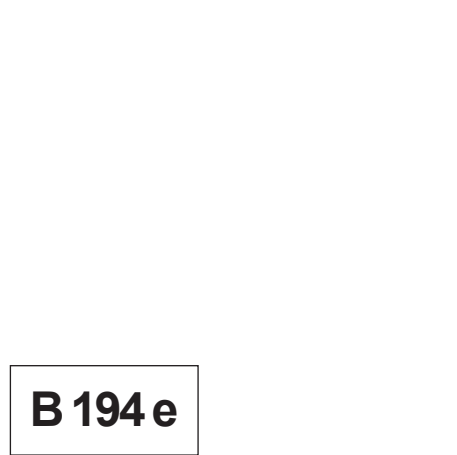
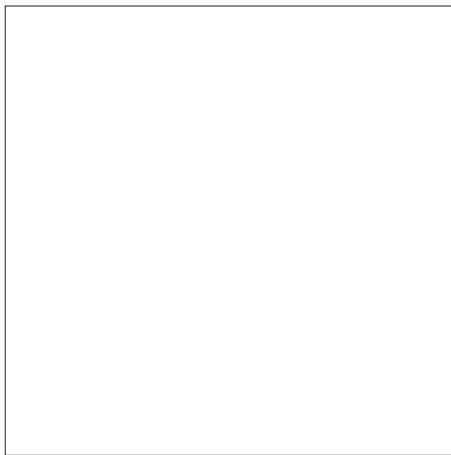
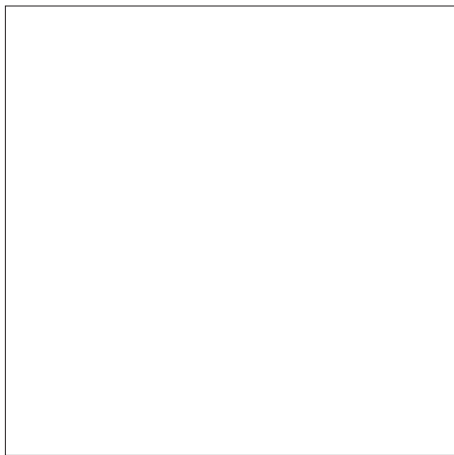
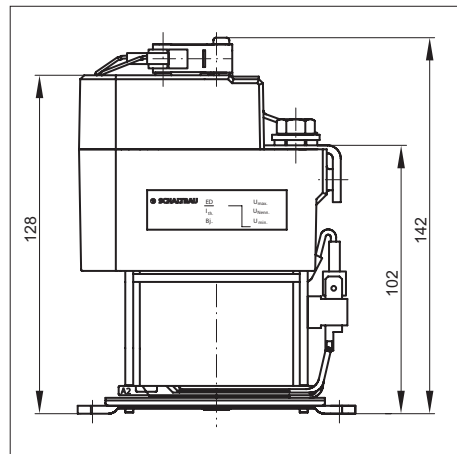
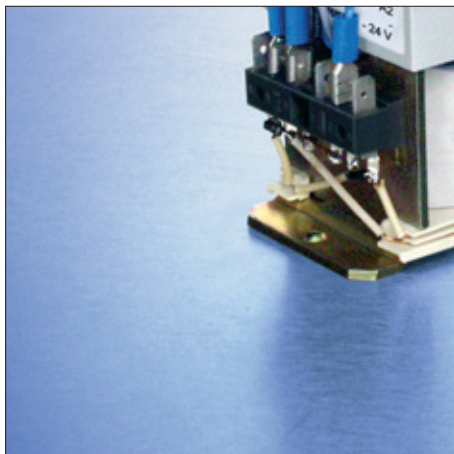
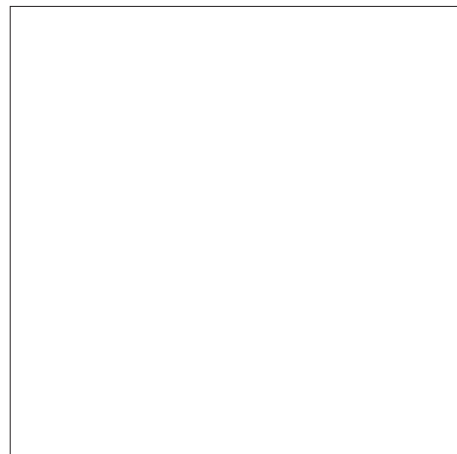
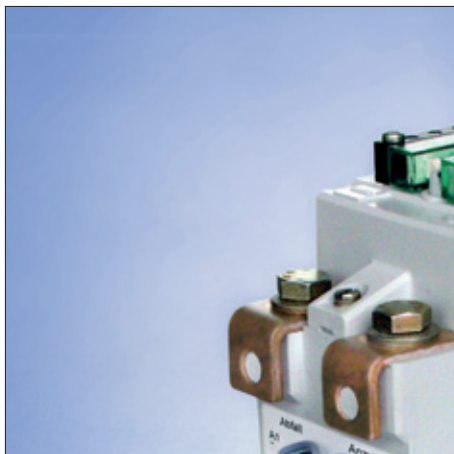


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**Bistable  
Single Pole  
NO Contactor  
Series C195 /S xxBD**



## Bistable single pole NO contactor, C195 S/ xxBD series

Our bistable NO contactors are designed after the well-known and very successful C195 series.

The change between the two stable states of contact, namely "main contact opened" and "main contact closed", is accomplished by a short switching impulse of only 50 ms duration. Since both rest and final position are stable, no further voltage is needed to hold the contacts in position. The advantage of this concept: No energy

consumption during operation. This allows for saving a lot of energy compared with common NO contactors used in applications where the closed-circuit position is to be maintained for a long period of time.

That is why our bistable C195 series contactors are ideally suited for deep discharge protection of batteries in uninterruptible power supplies (UPS) - to name but an example.

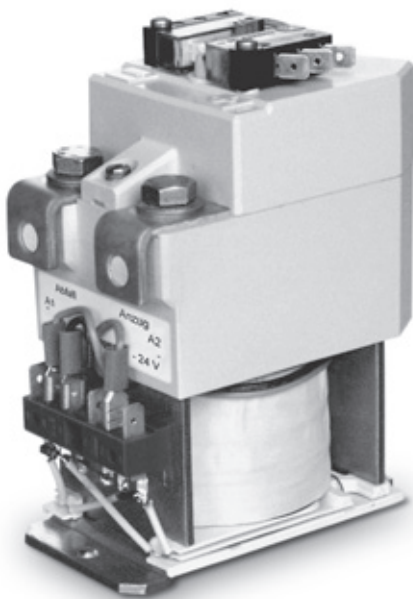
### Features

- No power consumption in open and closed position
- Conventional thermal current  $I_{th}$  250 A DC
- Special designs up to 1,000 V DC
- Various coil voltages available

### Applications

- Deep discharge protection of batteries in uninterruptible power supplies (UPS)
- Main contactor in photovoltaic systems
- Main contactor in fuel cell systems

## Technical Data



Bistable single pole NO contactor C195 S/ 24BD-U1

Technical Data	
Rated insulation voltage $U_i$	1600 V
Pollution degree	PD3
Overvoltage category	OV3
Standards	IEC 60077-1; EN 50124; VDE 0660; IEC 60947-1
Conventional thermal current $I_{th}$ at 70°C ambient temperature	250 A for wire gauge AWG 2/0 280 A for wire gauge AWG 3/0
Dynamic limiting current	2300 A
Making capacity:	
• Resistive load	1800 A
• Inductive load	2300 A, at time constant > 5 ms
Maximum breaking capacity	See table "Maximum breaking capacity"
Coil voltage $U_s$	24, 48, 60 V DC
Extended tolerance	0.7 ... 1.25 x $U_s$
Coil power consumption:	
• In open and closed position	None
• During switching, duration	Approx. 95 W for 50 ms
Surge suppression	Diode
Coil terminal	Flat tab 6.3 x 0.8 DIN 46244
Main contact terminal	M8 screw, tightening torque 12 Nm max.
Contact material	AgCdO (at 2006 AgSnO2)
Mechanical life	Approx. 100,000 operating cycles
Shock resistance	5 g / 20 ms
Vibration resistance	2 g at 5 ... 150 Hz, any direction
Auxiliary contact	1 SPDT snap switch S870, $I_{th}$ =10 A *
Mounting position	Any (except upside-down)
Weight	1.6 kg
Ambient temperature range	-25°C ... +70°C
Storage temperature range	-40°C ... +85°C

\* see also catalogue D70e

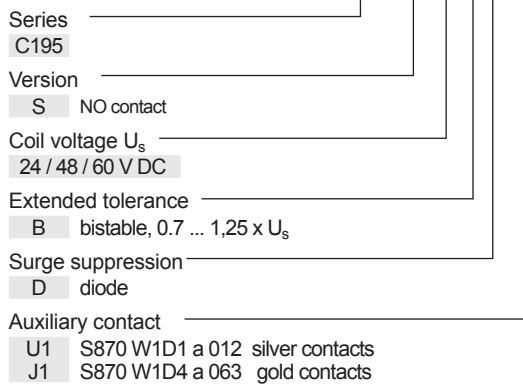
## Maximum breaking capacity

Maximum breaking capacity	Clearance (see dimension diagram)
220 V DC, L/R = 0 msec: 2000 A 220 V DC, L/R = 15 msec: 1300 A	200 mm (clearance @)
96 V DC, L/R = 0 msec: 2300 A 96 V DC, L/R = 15 msec: 2000 A	150 mm (clearance @)
24 V DC, L/R = 0 msec: 2300 A 24 V DC, L/R = 15 msec: 2300 A	100 mm (clearance @)

## Ordering code

Example:

**C195 S/ 24BD-U1**



### Preferred types:

- C195 S/ 24BD-U1
- C195 S/ 48BD-U1
- C195 S/ 60BD-U1
- C195 S/ 60BD-J1

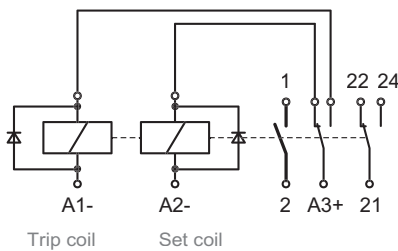
### Special designs

If you need a special design, do not hesitate to contact us. You might find your required contactor among our **special designs**. If not, we also supply designs **to customer requirements**. Please note that in this case minimum order quantities apply.

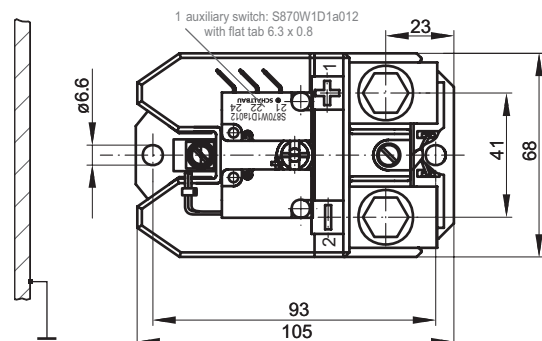
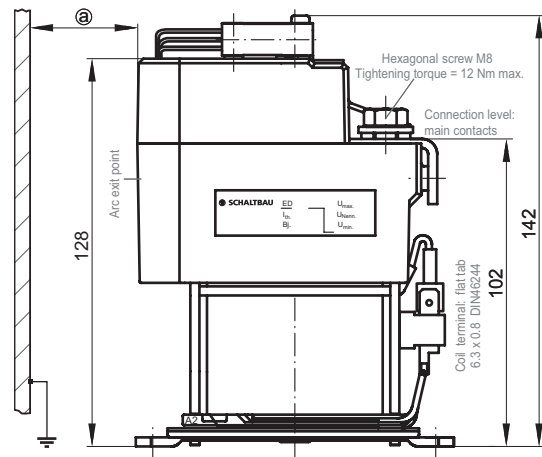
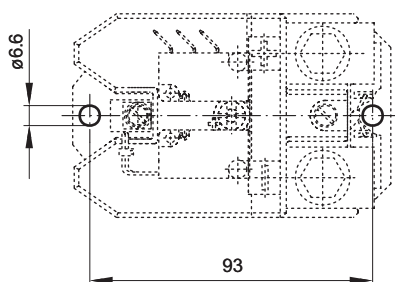
## Circuit diagram, Mounting template

## Dimension diagram

Circuit diagram:



Mounting template:



@ Clearance between arc exit point and conductive parts: See table "Maximum breaking capacity"

## Electrical Components and Systems for Transportation and Industrial Applications

<b>Connectors</b>	<ul style="list-style-type: none"> <li>● Connectors manufactured to industry standards</li> <li>● Connectors to suit the special requirements of communications engineering (MIL connectors)</li> <li>● Charging connectors for battery-powered machines and systems</li> <li>● Connectors for railway engineering, including UIC connectors</li> <li>● Special connectors to suit customer requirements</li> </ul>
<b>Snap-action switches</b>	<ul style="list-style-type: none"> <li>● Snap-action switches with positive opening operation</li> <li>● Snap-action switches with self-cleaning contacts</li> <li>● Enabling switches</li> <li>● Special switches to suit customer requirements</li> </ul>
<b>Contactors</b>	<ul style="list-style-type: none"> <li>● Single and multi-pole DC contactors</li> <li>● High-voltage AC/DC contactors</li> <li>● Contactors for battery powered vehicles and power supplies</li> <li>● Contactors for railway applications</li> <li>● Terminal bolts and fuse holders</li> <li>● DC emergency stop switches</li> <li>● Special contactors to suit customer requirements</li> </ul>
<b>Control devices</b>	<ul style="list-style-type: none"> <li>● Master controllers and reversers for railway applications</li> <li>● Toggle switch devices</li> <li>● Handles and foot switches for railway applications (dead-man equipment)</li> <li>● Switching elements with high breaking capacity</li> <li>● Emergency brake handles</li> <li>● Signal devices</li> </ul>
<b>Transportation</b>	<ul style="list-style-type: none"> <li>● Power supplies for passenger coaches (electric equipment)</li> <li>● Battery chargers for locomotives and passenger coaches</li> <li>● High-voltage equipment for single and multi-phase operation</li> <li>● Heating devices and heating controls</li> <li>● Design and engineering services for high-voltage equipment</li> <li>● Special equipment to suit customer requirements</li> </ul>

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We reserve the right to make technical alterations without prior notice.  
For updated product information visit [www.schaltbau-gmbh.de](http://www.schaltbau-gmbh.de).  
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