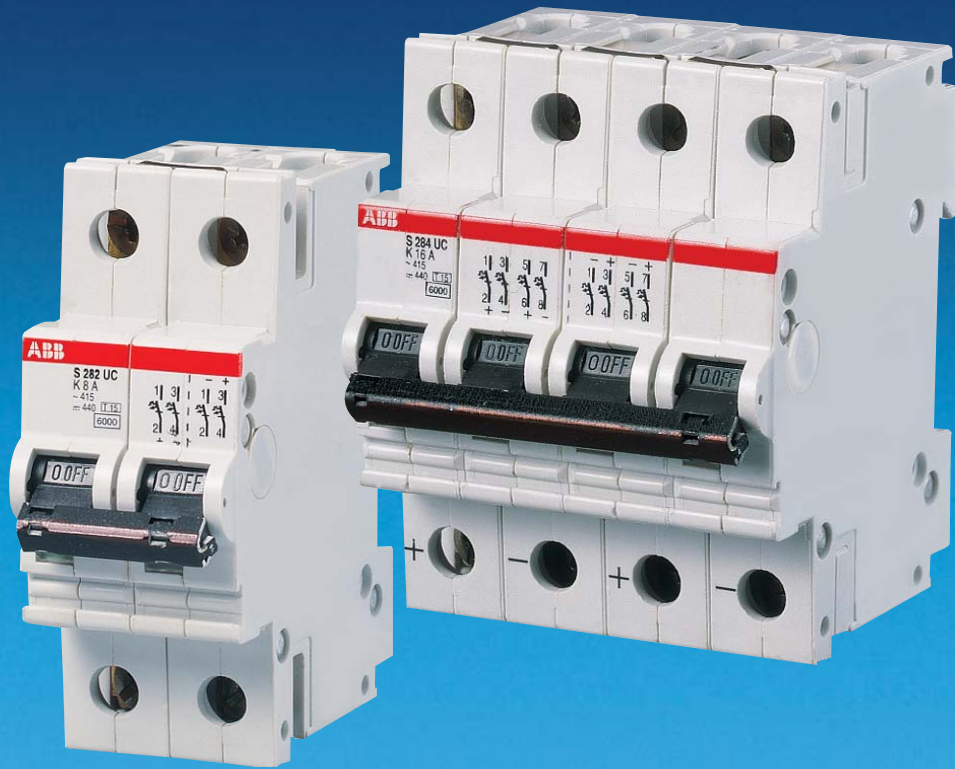


Miniature circuit-breakers S 280 UC series

System pro *M*



Prior to connection of aluminum conductors ($\geq 4 \text{ mm}^2$) ensure that their contact points are cleaned, brushed and coated with grease.

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 within eight days following receipt of the goods.

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

Contents	Page
Technical data	
Notes for use, special features	4
Overview of technical data	6
Internal resistance and power loss	6
Tripping diagrams	7
Example for voltages between leads	8
Tripping characteristics and short-circuit rupturing capacity	9
Supplementary devices	10
Dimensions	16
Order specification	
S 280 UC-B /-K	12
S 280 UC-Z	14
Supplementary devices	15



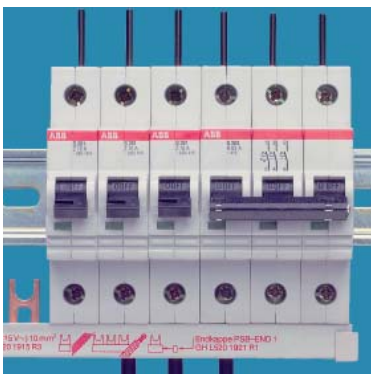
SK 0297 B 91



SK 0301 B 91



SK 0302 B 91



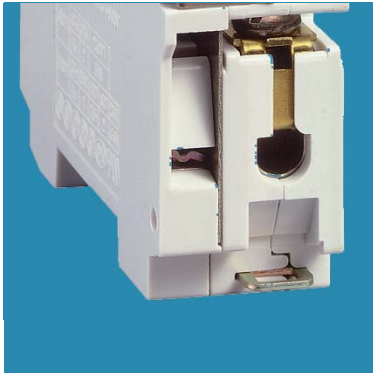
SK 0303 B 91

- Terminal safe from touch by the back of the hand and the finger according to DIN EN 50 274 (VDE 0660 Part 514)

- Open, captive box terminals supplied ex works latched position, incoming and outgoing circuit.

- Connection possible for single, multi and finely stranded conductors of 0.75 to 35 mm².
It is also possible to connect conductors with different sizes at the same time.

- Using combined terminals, simultaneous connection to busbars and cable possible.
Busbar optional, top or bottom, terminal designation according to EN 50005



SK 0138 B 93



SK 0298 B 91



SK 0299 B 91



SK 0300 B 91

- High short circuit rupturing capacity
- Auxiliary contacts, signal contacts/auxiliary contacts, signal contacts, shunt trips, and undervoltage releases can be retrofitted at the place of installation
- Energy limitation falls below the values prescribed by the VDE by more than 50 %, the selectivity obtained is thus higher than in energy limitation class 3
- Disconnecter abilities according to EN 60 898-1, rated surge withstand capacity U_{imp} 4 kV (1.2/50); test voltage 6.2 kV at NN
- Can be used as main circuit breaker according to DIN VDE 0660 through contact position indicator per pole red = ON, green = OFF
- An accessory lock prevents unauthorized switching to ON or OFF
- Integrated device for attaching write-on or other labels or label holders

Technical data

			Miniature circuit-breakers series	
			S 280 UC	
Tripping characteristics			B, K, Z	
No. of poles			1 ... 4-pole (280 UC-B 1+2-pole)	
Rated voltage	U_n	AC	1-pole multipole	230 V~ 400 V~
Max. operating voltage	$U_{Bmax.}$	AC DC	1-pole 2-pole	$U_n + 10\%$ 220 V~ bei S 280 UC 440 V~ bei S 280 UC
Min. operating voltage	U_{Bmin}			12 V~
Clearance and creepage distances			acc. to DIN VDE 0641 Part 11	
Service life at rated voltage			1000 Operations	
Perm. ambient temperature			- 25 °C /- 13 °F ... + 55 °C/ 158 °F	
Connection capacities When connecting aluminum conductors, ensure that the contact points of the conductors are cleaned, brushed and treated with grease.			Customary conductors 0.75 ... 35 mm ² can be connected. Nominal capacity of conductor acc.to EN 50027: 25 mm ²	
Tightening torque			2 Nm	
Installation			onto mounting rails according to EN 60 715, 35 mm	
Color of housing			gray, RAL 7035	

Internal resistance and power loss of MCBs

Internal resistance per pole in mΩ
Power loss per pole in W

type	rated current InA	device series		280 UC-K		280 UC-Z	
		S 280 UC-B mΩ	W	mΩ	W	mΩ	W
S 280 UC	0.2	–	–	33300	1.33	–	–
	0.3	–	–	19700	1.77	–	–
	0.5	–	–	5020	1.26	10100	2.52
	0.75	–	–	2400	1.35	–	–
	1	–	–	1390	1.39	2270	2.27
	1.6	–	–	612	1.56	1100	2.81
	2	–	–	450	1.79	619	2.47
	3	–	–	147	1.32	202	1.82
	4	–	–	112	1.79	149	2.38
	6	55	2.0	54.1	1.95	104	3.74
	8	–	–	33.8	2.16	53.9	3.45
	10	13.5	1.35	15.1	1.51	17.5	1.75
	13	–	–	–	–	–	–
	16	9.7	2.5	8.1	2.07	10.9	2.80
	20	6.25	2.5	5.27	2.11	6.0	2.40
	25	3.0	1.9	3.97	2.48	4.1	2.56
32	–	–	2.65	2.71	2.81	2.88	
40	–	–	2.44	3.90	2.55	4.09	
50	–	–	1.15	2.90	1.77	4.43	
63	–	–	0.7	5.20	1.31	5.20	

① Current intensities 0.5–4 A and 8 A are applicable only to C-type characteristics

Tripping characteristic charts

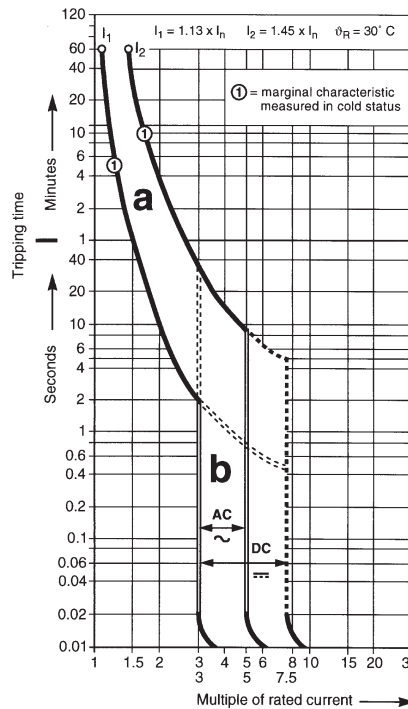
Reading example for tripping characteristic of type B (in connection with the Tripping Behavior table on page 95, line B)

a Thermal tripping characteristic: conventional non-tripping current I_1 = selected non-tripping current. The MCB maintains 1.13 times the rated current for at least 60 minutes.

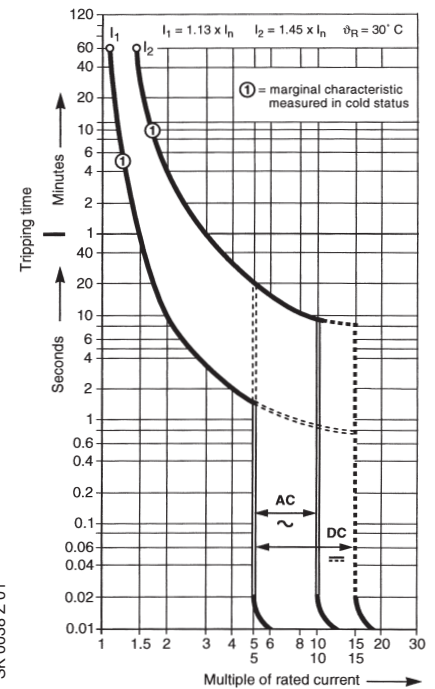
Conventional tripping current I_2 = selected tripping current. The MCB switches off within 60 minutes when 1.45 times the rated current is reached.

b Electromagnetic tripping characteristic AC: The MCB maintains current rushes exceeding 3 times the rated current for more than 0.1 sec. (in this example up to ca. 4 sec.).

The MCB switches off within less than 0.1 sec. when 5 times the rated current is reached..

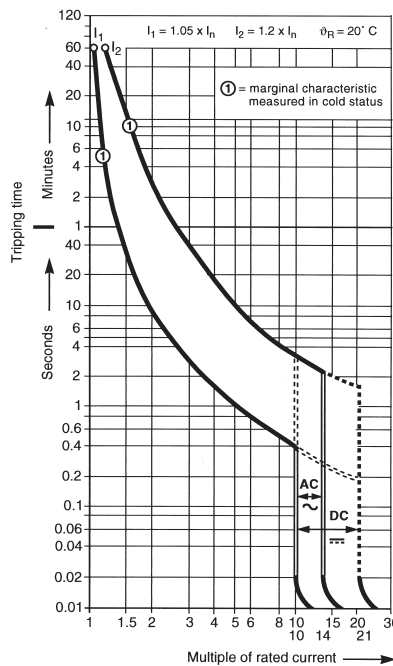


tripping characteristics: B
 $I_n = 6 \dots 63 \text{ A}$
MCB S 280

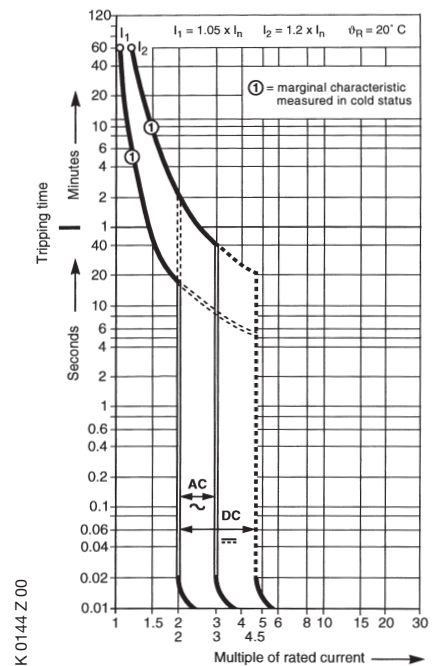


tripping characteristics: C
 $I_n = 0.5 \dots 63 \text{ A}$
MCB S 280

Attention: Deviating ambient temperatures and mutual interference must also be taken into account.



tripping characteristics: K
 $I_n = 0.2 \dots 63 \text{ A}$
MCB S 280



tripping characteristics: Z
 $I_n = 0.5 \dots 63 \text{ A}$
MCB S 280

UC = Universal Current = AC/DC

S 280 UC MCBs can be used in the one-pole version as 220 V ..., and in the 2-pole or 4-pole version with series connection of two poles up to 440 V ...

S 280 UC differs from the standard S 280 type as it is fitted with permanent magnets, which assists in the forced extinguishing of the arc.

If voltages to earth exceeding 220 V DC may occur, 2-pole S 280 UC is to be used for one-pole disconnection, and four-pole 280 UC for all-pole disconnection.

For DC incoming supply from above

S 280 UC-... MCBs have, in the area of arc chutes, permanent magnets, it is therefore necessary to take into account the polarity during the installation process.

Doing so ensures that in the case of a short circuit the magnetic field of the permanent magnets corresponds with the electromagnetic field of the short-circuit current, therefore safely leading the short circuit into the arc chute. Incorrect polarities may cause damage to the MCB. **This is why - in the case of top-fed devices - terminal 1 must be connected to (-) and terminal 3 (+).**

Example for permissible voltages between the conductors depending on the number of poles and circuit layout:

voltage between conductors U_n	220 V-	440 V-	440 V-	440 V-	440 V- (voltage reversal)
voltage between conductor and earth U_n	220 V-	220 V-	440 V-	220 V-	220 V-
MCB	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 from below					
supply from above					

SK 0114 Z 94

SK 0115 Z 94

Examples for different voltage levels between conductor and earth in the case of identical voltage between conductors:

voltage between conductors U_n	440 V- all-pole disconnection	440 V- 1-pole disconnection	440 V- all-pole disconnection
voltage between conductor and earth U_n	220 V- circuit symmetrically earthed	440 V- circuit unsymmetrically earthed	440 V- circuit unearthed or unsymmetrically earthed
MCB	2-pole S 282 UC	2-pole S 282 UC	4-pole S 284 UC

SK 0196 Z 98

① in the circuit diagram, the negative pole is earthed.

② in the circuit diagram, the positive pole is earthed.

Tripping behavior

S 280 UC acc. to specification	tripping characteristics and range of rated current	thermal trips ①			electromagnetic trips ②				
		test current conventional non-tripping I_1	conventional tripping current I_2	tripping time	test currents hold current rushes of at \approx	switch off at the latest at ~	at -	tripping time at ~	at -
DIN VDE 0641 Part 12	B 6 to 25 A	$1.13 \cdot I_n$	$1.45 \cdot I_n$	> 1 h < 1 h	$3 \cdot I_n$	$5 \cdot I_n$	$7.5 \cdot I_n$	> 0.1 s < 0.1 s	> 0.1 s < 0.1 s
DIN VDE 0660-101	K 0.2 to 63 A	$1.05 \cdot I_n$	$1.2 \cdot I_n$ $1.5 \cdot I_n$ $6.0 \cdot I_n$	> 1 h < 1 h ③ < 2 min > 2 s (T1)	$10 \cdot I_n$	$14 \cdot I_n$	$21 \cdot I_n$	> 0.2 s < 0.2 s	> 0.2 s < 0.2 s
DIN VDE 0660-101	Z 0.5 to 63 A	$1.05 \cdot I_n$	$1.2 \cdot I_n$ $1.5 \cdot I_n$	> 1 h < 1 h ③ < 2 min	$2 \cdot I_n$	$3 \cdot I_n$	$4.5 \cdot I_n$	> 0.2 s < 0.2 s	> 0.2 s < 0.2 s

① The max. permissible operating currents depend on the following factors:
Ambient temperature and mutual thermal interference.
see page 2/51

② The indicated tripping values of electromagnetic tripping devices apply to a
frequency range from 16 2/3 ... 60 Hz. In the case of diverging frequencies or
direct current, the values change by the factor indicated in the table below.

③ As from operating temperature (after $I_1 > 1$ h)

factor ca.	AC			DC ca. 1.5
	100 Hz	200 Hz	400 Hz	
	1.1	1.2	1.5	

The thermal release operates independent of the frequency.

S 280 UC-Z	rated current	hold current rushes from	non-delayed tripping at AC/DC ≥ 48 % ripple	DC ≤ 5 % ripple
		0.5 A	1 A	1.5 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	125 A	189 A	315 A

Short circuit rupturing

Operating sequence for B according to DIN VDE 0641 Part 12 for K according to DIN VDE 0660 Part 101/p-2.

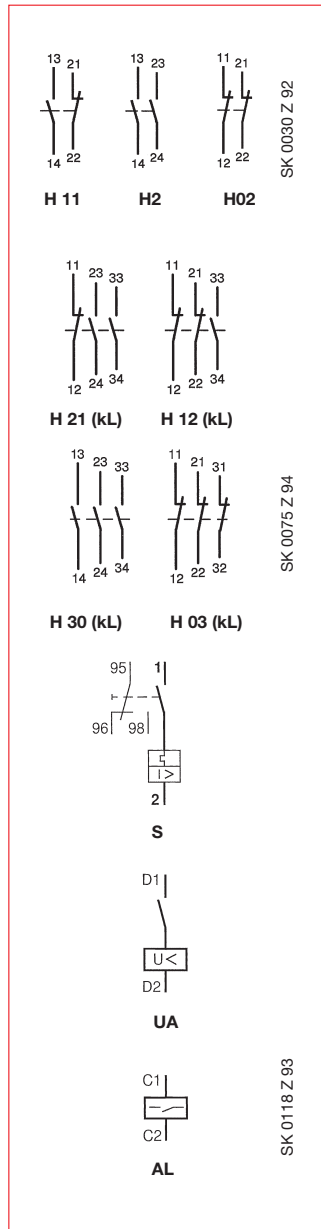
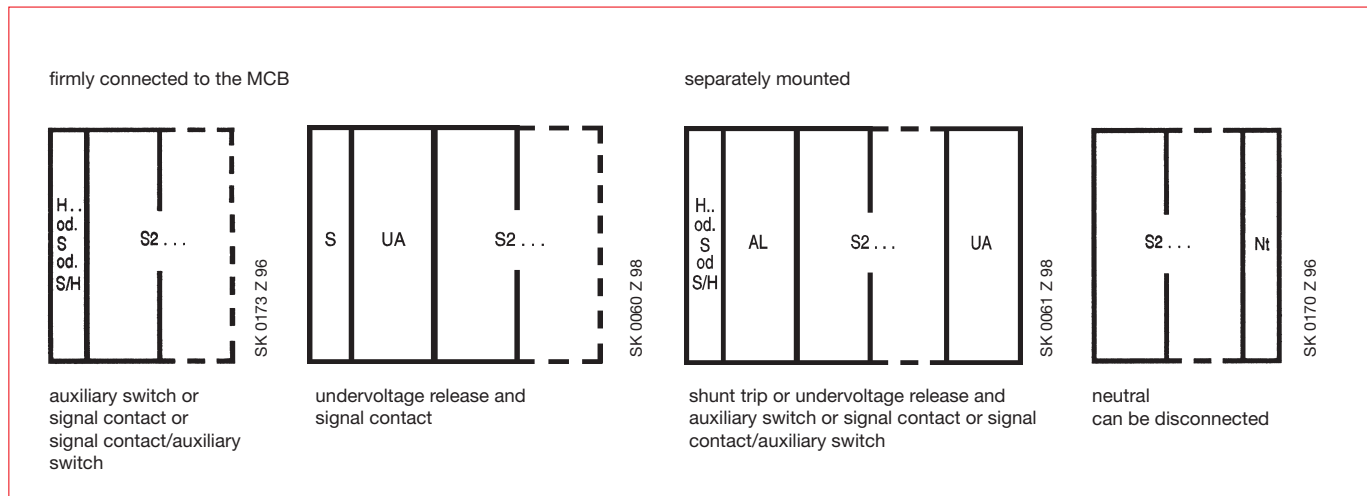
For the short circuit capacity indicated, in the case of DC, a time constant $T = L/R \leq 15$ ms applies, in the case of AC for 10 kA: $\cos \geq 0.6$ for 6 kA: $\cos \geq 0.7$ – for 4.5 kA and
for 3 kA: $\cos \geq 0.8$ – for < 3 kA: $\cos \geq 0.9$.

S 280 UC	1-pole			2-pole				max. backup protect. ⑤ for backup protect. ; utilization category gL (DIN VDE 0636/IEC 269)
	DC up to 60 V ...	110 V ...	220 V ...	DC up to 60 V ...	110 V ...	220 V ...	440 V ...	
B 6 ... 25 A	14 kA	10 kA	6 kA	25 kA	20 kA	10 kA	6 kA	100 A
Z, K 0.2 ... 2 A ⑥	unlimited	unlimited	unlimited	unlimited	unlimited	unlimited	unlimited	not required
Z, K 3 ... 4 A	14 kA	10 kA	6 kA	25 kA	20 kA	10 kA	6 kA	35 A
Z, K 6 ... 8 A	14 kA	10 kA	6 kA	25 kA	20 kA	10 kA	6 kA	63 A
Z, K 10 ... 40 A	14 kA	10 kA	6 kA	25 kA	20 kA	10 kA	6 kA	100 A
Z, K 50 ... 63 A	10 kA	6 kA	4.5 kA	20 kA	14 kA	6 kA	4.5 kA	125 A
AC	up to 60 V ~	133 V ~	230 V ~	up to 60 V ~	133 V ~	230 V ~	400 V ~	
B 6 ... 25 A	10 kA	10 kA	6 kA	10 kA	10 kA	10 kA	6 kA	100 A
Z, K 0.2 ... 2 A ⑥	unlimited	unlimited	unlimited	unlimited	unlimited	unlimited	unlimited	not required
Z, K 3 ... 4 A	10 kA	10 kA	6 kA	10 kA	10 kA	10 kA	6 kA	35 A
Z, K 6 ... 8 A	10 kA	10 kA	6 kA	10 kA	10 kA	10 kA	6 kA	63 A
Z, K 10 ... 40 A	10 kA	10 kA	6 kA	10 kA	10 kA	10 kA	6 kA	100 A
Z, K 50 ... 63 A	6 kA	6 kA	4.5 kA	10 kA	6 kA	6 kA	4.5 kA	125 A

⑥ Back-up protection is necessary only if the solid short-circuit current to be expected at the place of installation may exceed the short circuit rupturing indicated.

⑥ Z as of 0.5 A

How supplementary devices can be mounted



Additional retrofit devices

The following accessories can be easily added to MCBs of the S 280 UC series:

Auxiliary contact S2-H.. (X)

The auxiliary switch is fitted with 2 or 3 potential-free contacts and indicates clearly the position of the main contacts, i.e. not only when the device trips due to overload, but also if switched off manually. Coupled to the contact mechanism, it is trip-free.

The auxiliary switch comes either with screw-fixing or as plug-in device (switches with 3 potential-free contacts only screw-type make).

- Minimum switching capacity: 5 VA at 12 V
- Minimum switching capacity: 0,1 VA at 12 V (H ... kL, low power)
- Connection capacity: 2 x 1.5 mm²
- Pick-up torque: 0.8 Nm

Signal contact S2-S

Trips in the case of overload, earth leakage or short circuit, not, however, if switched off manually (has-tripped signal). The signal (red acknowledgment button) can be cancelled without switching the MCB on again. Push the test button to check on the control circuit and not interrupt the main circuit.

Undervoltage release UA (can be retrofitted to the left or the right)

For distance tripping of the MCB (switch OFF). An exciting coil makes it impossible to switch on the device unless a voltage is applied. Where the supply voltage is interrupted or switched off, the undervoltage release makes the MCB trip (suitable for emergency stop circuit).

Shunt trip AL ... (can be retrofitted to the left)

For distance tripping of the MCB (switch OFF). The shunt trip has a relay coil with an integrated contact which disconnects the coil and the coil voltage if the MCB trips, this prevents the continued flow of current in the case of sustained coil voltage.

Separate supplementary devices

Neutral disconnector Nt

This component is fitted, if necessary, to the right of the MCB onto the mounting rail. It is used, e.g. to disconnect the neutral prior to measurements. The design of the switching lever ensures that the neutral is lead-making contact when the MCB is switched on.

- short-circuit capacity: 10 kA
- box terminal: 16 mm²

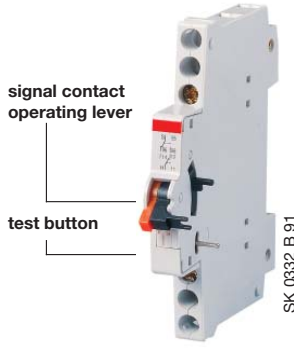
Additional retrofit devices

Signal contact/auxiliary contact S2-S/H

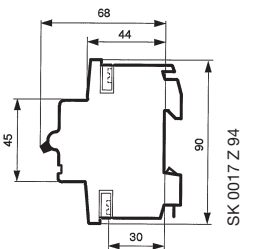
The signal contact and the auxiliary contact both have a potential-free changeover contact. The contacts have a trip-free mechanism. Minimum switching capacity 0.1 VA at 24 V.

Application examples

- If the MCB is switched off, e.g. due to an insulation test (deliberate interference), only the auxiliary contact trips, but not the signal contact.
- The signal contact switch can be switched to test the control circuit (OFF by test button **T** and ON with the operating lever), without disconnecting the main circuit.
- The signal contact switch can be reset, in order to e.g. acknowledge an acoustic signal switched via the device, without causing the MCB to trip.

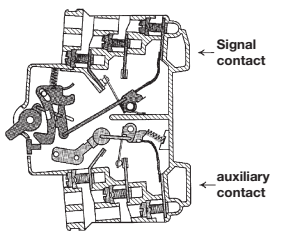


SK 0332 B 91



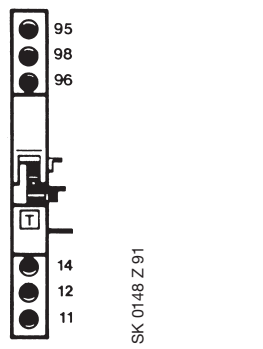
SK 0017 Z 94

dimensions



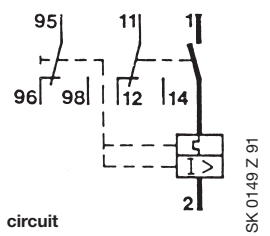
SK 0147 Z 91

function



SK 0148 Z 91

position of terminals



SK 0149 Z 91

circuit

The variety of functions makes the combined signal contact/auxiliary contact S2-S/H an excellent choice.

Test the main circuit without signalization

Test control circuit without service interruption

After a short circuit or overload, acknowledge the has-tripped signal.



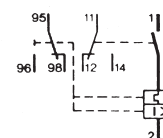
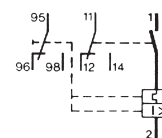
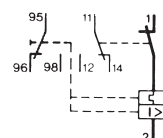
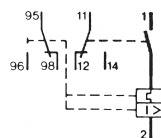
manual



press „T“ for test



push press the red signal contact switching lever upwards



Bacc. to DIN VDE 0641 Part 11
for line protection

SK 0052 B 95

Selection table

No. of poles	rated current I_n A	order details		bbn 40 16779 EAN	price 1 piece €	price group	w'ght 1 pc. kg	pack. unit pc.
		type code	order code					
1	6	S 281 UC-B 6	GH S281 0164 R0065	16230 2		5	0.130	10/40
	10	S 281 UC-B 10	GH S281 0164 R0105	16240 1				
	16	S 281 UC-B 16	GH S281 0164 R0165	16250 0				
	20	S 281 UC-B 20	GH S281 0164 R0205	16260 9				
	25	S 281 UC-B 25	GH S281 0164 R0255	16270 8				
2	6	S 282 UC-B 6	GH S282 0164 R0065	16280 7		5	0.260	5/20
	10	S 282 UC-B 10	GH S282 0164 R0105	16290 6				
	16	S 282 UC-B 16	GH S282 0164 R0165	16300 2				
	20	S 282 UC-B 20	GH S282 0164 R0205	16310 1				
	25	S 282 UC-B 25	GH S282 0164 R0255	16320 0				

Kacc. to DIN VDE 0660 Part 101
for power circuits, motors,
transformers, lamps and
line protection

SK 0323 B 91



SK 0324 B 91

Selection table

No. of poles	rated current I_n A	order details		bbn 40 12233 EAN	price 1 piece €	price group	w'ght 1 pc. kg	pack. unit pc.					
		type code	order code										
1	0.2	S 281 UC-K 0,2	GH S281 0164 R0087	63420 0		5	0.130	10/40					
	0.3	S 281 UC-K 0,3	GH S281 0164 R0117	63430 9									
	0.5	S 281 UC-K 0,5	GH S281 0164 R0157	63440 8									
	0.75	S 281 UC-K 0,75	GH S281 0164 R0187	63550 4									
	1	S 281 UC-K 1	GH S281 0164 R0217	63460 6									
	1.6	S 281 UC-K 1,6	GH S281 0164 R0257	63470 5									
	2	S 281 UC-K 2	GH S281 0164 R0277	63480 4									
	3	S 281 UC-K 3	GH S281 0164 R0317	63490 3									
	4	S 281 UC-K 4	GH S281 0164 R0337	63500 9									
	6	S 281 UC-K 6	GH S281 0164 R0377	63520 7									
	8	S 281 UC-K 8	GH S281 0164 R0407	63510 8									
	10	S 281 UC-K 10	GH S281 0164 R0427	63530 6									
	16	S 281 UC-K 16	GH S281 0164 R0467	63540 5									
	20	S 281 UC-K 20	GH S281 0164 R0487	63560 3									
	25	S 281 UC-K 25	GH S281 0164 R0517	63570 2									
2	32	S 281 UC-K 32	GH S281 0164 R0537	63580 1		5	0.160						
	40	S 281 UC-K 40	GH S281 0164 R0557	63590 0									
	50	S 281 UC-K 50	GH S281 0164 R0577	63600 6									
	63	S 281 UC-K 63	GH S281 0164 R0607	63610 5									
	2	0.2	S 282 UC-K 0,2	GH S282 0164 R0087					63620 4		5	0.260	5/20
		0.3	S 282 UC-K 0,3	GH S282 0164 R0117					63630 3				
0.5		S 282 UC-K 0,5	GH S282 0164 R0157	63640 2									
0.75		S 282 UC-K 0,75	GH S282 0164 R0187	63650 1									
1		S 282 UC-K 1	GH S282 0164 R0217	63660 0									
1.6		S 282 UC-K 1,6	GH S282 0164 R0257	63670 9									
2		S 282 UC-K 2	GH S282 0164 R0277	65280 8									
3		S 282 UC-K 3	GH S282 0164 R0317	63680 8									
4		S 282 UC-K 4	GH S282 0164 R0337	63690 7									
6		S 282 UC-K 6	GH S282 0164 R0377	63700 3									
8		S 282 UC-K 8	GH S282 0164 R0407	63710 2									
10		S 282 UC-K 10	GH S282 0164 R0427	63720 1									
16		S 282 UC-K 16	GH S282 0164 R0467	63730 0									
20		S 282 UC-K 20	GH S282 0164 R0487	63740 9									
25		S 282 UC-K 25	GH S282 0164 R0517	63750 8									
2	32	S 282 UC-K 32	GH S282 0164 R0537	63760 7		5	0.320						
	40	S 282 UC-K 40	GH S282 0164 R0557	63770 6									
	50	S 282 UC-K 50	GH S282 0164 R0577	63790 4									
	63	S 282 UC-K 63	GH S282 0164 R0607	63800 0									

K

acc. to DIN VDE 0660 Part 101
for power circuits, motors,
transformers, lamps and
line protection



SK 0184 B 92



SK 0185 B 92

Selection table

No. of poles	rated current I_n , A	order details type code	order code	bbn 40 12233 EAN	price 1 piece €	price- group	w'ght 1 pc. kg	pack. unit pc.	
3	0.2	S 283 UC-K 0,2	GH S283 0164 R0087	73810 6	5	5	0.390	3/12	
	0.3	S 283 UC-K 0,3	GH S283 0164 R0117	73820 5					
	0.5	S 283 UC-K 0,5	GH S283 0164 R0157	73830 4					
	0.75	S 283 UC-K 0,75	GH S283 0164 R0187	73840 3					
	1	S 283 UC-K 1	GH S283 0164 R0217	73850 2					
	1.6	S 283 UC-K 1,6	GH S283 0164 R0257	73860 1					
	2	S 283 UC-K 2	GH S283 0164 R0277	73870 0					
	3	S 283 UC-K 3	GH S283 0164 R0317	73880 9					
	4	S 283 UC-K 4	GH S283 0164 R0337	73890 8					
	6	S 283 UC-K 6	GH S283 0164 R0377	73900 4					
	8	S 283 UC-K 8	GH S283 0164 R0407	73910 3					
	10	S 283 UC-K 10	GH S283 0164 R0427	73920 2					
	16	S 283 UC-K 16	GH S283 0164 R0467	73930 1					
	20	S 283 UC-K 20	GH S283 0164 R0487	73940 0					
	25	S 283 UC-K 25	GH S283 0164 R0517	73950 9					
	U_{Bmax} 440 V~	32	S 283 UC-K 32	GH S283 0164 R0537					73960 8
	440 V... ①	40	S 283 UC-K 40	GH S283 0164 R0557					73970 7
	50	S 283 UC-K 50	GH S283 0164 R0577	73980 6					
	63	S 283 UC-K 63	GH S283 0164 R0607	73990 5					
4	0.2	S 284 UC-K 0,2	GH S284 0164 R0087	74160 1	5	5	0.520	2	
	0.3	S 284 UC-K 0,3	GH S284 0164 R0117	74170 0					
	0.5	S 284 UC-K 0,5	GH S284 0164 R0157	74180 9					
	0.75	S 284 UC-K 0,75	GH S284 0164 R0187	74190 8					
	1	S 284 UC-K 1	GH S284 0164 R0217	74200 4					
	1.6	S 284 UC-K 1,6	GH S284 0164 R0257	74210 3					
	2	S 284 UC-K 2	GH S284 0164 R0277	74220 2					
	3	S 284 UC-K 3	GH S284 0164 R0317	74230 1					
	4	S 284 UC-K 4	GH S284 0164 R0337	74240 0					
	6	S 284 UC-K 6	GH S284 0164 R0377	74250 9					
	8	S 284 UC-K 8	GH S284 0164 R0407	74260 8					
	10	S 284 UC-K 10	GH S284 0164 R0427	74270 7					
	16	S 284 UC-K 16	GH S284 0164 R0467	74280 6					
	20	S 284 UC-K 20	GH S284 0164 R0487	74300 1					
	25	S 284 UC-K 25	GH S284 0164 R0517	74310 0					
	U_{Bmax} 440 V~	32	S 284 UC-K 32	GH S284 0164 R0537					74320 9
	440 V... ①	40	S 284 UC-K 40	GH S284 0164 R0557					74330 8
	50	S 284 UC-K 50	GH S284 0164 R0577	74340 7					
	63	S 284 UC-K 63	GH S284 0164 R0607	74350 6					

① U_{Bmax} 440 V... with 2 poles connected in series

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acc. to DIN VDE 0660 Part 101 for the protection of control circuits, voltage transformer circuits, semiconductor protection in the case of selective assignment and lines



SK 0325 B 91



SK 0326 B 91



SK 0186 B 92



SK 0187 B 92

Selection table

No. of poles	rated current I _n A	order details		bbn 40 12233 EAN	price 1 piece €	price-group	w'ght 1 pc. kg	pack. unit pc.
		type code	order code					
1	0.5	S 281 UC-Z 0,5	GH S281 0164 R0158	63860 4		5	0.130	10/40
	1	S 281 UC-Z 1	GH S281 0164 R0218	63870 3				
	1.6	S 281 UC-Z 1,6	GH S281 0164 R0258	63880 2				
	2	S 281 UC-Z 2	GH S281 0164 R0278	63890 1				
	3	S 281 UC-Z 3	GH S281 0164 R0318	63900 7				
	4	S 281 UC-Z 4	GH S281 0164 R0338	63910 6				
	6	S 281 UC-Z 6	GH S281 0164 R0378	63920 5				
	8	S 281 UC-Z 8	GH S281 0164 R0408	63940 3				
	10	S 281 UC-Z 10	GH S281 0164 R0428	63950 2				
	16	S 281 UC-Z 16	GH S281 0164 R0468	63960 1				
	20	S 281 UC-Z 20	GH S281 0164 R0488	63970 0				
	25	S 281 UC-Z 25	GH S281 0164 R0518	63980 9				
	32	S 281 UC-Z 32	GH S281 0164 R0538	63990 8				
	40	S 281 UC-Z 40	GH S281 0164 R0558	64000 3				
	50	S 281 UC-Z 50	GH S281 0164 R0578	64010 2				
	63	S 281 UC-Z 63	GH S281 0164 R0608	64020 1				
2	0.5	S 282 UC-Z 0,5	GH S282 0164 R0158	64030 0		5	0.260	5/20
	1	S 282 UC-Z 1	GH S282 0164 R0218	64040 9				
	1.6	S 282 UC-Z 1,6	GH S282 0164 R0258	64230 4				
	2	S 282 UC-Z 2	GH S282 0164 R0278	64100 0				
	3	S 282 UC-Z 3	GH S282 0164 R0318	64110 9				
	4	S 282 UC-Z 4	GH S282 0164 R0338	64120 8				
	6	S 282 UC-Z 6	GH S282 0164 R0378	64130 7				
	8	S 282 UC-Z 8	GH S282 0164 R0408	64140 6				
	10	S 282 UC-Z 10	GH S282 0164 R0428	64150 5				
	16	S 282 UC-Z 16	GH S282 0164 R0468	64160 4				
	20	S 282 UC-Z 20	GH S282 0164 R0488	64170 3				
	25	S 282 UC-Z 25	GH S282 0164 R0518	64180 2				
	32	S 282 UC-Z 32	GH S282 0164 R0538	64190 1				
	40	S 282 UC-Z 40	GH S282 0164 R0558	64200 7				
	50	S 282 UC-Z 50	GH S282 0164 R0578	64210 6				
	63	S 282 UC-Z 63	GH S282 0164 R0608	64220 5				
3	0.5	S 283 UC-Z 0,5	GH S283 0164 R0158	74000 0		5	0.390	3/12
	1	S 283 UC-Z 1	GH S283 0164 R0218	74010 9				
	1.6	S 283 UC-Z 1,6	GH S283 0164 R0258	74020 8				
	2	S 283 UC-Z 2	GH S283 0164 R0278	74030 7				
	3	S 283 UC-Z 3	GH S283 0164 R0318	74040 6				
	4	S 283 UC-Z 4	GH S283 0164 R0338	74050 5				
	6	S 283 UC-Z 6	GH S283 0164 R0378	74060 4				
	8	S 283 UC-Z 8	GH S283 0164 R0408	74070 3				
	10	S 283 UC-Z 10	GH S283 0164 R0428	74080 2				
	16	S 283 UC-Z 16	GH S283 0164 R0468	74090 1				
	20	S 283 UC-Z 20	GH S283 0164 R0488	74100 7				
	25	S 283 UC-Z 25	GH S283 0164 R0518	74110 6				
	32	S 283 UC-Z 32	GH S283 0164 R0538	74120 5				
	40	S 283 UC-Z 40	GH S283 0164 R0558	74130 4				
	50	S 283 UC-Z 50	GH S283 0164 R0578	74140 3				
	63	S 283 UC-Z 63	GH S283 0164 R0608	74150 2				
4	0.5	S 284 UC-Z 0,5	GH S284 0164 R0158	74360 5		5	0.520	2
	1	S 284 UC-Z 1	GH S284 0164 R0218	74370 4				
	1.6	S 284 UC-Z 1,6	GH S284 0164 R0258	74380 3				
	2	S 284 UC-Z 2	GH S284 0164 R0278	74390 2				
	3	S 284 UC-Z 3	GH S284 0164 R0318	74400 8				
	4	S 284 UC-Z 4	GH S284 0164 R0338	74410 7				
	6	S 284 UC-Z 6	GH S284 0164 R0378	74420 6				
	8	S 284 UC-Z 8	GH S284 0164 R0408	74430 5				
	10	S 284 UC-Z 10	GH S284 0164 R0428	74440 4				
	16	S 284 UC-Z 16	GH S284 0164 R0468	74450 3				
	20	S 284 UC-Z 20	GH S284 0164 R0488	74460 2				
	25	S 284 UC-Z 25	GH S284 0164 R0518	74470 1				
	32	S 284 UC-Z 32	GH S284 0164 R0538	74480 0				
	40	S 284 UC-Z 40	GH S284 0164 R0558	74490 9				
	50	S 284 UC-Z 50	GH S284 0164 R0578	74500 5				
	63	S 284 UC-Z 63	GH S284 0164 R0608	74510 4				

① U_{Bmax} 440 V... with two poles connected in series

Supplementary devices for Miniature circuit-breakers S 280 UC series



S 2-H 11

SK 0328 B 91



S 2-H 11 X

SK 0329 B 91



S 2-S/H

SK 0332 B 91



S 2-A ...

SK 0330 B 91



S 2-NT

SK 0331 B 91

Selection table

order details		bbn	price	price-	w'ght	pack.
type code	order code	40 12233 EAN	1 piece €	group	1 pc. kg	unit pc.

Auxiliary contact

1 NO + 1 NC	S2-H11	GH S270 1916 R0001	61500 1		5	0.04	1
2 NO	S2-H20	GH S270 1916 R0002	61510 0		5	0.04	1
2 NC	S2-H02	GH S270 1916 R0003	61520 9		5	0.04	1

Auxiliary contact, plug-in connection 2 x (2.8 x 0.8)

1 NO + 1 NC	S2-H11 X	GH S270 1917 R0001	61530 8		5	0.04	1
2 NO	S2-H20 X	GH S270 1917 R0002	61540 7		5	0.04	1
2 NC	S2-H02 X	GH S270 1917 R0003	61550 6		5	0.04	1

Auxiliary contact

2 NO + 1 NC	S2-H21	GH S270 1936 R0001	01370 3 ①		5	0.05	1
1 NO + 2 NC	S2-H12	GH S270 1936 R0002	01380 2 ①		5	0.05	1
3 S	S2-H30	GH S270 1936 R0003	01390 1 ①		5	0.05	1
3 NC	S2-H03	GH S270 1936 R0004	01400 7 ①		5	0.05	1

Auxiliary contact, low power

2 NO + 1 NC	S2-H21 kL	GH S270 1937 R0001	12810 0 ①		5	0.05	1
1 NO + 2 NC	S2-H12 kL	GH S270 1937 R0002	12820 9 ①		5	0.05	1
3 S	S2-H30 kL	GH S270 1937 R0003	12830 8 ①		5	0.05	1
3 NC	S2-H03 kL	GH S270 1937 R0004	12840 7 ①		5	0.05	1
1 NO	S2-H10 kL	GH S270 1937 R0005	33140 1 ①		5	0.05	1

Plug in base for S 280, max. I_n = 32 A

	S2-EST	GH S280 1925 R0001	12770 7 ①		5	0.07	1
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Signal contact

	S2-S	GH S280 1902 R0008	42920 2		5	0.05	1
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Signal contact/auxiliary contact

screw-fixing	S2-S/H	GH S280 1901 R0008	42900 4		5	0.05	1
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Undervoltage release

12 V DC	S2-UA 12	GH S280 1911 R0001	42970 7		5	0.09	1
24 V AC/DC	S2-UA 24	GH S280 1911 R0002	42980 6		5	0.09	1
48 V AC/DC	S2-UA 48	GH S280 1911 R0003	79360 0		5	0.09	1
110 V AC/DC	S2-UA 110	GH S280 1911 R0004	43000 0		5	0.09	1
220 V AC/DC	S2-UA 220	GH S280 1911 R0005	43010 9		5	0.09	1
380 V AC	S2-UA 380	GH S280 1911 R0006	79370 9		5	0.09	1

Shunt trip

12... 60 V AC/DC	S2-A1	GH S280 1909 R0001	42930 1		5	0.145	1
100...415 V AC and 110...250 V AC/DC	S2-A2	GH S280 1909 R0002	42940 0		5	0.145	1

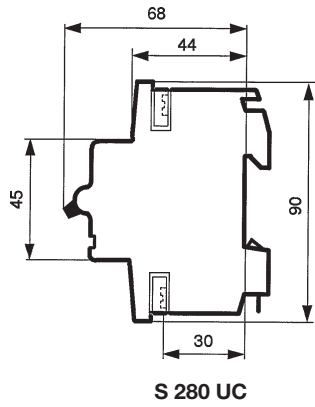
Neutral disconnecter

	S2-NT	GH S270 1908 R0001	36610 1		5	0.06	1
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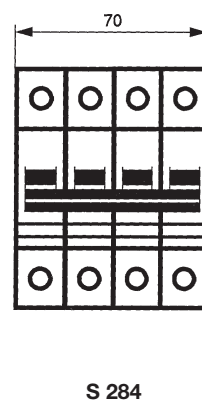
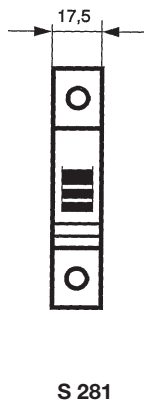
① bbn-No.: 40 16779

Miniature circuit-breakers S 280 UC series Dimensions

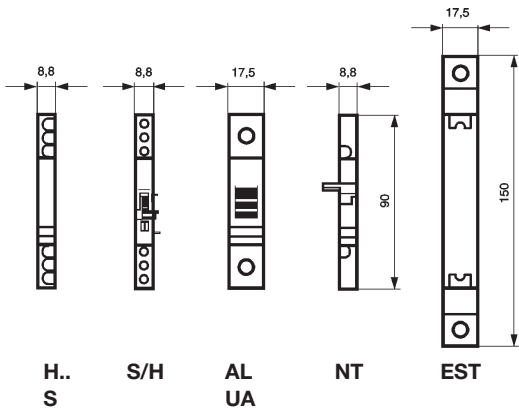
Dimensions in mm



SK 0017 Z 94



SK 0025 Z 95



SK 0109 Z 97



ABB STOTZ-KONTAKT GmbH

P.O. Box 10 16 80, 69006 Heidelberg, Germany
Eppelheimer Straße 82, 69123 Heidelberg, Germany
Telephone +49-(0) 62 21-7 01-0
Telefax +49-(0) 62 21-7 01-723
www.abb.de/stotz-kontakt