001 R0404	<b>46330 5</b>				
	U <sub>Bmax</sub> 440 V ~	<b>S 283-C 50</b>	GH S283 0001 R0504	<b>65260 0</b>			0.480	
	63	<b>S 283-C 63</b>	GH S283 0001 R0634	<b>65270 9</b>				

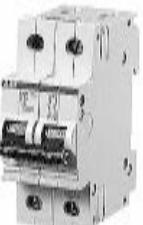
(1) U<sub>Bmax</sub> 125 V ... with 2 poles connected in series

(2) max. rated rupturing capacity of the range



No. of poles	Rated current I <sub>n</sub> A	Ordering details		bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
		Type No.	Order code					
4	0.5	<b>S 284-C 0.5</b>	GH S284 0001 R0984	71380 6				0.520
	1	<b>S 284-C 1</b>	GH S284 0001 R0014	71400 1				
	1.6	<b>S 284-C 1.6</b>	GH S284 0001 R0974	71390 5				
	2	<b>S 284-C 2</b>	GH S284 0001 R0024	71410 0				
	3	<b>S 284-C 3</b>	GH S284 0001 R0034	71420 9				
	4	<b>S 284-C 4</b>	GH S284 0001 R0044	71430 8				
	6	<b>S 284-C 6</b>	GH S284 0001 R0064	71440 7				
	8	<b>S 284-C 8</b>	GH S284 0001 R0084	71450 6				
	10	<b>S 284-C 10</b>	GH S284 0001 R0104	71460 5				
	13	<b>S 284-C 13</b>	GH S284 0001 R0134	71470 4				
	16	<b>S 284-C 16</b>	GH S284 0001 R0164	71480 3				
	20	<b>S 284-C 20</b>	GH S284 0001 R0204	71490 2				
	25	<b>S 284-C 25</b>	GH S284 0001 R0254	64830 6				
	32	<b>S 284-C 32</b>	GH S284 0001 R0324	71500 8				
	40	<b>S 284-C 40</b>	GH S284 0001 R0404	71510 7				
$U_{Bmax}$ 440 V ~ 125 V ... ①	50	<b>S 284-C 50</b>	GH S284 0001 R0504	71520 6				0.640
	63	<b>S 284-C 63</b>	GH S284 0001 R0634	71530 5				

#### M.C.B.'s with disconnecting neutral NA



1 + NA	0.5	<b>S 281-C 0.5 NA</b>	GH S281 0103 R0984	70200 8			0.260	5
	1	<b>S 281-C 1 NA</b>	GH S281 0103 R0014	70220 6				
	1.6	<b>S 281-C 1.6 NA</b>	GH S281 0103 R0974	70210 7				
	2	<b>S 281-C 2 NA</b>	GH S281 0103 R0024	70230 5				
	3	<b>S 281-C 3 NA</b>	GH S281 0103 R0034	70240 4				
	4	<b>S 281-C 4 NA</b>	GH S281 0103 R0044	70250 3				
	6	<b>S 281-C 6 NA</b>	GH S281 0103 R0064	70260 2				
	8	<b>S 281-C 8 NA</b>	GH S281 0103 R0084	70270 1				
	10	<b>S 281-C 10 NA</b>	GH S281 0103 R0104	70280 0				
	13	<b>S 281-C 13 NA</b>	GH S281 0103 R0134	70290 9				
	16	<b>S 281-C 16 NA</b>	GH S281 0103 R0164	70300 5				
	20	<b>S 281-C 20 NA</b>	GH S281 0103 R0204	70310 4				
	25	<b>S 281-C 25 NA</b>	GH S281 0103 R0254	70320 3				
	32	<b>S 281-C 32 NA</b>	GH S281 0103 R0324	70330 2				
	40	<b>S 281-C 40 NA</b>	GH S281 0103 R0404	70340 1				
$U_{Bmax}$ 440 V ~ 60 V ... ①	50	<b>S 281-C 50 NA</b>	GH S281 0103 R0504	70350 0			0.320	
	63	<b>S 281-C 63 NA</b>	GH S281 0103 R0634	70360 9				
3 + NA	0.5	<b>S 283-C 0.5 NA</b>	GH S283 0103 R0984	70380 7			0.520	2
	1	<b>S 283-C 1 NA</b>	GH S283 0103 R0014	70400 2				
	1.6	<b>S 283-C 1.6 NA</b>	GH S283 0103 R0974	70390 6				
	2	<b>S 283-C 2 NA</b>	GH S283 0103 R0024	70410 1				
	3	<b>S 283-C 3 NA</b>	GH S283 0103 R0034	70420 0				
	4	<b>S 283-C 4 NA</b>	GH S283 0103 R0044	70430 3				
	6	<b>S 283-C 6 NA</b>	GH S283 0103 R0064	70440 8				
	8	<b>S 283-C 8 NA</b>	GH S283 0103 R0084	70450 7				
	10	<b>S 283-C 10 NA</b>	GH S283 0103 R0104	70460 6				
	13	<b>S 283-C 13 NA</b>	GH S283 0103 R0134	70470 5				
	16	<b>S 283-C 16 NA</b>	GH S283 0103 R0164	70480 4				
	20	<b>S 283-C 20 NA</b>	GH S283 0103 R0204	70490 3				
	25	<b>S 283-C 25 NA</b>	GH S283 0103 R0254	70500 9				
	32	<b>S 283-C 32 NA</b>	GH S283 0103 R0324	70510 8				
	40	<b>S 283-C 40 NA</b>	GH S283 0103 R0404	70170 4				
$U_{Bmax}$ 440 V ~ 60 V ... ①	50	<b>S 283-C 50 NA</b>	GH S283 0103 R0504	70530 6			0.290	
	63	<b>S 283-C 63 NA</b>	GH S283 0103 R0634	70540 5				

①  $U_{Bmax}$  125 V ... with 2 poles connected in series

② max. rated rupturing capacity of the range

Selection table

No. of poles	Rated current I <sub>n</sub> A	Ordering details Type No.	Order code	bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
SK 0003 B 95	1	0.5 <b>S 281-D 0.5</b>	GH S281 0001 R0981	<b>71560 2</b>			0.130	10/40
	1	<b>S 281-D 1</b>	GH S281 0001 R0011	<b>71590 9</b>				
	1.6	<b>S 281-D 1.6</b>	GH S281 0001 R0971	<b>71580 0</b>				
	2	<b>S 281-D 2</b>	GH S281 0001 R0021	<b>71600 5</b>				
	3	<b>S 281-D 3</b>	GH S281 0001 R0031	<b>71610 4</b>				
	4	<b>S 281-D 4</b>	GH S281 0001 R0041	<b>71620 3</b>				
	6	<b>S 281-D 6</b>	GH S281 0001 R0061	<b>71630 2</b>				
	8	<b>S 281-D 8</b>	GH S281 0001 R0081	<b>71640 1</b>				
	10	<b>S 281-D 10</b>	GH S281 0001 R0101	<b>71660 9</b>				
	13	<b>S 281-D 13</b>	GH S281 0001 R0131	<b>71670 8</b>				
	16	<b>S 281-D 16</b>	GH S281 0001 R0161	<b>71680 7</b>				
	20	<b>S 281-D 20</b>	GH S281 0001 R0201	<b>71690 6</b>				
	25	<b>S 281-D 25</b>	GH S281 0001 R0251	<b>71700 2</b>				
	32	<b>S 281-D 32</b>	GH S281 0001 R0321	<b>71710 1</b>				
	40	<b>S 281-D 40</b>	GH S281 0001 R0401	<b>71720 0</b>				
U <sub>Bmax</sub> 440 V ~ 60 V ...	50	<b>S 281-D 50</b>	GH S281 0001 R0501	<b>71730 9</b>			0.160	
	63	<b>S 281-D 63</b>	GH S281 0001 R0631	<b>71740 8</b>				
	2	0.5 <b>S 282-D 0.5</b>	GH S282 0001 R0981	<b>71770 5</b>			0.260	5/20
	1	<b>S 282-D 1</b>	GH S282 0001 R0011	<b>71800 9</b>				
	1.6	<b>S 282-D 1.6</b>	GH S282 0001 R0971	<b>71790 3</b>				
	2	<b>S 282-D 2</b>	GH S282 0001 R0021	<b>71810 8</b>				
	3	<b>S 282-D 3</b>	GH S282 0001 R0031	<b>71820 7</b>				
SK 0004 B 95	4	<b>S 282-D 4</b>	GH S282 0001 R0041	<b>71830 6</b>				
	6	<b>S 282-D 6</b>	GH S282 0001 R0061	<b>71840 5</b>				
	8	<b>S 282-D 8</b>	GH S282 0001 R0081	<b>71850 4</b>				
	10	<b>S 282-D 10</b>	GH S282 0001 R0101	<b>71860 3</b>				
	13	<b>S 282-D 13</b>	GH S282 0001 R0131	<b>71870 2</b>				
	16	<b>S 282-D 16</b>	GH S282 0001 R0161	<b>71880 1</b>				
	20	<b>S 282-D 20</b>	GH S282 0001 R0201	<b>71890 0</b>				
	25	<b>S 282-D 25</b>	GH S282 0001 R0251	<b>71900 6</b>				
	32	<b>S 282-D 32</b>	GH S282 0001 R0321	<b>71910 5</b>				
	40	<b>S 282-D 40</b>	GH S282 0001 R0401	<b>71920 4</b>				
	50	<b>S 282-D 50</b>	GH S282 0001 R0501	<b>71930 3</b>			0.320	
	63	<b>S 282-D 63</b>	GH S282 0001 R0631	<b>71940 2</b>				
SK 0005 B 95	3	0.5 <b>S 283-D 0.5</b>	GH S283 0001 R0981	<b>71000 3</b>			0.390	3/12
	1	<b>S 283-D 1</b>	GH S283 0001 R0011	<b>71030 0</b>				
	1.6	<b>S 283-D 1.6</b>	GH S283 0001 R0971	<b>71020 1</b>				
	2	<b>S 283-D 2</b>	GH S283 0001 R0021	<b>71040 9</b>				
	3	<b>S 283-D 3</b>	GH S283 0001 R0031	<b>71050 8</b>				
	4	<b>S 283-D 4</b>	GH S283 0001 R0041	<b>71060 7</b>				
	6	<b>S 283-D 6</b>	GH S283 0001 R0061	<b>71070 6</b>				
	8	<b>S 283-D 8</b>	GH S283 0001 R0081	<b>71080 5</b>				
	10	<b>S 283-D 10</b>	GH S283 0001 R0101	<b>71090 4</b>				
	13	<b>S 283-D 13</b>	GH S283 0001 R0131	<b>71100 0</b>				
	16	<b>S 283-D 16</b>	GH S283 0001 R0161	<b>71110 9</b>				
	20	<b>S 283-D 20</b>	GH S283 0001 R0201	<b>71120 8</b>				
	25	<b>S 283-D 25</b>	GH S283 0001 R0251	<b>71130 7</b>				
	32	<b>S 283-D 32</b>	GH S283 0001 R0321	<b>71140 6</b>				
	40	<b>S 283-D 40</b>	GH S283 0001 R0401	<b>71150 5</b>				
	50	<b>S 283-D 50</b>	GH S283 0001 R0501	<b>71160 4</b>			0.480	
	63	<b>S 283-D 63</b>	GH S283 0001 R0631	<b>71170 3</b>				

(1) U<sub>Bmax</sub> 125 V ... with 2 poles connected in series

(2) max. rated rupturing capacity of the range



SK 0006 B 95

No. of poles	Rated current I <sub>n</sub> , A	Ordering details		bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
		Type No.	Order code					
4	0.5	<b>S 284-D 0.5</b>	GH S284 0001 R0981	71200 7			0.520	2
	1	<b>S 284-D 1</b>	GH S284 0001 R0011	71230 4				
	1.6	<b>S 284-D 1.6</b>	GH S284 0001 R0971	71220 5				
	2	<b>S 284-D 2</b>	GH S284 0001 R0021	71240 3				
	3	<b>S 284-D 3</b>	GH S284 0001 R0031	71250 2				
	4	<b>S 284-D 4</b>	GH S284 0001 R0041	71260 1				
	6	<b>S 284-D 6</b>	GH S284 0001 R0061	71270 0				
	8	<b>S 284-D 8</b>	GH S284 0001 R0081	71280 9				
	10	<b>S 284-D 10</b>	GH S284 0001 R0101	71290 8				
	13	<b>S 284-D 13</b>	GH S284 0001 R0131	71300 4				
	16	<b>S 284-D 16</b>	GH S284 0001 R0161	71310 3				
	20	<b>S 284-D 20</b>	GH S284 0001 R0201	71320 2				
	25	<b>S 284-D 25</b>	GH S284 0001 R0251	71330 1				
	32	<b>S 284-D 32</b>	GH S284 0001 R0321	71340 0				
$U_{B\max}$ 440 V ~ 125 V ... ①	40	<b>S 284-D 40</b>	GH S284 0001 R0401	71350 9				
	50	<b>S 284-D 50</b>	GH S284 0001 R0501	71360 8			0.640	
	63	<b>S 284-D 63</b>	GH S284 0001 R0631	71370 7				

### M.C.B.'s with disconnecting neutral NA



SK 0007 B 95

1 + NA $U_{B\max}$ 440 V ~ 60 V ...	0.5	<b>S 281-D 0.5 NA</b>	GH S281 0103 R0981	70570 2			0.260	5
	1	<b>S 281-D 1 NA</b>	GH S281 0103 R0011	70600 6				
	1.6	<b>S 281-D 1.6 NA</b>	GH S281 0103 R0971	70590 0				
	2	<b>S 281-D 2 NA</b>	GH S281 0103 R0021	70620 4				
	3	<b>S 281-D 3 NA</b>	GH S281 0103 R0031	70630 3				
	4	<b>S 281-D 4 NA</b>	GH S281 0103 R0041	70640 2				
	6	<b>S 281-D 6 NA</b>	GH S281 0103 R0061	70650 1				
	8	<b>S 281-D 8 NA</b>	GH S281 0103 R0081	70660 0				
	10	<b>S 281-D 10 NA</b>	GH S281 0103 R0101	70670 9				
	13	<b>S 281-D 13 NA</b>	GH S281 0103 R0131	70680 8				
	16	<b>S 281-D 16 NA</b>	GH S281 0103 R0161	70690 7				
	20	<b>S 281-D 20 NA</b>	GH S281 0103 R0201	70700 3				
	25	<b>S 281-D 25 NA</b>	GH S281 0103 R0251	70710 2				
	32	<b>S 281-D 32 NA</b>	GH S281 0103 R0321	70720 1				
3 + NA $U_{B\max}$ 440 V ~	40	<b>S 281-D 40 NA</b>	GH S281 0103 R0401	70730 0				
	50	<b>S 281-D 50 NA</b>	GH S281 0103 R0501	70740 9			0.320	
	63	<b>S 281-D 63 NA</b>	GH S281 0103 R0631	70750 8				
	0.5	<b>S 283-D 0.5 NA</b>	GH S283 0103 R0981	70790 4			0.520	2
	1	<b>S 283-D 1 NA</b>	GH S283 0103 R0011	70820 8				
	1.6	<b>S 283-D 1.6 NA</b>	GH S283 0103 R0971	70810 9				
3 + NA $U_{B\max}$ 440 V ~	2	<b>S 283-D 2 NA</b>	GH S283 0103 R0021	70830 7				
	3	<b>S 283-D 3 NA</b>	GH S283 0103 R0031	70840 6				
	4	<b>S 283-D 4 NA</b>	GH S283 0103 R0041	70850 5				
	6	<b>S 283-D 6 NA</b>	GH S283 0103 R0061	70860 4				
	8	<b>S 283-D 8 NA</b>	GH S283 0103 R0081	70870 3				
	10	<b>S 283-D 10 NA</b>	GH S283 0103 R0101	70880 2				
	13	<b>S 283-D 13 NA</b>	GH S283 0103 R0131	70890 1				
	16	<b>S 283-D 16 NA</b>	GH S283 0103 R0161	70900 7				
	20	<b>S 283-D 20 NA</b>	GH S283 0103 R0201	70920 5				
	25	<b>S 283-D 25 NA</b>	GH S283 0103 R0251	70930 4				
	32	<b>S 283-D 32 NA</b>	GH S283 0103 R0321	70940 3				
	40	<b>S 283-D 40 NA</b>	GH S283 0103 R0401	70950 2				
	50	<b>S 283-D 50 NA</b>	GH S283 0103 R0501	70960 1				
	63	<b>S 283-D 63 NA</b>	GH S283 0103 R0631	70970 0			0.640	

①  $U_{B\max}$  125 V ... with 2 poles connected in series  
 ② max. rated rupturing capacity of the range



25 000

(2)

### Selection table

No. of poles	Rated current I <sub>n</sub> A	Ordering details	bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
	Type No.	Order code					
	1	<b>S 281-K 0.2</b> GH S281 0001 R0087	<b>43120 5</b>			0.130	10/40
	0.3	<b>S 281-K 0.3</b> GH S281 0001 R0117	<b>43160 1</b>				
	0.5	<b>S 281-K 0.5</b> GH S281 0001 R0157	<b>43200 4</b>				
	0.75	<b>S 281-K 0.75</b> GH S281 0001 R0187	<b>43250 9</b>				
	1	<b>S 281-K 1</b> GH S281 0001 R0217	<b>43290 5</b>				
	1.6	<b>S 281-K 1.6</b> GH S281 0001 R0257	<b>43340 7</b>				
	2	<b>S 281-K 2</b> GH S281 0001 R0277	<b>43360 5</b>				
	3	<b>S 281-K 3</b> GH S281 0001 R0317	<b>43380 3</b>				
	4	<b>S 281-K 4</b> GH S281 0001 R0337	<b>43430 5</b>				
	6	<b>S 281-K 6</b> GH S281 0001 R0377	<b>43460 2</b>				
	8	<b>S 281-K 8</b> GH S281 0001 R0407	<b>43510 4</b>				
	10	<b>S 281-K 10</b> GH S281 0001 R0427	<b>43530 2</b>				
	13	<b>S 281-K 13</b> GH S281 0001 R0447	<b>97000 1</b>				
	16	<b>S 281-K 16</b> GH S281 0001 R0467	<b>43550 0</b>				
	20	<b>S 281-K 20</b> GH S281 0001 R0487	<b>43570 8</b>				
	25	<b>S 281-K 25</b> GH S281 0001 R0517	<b>43600 2</b>				
	32	<b>S 281-K 32</b> GH S281 0001 R0537	<b>43620 0</b>				
	40	<b>S 281-K 40</b> GH S281 0001 R0557	<b>43640 8</b>				
	U <sub>Bmax</sub> 440 V ~ 60 V ...	<b>S 281-K 50</b> GH S281 0001 R0577	<b>43660 6</b>			0.160	
		<b>S 281-K 63</b> GH S281 0001 R0607	<b>43680 4</b>				
	U <sub>Bmax</sub> 440 V ~ 125 V ...	<b>S 282-K 0.2</b> GH S282 0001 R0087	<b>44780 0</b>			0.260	5/20
	0.3	<b>S 282-K 0.3</b> GH S282 0001 R0117	<b>44820 3</b>				
	0.5	<b>S 282-K 0.5</b> GH S282 0001 R0157	<b>44860 9</b>				
	0.75	<b>S 282-K 0.75</b> GH S282 0001 R0187	<b>44910 1</b>				
	1	<b>S 282-K 1</b> GH S282 0001 R0217	<b>44950 7</b>				
	1.6	<b>S 282-K 1.6</b> GH S282 0001 R0257	<b>45000 8</b>				
	2	<b>S 282-K 2</b> GH S282 0001 R0277	<b>45020 6</b>				
	3	<b>S 282-K 3</b> GH S282 0001 R0317	<b>45040 4</b>				
	4	<b>S 282-K 4</b> GH S282 0001 R0337	<b>45090 9</b>				
	6	<b>S 282-K 6</b> GH S282 0001 R0377	<b>45110 4</b>				
	8	<b>S 282-K 8</b> GH S282 0001 R0407	<b>45160 9</b>				
	10	<b>S 282-K 10</b> GH S282 0001 R0427	<b>45180 7</b>				
	13	<b>S 282-K 13</b> GH S282 0001 R0447	<b>97060 5</b>				
	16	<b>S 282-K 16</b> GH S282 0001 R0467	<b>45200 2</b>				
	20	<b>S 282-K 20</b> GH S282 0001 R0487	<b>45220 0</b>				
	25	<b>S 282-K 25</b> GH S282 0001 R0517	<b>45240 8</b>				
	32	<b>S 282-K 32</b> GH S282 0001 R0537	<b>45260 6</b>				
	40	<b>S 282-K 40</b> GH S282 0001 R0557	<b>45280 4</b>				
	U <sub>Bmax</sub> 440 V ~ 125 V ... ①	<b>S 282-K 50</b> GH S282 0001 R0577	<b>45300 9</b>			0.320	
		<b>S 282-K 63</b> GH S282 0001 R0607	<b>45320 7</b>				
	U <sub>Bmax</sub> 440 V ~	<b>S 283-K 0.2</b> GH S283 0001 R0087	<b>45970 4</b>			0.390	3/12
	0.3	<b>S 283-K 0.3</b> GH S283 0001 R0117	<b>46010 6</b>				
	0.5	<b>S 283-K 0.5</b> GH S283 0001 R0157	<b>46050 2</b>				
	0.75	<b>S 283-K 0.75</b> GH S283 0001 R0187	<b>46100 4</b>				
	1	<b>S 283-K 1</b> GH S283 0001 R0217	<b>46140 0</b>				
	1.6	<b>S 283-K 1.6</b> GH S283 0001 R0257	<b>46190 5</b>				
	2	<b>S 283-K 2</b> GH S283 0001 R0277	<b>46210 0</b>				
	3	<b>S 283-K 3</b> GH S283 0001 R0317	<b>46230 8</b>				
	4	<b>S 283-K 4</b> GH S283 0001 R0337	<b>46280 3</b>				
	6	<b>S 283-K 6</b> GH S283 0001 R0377	<b>46300 8</b>				
	8	<b>S 283-K 8</b> GH S283 0001 R0407	<b>46350 3</b>				
	10	<b>S 283-K 10</b> GH S283 0001 R0427	<b>46370 1</b>				
	13	<b>S 283-K 13</b> GH S283 0001 R0447	<b>97070 4</b>				
	16	<b>S 283-K 16</b> GH S283 0001 R0467	<b>46390 9</b>				
	20	<b>S 283-K 20</b> GH S283 0001 R0487	<b>46410 4</b>				
	25	<b>S 283-K 25</b> GH S283 0001 R0517	<b>46430 2</b>				
	32	<b>S 283-K 32</b> GH S283 0001 R0537	<b>46450 0</b>				
	40	<b>S 283-K 40</b> GH S283 0001 R0557	<b>46470 8</b>				
	U <sub>Bmax</sub> 440 V ~	<b>S 283-K 50</b> GH S283 0001 R0577	<b>46490 6</b>			0.480	
		<b>S 283-K 63</b> GH S283 0001 R0607	<b>46510 1</b>				

① U<sub>Bmax</sub> 125 V ... with 2 poles connected in series  
 ② max. rated rupturing capacity of the range



25 000

acc. to DIN VDE 0660 part  
101 for the protection of  
devices such as motors,  
transformers, lamps etc.  
and for cable protection

**Selection table**

No. of poles	Rated current I <sub>n</sub> , A	Ordering details	bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
Type No.							Order code
4	0.2	<b>S 284-K 0.2</b>	GH S284 0001 R0087	<b>47630 5</b>			0.520
	0.3	<b>S 284-K 0.3</b>	GH S284 0001 R0117	<b>47660 2</b>			
	0.5	<b>S 284-K 0.5</b>	GH S284 0001 R0157	<b>47690 9</b>			
	0.75	<b>S 284-K 0.75</b>	GH S284 0001 R0187	<b>47730 2</b>			
	1	<b>S 284-K 1</b>	GH S284 0001 R0217	<b>47760 9</b>			
	1.6	<b>S 284-K 1.6</b>	GH S284 0001 R0257	<b>47800 2</b>			
	2	<b>S 284-K 2</b>	GH S284 0001 R0277	<b>47820 0</b>			
	3	<b>S 284-K 3</b>	GH S284 0001 R0317	<b>47840 8</b>			
	4	<b>S 284-K 4</b>	GH S284 0001 R0337	<b>47880 4</b>			
	6	<b>S 284-K 6</b>	GH S284 0001 R0377	<b>47900 9</b>			
	8	<b>S 284-K 8</b>	GH S284 0001 R0407	<b>47940 5</b>			
	10	<b>S 284-K 10</b>	GH S284 0001 R0427	<b>47960 3</b>			
	13	<b>S 284-K 13</b>	GH S284 0001 R0447	<b>97080 3</b>			
	16	<b>S 284-K 16</b>	GH S284 0001 R0467	<b>47980 1</b>			
	20	<b>S 284-K 20</b>	GH S284 0001 R0487	<b>48000 5</b>			
	25	<b>S 284-K 25</b>	GH S284 0001 R0517	<b>48040 1</b>			
	32	<b>S 284-K 32</b>	GH S284 0001 R0537	<b>48060 9</b>			
	40	<b>S 284-K 40</b>	GH S284 0001 R0557	<b>48080 7</b>			
$U_{B\max}$							
440 V ~							
125 V ...							
①		<b>S 284-K 50</b>	GH S284 0001 R0577	<b>48100 2</b>			0.640
63		<b>S 284-K 63</b>	GH S284 0001 R0607	<b>48120 0</b>			

**M.C.B.'s with disconnecting neutral NA**

	<b>1+NA</b>	0.2	<b>S 281-K 0.2</b>	GH S281 0103 R0087	<b>44190 7</b>			0.260	5
		0.3	<b>S 281-K 0.3</b>	GH S281 0103 R0117	<b>44210 2</b>				
		0.5	<b>S 281-K 0.5</b>	GH S281 0103 R0157	<b>44220 1</b>				
		0.75	<b>S 281-K 0.75</b>	GH S281 0103 R0187	<b>44250 8</b>				
		1	<b>S 281-K 1</b>	GH S281 0103 R0217	<b>44270 6</b>				
		1.6	<b>S 281-K 1.6</b>	GH S281 0103 R0257	<b>44300 0</b>				
		2	<b>S 281-K 2</b>	GH S281 0103 R0277	<b>44320 8</b>				
		3	<b>S 281-K 3</b>	GH S281 0103 R0317	<b>44340 6</b>				
		4	<b>S 281-K 4</b>	GH S281 0103 R0337	<b>44370 3</b>				
		6	<b>S 281-K 6</b>	GH S281 0103 R0377	<b>44380 1</b>				
		8	<b>S 281-K 8</b>	GH S281 0103 R0407	<b>44420 5</b>				
		10	<b>S 281-K 10</b>	GH S281 0103 R0427	<b>44440 3</b>				
		13	<b>S 281-K 13</b>	GH S281 0103 R0447	<b>97090 2</b>				
		16	<b>S 281-K 16</b>	GH S281 0103 R0467	<b>44460 1</b>				
		20	<b>S 281-K 20</b>	GH S281 0103 R0487	<b>44480 9</b>				
	<b>3+NA</b>	25	<b>S 281-K 25</b>	GH S281 0103 R0517	<b>44510 3</b>				
		32	<b>S 281-K 32</b>	GH S281 0103 R0537	<b>44530 1</b>				
		40	<b>S 281-K 40</b>	GH S281 0103 R0557	<b>44550 9</b>				
		50	<b>S 281-K 50</b>	GH S281 0103 R0577	<b>44570 7</b>			0.320	
		63	<b>S 281-K 63</b>	GH S281 0103 R0607	<b>44590 5</b>				
		0.2	<b>S 283-K 0.2</b>	GH S283 0103 R0087	<b>47090 7</b>			0.520	2
		0.3	<b>S 283-K 0.3</b>	GH S283 0103 R0117	<b>47110 2</b>				
		0.5	<b>S 283-K 0.5</b>	GH S283 0103 R0157	<b>47120 1</b>				
		0.75	<b>S 283-K 0.75</b>	GH S283 0103 R0187	<b>47150 8</b>				
		1	<b>S 283-K 1</b>	GH S283 0103 R0217	<b>47170 6</b>				
		1.6	<b>S 283-K 1.6</b>	GH S283 0103 R0257	<b>47200 0</b>				
		2	<b>S 283-K 2</b>	GH S283 0103 R0277	<b>47220 8</b>				
		3	<b>S 283-K 3</b>	GH S283 0103 R0317	<b>47240 6</b>				
		4	<b>S 283-K 4</b>	GH S283 0103 R0337	<b>47270 3</b>				
		6	<b>S 283-K 6</b>	GH S283 0103 R0377	<b>47290 1</b>				
		8	<b>S 283-K 8</b>	GH S283 0103 R0407	<b>47320 5</b>				
		10	<b>S 283-K 10</b>	GH S283 0103 R0427	<b>47340 3</b>				
		13	<b>S 283-K 13</b>	GH S283 0103 R0447	<b>97100 8</b>				
		16	<b>S 283-K 16</b>	GH S283 0103 R0467	<b>47360 1</b>				
		20	<b>S 283-K 20</b>	GH S283 0103 R0487	<b>47380 9</b>				
		25	<b>S 283-K 25</b>	GH S283 0103 R0517	<b>47410 3</b>				
		32	<b>S 283-K 32</b>	GH S283 0103 R0537	<b>47430 1</b>				
		40	<b>S 283-K 40</b>	GH S283 0103 R0557	<b>47450 9</b>				
		50	<b>S 283-K 50</b>	GH S283 0103 R0577	<b>47470 7</b>			0.640	
		63	<b>S 283-K 63</b>	GH S283 0103 R0607	<b>47490 5</b>				

(1)  $U_{B\max}$  125 V ... with 2 poles connected in series    (2) max. rated rupturing capacity of the range

Selection table							
No. of poles	Rated current I <sub>n</sub> A	Ordering details		bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg
		Type No.	Order code				Pack. unit pcs.
	1	0.5	<b>S 281-Z 0.5</b>	GH S281 0001 R0158	<b>43210 3</b>		0.130
		1	<b>S 281-Z 1</b>	GH S281 0001 R0218	<b>43300 1</b>		
		1.6	<b>S 281-Z 1.6</b>	GH S281 0001 R0258	<b>43350 6</b>		
		2	<b>S 281-Z 2</b>	GH S281 0001 R0278	<b>43370 4</b>		
		3	<b>S 281-Z 3</b>	GH S281 0001 R0318	<b>43390 2</b>		
		4	<b>S 281-Z 4</b>	GH S281 0001 R0338	<b>43440 4</b>		
		6	<b>S 281-Z 6</b>	GH S281 0001 R0378	<b>43470 1</b>		
		8	<b>S 281-Z 8</b>	GH S281 0001 R0408	<b>43520 3</b>		
		10	<b>S 281-Z 10</b>	GH S281 0001 R0428	<b>43540 1</b>		
		16	<b>S 281-Z 16</b>	GH S281 0001 R0468	<b>43560 9</b>		
		20	<b>S 281-Z 20</b>	GH S281 0001 R0488	<b>43580 7</b>		
		25	<b>S 281-Z 25</b>	GH S281 0001 R0518	<b>43610 1</b>		
		32	<b>S 281-Z 32</b>	GH S281 0001 R0538	<b>43620 0</b>		
		40	<b>S 281-Z 40</b>	GH S281 0001 R0558	<b>43650 7</b>		
	U <sub>Bmax</sub> 440 V ~ 60 V ...	50	<b>S 281-Z 50</b>	GH S281 0001 R0578	<b>43670 5</b>		0.160
		63	<b>S 281-Z 63</b>	GH S281 0001 R0608	<b>43690 3</b>		
	2	0.5	<b>S 282-Z 0.5</b>	GH S282 0001 R0158	<b>44870 8</b>		0.260
		1	<b>S 282-Z 1</b>	GH S282 0001 R0218	<b>44960 6</b>		
		1.6	<b>S 282-Z 1.6</b>	GH S282 0001 R0258	<b>45010 7</b>		
		2	<b>S 282-Z 2</b>	GH S282 0001 R0278	<b>45030 5</b>		
		3	<b>S 282-Z 3</b>	GH S282 0001 R0318	<b>45050 3</b>		
		4	<b>S 282-Z 4</b>	GH S282 0001 R0338	<b>45100 5</b>		
		6	<b>S 282-Z 6</b>	GH S282 0001 R0378	<b>45120 3</b>		
		8	<b>S 282-Z 8</b>	GH S282 0001 R0408	<b>45170 8</b>		
		10	<b>S 282-Z 10</b>	GH S282 0001 R0428	<b>45190 6</b>		
		16	<b>S 282-Z 16</b>	GH S282 0001 R0468	<b>45210 1</b>		
		20	<b>S 282-Z 20</b>	GH S282 0001 R0488	<b>45230 9</b>		
		25	<b>S 282-Z 25</b>	GH S282 0001 R0518	<b>45250 7</b>		
		32	<b>S 282-Z 32</b>	GH S282 0001 R0538	<b>45270 5</b>		
		40	<b>S 282-Z 40</b>	GH S282 0001 R0558	<b>45290 3</b>		
		50	<b>S 282-Z 50</b>	GH S282 0001 R0578	<b>45310 8</b>		0.320
		① 63	<b>S 282-Z 63</b>	GH S282 0001 R0608	<b>45330 6</b>		
	3	0.5	<b>S 283-Z 0.5</b>	GH S283 0001 R0158	<b>46060 1</b>		0.390
		1	<b>S 283-Z 1</b>	GH S283 0001 R0218	<b>46150 9</b>		
		1.6	<b>S 283-Z 1.6</b>	GH S283 0001 R0258	<b>46200 1</b>		
		2	<b>S 283-Z 2</b>	GH S283 0001 R0278	<b>46220 9</b>		
		3	<b>S 283-Z 3</b>	GH S283 0001 R0318	<b>46240 7</b>		
		4	<b>S 283-Z 4</b>	GH S283 0001 R0338	<b>46290 2</b>		
		6	<b>S 283-Z 6</b>	GH S283 0001 R0378	<b>46310 7</b>		
		8	<b>S 283-Z 8</b>	GH S283 0001 R0408	<b>46360 2</b>		
		10	<b>S 283-Z 10</b>	GH S283 0001 R0428	<b>46380 0</b>		
		16	<b>S 283-Z 16</b>	GH S283 0001 R0468	<b>46400 5</b>		
		20	<b>S 283-Z 20</b>	GH S283 0001 R0488	<b>46420 3</b>		
		25	<b>S 283-Z 25</b>	GH S283 0001 R0518	<b>46440 1</b>		
		32	<b>S 283-Z 32</b>	GH S283 0001 R0538	<b>46460 9</b>		
		40	<b>S 283-Z 40</b>	GH S283 0001 R0558	<b>46480 7</b>		
		50	<b>S 283-Z 50</b>	GH S283 0001 R0578	<b>46500 2</b>		0.480
		63	<b>S 283-Z 63</b>	GH S283 0001 R0608	<b>46520 0</b>		

① U<sub>Bmax</sub> 125 V ... with 2 poles connected in series

② max. rated rupturing capacity of the range

**Selection table**

No. of poles	Rated current I <sub>n</sub> A	Ordering details		<b>bbn 40 12233 EAN</b>	<b>Price 1 piece DM</b>	Price group	Weight 1 piece kg	Pack. unit pcs.
		Type No.	Order code					
4	0.5	<b>S 284-Z 0.5</b>	GH S284 0001 R0158	<b>47700 5</b>			0.520	2
	1	<b>S 284-Z 1</b>	GH S284 0001 R0218	<b>47770 8</b>				
	1.6	<b>S 284-Z 1.6</b>	GH S284 0001 R0258	<b>47810 1</b>				
	2	<b>S 284-Z 2</b>	GH S284 0001 R0278	<b>47830 9</b>				
	3	<b>S 284-Z 3</b>	GH S284 0001 R0318	<b>47850 7</b>				
	4	<b>S 284-Z 4</b>	GH S284 0001 R0338	<b>47890 3</b>				
	6	<b>S 284-Z 6</b>	GH S284 0001 R0378	<b>47910 8</b>				
	8	<b>S 284-Z 8</b>	GH S284 0001 R0408	<b>47950 4</b>				
	10	<b>S 284-Z 10</b>	GH S284 0001 R0428	<b>47970 2</b>				
	16	<b>S 284-Z 16</b>	GH S284 0001 R0468	<b>47990 0</b>				
	20	<b>S 284-Z 20</b>	GH S284 0001 R0488	<b>48010 4</b>				
	25	<b>S 284-Z 25</b>	GH S284 0001 R0518	<b>48050 0</b>				
	32	<b>S 284-Z 32</b>	GH S284 0001 R0538	<b>48070 8</b>				
	40	<b>S 284-Z 40</b>	GH S284 0001 R0558	<b>48090 6</b>				
U <sub>Bmax</sub> 440 V ~ 125 V ... <sup>①</sup>	50	<b>S 284-Z 50</b>	GH S284 0001 R0578	<b>48110 1</b>			0.640	
	63	<b>S 284-Z 63</b>	GH S284 0001 R0608	<b>48130 9</b>				

**M.C.B.'s with disconnecting neutral NA**

1+NA	0.5	<b>S 281-Z 0.5</b>	GH S281 0103 R0158	<b>44230 0</b>			0.260	5
	1	<b>S 281-Z 1</b>	GH S281 0103 R0218	<b>44280 5</b>				
	1.6	<b>S 281-Z 1.6</b>	GH S281 0103 R0258	<b>44310 9</b>				
	2	<b>S 281-Z 2</b>	GH S281 0103 R0278	<b>44330 7</b>				
	3	<b>S 281-Z 3</b>	GH S281 0103 R0318	<b>44350 5</b>				
	4	<b>S 281-Z 4</b>	GH S281 0103 R0338	<b>44380 2</b>				
	6	<b>S 281-Z 6</b>	GH S281 0103 R0378	<b>44400 7</b>				
	8	<b>S 281-Z 8</b>	GH S281 0103 R0408	<b>44430 4</b>				
	10	<b>S 281-Z 10</b>	GH S281 0103 R0428	<b>44450 2</b>				
	16	<b>S 281-Z 16</b>	GH S281 0103 R0468	<b>44470 0</b>				
	20	<b>S 281-Z 20</b>	GH S281 0103 R0488	<b>44490 8</b>				
	25	<b>S 281-Z 25</b>	GH S281 0103 R0518	<b>44520 2</b>				
	32	<b>S 281-Z 32</b>	GH S281 0103 R0538	<b>44540 0</b>				
	40	<b>S 281-Z 40</b>	GH S281 0103 R0558	<b>44560 8</b>				
U <sub>Bmax</sub> 440 V ~ 60 V ... <sup>①</sup>	50	<b>S 281-Z 50</b>	GH S281 0103 R0578	<b>44580 6</b>			0.320	
	63	<b>S 281-Z 63</b>	GH S281 0103 R0608	<b>44600 1</b>				
3+NA	0.5	<b>S 283-Z 0.5</b>	GH S283 0103 R0158	<b>47130 0</b>			0.520	2
	1	<b>S 283-Z 1</b>	GH S283 0103 R0218	<b>47180 5</b>				
	1.6	<b>S 283-Z 1.6</b>	GH S283 0103 R0258	<b>47210 9</b>				
	2	<b>S 283-Z 2</b>	GH S283 0103 R0278	<b>47230 7</b>				
	3	<b>S 283-Z 3</b>	GH S283 0103 R0318	<b>47250 5</b>				
	4	<b>S 283-Z 4</b>	GH S283 0103 R0338	<b>47280 2</b>				
	6	<b>S 283-Z 6</b>	GH S283 0103 R0378	<b>47300 7</b>				
	8	<b>S 283-Z 8</b>	GH S283 0103 R0408	<b>47330 4</b>				
	10	<b>S 283-Z 10</b>	GH S283 0103 R0428	<b>47350 2</b>				
	16	<b>S 283-Z 16</b>	GH S283 0103 R0468	<b>47370 0</b>				
	20	<b>S 283-Z 20</b>	GH S283 0103 R0488	<b>47390 8</b>				
	25	<b>S 283-Z 25</b>	GH S283 0103 R0518	<b>47420 2</b>				
	32	<b>S 283-Z 32</b>	GH S283 0103 R0538	<b>47440 0</b>				
	40	<b>S 283-Z 40</b>	GH S283 0103 R0558	<b>47460 8</b>				
	50	<b>S 283-Z 50</b>	GH S283 0103 R0578	<b>47480 6</b>				
	63	<b>S 283-Z 63</b>	GH S283 0103 R0608	<b>47500 1</b>			0.640	

<sup>①</sup> U<sub>Bmax</sub> 125 V ... with 2 poles connected in series<sup>②</sup> max. rated rupturing capacity of the range

**B**

acc. to DIN VDE 0641 part 11



SK 0322 B 91

### Selection table

No. of poles	Rated current I <sub>n</sub> A	Ordering details Type No.	Order code	bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
1	6	<b>S 281 UC-B 6</b>	GH S281 0164 R0065	<b>16230 2</b> ②			0.130	10
	10	<b>S 281 UC-B 10</b>	GH S281 0164 R0105	<b>16240 1</b> ②				
	16	<b>S 281 UC-B 16</b>	GH S281 0164 R0165	<b>16230 0</b> ②				
	20	<b>S 281 UC-B 20</b>	GH S281 0164 R0205	<b>16260 9</b> ②				
	25	<b>S 281 UC-B 25</b>	GH S281 0164 R0255	<b>16270 8</b> ②				
2	6	<b>S 282 UC-B 6</b>	GH S282 0164 R0065	<b>16280 7</b> ②			0.260	5
	10	<b>S 282 UC-B 10</b>	GH S282 0164 R0105	<b>16290 6</b> ②				
	16	<b>S 282 UC-B 16</b>	GH S282 0164 R0165	<b>16200 2</b> ②				
	20	<b>S 282 UC-B 20</b>	GH S282 0164 R0205	<b>16210 1</b> ②				
	25	<b>S 282 UC-B 25</b>	GH S282 0164 R0255	<b>16220 0</b> ②				

① U<sub>Bmax</sub> 440 V ... with 2 poles connected in series

② bbn-Nr. 40 16779

**K**acc. to VDE 0660 part 101  
for the protection of  
devices such as motors,  
transformers, lamps etc.  
and for cable protection.

SK 0323 B 91



SK 0324 B 91

### Selection table

1	0.2	<b>S 281 UC-K 0.2</b>	GH S281 0164 R0087	<b>63420 0</b>			0.130	10
	0.3	<b>S 281 UC-K 0.3</b>	GH S281 0164 R0117	<b>63430 9</b>				
	0.5	<b>S 281 UC-K 0.5</b>	GH S281 0164 R0157	<b>63440 8</b>				
	0.75	<b>S 281 UC-K 0.75</b>	GH S281 0164 R0187	<b>63550 4</b>				
	1	<b>S 281 UC-K 1</b>	GH S281 0164 R0217	<b>63460 6</b>				
	1.6	<b>S 281 UC-K 1.6</b>	GH S281 0164 R0257	<b>63470 5</b>				
	2	<b>S 281 UC-K 2</b>	GH S281 0164 R0277	<b>63480 4</b>				
	3	<b>S 281 UC-K 3</b>	GH S281 0164 R0317	<b>63490 3</b>				
	4	<b>S 281 UC-K 4</b>	GH S281 0164 R0337	<b>63500 9</b>				
	6	<b>S 281 UC-K 6</b>	GH S281 0164 R0377	<b>63520 7</b>				
U <sub>Bmax</sub> 440 V ~ 220 V ...	8	<b>S 281 UC-K 8</b>	GH S281 0164 R0407	<b>63510 8</b>			0.140	5
	10	<b>S 281 UC-K 10</b>	GH S281 0164 R0427	<b>63530 6</b>				
	16	<b>S 281 UC-K 16</b>	GH S281 0164 R0467	<b>63540 5</b>				
	20	<b>S 281 UC-K 20</b>	GH S281 0164 R0487	<b>63560 3</b>				
	25	<b>S 281 UC-K 25</b>	GH S281 0164 R0517	<b>63570 2</b>				
	32	<b>S 281 UC-K 32</b>	GH S281 0164 R0537	<b>63580 1</b>				
	40	<b>S 281 UC-K 40</b>	GH S281 0164 R0557	<b>63590 0</b>				
	50	<b>S 281 UC-K 50</b>	GH S281 0164 R0577	<b>63600 6</b>				
	63	<b>S 281 UC-K 63</b>	GH S281 0164 R0607	<b>63610 5</b>				
	2	<b>S 282 UC-K 0.2</b>	GH S282 0164 R0087	<b>63620 4</b>			0.260	5
	0.3	<b>S 282 UC-K 0.3</b>	GH S282 0164 R0117	<b>63630 3</b>				
	0.5	<b>S 282 UC-K 0.5</b>	GH S282 0164 R0157	<b>63640 2</b>				
	0.75	<b>S 282 UC-K 0.75</b>	GH S282 0164 R0187	<b>63650 1</b>				
	1	<b>S 282 UC-K 1</b>	GH S282 0164 R0217	<b>63660 0</b>				
	1.6	<b>S 282 UC-K 1.6</b>	GH S282 0164 R0257	<b>63670 9</b>				
	2	<b>S 282 UC-K 2</b>	GH S282 0164 R0277	<b>65280 8</b>				
	3	<b>S 282 UC-K 3</b>	GH S282 0164 R0317	<b>63680 8</b>				
	4	<b>S 282 UC-K 4</b>	GH S282 0164 R0337	<b>63690 7</b>				
	6	<b>S 282 UC-K 6</b>	GH S282 0164 R0377	<b>63700 3</b>				
U <sub>Bmax</sub> 440 V ~ 440 V ...	8	<b>S 282 UC-K 8</b>	GH S282 0164 R0407	<b>63710 2</b>			0.320	5
	10	<b>S 282 UC-K 10</b>	GH S282 0164 R0427	<b>63720 1</b>				
	16	<b>S 282 UC-K 16</b>	GH S282 0164 R0467	<b>63730 0</b>				
	20	<b>S 282 UC-K 20</b>	GH S282 0164 R0487	<b>63740 9</b>				
	25	<b>S 282 UC-K 25</b>	GH S282 0164 R0517	<b>63750 8</b>				
	32	<b>S 282 UC-K 32</b>	GH S282 0164 R0537	<b>63760 7</b>				
	40	<b>S 282 UC-K 40</b>	GH S282 0164 R0557	<b>63770 6</b>				
	50	<b>S 282 UC-K 50</b>	GH S282 0164 R0577	<b>63790 4</b>				
	63	<b>S 282 UC-K 63</b>	GH S282 0164 R0607	<b>63800 0</b>				

① U<sub>Bmax</sub> 440 V ... with 2 poles connected in series



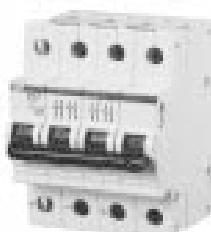
**Selection table**

No. of poles	Rated current I <sub>n</sub> A	Ordering details	bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
3	0.2	<b>S 283 UC-K 0.2</b>	GH S283 0164 R0087	<b>73810 6</b>			
	0.3	<b>S 283 UC-K 0.3</b>	GH S283 0164 R0117	<b>73820 5</b>			
	0.5	<b>S 283 UC-K 0.5</b>	GH S283 0164 R0157	<b>73830 4</b>			
	0.75	<b>S 283 UC-K 0.75</b>	GH S283 0164 R0187	<b>73840 3</b>			
	1	<b>S 283 UC-K 1</b>	GH S283 0164 R0217	<b>73850 2</b>			
	1.6	<b>S 283 UC-K 1.6</b>	GH S283 0164 R0257	<b>73860 1</b>			
	2	<b>S 283 UC-K 2</b>	GH S283 0164 R0277	<b>73870 0</b>			
	3	<b>S 283 UC-K 3</b>	GH S283 0164 R0317	<b>73880 9</b>			
	4	<b>S 283 UC-K 4</b>	GH S283 0164 R0337	<b>73890 8</b>			
	6	<b>S 283 UC-K 6</b>	GH S283 0164 R0377	<b>73900 4</b>			
	8	<b>S 283 UC-K 8</b>	GH S283 0164 R0407	<b>73910 3</b>			
	10	<b>S 283 UC-K 10</b>	GH S283 0164 R0427	<b>73920 2</b>			
	16	<b>S 283 UC-K 16</b>	GH S283 0164 R0467	<b>73930 1</b>			
	20	<b>S 283 UC-K 20</b>	GH S283 0164 R0487	<b>73940 0</b>			
	25	<b>S 283 UC-K 25</b>	GH S283 0164 R0517	<b>73950 9</b>			
	32	<b>S 283 UC-K 32</b>	GH S283 0164 R0537	<b>73960 8</b>			
40	<b>S 283 UC-K 40</b>	GH S283 0164 R0557	<b>73970 7</b>				
50	<b>S 283 UC-K 50</b>	GH S283 0164 R0577	<b>73980 6</b>				
63	<b>S 283 UC-K 63</b>	GH S283 0164 R0607	<b>73990 5</b>			0.480	
4	0.2	<b>S 284 UC-K 0.2</b>	GH S284 0164 R0087	<b>73160 1</b>			
	0.3	<b>S 284 UC-K 0.3</b>	GH S284 0164 R0117	<b>73170 0</b>			
	0.5	<b>S 284 UC-K 0.5</b>	GH S284 0164 R0157	<b>73180 9</b>			
	0.75	<b>S 284 UC-K 0.75</b>	GH S284 0164 R0187	<b>73190 8</b>			
	1	<b>S 284 UC-K 1</b>	GH S284 0164 R0217	<b>74200 4</b>			
	1.6	<b>S 284 UC-K 1.6</b>	GH S284 0164 R0257	<b>74210 3</b>			
	2	<b>S 284 UC-K 2</b>	GH S284 0164 R0277	<b>74220 2</b>			
	3	<b>S 284 UC-K 3</b>	GH S284 0164 R0317	<b>74230 1</b>			
	4	<b>S 284 UC-K 4</b>	GH S284 0164 R0337	<b>74240 0</b>			
	6	<b>S 284 UC-K 6</b>	GH S284 0164 R0377	<b>74250 9</b>			
	8	<b>S 284 UC-K 8</b>	GH S284 0164 R0407	<b>74260 8</b>			
	10	<b>S 284 UC-K 10</b>	GH S284 0164 R0427	<b>74270 7</b>			
	16	<b>S 284 UC-K 16</b>	GH S284 0164 R0467	<b>74280 6</b>			
	20	<b>S 284 UC-K 20</b>	GH S284 0164 R0487	<b>74300 1</b>			
	25	<b>S 284 UC-K 25</b>	GH S284 0164 R0517	<b>74310 0</b>			
	32	<b>S 284 UC-K 32</b>	GH S284 0164 R0537	<b>74320 9</b>			
40	<b>S 284 UC-K 40</b>	GH S284 0164 R0557	<b>74330 8</b>				
50	<b>S 284 UC-K 50</b>	GH S284 0164 R0577	<b>74340 7</b>				
①	<b>S 284 UC-K 63</b>	GH S284 0164 R0607	<b>74350 6</b>			0.640	

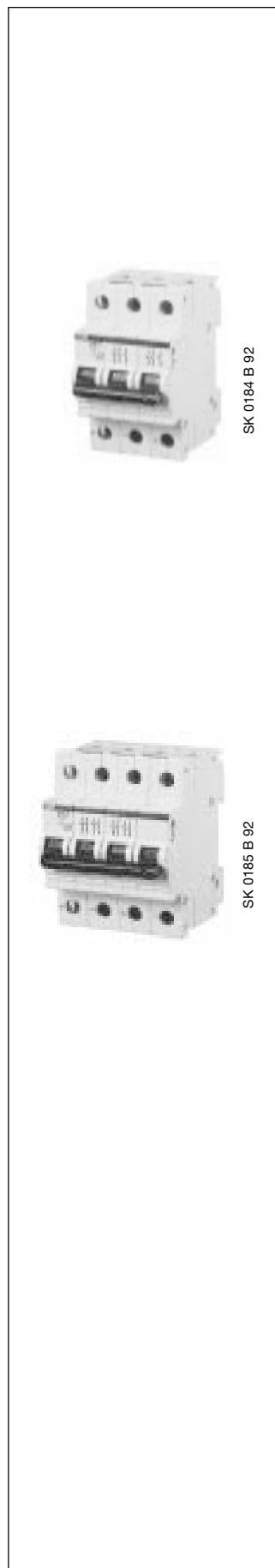
① U<sub>Bmax</sub> 440 V ... with 2 poles connected in series



SK 0184 B 92



SK 0185 B 92



Selection table								
No. of poles	Rated current I <sub>n</sub> A	Ordering details Type No.	Order code	bbn 40 12233 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
U <sub>Bmax</sub> 440 V ~ 220 V ...	0.5	<b>S 281 UC-Z 0.5</b>	GH S281 0164 R0158	<b>63860 4</b>			0.130	10
	1	<b>S 281 UC-Z 1</b>	GH S281 0164 R0218	<b>63870 3</b>				
	1.6	<b>S 281 UC-Z 1.6</b>	GH S281 0164 R0258	<b>63880 2</b>				
	2	<b>S 281 UC-Z 2</b>	GH S281 0164 R0278	<b>63890 1</b>				
	3	<b>S 281 UC-Z 3</b>	GH S281 0164 R0318	<b>63900 7</b>				
	4	<b>S 281 UC-Z 4</b>	GH S281 0164 R0338	<b>63910 6</b>				
	6	<b>S 281 UC-Z 6</b>	GH S281 0164 R0378	<b>63920 5</b>				
	8	<b>S 281 UC-Z 8</b>	GH S281 0164 R0408	<b>63940 3</b>				
	10	<b>S 281 UC-Z 10</b>	GH S281 0164 R0428	<b>63950 2</b>				
	16	<b>S 281 UC-Z 16</b>	GH S281 0164 R0468	<b>63960 1</b>				
	20	<b>S 281 UC-Z 20</b>	GH S281 0164 R0488	<b>63970 0</b>				
	25	<b>S 281 UC-Z 25</b>	GH S281 0164 R0518	<b>63980 9</b>				
	32	<b>S 281 UC-Z 32</b>	GH S281 0164 R0538	<b>63990 8</b>				
	40	<b>S 281 UC-Z 40</b>	GH S281 0164 R0558	<b>64000 3</b>				
	50	<b>S 281 UC-Z 50</b>	GH S281 0164 R0578	<b>64010 2</b>				
U <sub>Bmax</sub> 440 V ~ 220 V ...	63	<b>S 281 UC-Z 63</b>	GH S281 0164 R0608	<b>64020 1</b>			0.140	
	0.5	<b>S 282 UC-Z 0.5</b>	GH S282 0164 R0158	<b>64030 0</b>			0.260	5
	1	<b>S 282 UC-Z 1</b>	GH S282 0164 R0218	<b>64040 9</b>				
	1.6	<b>S 282 UC-Z 1.6</b>	GH S282 0164 R0258	<b>64230 4</b>				
	2	<b>S 282 UC-Z 2</b>	GH S282 0164 R0278	<b>64100 0</b>				
	3	<b>S 282 UC-Z 3</b>	GH S282 0164 R0318	<b>64110 9</b>				
	4	<b>S 282 UC-Z 4</b>	GH S282 0164 R0338	<b>64120 8</b>				
	6	<b>S 282 UC-Z 6</b>	GH S282 0164 R0378	<b>64130 7</b>				
	8	<b>S 282 UC-Z 8</b>	GH S282 0164 R0408	<b>64140 6</b>				
	10	<b>S 282 UC-Z 10</b>	GH S282 0164 R0428	<b>64150 5</b>				
	16	<b>S 282 UC-Z 16</b>	GH S282 0164 R0468	<b>64160 4</b>				
	20	<b>S 282 UC-Z 20</b>	GH S282 0164 R0488	<b>64170 3</b>				
	25	<b>S 282 UC-Z 25</b>	GH S282 0164 R0518	<b>64180 2</b>				
	32	<b>S 282 UC-Z 32</b>	GH S282 0164 R0538	<b>64190 1</b>				
	40	<b>S 282 UC-Z 40</b>	GH S282 0164 R0558	<b>64200 7</b>				
	50	<b>S 282 UC-Z 50</b>	GH S282 0164 R0578	<b>64210 6</b>				
U <sub>Bmax</sub> 440 V ~ 440 V ...	63	<b>S 282 UC-Z 63</b>	GH S282 0164 R0608	<b>64220 5</b>			0.320	
	0.5	<b>S 283 UC-Z 0.5</b>	GH S283 0164 R0158	<b>74000 0</b>			0.390	3/12
	1	<b>S 283 UC-Z 1</b>	GH S283 0164 R0218	<b>74010 9</b>				
	1.6	<b>S 283 UC-Z 1.6</b>	GH S283 0164 R0258	<b>74020 8</b>				
	2	<b>S 283 UC-Z 2</b>	GH S283 0164 R0278	<b>74030 7</b>				
	3	<b>S 283 UC-Z 3</b>	GH S283 0164 R0318	<b>74040 6</b>				
	4	<b>S 283 UC-Z 4</b>	GH S283 0164 R0338	<b>74050 5</b>				
	6	<b>S 283 UC-Z 6</b>	GH S283 0164 R0378	<b>74060 4</b>				
	8	<b>S 283 UC-Z 8</b>	GH S283 0164 R0408	<b>74070 3</b>				
	10	<b>S 283 UC-Z 10</b>	GH S283 0164 R0428	<b>74080 2</b>				
	16	<b>S 283 UC-Z 16</b>	GH S283 0164 R0468	<b>74090 1</b>				
	20	<b>S 283 UC-Z 20</b>	GH S283 0164 R0488	<b>74100 7</b>				
	25	<b>S 283 UC-Z 25</b>	GH S283 0164 R0518	<b>74110 6</b>				
	32	<b>S 283 UC-Z 32</b>	GH S283 0164 R0538	<b>74120 5</b>				
	40	<b>S 283 UC-Z 40</b>	GH S283 0164 R0558	<b>74130 4</b>				
	50	<b>S 283 UC-Z 50</b>	GH S283 0164 R0578	<b>74140 3</b>				
	63	<b>S 283 UC-Z 63</b>	GH S283 0164 R0608	<b>74150 2</b>			0.480	
U <sub>Bmax</sub> 440 V ~ 440 V ...	0.5	<b>S 284 UC-Z 0.5</b>	GH S284 0164 R0158	<b>74360 5</b>			0.520	2
	1	<b>S 284 UC-Z 1</b>	GH S284 0164 R0218	<b>74370 4</b>				
	1.6	<b>S 284 UC-Z 1.6</b>	GH S284 0164 R0258	<b>74380 3</b>				
	2	<b>S 284 UC-Z 2</b>	GH S284 0164 R0278	<b>74390 2</b>				
	3	<b>S 284 UC-Z 3</b>	GH S284 0164 R0318	<b>74400 8</b>				
	4	<b>S 284 UC-Z 4</b>	GH S284 0164 R0338	<b>74410 7</b>				
	6	<b>S 284 UC-Z 6</b>	GH S284 0164 R0378	<b>74420 6</b>				
	8	<b>S 284 UC-Z 8</b>	GH S284 0164 R0408	<b>74430 5</b>				
	10	<b>S 284 UC-Z 10</b>	GH S284 0164 R0428	<b>74440 4</b>				
	16	<b>S 284 UC-Z 16</b>	GH S284 0164 R0468	<b>74450 3</b>				
	20	<b>S 284 UC-Z 20</b>	GH S284 0164 R0488	<b>74460 2</b>				
	25	<b>S 284 UC-Z 25</b>	GH S284 0164 R0518	<b>74470 1</b>				
	32	<b>S 284 UC-Z 32</b>	GH S284 0164 R0538	<b>74480 0</b>				
	40	<b>S 284 UC-Z 40</b>	GH S284 0164 R0558	<b>74490 9</b>				
	50	<b>S 284 UC-Z 50</b>	GH S284 0164 R0578	<b>74500 5</b>				
	63	<b>S 284 UC-Z 63</b>	GH S284 0164 R0608	<b>74510 4</b>			0.640	

(1) U<sub>Bmax</sub> 440 V ... with 2 poles connected in series

## Miniature Circuit Breakers

## Supplementary devices

		Ordering details		bbn 40 12233	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
Type No.	Order code	EAN						
<b>Auxiliary contact</b>								
<b>Screw connection</b>								
1 NO + 1 NC	<b>S 2-H 11</b>	GH S270 1916 R0001	<b>61500 1</b>				0.04	1
2 NO	<b>S 2-H 20</b>	GH S270 1916 R0002	<b>61510 0</b>				0.04	1
2 NC	<b>S 2-H 02</b>	GH S270 1916 R0003	<b>61520 9</b>				0.04	1
<b>Plug connection 2 x (2.8 x 0.8)</b>								
1 NO + 1 NC	<b>S 2-H 11 X</b>	GH S270 1917 R0001	<b>61530 8</b>				0.04	1
2 NO	<b>S 2-H 20 X</b>	GH S270 1917 R0002	<b>61540 7</b>				0.04	1
2 NC	<b>S 2-H 02 X</b>	GH S270 1917 R0003	<b>61550 6</b>				0.04	1
<b>Screw connection</b>								
2 NO + 1 NC	<b>S 2-H 21</b>	GH S270 1936 R0001	<b>01370 3 ①</b>				0.05	1
1 NO + 2 NC	<b>S 2-H 12</b>	GH S270 1936 R0002	<b>01380 2 ①</b>				0.05	1
3 NO	<b>S 2-H 30</b>	GH S270 1936 R0003	<b>01390 1 ①</b>				0.05	1
3 NC	<b>S 2-H 03</b>	GH S270 1936 R0004	<b>01400 7 ①</b>				0.05	1
<b>Screw connection low power</b>								
2 NO + 1 NC	<b>S 2-H 21 kL</b>	GH S270 1937 R0001	<b>12810 0 ①</b>				0.05	1
1 NO + 2 NC	<b>S 2-H 12 kL</b>	GH S270 1937 R0002	<b>12820 9 ①</b>				0.05	1
3 NO	<b>S 2-H 30 kL</b>	GH S270 1937 R0003	<b>12830 8 ①</b>				0.05	1
3 NC	<b>S 2-H 03 kL</b>	GH S270 1937 R0004	<b>12840 7 ①</b>				0.05	1
1 S	<b>S 2-H 10 kL</b>	GH S270 1937 R0005	<b>33140 1 ①</b>				0.05	1
<b>Signalcontact</b>								
Signal contact	<b>S 2-S</b>	GH S280 1902 R0008	<b>42920 2</b>				0.05	1
<b>Signal contact / aux. contact</b>								
Signal contact / aux. contact with screw connect.	<b>S 2-S/H</b>	GH S280 1901 R0008	<b>42900 4</b>				0.05	1
<b>Undervoltage release</b>								
12 V DC	<b>S 2-UA 12</b>	GH S280 1911 R0001	<b>42970 7</b>				0,07	1
24 V AC/DC	<b>S 2-UA 24</b>	GH S280 1911 R0002	<b>42980 6</b>				0,07	1
48 V AC/DC	<b>S 2-UA 48</b>	GH S280 1911 R0003	<b>79360 0</b>				0,07	1
110 V AC/DC	<b>S 2-UA 110</b>	GH S280 1911 R0004	<b>43000 0</b>				0,07	1
220 V AC/DC	<b>S 2-UA 220</b>	GH S280 1911 R0005	<b>43010 9</b>				0,07	1
380 V AC	<b>S 2-UA 380</b>	GH S280 1911 R0006	<b>79370 9</b>				0,07	1
<b>Shunt trip</b>								
12 ... 60 V ... 110 ... 415 V ... and 110 ... 250 V ...	<b>S 2-A 1</b> <b>S 2-A 2</b>	GH S280 1909 R0001 GH S280 1909 R0002	<b>42930 1</b> <b>42940 0</b>				0.145 0.145	1 1
<b>Hand operated neutral</b>								
	<b>S 2-NT</b>	GH S270 1908 R0001	<b>36610 1</b>				0.06	1
<b>Removable base for S 280 max. I<sub>n</sub> = 32 A</b>								
	<b>S 2-EST</b>	GH S280 1925 R0001	<b>127707 ①</b>				0.07	1

① bbn 40 16779

**C**acc. to DIN VDE  
0641 part 11 for  
cable protection

10 000



SK 0043 B 95

**D**acc. to  
EN 60 898  
for cable  
protection

10 000



SK 0043 B 95

### Selection table

No. of poles	Rated current I <sub>n</sub> A	Ordering details		bbn 40 16779 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
		Type No.	Order code					
1 U <sub>Bmax</sub> 440 V AC 60 V AC	80 100 125	<b>S 291-C 80</b> <b>S 291-C 100</b> <b>S 291-C 125</b>	GHS 291 1001 R0804 GHS 291 1001 R0824 GHS 291 1001 R0844	<b>11960 3</b> <b>11970 2</b> <b>11980 1</b>			0,26	6
2 U <sub>Bmax</sub> 440 V AC 110 V DC ①	80 100 125	<b>S 292-C 80</b> <b>S 292-C 100</b> <b>S 292-C 125</b>	GHS 292 1001 R0804 GHS 292 1001 R0824 GHS 292 1001 R0844	<b>11990 0</b> <b>12000 5</b> <b>12010 4</b>			0,52	3
3 U <sub>Bmax</sub> 440 V AC	80 100 125	<b>S 293-C 80</b> <b>S 293-C 100</b> <b>S 293-C 125</b>	GHS 293 1001 R0804 GHS 293 1001 R0824 GHS 293 1001 R0844	<b>12020 3</b> <b>12030 2</b> <b>12040 1</b>			0,79	2
4 U <sub>Bmax</sub> 440 V AC 110 V DC ①	80 100 125	<b>S 294-C 80</b> <b>S 294-C 100</b> <b>S 294-C 125</b>	GHS 294 1001 R0804 GHS 294 1001 R0824 GHS 294 1001 R0844	<b>12050 0</b> <b>12060 9</b> <b>12070 8</b>			1,05	1

① U<sub>Bmax</sub> 110 V DC with 2 poles connected in series

### Selection table

No. of poles	Rated current I <sub>n</sub> A	Ordering details		bbn 40 16779 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
		Type No.	Order code					
1 U <sub>Bmax</sub> 440 V AC 60 V AC	80 100 125	<b>S 291-D 80</b> <b>S 291-D 100</b> <b>S 291-D 125</b>	GHS 291 1001 R0801 GHS 291 1001 R0821 GHS 291 1001 R0841	<b>12080 7</b> <b>12090 6</b> <b>12330 3</b>			0,26	6
2 U <sub>Bmax</sub> 440 V AC 110 V DC ①	80 100 125	<b>S 292-D 80</b> <b>S 292-D 100</b> <b>S 292-D 125</b>	GHS 292 1001 R0801 GHS 292 1001 R0821 GHS 292 1001 R0841	<b>12100 2</b> <b>12150 7</b> <b>12160 6</b>			0,52	3
3 U <sub>Bmax</sub> 440 V AC	80 100 125	<b>S 293-D 80</b> <b>S 293-D 100</b> <b>S 293-D 125</b>	GHS 293 1001 R0801 GHS 293 1001 R0821 GHS 293 1001 R0841	<b>12170 5</b> <b>12180 4</b> <b>12110 1</b>			0,79	2
4 U <sub>Bmax</sub> 440 V AC 110 V DC ①	80 100 125	<b>S 294-D 80</b> <b>S 294-D 100</b> <b>S 294-D 125</b>	GHS 294 1001 R0801 GHS 294 1001 R0821 GHS 294 1001 R0841	<b>12120 0</b> <b>12130 9</b> <b>12140 8</b>			1,05	1

① U<sub>Bmax</sub> 110 V DC with 2 poles connected in series

# Miniature Circuit Breakers

## S 290 Range

### and supplementary devices



acc. to DIN VDE  
0660 part 101 for  
the protection of  
devices such as  
motors, transfor-  
mers, lamps etc.  
and for cable  
protection

10 000



SK 0070 B 98



SK 0039 B 95

SK 0040 B 95

**Selection table**

No. of poles	Rated current I <sub>n</sub> A	Ordering details	bbn 40 16779 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
		Type No.	Order code				
1	80	<b>S 291-K 80</b>	GHS 291 1001 R0807	<b>30880 9</b>		0,26	6
U <sub>Bmax</sub> 440 V AC 60 V AC	100	<b>S 291-K 100</b>	GHS 291 1001 R0827	<b>30890 8</b>			
	125	<b>S 291-K 125</b>	GHS 291 1001 R0847	<b>30900 4</b>			
2	80	<b>S 292-K 80</b>	GHS 292 1001 R0807	<b>30910 3</b>		0,52	3
U <sub>Bmax</sub> 440 V AC 110 V DC ①	100	<b>S 292-K 100</b>	GHS 292 1001 R0827	<b>30920 2</b>			
	125	<b>S 292-K 125</b>	GHS 292 1001 R0847	<b>30930 1</b>			
3	80	<b>S 293-K 80</b>	GHS 293 1001 R0807	<b>30940 0</b>		0,79	2
U <sub>Bmax</sub> 440 V AC	100	<b>S 293-K 100</b>	GHS 293 1001 R0827	<b>30950 9</b>			
	125	<b>S 293-K 125</b>	GHS 293 1001 R0847	<b>30960 8</b>			
4	80	<b>S 294-K 80</b>	GHS 294 1001 R0807	<b>30970 7</b>		1,05	1
U <sub>Bmax</sub> 440 V AC 110 V DC ①	100	<b>S 294-K 100</b>	GHS 294 1001 R0827	<b>30980 6</b>			
	125	<b>S 294-K 125</b>	GHS 294 1001 R0847	<b>30990 5</b>			

① U<sub>Bmax</sub> 110 V DC with 2 poles connected in series**Selection table**

Description	Ordering details	bbn 40 16779 EAN	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
	Type No.	Order code				

**Auxiliary contact**

Auxiliary contact	<b>S 290-H 11</b>	G HS 290 1916 R0001	<b>12200 9</b>		0,05	1
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**Signal contact**

Signal contact	<b>S 290-S</b>	G HS 290 1902 R0008	<b>12210 8</b>		0,05	1
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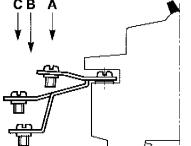
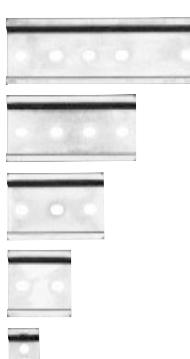
**Shunt trip**

AC 110 - 415V DC 24 - 48V	<b>S 290-A1</b> <b>S 290-A2</b>	G HS 290 1909 R0001 G HS 290 1909 R0002	<b>30030 8</b> <b>30040 7</b>		0,09 0,09	1 1
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**Undervoltage release**

DC 24V DC 110V AC 230V	<b>S 290-UA 24</b> <b>S 290-UA 110</b> <b>S 290-UA 230</b>	G HS 290 1911 R0002 G HS 290 1911 R0004 G HS 290 1911 R0005	<b>30050 6</b> <b>30060 5</b> <b>30070 4</b>		0,10 0,10 0,10	1 1 1
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# Miniature Circuit Breakers Accessories

	SK 0100 Z 98
<b>VFKA-1 ... C-1</b>	
	SK 0104 B 91
<b>SZ-FST 2</b>	
	SK 0103 B 91
<b>SZ-FDT 2</b>	
	SK 0105 B 91
<b>SZ-FST-2 + SZ-FDT-2</b>	
	SK 0090 B 00
<b>END</b>	
	SK 0100 B 00
<b>D SW 1 ... 6</b>	

Description	Ordering details		<b>bbn</b> <b>Type No.</b>	<b>Price</b> 1 piece	<b>Price group</b>	<b>Weight</b> 1 piece	<b>Pack.</b> unit
	<b>EAN</b>	<b>Order code</b>					

**Extended flat terminals**

for busbar connection with slotted or single phase busbars

Terminal A	<b>VFKA-1</b>	GH S270 1211 R0001	<b>36490 9</b>				0.008	10
B	<b>VFKB-1</b>	GH S270 1212 R0001	<b>36500 5</b>				0.013	10
C	<b>VFKC-1</b>	GH S270 1213 R0001	<b>36510 4</b>				0.012	10

**Filler piece**

Width 8.75 mm for us as heat conductor for M.C.B.'s mounted in a row. Two different heights, with break-off sections, for rails acc. to EN 50 022, 35 x 7.5 mm

<b>SZ-FST-2</b>	GH L530 1908 R0002	<b>06070 2</b>			0.01	25
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**Spring part**

Carrier for equipment covers, various heights (in combination with filler piece FST-2)

<b>SZ-FDT 2</b>	GH L530 1908 R0001	<b>06080 1</b>			0.002	25
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**Filler plate**Material thickness 1 mm, light grey,  
to compensate possible tolerances of adjacent M.C.B.'s

<b>SZ-FW</b>	GH L530 1901 R0001	<b>06030 6</b>			0.001	25
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**End clamp**

to prevent the units moving sideways along mounting rails to EN 50 022, 35 mm

<b>END</b>	GH I100 1814 R0001	<b>59090 2</b>			0.02	50
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**Connection terminal, pin-type**necessary when conductors of 35 mm<sup>2</sup> cross section and busbars are connected simultaneously to M.C.B.'s

35 mm <sup>2</sup>	<b>SZ-Ast 35</b>	GH I256 0003 R0010	<b>59860 1</b>			0.014	10
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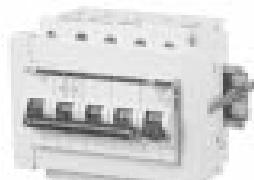
**Mounting plates (EN 50 022 – 35 x 7.5)**

for fixing M.C.B.'s to flat surface by means of 2 screws (1 Module = 17.5 mm)

for 1 Module	<b>DSW 1</b>	GH S210 1926 R0001	<b>13580 6</b>			0.006	10
2 Modules	<b>DSW 2</b>	GH S210 1926 R0002	<b>13590 5</b>			0.012	10
3 Modules	<b>DSW 3</b>	GH S210 1926 R0003	<b>13600 1</b>			0.018	10
4 Modules	<b>DSW 4</b>	GH S210 1926 R0004	<b>13610 0</b>			0.024	10
6 Modules	<b>DSW 6</b>	GH S210 1926 R0006	<b>13620 9</b>			0.036	10

# Miniature Circuit Breakers

## Accessories



SK 0127 B 92

Description	Ordering details	bbn 40 12233	Price 1 piece DM	Price group	Weight 1 piece kg	Pack. unit pcs.
Type No.	Order code	EAN				

**Mounting kits for flush mounting**

for 2 Modules	<b>S 500-ME 1</b>	GH S500 1008 R0001	<b>48450 8</b>			
for 5 Modules	<b>S 500-ME 2</b>	GH S500 1008 R0002	<b>48460 7</b>			
for 10 Modules	<b>S 500-ME 3</b>	GH S500 1008 R0003	<b>48470 6</b>			

**Terminals for rear connection of main contacts (for flush mounting)**

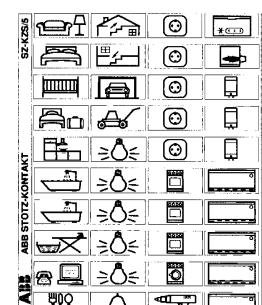
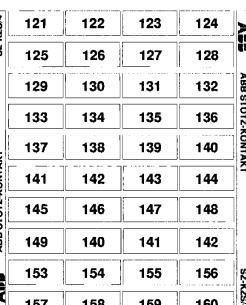
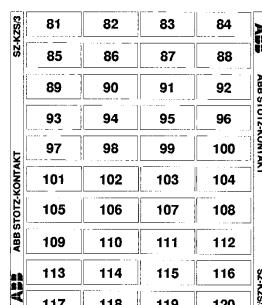
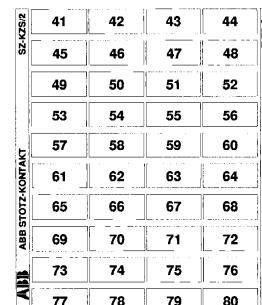
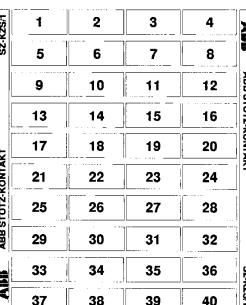
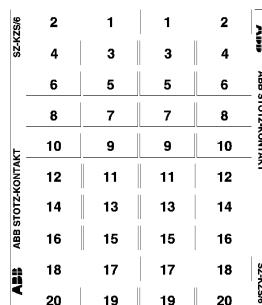
up to 25 mm <sup>2</sup>	<b>S 500-K 1</b>	GH S500 1210 R0001	<b>48530 7</b>			
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**Label mats,**

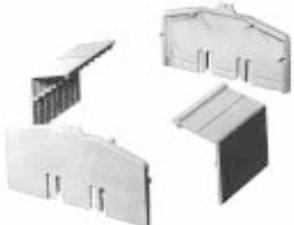
à 40 labels labelled or unlabelled. The unlabelled can be labelled by water-resistant and permanent marker or by means of computer-controlled labelling systems (plotter).

Label unlabelled	<b>SZ-KZS</b>	GH S210 1946 R0004	<b>① 00850 1</b>				30
Label numbering 1-40	<b>SZ-KZS/1</b>	GH S210 1946 R0005	<b>① 00860 9</b>				30
Label numbering 41-80	<b>SZ-KZS/2</b>	GH S210 1946 R0006	<b>① 00870 9</b>				30
Label numbering 81-120	<b>SZ-KZS/3</b>	GH S210 1946 R0007	<b>① 00880 8</b>				30
Label numbering 121-160	<b>SZ-KZS/4</b>	GH S210 1946 R0008	<b>① 00890 7</b>				30
Label with pictograms	<b>SZ-KZS/5</b>	GH S210 1946 R0009	<b>① 00900 3</b>				30
Label numbering 2 x 1-20	<b>SZ-KZS/6</b>	GH S210 1946 R0010	<b>① 05080 7</b>				30
Label numbering 4 x 1-10	<b>SZ-KZS/9</b>	GH S210 1946 R0013	<b>① 39050 7</b>				30
Label numbering 4 x 11-20	<b>SZ-KZS/10</b>	GH S210 1946 R0014	<b>① 39060 6</b>				30

① bbn-No.: 40 16779



# Miniature Circuit Breakers Accessories

	SK 0187 B 91
	SK 0010 B 95
	SK 0110 B 91
	KA 27 H + KA 27 S SK 0112 B 91
	SK 0064 B 91
	SK 0076 B 96 SK 0077 B 96
	SK 0078 B 96

Description	Ordering details		<b>bbn</b> <b>40 12233</b> <b>EAN</b>	<b>Price</b> 1 piece <b>DM</b>	<b>Price</b> group	<b>Weight</b> 1 piece <b>kg</b>	<b>Pack.</b> unit <b>pcs.</b>
	Type No.	Order code					
<b>Labelling accessories</b>							
Label carrier snap-on fixing	<b>ST</b>	GH S210 6641 R0001	<b>13820 3</b>			0.001	100
Description label 1 sheet = 300 pcs	<b>ST-E</b>	GH V021 0895 R0010	<b>13830 2</b>			0.010	1 sheet
Description labels numbering 1-100 1 sheet = 5 x 1-100	<b>ST-EN</b>	GH S210 1946 R0003	<b>64530 5</b>				1 sheet

### Locking device for MCBs and switches

for protection against unauthorized or unsafe actuation on the operating lever. An adapter permits blocking of the operating lever both in the OFF positions of the switch. The locking ensures by means of a padlock with a shackles diameters of max. 3 or 6 mm. For multipole breakers/switches it is possible to provide each pole with a padlock.

The padlock adapter is suitable for all MCBs of series S 190, S 230, S 240, S 260, S 270, S 280 as well as for the switches E 220 and isolators E 240/270.

Padlock adapter } 3 mm for } 6 mm	<b>SA 1</b> <b>SA 1E</b>	GH F110 1903 R0001 GH F110 1903 R0004	<b>58760 5</b> <b>58790 2</b>			0,004 0,004	10 10
Padlock with 2 keys	<b>SA 2</b>	GH F110 1903 R0002	<b>58770 4</b>			0,02	10
Padlock; identical tumbler arrangement with 2 keys	<b>SA 2 i</b>	GH F110 9999 R0001	<b>96940 1</b>			0,02	10
Padlock adapter; incl. padlock and 3 keys in a transparent box	<b>SA 3</b>	GH F110 1903 R0003	<b>58780 3</b>			0,05	10

### Terminal cover KA 27

as a protection against accidental contact with live parts by occasional handling (e.g. in switch-boards) according to the accident prevention regulations (e.g. VBG 4); comprising side pieces 475 mm long = 27 modules each 17.5 mm which can be cut to the required size end pieces; can be snapped onto mounting rail EN 50 022, 35 mm. Side and end pieces must be separately ordered.

Side piece, 1 piece	<b>KA 27 H</b>	GH S210 1933 R0001	<b>13630 8</b>			0.104	10
End piece, 1 piece	<b>KA 27 S</b>	GH D210 1934 R0001	<b>13640 7</b>			0.027	10

### Enclosure of moulded plastic, Prot. cat. IP 55

Complete with mounting rail EN 50 022, 35 mm and 3 cable support sleeves, knock-outs for cable entries 1 x Pg 21 at the top and 2 x Pg 21 at the bottom.

for 4 modules	<b>QES 4/3</b>	GH L111 2304 R0003	<b>04620 1</b>			0.330	20
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### Terminal cover PCD with base plate, Prot. cat. IP 20

The terminal cover is snapped onto the base plate and is sealable. The base has an integrated mounting rail for snap-on equipment such as M.C.B.'s, RCD's, Manual motor starters and other modular installation equipment.

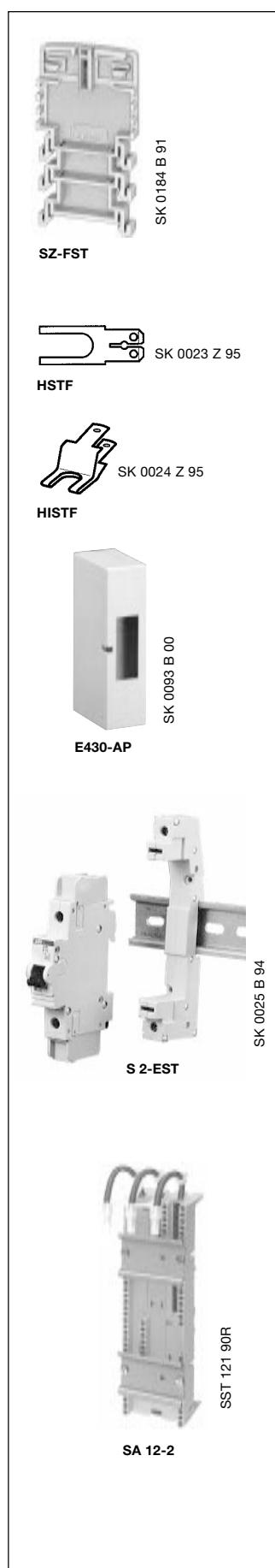
### Terminal cover with base plate

for 2 modules	<b>PCD 2 N</b>	GH S270 1921 R0002	<b>28530 8</b> ①				1
for 4 modules	<b>PCD 4 N</b>	GH S270 1921 R0004	<b>28540 7</b> ①				1
for 6 modules	<b>PCD 6 N</b>	GH S270 1921 R0006	<b>28550 6</b> ①				1
for 8 modules	<b>PCD 8 N</b>	GH S270 1921 R0008	<b>28560 5</b> ①				1

① bbn-Nr. 40 16779

### Accessories

Earth bar for subsequent mounting	<b>ES</b>	GH S270 1912 R0001	<b>36660 6</b>			0.08	10
Blanking plate 1 Module = 17.5 mm Division: ½ module	<b>BP</b>	GH S270 1913 R0001	<b>36670 5</b>			0.005	10



### Supplementary devices

Description	Ordering details		<b>bbn 40 12233 EAN</b>	<b>Price 1 piece DM</b>	Price group	Weight 1 piece kg	Pack. unit pcs.
	Type No.	Order code					

#### Filler piece FST

Width 8.75 mm as heat conductor for M.C.B.'s mounted in a row. Three different heights, with break-off sections, for rails acc. to EN 50 022, 35 mm.

	<b>SZ-FST</b>	GJI 1480 003 R0001	<b>59410 8</b>			0.10	25
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#### Push-on terminals

for 2 connectors 2.8 mm without insulation (max. 8 A), push-on terminals HSTF also for 1 connector 6.3 mm with insulation (max. 20 A)

for main poles 2 x 2.8 – 0.5 or 1 x 6.3 – 0.5	<b>HSTF</b>	GH S210 4555 P0001	<b>65880 0</b>			0.002	50
for aux. contacts 2 x 2.8 – 0.5 2 x 2.8 – 0.8	<b>HISTF</b> <b>HISTF 2</b>	GH S210 4554 P0001 GH S210 4554 P0002	<b>65890 9</b> <b>65900 5</b>			0.002 0.002	100 100

#### Enclosure of moulded plastic for units with a depth of 1 module

	<b>E 430-AP</b>	GJ V021 0895 R0100	<b>53030 4</b>				10
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#### Plug in base for S 280, $I_n \leq 32$ A

for quick exchange of M.C.B.'s e.g. do to variance in rated current.

Visible disconnection

	<b>S 2-EST</b>	GH S280 1925 R0001	<b>12770 7 ①</b>			0,07	1
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① bbn-Nr.: 40 16779

#### Adapter for busbars with a distance of 40 mm and 50 mm

for direct mounting M.C.B.'s to busbars 12 ... 15 x 5 mm

$I_n$ max. = 32 A	<b>SA 11-2</b>	GJ M620 1910 R0211	<b>05858 5 ①</b>			0.066	1
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#### Adapter for busbars with a distance of 60 mm

for direct mounting a motor starter combination (consisting of a M.C.B.'s and a contactor) to busbars 12 ... 30 x 5 mm

$I_n$ max. = 32 A	<b>SA 12-2</b>	GJ M620 1910 R0212	<b>05859 2 ①</b>			0.115	1
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① bbn-No. 40 13614

**Selection table**

M.C.B.	Busbar connection	Cross section mm <sup>2</sup>	Length mm	Poles No.	Ordering details	bbn 40 12233 EAN	Price 1 piece DM	Weight 1 piece kg	Pack. unit pcs.
		Type No.			Order code				

**Busbars for M.C.B.'s without supplementary devices**

for single pole M.C.B.'s

     <b>SK 0184 Z 97</b>	 <b>SK 0118 Z 96</b>	12	988	56 x 1	<b>SZ-KS 1/56</b>	GJI 2 322 322 R0003	<b>59800 7</b>		0.073 50
		24	988	56 x 1	<b>SZ-KS 2/56</b>	GJI 2 322 322 R0004	<b>59820 5</b>		0.138 50
	 <b>SK 0139 Z 96</b>	36	988	56 x 1	<b>SZ-VB 45.32</b>	GJI 2 322 148 R0001	<b>59720 8</b>		0.33 50
		10	213	4 x 3	<b>SZ-PSB 3 N ①</b>	GH L520 1915 R0005	<b>29400 3*</b>		0.082 30
		10	1065	20 x 3	<b>SZ-PSB 4 N ①</b>	GH L520 1915 R0004	<b>05940 9</b>		0.468 10
		16	213	4 x 3	<b>SZ-PSB 11 N ②</b>	GH L520 1916 R0005	<b>29420 1*</b>		0.136 10
		16	1065	20 x 3	<b>SZ-PSB 12 N ②</b>	GH L520 1916 R0006	<b>29430 0*</b>		0.70 10

\* bbn-Nr. 401677 9

for 2 pole M.C.B.'s

     <b>SK 0185 Z 97</b>	 <b>SK 0098 Z 96</b>	10	213	6 x 2	<b>SZ-PSB 53 N ③</b>	GH V036 0874 R0031	<b>54940 5</b>		0.078 30
		10	1035	29 x 2	<b>SZ-PSB 54 N ③</b>	GH V036 0874 R0032	<b>54950 4</b>		0.403 10
	 <b>SK 0101 Z 96</b>	16	213	6 x 2	<b>SZ-PSB 55 N ③</b>	GH V036 0874 R0033	<b>54960 3</b>		0.106 30
		16	1035	29 x 2	<b>SZ-PSB 56 N ③</b>	GH V036 0874 R0034	<b>54970 2</b>		0.534 10
		10	1048	29 x 2	<b>SZ-PSB 58 N ④</b>	GH V036 0874 R0036	<b>54990 0</b>		0.626 10
		16	1048	29 x 2	<b>SZ-PSB 60 N ④</b>	GH V036 0874 R0038	<b>55010 4</b>		0.861 10

for 3 pole M.C.B.'s

     <b>SK 0186 Z 97</b>	 <b>SK 0139 Z 96</b>	10	213	4 x 3	<b>SZ-PSB 3 N ①</b>	GH L520 1915 R0005	<b>29400 3*</b>		0.082 30
		10	1065	20 x 3	<b>SZ-PSB 4 N ①</b>	GH L520 1915 R0006	<b>29410 2*</b>		0.468 10
	 <b>SK 0101 Z 96</b>	16	213	4 x 3	<b>SZ-PSB 11 N ②</b>	GH L520 1916 R0005	<b>29420 1*</b>		0.136 30
		16	1065	20 x 3	<b>SZ-PSB 12 N ②</b>	GH L520 1916 R0006	<b>29430 0*</b>		0.70 10
		10	213	3 x 4	<b>SZ-PSB 61 N ④</b>	GH V036 0874 R0039	<b>55020 3</b>		0.112 30
		10	1056	15 x 4	<b>SZ-PSB 62 N ④</b>	GH V036 0874 R0040	<b>55030 2</b>		0.650 10
		16	213	3 x 4	<b>SZ-PSB 63 N ④</b>	GH V036 0874 R0041	<b>55040 1</b>		0.156 30
		16	1056	15 x 4	<b>SZ-PSB 64 N ④</b>	GH V036 0874 R0042	<b>55050 0</b>		0.884 10

\* bbn-Nr. 401677 9

for 4 pole M.C.B.'s

     <b>SK 0187 Z 97</b>	 <b>SK 0101 Z 96</b>	10	213	3 x 4	<b>SZ-PSB 61 N ④</b>	GH V036 0874 R0039	<b>55020 3</b>		0.112 30
		10	1056	15 x 4	<b>SZ-PSB 62 N ④</b>	GH V036 0874 R0040	<b>55030 2</b>		0.650 10
	 <b>SK 0101 Z 96</b>	16	213	3 x 4	<b>SZ-PSB 63 N ④</b>	GH V036 0874 R0041	<b>55040 1</b>		0.156 30
		16	1056	15 x 4	<b>SZ-PSB 64 N ④</b>	GH V036 0874 R0042	<b>55050 0</b>		0.884 10

(1) (2) (3) (4) End caps for busbar blocks see page 78

**Selection table**

M.C.B.	Busbar connection	Cross section mm <sup>2</sup>	Length mm	Poles No.	Ordering details	bbn 4012233 EAN	Price 1 piece DM	Weight 1 piece kg	Pack. unit pcs.
				Type No.	Order code				

**Busbars for M.C.B.'s without supplementary devices**

for single pole M.C.B.'s with disconnecting neutral NA

SK 0185 Z 97	SK 0098 Z 96	10	213	6 x 2	SZ-PSB 53 N ③	GH V036 0874 R0031	54940 5		0.078	30
		10	1035	29 x 2	SZ-PSB 54 N ③	GH V036 0874 R0032	54950 4		0.403	10
		16	213	6 x 2	SZ-PSB 55 N ③	GH V036 0874 R0033	54960 3		0.106	30
		16	1035	29 x 2	SZ-PSB 56 N ③	GH V036 0874 R0034	54970 2		0.534	10
	SK 0100 Z 96	10	1048	29 x 2	SZ-PSB 58 N ④	GH V036 0874 R0036	54990 0		0.626	10
		16	1048	29 x 2	SZ-PSB 60 N ④	GH V036 0874 R0038	55010 4		0.861	10

for 3 pole M.C.B.'s with disconnecting neutral NA

SK 0187 Z 97	SK 0101 Z 96	10	213	3 x 4	SZ-PSB 61 N ④	GH V036 0874 R0039	55020 3		0.112	30
		10	1056	15 x 2	SZ-PSB 62 N ④	GH V036 0874 R0040	55030 2		0.650	10
		16	213	3 x 4	SZ-PSB 63 N ④	GH V036 0874 R0041	550401		0.156	30
		16	1056	15 x 2	SZ-PSB 64 N ④	GH V036 0874 R0042	55050 0		0.884	10

**Busbars for M.C.B.'s with aux. contact H... or combined signal contact/aux. contact S/H**

for single pole M.C.B.'s with H... or S/H

SK 0190 Z 97	SK 0095 Z 96	10	1044	39 x 1	SZ-KS 3/39 N	GH V036 0874 R0060	55130 9		0.206	10
		16	1044	39 x 1	SZ-KS 4/39 N	GH V036 0874 R0004	55150 7		0.283	10
		10	1044	13 x 3	SZ-PSB 46 N ③	GH V036 0874 R0024	54870 5		0.451	10
		16	1044	13 x 3	SZ-PSB 48 N ③	GH V036 0874 R0026	54890 3		0.620	10
SK 0191 Z 97	SK 0099 Z 96	-								
		16	1065	24 x 2	SZ-PSB 92 N ③	GH V036 0875 R0010	55380 8		0.650	10

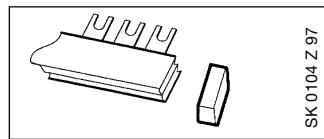
for 2 pole M.C.B.'s with H... or S/H

SK 0191 Z 97	SK 0099 Z 96									
		16	1065	24 x 2	SZ-PSB 92 N ③	GH V036 0875 R0010	55380 8		0.650	10

for 3 pole M.C.B.'s with H... or S/H

SK 0192 Z 97	SK 0097 Z 96	10	188	3 x 3	SZ-PSB 49 N ③	GH V036 0874 R0027	54900 9		0.076	30
		10	980	16 x 3	SZ-PSB 50 N ③	GH V036 0875 R0010	54910 8		0.442	10
		16	188	3 x 3	SZ-PSB 51 N ③	GH V036 0874 R0029	54920 7		0.104	30
		16	1065	24 x 2	SZ-PSB 52 N ③	GH V036 0875 R0010	54930 6		0.632	10

③ End caps see below

**End caps for comb busbar blocks SZ-PSB ...**

suitable ① for ② busbar ③ blocks ④	PSB-END 5	GH L520 1921 R0005	97410 8		0,001	50
	PSB-END 6	GH L520 1921 R0006	97420 7			50
	PSB-END 3	GH V036 1325 R0001	55630 4			50
	PSB-END 4	GH V036 1325 R0002	55640 3			50

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System pro M

Miniature Circuit Breakers  
S 280

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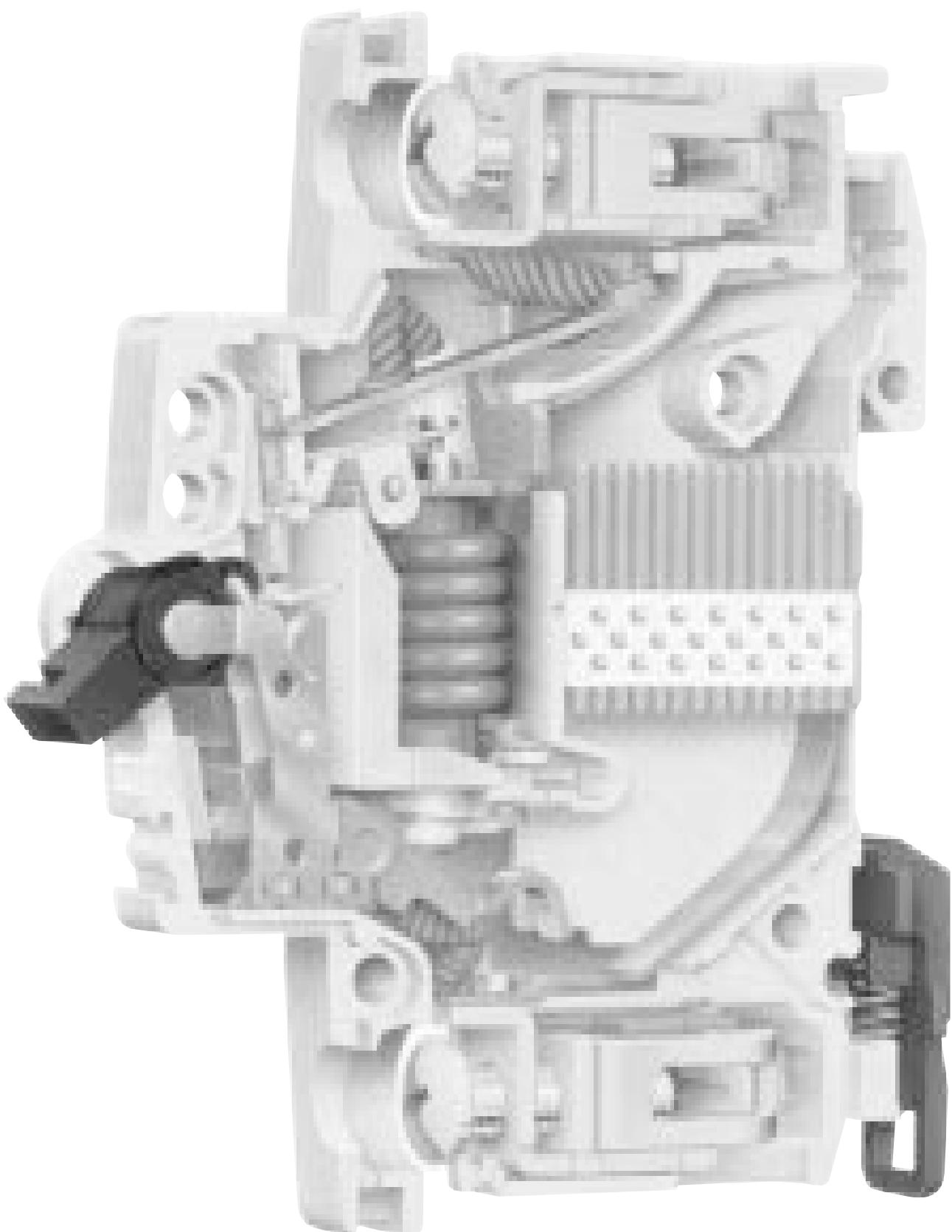


ABB STOTZ-KONTAKT, the Heidelberg-based company, develops, manufactures and sells highly modern, modular systems for electrical building installations. It offers complete installation ranges for a wide variety of applications:

## System pro M

For classic installation applications

The modular **System pro M** for installation on DIN rails incorporates Europe's best-selling miniature circuit-breakers and residual-current-operated circuit-breakers as well as a complete range of built-in devices.

The system components have been designed with various functions and performance capabilities and are therefore able optimally cover the complete range of applications in building installation:

- conventional domestic electrical installations
- industrial and commercial installations
- protection and switch functions
- checking and monitoring tasks
- control and time-dependent tasks etc.

## System pro M compact®

The extension of **System pro M** for targeted use in domestic electrical installations stands out due to its compact and easily comprehensible range of miniature circuit-breakers, residual-current-operated circuit-breakers and cross wiring tools as well as an optimised installation technology taking into account the special circumstances and requirements of domestic electrical installations.

## System Connect

This pioneering system concept contains seamlessly integrated system units – consisting of miniature circuit-breakers and residual-current-operated circuit-breakers as well as apparatus racks and flush-mounted wall boxes - was designed to suit the special requirements of domestic electrical installations.

The new plug-in connection technology for the devices and apparatus rack ensures quick and reliable installations: assembly, connection of the devices and cross wiring are carried out time-effectively in one single step. If need be, component sets may still be changed quickly and flexibly right until transfer takes place; devices may also be exchanged easily at some later date, and economically in terms of both money and time, at that.

The entire **System Connect** was developed by ABB STOTZ-KONTAKT and Striebel & John, within the framework of their successful system partnership.

## EIB Installation Systems

### For intelligent Building Installation

Highly modern, programmable installation systems with bus technology based on the European EIB standard.

### ABB i-bus® EIB

System with special 2-core bus cable, primarily for new buildings.

### ABB Powernet EIB

System for retrofitting in existing buildings. Transfer of information via the existing network.

## Security Systems

### All-in-one Protection

Wide range of security systems and components: intruder and fire alarm systems, radio-controlled alarm systems, door locking system and signalling components.

During the century-long experience of the company, it has always contributed pioneering solutions to the safe application of electricity.

Today, ABB STOTZ-KONTAKT GmbH is an integral part of the ABB Group, a major player on the electrical and electronic markets.



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