



1 pole AC and bi-directional DC NO contactors for 150 A, 300 A and 500 A

C310 - 1 pole AC and bi-directional DC NO contactors

Compact single-pole NO contactors for AC and DC up to 1,500 volt rated insulation voltage. Making current up to 2,500 amps; conventional thermal current up to 500 amps; short-time current up to 3,000 amps.

The bi-directional DC contactors switch high powers in a small space. With a making capacity of up to 2,500 amps, the compact switchgear is suitable for applications with high inrush current or high capacities. All versions can continuously conduct up to 500 amps. In the event of a short circuit, 3,000 amps, can even flow for one second without the contacts welding. The contactor therefore maintains its full function in order to disconnect high power ranges if necessary up to 500 amps and up to 1,500 volts – irrespective of the current direction. This full bi-directionality is important for systems with a charging and discharging process, such as in battery networks or electric vehicles. Other typical application areas are the DC circuit in inverters, combiner boxes in photovoltaic systems or the management of battery storage systems.

Features

V2X-ready for bi-directional charging stations

Bi-directional contactors are required for the perfect interaction between electric vehicles and charging stations. These enable electric vehicles not only to charge, but also to feed electricity into the grid or use it for the domestic power supply.

Compact dimensions - high rated insulation voltage U_i up to 1,500 volts

Small dimensions - great performance! Nevertheless, all the air gaps in the contact area have been generously dimensioned. The rated insulation voltage is 1,500 volts. The arc chamber of the C310 is made of plastic. This is efficient and saves weight.

High making capacity Icm of up to 2,500 amps

The C310 can switch on a current of up to 2,500 amps (monostable design in a horizontal installation position; L/R = 0 ms). A PWM controller regulates the coil current and ensures lowbounce switch on as well as a low holding power. High contact forces and optimised silver contacts both contribute to the excellent making capacity.

High thermal continuous current I_{th} of up to 500 amps

All versions of the C310 can continuously carry up to 500 amps. (Cross-section of the connections: 185 mm², maximum ambient temperature: 85° C; terminal heating: +65 Kelvin). The value is achieved through very high contact forces.

High short-time withstand current rating $I_{\rm cw}$ of up to 3,000 amps

The C310 can carry a current of up to 3,000 amps for one second without the contacts welding. This is enough time for the short circuit fuse to trip. The short-time withstand current rating is based on high contact forces and optimised silver contacts.

Full bi-directionality - reliable disconnection of high performances

All versions of the C310 can reliably disconnect high currents and voltages, irrespective of the current direction. These properties are achieved in the A and K versions through the special arrangement of blowout magnets and arcing chambers, high contact forces and generously dimensioned clearances in the contact aera.

Auxiliary switch with mirror contact function

Series C310 contactors are equipped with auxiliary switches with mirror contact function in accordance with DIN EN IEC 60947-4-1, annex F. Mirror contacts are required for the feedback circuits in safety controls. Mirror contacts ensure that the NC contact of the auxiliary contact is not closed at the same time as the NO main contact.

Standards

Contactors meet requirements for industrial applications to:

IEC 60947-4-1

Low-voltage switchgear and controlgear - Part 4-1: Contactors and motor starters - Electromechanical contactors and motor starters

ISO 16750-3

Road vehicles - Environmental conditions and testing for electrical and electronic equipment - Part 3: Mechanical loads

UL 60947-4-1

Low-Voltage Switchgear and Controlgear - Part 4-1: Contactors and Motor-Starters - Electromechanical Contactors and Motor-Starters.

GB/T 14048.4

Low-Voltage Switchgear and Controlgear – Part 4-1: Contactors and Motor-Starters – Electromechanical Contactors and Motor-Starters.

Reliable, robust and economical

Contactors of the C310 series are designed for continuous currents of 150 amps, 300 amps and 500 amps. The switchgear has both high making and breaking capacities, and a high short-time withstand current. This ensures high operational safety. An integrated electronic coil control ensures a constant and reliable switching behaviour independent of the ambient temperature. In addition, the energy consumption and associated heat development of the monostable design is noticeably reduced when switched on. Inherent to its design, the bistable version consumes no power in either end positions.

Dependent on the application, high requirements can be placed on electromechanical components. The new DC contactors are highly resistant to shock and vibration loads and meet the high requirements of ISO 16750.

Ordering key

C310A/500 2 Series, contact configuration C310 1-pole NO contactor, AC and DC bi-directional	Auxiliary switches***, number / type
VersionK $U_e = 1.500 \text{ VDC}$, large arc chamberA $U_e = 1.000 \text{ VDC}$, small arc chamberS $U_e = 60 \text{ VDC}$, w/o arc chamberConv. thermal current150 $I_{th} = 150 \text{ A}$ 300 $I_{th} = 300 \text{ A}$ 500 $I_{th} = 500 \text{ A}$	V1 S880 W1R6 k / 1x V2 S880 W1R6 k / 2x Coil design I Monostable with integrated PWM module B Bistable without PWM module
Coil voltage Monostable Bistable 24 Us = 12 24 V DC* Us = 24 V DC 48 Us = 48 V DC** Us = 48 V DC * Operating range 9,5 36 V DC ** Operating range 33,6 60 V DC *** With mirror contact function according to IEC 60947-4-1, annex F Accessories C310-TP C310-TP Deflection shield, C310A/ only	 Note: Presented in this catalogue are only stock items which can be supplied in short delivery time. For some variants minimum quantities apply. Please do not hesitate to ask for the conditions. Special variants: If you need a special variant of the contactor, please do not hesitate to contact us. Maybe the type of contactor you are looking for is among our many special designs. If not, we can also supply customized designs. In this case, however, minimum order quantities apply.

Applications

Thanks to many years of experience and competence developing electromechanical switchgear and the mastering DC arcs, Schaltbau has developed an innovative solution with new DC contactors that significantly simplifies applications with DC switching technology. Since the C310 series safely controls both current directions, the contactors are ideal for all applications involving energy recovery.

A typical example here is energy storage, where batteries are

Photovoltaics

- DC switching in central inverters
- Electrical cabinet (combiner boxes)
- Home energy storage systems

Battery energy storage systems

- Grid stabilization and battery energy storages
- Regenerative systems in industrial plants
- Battery management systems
- Home energy storages

repeatedly charged and discharged. Other application areas for the C310 series are regenerative systems, DC charging stations and photovoltaic systems. In battery powered and hybrid vehicles, the devices can be used directly as the main contactor in the battery disconnect unit (BDU). This reliably ensures the disconnection of both poles from the vehicle in the event of a short circuit.

E-mobility

- Electrical vehicles, hybrid vehicles and trolley busses
- DC charging station
- Battery test systems

C310 - Version «K» - Circuit diagram, dimension diagram



C310K/ - 1 pole NO contactor AC or bi-directional DC $\,$

- Large arc chamber for significantly higher breaking capacity
- Rated insulation voltage U_i up to 1,500 V
- Rated short-circuit making capacity I_{cm} •
- up to 2,500 A Conventional free air thermal current I_{th} up to 500 A
- Rated short-time withstand current I_{cw} up to 3,000 A

Circuit diagram

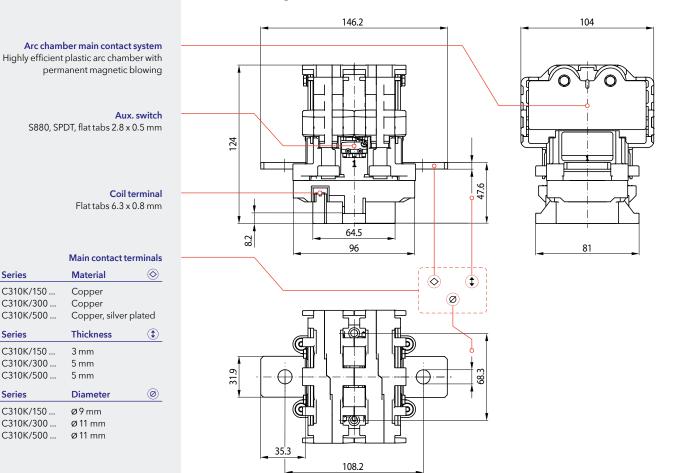
	Monostable *	Bistable **
C310K/ Main contacts 1x NO Number of auxiliary switches none	$ \overset{A1+}{\underset{A2-}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{$	$ \begin{array}{c} A_1 + / - \\ \square \\ \downarrow \\ A_2 + / - \end{array} - \bigvee_2^1 $
C310K/ Main contacts 1x NO Number of auxiliary switches*** 1x SPDT S880 W1R6 k	$\begin{array}{c} A1 + \\ \hline \\ - \\ A2 - \\ A2 - \\ \end{array} \begin{array}{c} 1 \\ - \\ - \\ - \\ - \\ 1 \\ - \\ - \\ - \\ - \\$	$\begin{array}{c} A1 + /- \\ \square \\ A2 + /- \end{array} - \begin{array}{c} 1 \\ - \\ - \\ 1 \\ - \\ - \\ - \\ - \\ - \\ - \\$
C310K/ Main contacts 1x NO Number of auxiliary switches*** 2x SPDT S880 W1R6 k	$\begin{array}{c} A1 + & 1 & 12 & 14 & 22 & 24 \\ \hline - & - & 1 & - & - & 1 & - & - & 1 \\ A2 - & 2 & 11 & 21 \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

sion integrated,additiona **

Switching by reversing the polarity, voltage pulse 0.5 sec max.

*** Auxiliary switches with mirror contact function according to EN 60947-4-1, annex F

Dimension diagram C310K/...



Series

Series C310K/150 ...

Series

C310K/150 ...

C310K/300 ...

C310K/500 ...

C310K/300 ...

C310K/500 ...

C310K/150 ...

C310K/300 ...

C310K/500 ...

Specifications - Version «K» for $U_e = 1,500 \text{ V DC}$

Series		C310K/150	C310K/300	C310K/500
Type of voltage		DC, bi-directional / AC		
Main contacts, configuration		1x NO		
lectrical data according to IEC/UL 60947-4-1, GE	3/T 14048.4			
Rated operational voltage U _e		1,000 V @ PD3 / 1,500		
Rated insulation voltage U _i		1,000 V @ PD3 / 1,500 10 kV	V@PD2	
Rated impulse withstand voltage U _{imp} Pollution degree / Overvoltage category		PD2, PD3: see U _e and U		
Conventional free air thermal current I _{th}	$T_a = 40^\circ C$ (cross section)	PD2, PD3: see 0 _e and 0	i / UV3	500 A (2x 150 mm²)
	$T_a = 70^\circ C$ (cross section)	150 A (50 mm²)	300 A (185 mm²)	400 A (240 mm ²)
Power dissipation per pole I _{th} @ 40 °C	typ.	3 W	11 W	30 W
Pole impedance Jtilization category AC-1* U _e = 750 V	typ.	120 μΩ	120 μΩ	120 μΩ
Rated operational current I _e Jtilization category DC-1* U _e = 750 V	IEC 60947-4-1	60 A	60 A	60 A
Jtilization category DC-1* / DC general use $U_e = 6$	EC 60947-4-1, GB/T 14048.4 00 V	60 A	60 A	60 A
Rated operational current l _e	UL 60947-4-1	50 A	50 A	50 A
requency of operation (operations per hour) I_e	AC-1 & DC-1	360 h ⁻¹	360 h-1	360 h ⁻¹
Rated short-time withstand current I _{cw}	t = 1 s	3,000 A		
hort circuit protection device for contactors (w/o J _e = 900 V DC, I _{prosp} = 10 kA, coord. type "2", fuse:		200 A	315 A	2x 250 A (parallel)
Additional electrical ratings of main circuit				
Conventional free air thermal current I _{th}	$T_a = 85 ^{\circ}C \text{ (cross section)}$	200 A (50 mm²)	350 A (120 mm²)	500 A (185 mm²)
Power discipation parada	Terminal heating	45 K	45 K	65 K
Power dissipation per pole Pole impedance	I _{th} @40 °C, typ.	5 W 125 μΩ	15 W 120 μΩ	30 W 120 μΩ
Rated short-circuit making capacity I _{cm} (L/R = 0 ms	typ.		tal: 2,500 A, vertical: 2,000 A	120 μ32
For mono- or bistable drive (depending on mount		bistable: horizontal: 7		
	nH, other values on request			
Single contact	$U_e = 1.500 \text{ V} / I_e = 300 \text{ A}$	10 operations		
	$U_e = 1.000 \text{ V} / I_e = 500 \text{ A}$	20 operations		
	$U_e = 900 V / I_e = 700 A$ $U_e = 750 V / I_e = 1.000 A$	25 operations 10 operations		
	$U_e = 500 \text{ V} / I_e = 1.500 \text{ A}$	15 operations		
Double contact circuit	$U_e = 1.500 \text{ V} / I_e = 1.000 \text{ A}$	10 operations		
	$U_e = 1.000 \text{ V} / I_e = 1.500 \text{ A}$	15 operations		
Electrical endurance		6,000 operations @ DC	C(L/R = 1 ms), AC (cosφ = 0.8): 7	750 V / 60 A
Main contacts				
Contact material		AgSnO ₂	AgSnO ₂	AgSnO ₂
erminals		M8	M10	M10
orque		4.8 6 Nm	8 10 Nm	8 10 Nm
Auxiliary contacts		0.00004457		
Jumber, configuration / Contact material		2x S880 W1R6 k max. /		
Making / Breaking capacity \$880		AC-15: 230 V AC / 1.0	A DC-13: 60 V DC / 0.5 A	
Ainimum voltage / Current		5V / 5mA	. О. Г	
erminals Acceptic drive (menostable)		Flat quick connect 2.8 ×	(U.5 mm	
Magnetic drive (monostable) Rated control supply voltage U _s (Operating range)	12 24 V DC (9.5 36	VDC) / 48 VDC (33.6 60 V	
Pollution degree / Overvoltage category)	PD3 / OV2	VDC) / 40 VDC (33.0 00 V	
Coil power dissipation, max. (T _a = 20 °C / U _s) Pull-In po	wer (0.2 s) / Holding power	50 W (24 V) / 2.6 W		
Frequency of operation (operations per hour, no lo	01	3,600 h ⁻¹ / 1,800 h ⁻¹		
Pull-in time ($T_a = 20 \text{ °C} / U_s$) / Drop-off time ($T_a = 2$	· · · · · · · · · · · · · · · · · · ·	33 ms / 25 ms		
Coil suppression (integrated) / Coil terminal	- <i>2, 25,</i> typ.	Suppressor diode / Fla	at tabs 6.3 x 0.8 mm	
Magnetic drive (bistable)				
Rated control supply voltage Us		24 / 48 V DC @ ON time	e 0.1 0.5 s max.	
Pollution degree / Overvoltage category		PD3 / OV2		
Coil tolerance		-30 % +25 % U _s		
		35 W		
• •		1,800 h ^{_1} / 1,800 h ^{_1}		
requency of operation (operations per hour, no lo		00 / 10		
requency of operation (operations per hour, no locull-in time ($T_a = 20 \text{ °C} / U_s$) / Drop-off time ($T_a = 2$ Coil suppression (integrated) / Coil terminal		20 ms / 13 ms Suppressor diode / Fla		
requency of operation (operations per hour, no lo cull-in time ($T_a = 20 \text{ °C} / U_s$) / Drop-off time ($T_a = 2$ Coil suppression (integrated) / Coil terminal Jounting position	0 °C / U _s) typ.	Suppressor diode / Fla vertical / horizontal (mo		
requency of operation (operations per hour, no lo Pull-in time ($T_a = 20 \text{ °C} / U_s$) / Drop-off time ($T_a = 2$ Coil suppression (integrated) / Coil terminal Mounting position Degree of protection		Suppressor diode / Fla	ounting see page 11)	
Frequency of operation (operations per hour, no lo Pull-in time ($T_a = 20 ^{\circ}$ C / U _s) / Drop-off time ($T_a = 2$ Coil suppression (integrated) / Coil terminal Mounting position Degree of protection	0 °C / U _s) typ. IEC 60529	Suppressor diode / Fla vertical / horizontal (mc IP00	ounting see page 11)	
Frequency of operation (operations per hour, no loc Pull-in time ($T_a = 20 ^{\circ}$ C / U _s) / Drop-off time ($T_a = 2$ Coil suppression (integrated) / Coil terminal Mounting position Degree of protection Mechanical endurance main cont	0 °C / U _s) typ. IEC 60529 acts monostable / bistable	Suppressor diode / Fla vertical / horizontal (mc IP00 2,000,000 operations 1,000,000 operations Category 1, Class B / C	ounting see page 11) / 100,000 operations Class C	
Shock / Vibration Temperatures Operating temperat	0 °C / U _s) typ. IEC 60529 acts monostable / bistable auxiliary contacts IEC 61373 / ISO 16750-3 sure / Storage temperature	Suppressor diode / Fla vertical / horizontal (mo IP00 2,000,000 operations / 1,000,000 operations Category 1, Class B / C -40 °C +85 °C / -40	vunting see page 11) / 100,000 operations Class C °C +85 °C	/e sea evel / < 75 % on an annual avera
requency of operation (operations per hour, no locall-in time ($T_a = 20 \ ^{\circ}C / U_s$) / Drop-off time ($T_a = 2$ Coil suppression (integrated) / Coil terminal Mounting position Degree of protection Mechanical endurance Shock / Vibration Temperatures Operating temperature	0 °C / U _s) typ. IEC 60529 acts monostable / bistable auxiliary contacts IEC 61373 / ISO 16750-3	Suppressor diode / Flavertical / horizontal (mc IP00 2,000,000 operations / 1,000,000 operations Category 1, Class B / C -40 °C +85 °C / -40 < 4,500 m @ U _i = 1,000 -40 °C +85 °C / -40	vunting see page 11) / 100,000 operations Class C °C +85 °C V/< 3,500 m @ U _i = 1,500 V abov	ve sea level / < 75 % on an annual avera
Frequency of operation (operations per hour, no loc Pull-in time ($T_a = 20 ^{\circ}$ C / U_s) / Drop-off time ($T_a = 2$ Coil suppression (integrated) / Coil terminal Mounting position Degree of protection Mechanical endurance Shock / Vibration Temperatures Operating temperation	0 °C / U _s) typ. IEC 60529 acts monostable / bistable auxiliary contacts IEC 61373 / ISO 16750-3 sure / Storage temperature	Suppressor diode / Flavertical / horizontal (mcc IP00 2,000,000 operations / 1,000,000 operations Category 1, Class B / C -40 °C +85 °C / -40 < 4,500 m @ U _i = 1,000 -40 °C	vunting see page 11) / 100,000 operations Class C °C +85 °C	/e sea level / < 75 % on an annual avera 1.35 kg



C310A/ - 1 pole NO contactor AC or bi-directional DC

- Rated insulation voltage U_i up to 1,500 V, version with small arc chamber
- Rated short-circuit making capacity $I_{\rm cm}$ up to 2,500 A
- Conventional free air thermal current _{Ith} up to 500 A
- Rated short-time withstand current I_{cw} up to 3,000 A

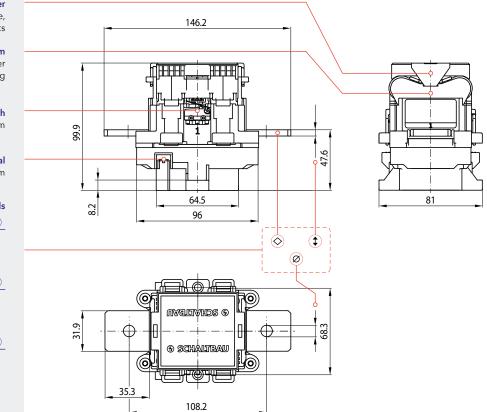
Circuit diagram

	Monostable *	Bistable **
C310A/ Main contacts 1x NO Number of auxiliary switches none	$ \begin{array}{c} A1 + & 1 \\ A1 + & 1 \\ A2 - & 2 \end{array} $	$ \begin{array}{c} A_1 + / - \\ \square \xrightarrow{1} \\ A_2 + / - \end{array} - \bigvee_2^1 $
C310A/ Main contacts 1x NO Number of auxiliary switches*** 1x SPDT S880 W1R6 k	$\begin{array}{c} A1 + & 1 & 12 & 14 \\ \hline - & - & - & - & - & - \\ A2 - & 2 & 11 \end{array}$	$\begin{array}{c} A1 + /- \\ \square \\ A2 + /- \end{array} \begin{array}{c} 1 \\ - \\ - \\ 1 \\ - \\ - \\ - \\ - \\ - \\ - \\$
C310A/ Main contacts 1x NO Number of auxiliary switches*** 2x SPDT S880 W1R6 k	$ \begin{array}{c} A1 + & 1 & 12 & 14 & 22 & 24 \\ \hline - & - & 1 & - & - & 1 & - & 1 & 1 & 1 & 1 & 1 \\ A2 - & 2 & 11 & 21 \end{array} $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

** Switching by reversing the polarity, voltage pulse 0.5 sec max.

*** Auxiliary switches with mirror contact function according to EN 60947-4-1, annex F

Dimension diagram C310A/...



Arc chamber cover Reduces the distance to live,

metallic or grounded parts

Arc chamber main contact system Highly efficient plastic arc chamber with permanent magnetic blowing

Aux. switch S880, SPDT, flat tabs 2.8 x 0.5 mm

Coil terminal Flat tabs 6.3 x 0.8 mm

Main contact terminals

Series	Material 📀
C310A/150 C310A/300	Copper Copper
C310A/500	Copper, silver plated
Series	Thickness (\$
C310A/150	3 mm
C310A/300	5 mm
C310A/500	5 mm
Series	Diameter Ø
C310A/150	ø9mm
C310A/300	Ø 11 mm
C310A/500	Ø 11 mm

Specifications - Version «A» for $U_e = 1,000 \text{ V DC}$

Series		C310A/150	C310A/300	C310A/500			
Type of voltage		DC, bi-directional / AC	, f ≤ 60 Hz				
Aain contacts, configuration	1x NO						
lectrical data according to IEC/UL 60947-4-1, GE	3/T 14048.4						
Rated operational voltage U _e		1,000 V					
Rated insulation voltage U _i		1,000 V @ PD3 / 1,500 \	/@PD2				
Rated impulse withstand voltage U _{imp}		10 kV					
Pollution degree / Overvoltage category		PD2, PD3: see U_e and U_i	/ OV3				
Conventional free air thermal current I_{th}	$T_a = 40^\circ C$ (cross section)	$1E0 \wedge (E0 mm^2)$	200 A (195 mm²)	$500 \text{ A} (2x 150 \text{ mm}^2)$			
Power dissipation per pala L. @ 40 °C	$T_a = 70^\circ C (cross section)$	150 A (50 mm²) 3.5 W	300 A (185 mm²) 11 W	400 A (240 mm²) 30 W			
Power dissipation per pole I _{th} @ 40 °C Pole impedance	typ.		120 μΩ				
Jtilization category AC-1* $U_e = 750 V$	typ.	150 μΩ	120 µsz	120 μΩ			
Rated operational current I_e Jtilization category DC-1* U_e = 750 V	IEC 60947-4-1	60 A	60 A	60 A			
0 ,	C 60947-4-1, GB/T 14048.4	60 A	60 A	60 A			
Jtilization category DC-1* / DC general use $U_e = 6$							
lated operational current l _e	UL 60947-4-1	50 A	50 A	50 A			
requency of operation (operations per hour) I_e	AC-1 & DC-1	360 h ⁻¹	360 h ⁻¹	360 h ⁻¹			
lated short-time withstand current I_{cw}	t = 1 s	3,000 A					
hort circuit protection device for contactors (w/o $J_e = 900 V DC$, $I_{prosp} = 10 kA$, coord. type "2", fuse:		200 A	315 A	2x 250 A (parallel)			
Additional electrical ratings of main circuit							
Conventional free air thermal current I _{th}	T _a = 85 °C (cross section) Terminal heating	200 A (50 mm²) 45 K	350 A (120 mm²) 45 K	500 A (185 mm²) 65 K			
ower dissipation per pole	I _{th} @ 40 °C, typ.	5 W	15 W	30 W			
ole impedance	typ.	125 μΩ	120 μΩ	120 μΩ			
Rated short-circuit making capacity I_{cm} (L/R = 0 ms		al: 2,500 A, vertical: 2,000 A					
for mono- or bistable drive (depending on mount Breaking capacity L _{max} = 0.25 r		bistable: horizontal: 75	60 A, vertical: 750 A				
Single contact $L_{max} = 0.23$	nH, other values on request $U_e = 1,500 \text{ V} / I_e = 50 \text{ A}$	60 operations					
	$U_e = 900 \text{ V} / I_e = 400 \text{ A}$	60 operations					
	$U_e = 750 \text{ V} / I_e = 500 \text{ A}$	60 operations					
Double contact circuit	$U_e = 500 \text{ V} / I_e = 800 \text{ A}$ $U_e = 1,500 \text{ V} / I_e = 500 \text{ A}$	60 operations 60 operations					
Double contact circuit	$U_e = 1,000 \text{ V} / I_e = 300 \text{ A}$ $U_e = 1,000 \text{ V} / I_e = 800 \text{ A}$	60 operations					
lectrical endurance			L/R = 1 ms), AC (cosφ = 0.8): 750	0V/60A			
Aain contacts							
Contact material		AgSnO ₂	AgSnO ₂	AgSnO ₂			
erminals		M8	M10	M10			
orque		4.8 6 Nm	8 10 Nm	8 10 Nm			
uxiliary contacts							
Iumber, configuration / Contact material		2x S880 W1R6 k max. /	Silver				
Naking / Breaking capacity S880		AC-15: 230 V AC / 1.0 A	DC-13: 60 V DC / 0.5 A				
/inimum voltage / Current		5 V / 5 mA					
erminals		Flat quick connect 2.8 x	0.5 mm				
Aagnetic drive (monostable)							
Rated control supply voltage U _s (Operating range)	12 24 V DC (9.5 36 \	/ DC) / 48 V DC (33.6 60 V DO	2)			
Pollution degree / Overvoltage category Coil power dissipation, max. ($T_a = 20 \text{ °C} / U_s$)		PD3 / OV2					
		F0 \A(/04 \/) / 0 / \A(
Pull-In por	wer (0.2 s) / Holding power	50 W (24 V) / 2.6 W		3,600 h ⁻¹ / 1,800 h ⁻¹			
•	÷.						
requency of operation (operations per hour, no lo Pull-in time ($T_a = 20 \text{ °C} / U_s$) / Drop-off time ($T_a = 2$	T _a = 20 °C / 70 °C	3,600 h ⁻¹ / 1,800 h ⁻¹ 33 ms / 25 ms					
requency of operation (operations per hour, no lo Pull-in time ($T_a = 20 \text{ °C} / U_s$) / Drop-off time ($T_a = 2$ Coil suppression (integrated) / Coil terminal	T _a = 20 °C / 70 °C	3,600 h ⁻¹ / 1,800 h ⁻¹	t tabs 6.3 x 0.8 mm				
requency of operation (operations per hour, no lo cull-in time ($T_a = 20 \degree C / U_s$) / Drop-off time ($T_a = 2$ coil suppression (integrated) / Coil terminal Aggnetic drive (bistable)	$T_{a} = 20 °C / 70 °C$ $0 °C / U_{s}) typ.$	3,600 h ^{.1} / 1,800 h ^{.1} 33 ms / 25 ms Suppressor diode / Flat					
requency of operation (operations per hour, no lo cull-in time ($T_a = 20 \text{ °C} / U_s$) / Drop-off time ($T_a = 2$ coil suppression (integrated) / Coil terminal Agnetic drive (bistable) Rated control supply voltage U _s (Min. operating vo collution degree / Overvoltage category	$T_{a} = 20 °C / 70 °C$ $0 °C / U_{s}) typ.$	3,600 h ⁻¹ / 1,800 h ⁻¹ 33 ms / 25 ms Suppressor diode / Flat 24 V DC (16.8 V DC) @ OI PD3 / OV2		C (33.6 V DC) @ ON time 0.1 0.5 s m			
requency of operation (operations per hour, no loc ull-in time ($T_a = 20 \text{ °C} / U_s$) / Drop-off time ($T_a = 2$ coil suppression (integrated) / Coil terminal Aggnetic drive (bistable) tated control supply voltage U_s (Min. operating voltage of the operation of the operati	$T_a = 20 \text{ °C} / 70 \text{ °C}$ $0 \text{ °C} / U_s) \qquad typ.$ pltage)	3,600 h ⁻¹ / 1,800 h ⁻¹ 33 ms / 25 ms Suppressor diode / Flat 24 V DC (16.8 V DC) @ OI PD3 / OV2 35 W		C (33.6 V DC) @ ON time 0.1 0.5 s m			
requency of operation (operations per hour, no lo ull-in time ($T_a = 20 \text{ °C} / U_s$) / Drop-off time ($T_a = 2$ coil suppression (integrated) / Coil terminal flagnetic drive (bistable) ated control supply voltage U_s (Min. operating vo ollution degree / Overvoltage category coil power dissipation, max. ($Ta = 20 \text{ °C} / U_s$) requency of operation (operations per hour, no lo	a a a a a constraint of the second state of the second	3,600 h ⁻¹ / 1,800 h ⁻¹ 33 ms / 25 ms Suppressor diode / Flat 24 V DC (16.8 V DC) @ OI PD3 / OV2 35 W 1,800 h ⁻¹ / 1,800 h ⁻¹		C (33.6 V DC) @ ON time 0.1 0.5 s n			
requency of operation (operations per hour, no lo ull-in time ($T_a = 20 \text{ °C} / U_s$) / Drop-off time ($T_a = 2$ coil suppression (integrated) / Coil terminal flagnetic drive (bistable) ated control supply voltage U _s (Min. operating vo ollution degree / Overvoltage category coil power dissipation, max. ($Ta = 20 \text{ °C} / U_s$) requency of operation (operations per hour, no lo ull-in time ($T_a = 20 \text{ °C} / U_s$) / Drop-off time ($T_a = 20 \text{ °C} / U_s$)	add) $T_a = 20 \degree C / 70 \degree C$ $0 \degree C / U_s$) typ. boltage) T_a = 20 \degree C / 70 \degree C	3,600 h ⁻¹ / 1,800 h ⁻¹ 33 ms / 25 ms Suppressor diode / Flat 24 V DC (16.8 V DC) @ OI PD3 / OV2 35 W	N time 0.1 0.5 s max. / 48 V DC	C (33.6 V DC) @ ON time 0.1 0.5 s m			
requency of operation (operations per hour, no lo cull-in time ($T_a = 20 \text{ °C} / U_s$) / Drop-off time ($T_a = 2$ coil suppression (integrated) / Coil terminal Agnetic drive (bistable) Rated control supply voltage U _s (Min. operating vo collution degree / Overvoltage category Coil power dissipation, max. ($Ta = 20 \text{ °C} / U_s$) requency of operation (operations per hour, no lo cull-in time ($T_a = 20 \text{ °C} / U_s$) / Drop-off time ($T_a = 2$ Coil suppression (integrated) / Coil terminal	a a a a a constraint of the second state of the second	3,600 h ⁻¹ / 1,800 h ⁻¹ 33 ms / 25 ms Suppressor diode / Flat 24 V DC (16.8 V DC) @ OI PD3 / OV2 35 W 1,800 h ⁻¹ / 1,800 h ⁻¹ 20 ms / 13 ms	N time 0.1 0.5 s max. / 48 V DC t tabs 6.3 x 0.8 mm	C (33.6 V DC) @ ON time 0.1 0.5 s m			
requency of operation (operations per hour, no lo cull-in time ($T_a = 20 ^{\circ}C / U_s$) / Drop-off time ($T_a = 2$ coil suppression (integrated) / Coil terminal Agnetic drive (bistable) Rated control supply voltage U _s (Min. operating vo collution degree / Overvoltage category Coil power dissipation, max. ($Ta = 20 ^{\circ}C / U_s$) requency of operation (operations per hour, no lo cull-in time ($T_a = 20 ^{\circ}C / U_s$) / Drop-off time ($T_a = 2$ Coil suppression (integrated) / Coil terminal Aunting position Degree of protection	a a a a a constraint of the second state of the second	3,600 h ⁻¹ / 1,800 h ⁻¹ 33 ms / 25 ms Suppressor diode / Flat 24 V DC (16.8 V DC) @ OI PD3 / OV2 35 W 1,800 h ⁻¹ / 1,800 h ⁻¹ 20 ms / 13 ms Suppressor diode / Flat	N time 0.1 0.5 s max. / 48 V DC t tabs 6.3 x 0.8 mm unting see page 11)	C (33.6 V DC) @ ON time 0.1 0.5 s m			
requency of operation (operations per hour, no lo cull-in time ($T_a = 20 ^{\circ}C / U_s$) / Drop-off time ($T_a = 2$ coil suppression (integrated) / Coil terminal Agnetic drive (bistable) Rated control supply voltage U _s (Min. operating vo collution degree / Overvoltage category Coil power dissipation, max. ($Ta = 20 ^{\circ}C / U_s$) requency of operation (operations per hour, no lo cull-in time ($T_a = 20 ^{\circ}C / U_s$) / Drop-off time ($T_a = 2$ Coil suppression (integrated) / Coil terminal Aunting position Degree of protection	ad) $T_a = 20 °C / 70 °C$ $0 °C / U_s$) typ. bltage) $T_a = 20 °C / 70 °C$ $0 °C / U_s$) typ. IEC 60529	3,600 h ⁻¹ / 1,800 h ⁻¹ 33 ms / 25 ms Suppressor diode / Flat 24 V DC (16.8 V DC) @ OI PD3 / OV2 35 W 1,800 h ⁻¹ / 1,800 h ⁻¹ 20 ms / 13 ms Suppressor diode / Flat vertical / horizontal (mod	N time 0.1 0.5 s max. / 48 V DC t tabs 6.3 x 0.8 mm unting see page 11)	C (33.6 V DC) @ ON time 0.1 0.5 s m			
requency of operation (operations per hour, no lo Pull-in time ($T_a = 20 ^{\circ}C / U_s$) / Drop-off time ($T_a = 2$ Coil suppression (integrated) / Coil terminal Aggnetic drive (bistable) Rated control supply voltage U _s (Min. operating vo Pollution degree / Overvoltage category Coil power dissipation, max. ($Ta = 20 ^{\circ}C / U_s$) requency of operation (operations per hour, no lo Pull-in time ($T_a = 20 ^{\circ}C / U_s$) / Drop-off time ($T_a = 2$ Coil suppression (integrated) / Coil terminal Mounting position Degree of protection Mechanical endurance main cont	ad) $T_a = 20 \ ^{\circ}C / 70 \ ^{\circ}C$ $0 \ ^{\circ}C / U_s$)typ.boltage)bad) $T_a = 20 \ ^{\circ}C / 70 \ ^{\circ}C$ $0 \ ^{\circ}C / U_s$)typ.IEC 60529acts monostable / bistable	3,600 h ⁻¹ / 1,800 h ⁻¹ 33 ms / 25 ms Suppressor diode / Flar 24 V DC (16.8 V DC) @ OI PD3 / OV2 35 W 1,800 h ⁻¹ / 1,800 h ⁻¹ 20 ms / 13 ms Suppressor diode / Flar vertical / horizontal (mod IP00 2,000,000 operations / 1,000,000 operations Category 1, Class B / C	N time 0.1 0.5 s max. / 48 V DC t tabs 6.3 x 0.8 mm unting see page 11) 100,000 operations lass C	C (33.6 V DC) @ ON time 0.1 0.5 s m			
Frequency of operation (operations per hour, no locall-in time ($T_a = 20 ^{\circ}C / U_s$) / Drop-off time ($T_a = 22 ^{\circ}C / U_s$) / Drop-off time ($T_a = 22 ^{\circ}C / U_s$) Rated control supply voltage Us (Min. operating works) Pollution degree / Overvoltage category Dilution degree / Overvoltage category Coil power dissipation, max. ($Ta = 20 ^{\circ}C / U_s$) Frequency of operation (operations per hour, no locall-built time ($T_a = 20 ^{\circ}C / U_s$) / Drop-off time ($T_a = 22 ^{\circ}C / U_s$) Frequency of operation (operations per hour, no locall-built time ($T_a = 20 ^{\circ}C / U_s$) / Drop-off time ($T_a = 22 ^{\circ}C / U_s$) Poll-in time ($T_a = 20 ^{\circ}C / U_s$) / Drop-off time ($T_a = 22 ^{\circ}C / U_s$) Poll-in time ($T_a = 20 ^{\circ}C / U_s$) / Drop-off time ($T_a = 22 ^{\circ}C / U_s$) Poll-in time ($T_a = 10 ^{\circ}C / U_s$) / Drop-off time ($T_a = 20 ^{\circ}C / U_s$) Poll-in time ($T_a = 10 ^{\circ}C / U_s$) / Drop-off time ($T_a = 20 ^{\circ}C / U_s$) Poll-in time ($T_a = 10 ^{\circ}C / U_s$) / Drop-off time ($T_a = 10 ^{\circ}C / U_s$) Poll-in time ($T_a = 10 ^{\circ}C / U_s$) / Drop-off time ($T_a = 10 ^{\circ}C / U_s$ Poll-in time ($T_a = 10 ^{\circ}C / U_s$) / Drop-off time ($T_a = 10 ^{\circ}C / U_s$ Poll-in time ($T_a = 10 ^{\circ}C / U_s$) / Drop-off time ($T_a = 10 ^{\circ}C / U_s$ Poll-in time ($T_a = 10 ^{\circ}C / U_s$) / Drop-off time ($T_a = 10 ^{\circ}C / U_s$ Poll-in time ($T_a = 10 ^{\circ}C / U_s$) / Drop-off time ($T_a = 10 ^{\circ}C / U_s$ Poll-in time ($T_a = 10 $	ad) $T_a = 20 \degree C / 70 \degree C$ $0 \degree C / U_s$) typ. bltage) $T_a = 20 \degree C / 70 \degree C$ $0 \degree C / U_s$) typ. IEC 60529 acts monostable / bistable auxiliary contacts	3,600 h ⁻¹ / 1,800 h ⁻¹ 33 ms / 25 ms Suppressor diode / Flat 24 V DC (16.8 V DC) @ OI PD3 / OV2 35 W 1,800 h ⁻¹ / 1,800 h ⁻¹ 20 ms / 13 ms Suppressor diode / Flat vertical / horizontal (mod IP00 2,000,000 operations / 1,000,000 operations Category 1, Class B / Cl -40 °C +85 °C / -40 °	N time 0.1 0.5 s max. / 48 V DC t tabs 6.3 x 0.8 mm unting see page 11) 100,000 operations lass C C +85 °C	C (33.6 V DC) @ ON time 0.1 0.5 s m			
irrequency of operation (operations per hour, no locall-in time ($T_a = 20 ^{\circ}C / U_s$) / Drop-off time ($T_a = 2$ coil suppression (integrated) / Coil terminal Agnetic drive (bistable) Rated control supply voltage U_s (Min. operating voltage category Coil power dissipation, max. ($Ta = 20 ^{\circ}C / U_s$) requency of operation (operations per hour, no locall suppression (integrated) / Coil terminal Automatic ($T_a = 20 ^{\circ}C / U_s$) requency of operation (operations per hour, no locall suppression (integrated) / Coil terminal Automating position Degree of protection Acchanical endurance main cont. chock / Vibration Coperating temperatures	add) $T_a = 20 \degree C / 70 \degree C$ $0 \degree C / U_s$) typ. badd) $T_a = 20 \degree C / 70 \degree C$ $0 \degree C / U_s$) typ. badd) $T_a = 20 \degree C / 70 \degree C$ $0 \degree C / U_s$) typ. IEC 60529 acts monostable / bistable auxiliary contacts IEC 61373 / ISO 16750-3 ure / Storage temperature	3,600 h ⁻¹ / 1,800 h ⁻¹ 33 ms / 25 ms Suppressor diode / Flat 24 V DC (16.8 V DC) @ OI PD3 / OV2 35 W 1,800 h ⁻¹ / 1,800 h ⁻¹ 20 ms / 13 ms Suppressor diode / Flat vertical / horizontal (mod IP00 2,000,000 operations / 1,000,000 operations Category 1, Class B / Cl -40 °C +85 °C / -40 °	N time 0.1 0.5 s max. / 48 V DC t tabs 6.3 x 0.8 mm unting see page 11) 100,000 operations lass C C +85 °C				

C2215/2407/0 | Subject to change, dimensions in mm - © Schaltbau GmbH



C310S/ - 1 pole NO contactor AC or bi-directional DC $\,$

- Rated insulation voltage U_i up to 1,500 V, version without arc chamber
- Rated short-circuit making capacity I_{cm} up to 2,500 A
- Conventional free air thermal current I_{th} up to 500 A
- Rated short-time withstand current I_{cw} up to 3,000 A

Circuit	diagram
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	Monostable *	Bistable **
C310S/ Main contacts 1x NO Number of auxiliary switches none	$ \overset{A1+}{\underset{A2-}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{$	$ \begin{array}{c} A_1 + / - \\ \square \\ \downarrow \\ A_2 + / - \end{array} - \begin{array}{c} 1 \\ 1 \\ 2 \end{array} $
C310S/ Main contacts Ix NO Number of auxiliary switches*** Ix SPDT S880 W1R6 k	$\begin{array}{c} A_{1} + & 1 & 12 & 14 \\ \hline - & - & 1 & - & -1 \\ A_{2} - & 2 & 11 \end{array}$	$\begin{array}{c} A1 + /- \\ \square \\ \square \\ A2 + /- \end{array} \begin{array}{c} 1 \\ 1$
C3105/ Main contacts Ix NO Number of auxiliary switches*** 2x SPDT S880 W1R6 k	$ \begin{array}{c} A1 + & 1 & 12 & 14 & 22 & 24 \\ \hline - & - & 1 & - & - & 1 & - & - & 1 \\ A2 - & 2 & 11 & 21 \end{array} $	$\begin{array}{c} A1 + / - & 1 & 12 & 14 & 22 & 24 \\ \hline \Box & - & - & 1 & - & 1 & - & 1 & 1 & 1 & 1 & 1 \\ A2 + / - & 2 & 11 & 21 \end{array}$

**

Switching by reversing the polarity, voltage pulse 0.5 sec max. Auxiliary switches with mirror contact function according to EN 60947-4-1, annex F ***

Dimension diagram C310S/...

35 3

Switching chamber Main contact system w/o arc chamber 146.2 Aux. switch 72.6 47.6 64.5 8.2 96 81 als \Diamond \diamond (\$ Ø ୦ 31.9 68.3 0

108.2

S880, SPDT, flat tabs 2.8 x 0.5 mm

Coil terminal Flat tabs 6.3 x 0.8 mm

M	ain contact	termin
N	laterial	

Series	Material 📀
C310S/150 C310S/300 C310S/500	Copper Copper
Series	Copper, silver plated Thickness
C310S/150 C310S/300 C310S/500	3 mm 5 mm 5 mm
Series	Diameter Ø
C310S/150 C310S/300 C310S/500	Ø 9 mm Ø 11 mm Ø 11 mm

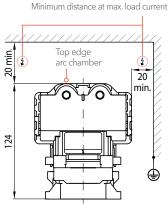
Specifications – Version «S» for $U_e = 60 \text{ V DC}$

Series			C310S/150	C310S/300	C310S/500
Type of voltage Main contacts, configuration		DC, bi-directional / AC, f ≤ 60 Hz			
• •	IEC/UL 60947-4-1, GB/T 140	48.4	1x NO		
ated operational voltage L		10.1	60 V @ PD3		
ated insulation voltage U	'e		1,000 V@PD3 / 1,500 V@P	202	
ated impulse withstand vo	Itago I I		10 kV	02	
•			PD2, PD3: see U _e and U _i / O	1/2	
ollution degree / Overvolt Conventional free air therm		40° C (cross section)	PD2, PD3: see 0 _e and 0 _i / 0	V3	500 A (2x 150 mm²)
		70° C (cross section)	150 A (50 mm²)	300 A (185 mm²)	400 A (240 mm ²)
ower dissipation per pole l	_{th} @ 40 °C	typ.	3.5 W	11 W	30 W
ole impedance		typ.	150 μΩ	120 μΩ	120 μΩ
tilization category AC-1* / ated operational current l _e		IEC 60947-4-1	150 A	300 A	500 A
Itilization category DC-1* /					
ated operational current le	IEC 6094	7-4-1, GB/T 14048.4	150 A	300 A	500 A
requency of operation I_e		AC-1 & DC-1	360 h-1	360 h-1	360 h-1
ated short-time withstand	current I _{cw}	t = 1 s	3,000 A		
nort circuit protection dev	ce for contactors		on request	on request	on request
dditional electrical rating	s of main circuit				
onventional free air therm	al current I _{th} $T_a =$	85 °C (cross section) Terminal heating	200 A (50 mm²) 45 K	350 A (120 mm²) 45 K	500 A (185 mm²) 65 K
ower dissipation per pole		I _{th} @ 40 °C, typ.	5 W	15 W	30 W
ole impedance		typ.	125 μΩ	120 μΩ	120 μΩ
ated short-circuit making c or mono- or bistable drive reaking capacity (L/R = 0.1	(depending on mounting pos ms) U _e	ition) = 60 V / I _e = 2,000 A = 96 V / I _e = 1,300 A	monostable: horizontal: 2,5 bistable: horizontal: 750 A, 60 operations 60 operations		
ectrical endurance			10,000 operations DC (L/R = 1 ms) AC (cosφ = 0.8): 48 V / 150 A	10,000 operations DC (L/R = 1 ms) AC (cosφ = 0.8): 48 V / 300 A	10,000 operations DC (L/R = 1 ms) AC (cosφ = 0.8): 48 V / 500
lain contacts			Λο (203φ - 0.0). 40 τ/ 130 Λ	Ας (cosφ = 0.0). 40 77 500 Α	Αθ (203φ - 0.0). 40 ¥7 300
ontact material			AgSnO ₂	AgSnO ₂	AgSnO ₂
erminals			M8	M10	M10
			4.8 6 Nm	8 10 Nm	8 10 Nm
orque			4.0 0 NIII	0 10 MIII	
uxiliary contacts			2x S880 W1R6 k max. / Silve		
umber, configuration / C					
laking / Breaking capacity				DC-13: 60 V DC / 0.5 A	
1inimum voltage / Curren	t		5 V / 5 mA		
erminals			Flat quick connect 2.8 x 0.5 n	nm	
Aagnetic drive (monostabl lated control supply voltag ollution degree / Overvolt Coil power dissipation, max	e U _s (Operating range) age category		12 24 V DC (9.5 36 V DC PD3 / OV2) / 48 V DC (33.6 60 V DC)	
· · ·	Pull-In power (0.2	s) / Holding power	50 W (24 V) / 2.6 W		
requency of operation (op		$T_a = 20 \ ^{\circ}C / 70 \ ^{\circ}C$	3,600 h ⁻¹ / 1,800 h ⁻¹		
ull-in time (T _a = 20 °C / U _s) Coil suppression (integrated /agnetic drive (bistable)	/ Drop-off time (T _a = 20 °C / L d) / Coil terminal	s) typ.	33 ms / 25 ms Suppressor diode / Flat tab	s 6.3 x 0.8 mm	
ated control supply voltag ollution degree / Overvolt	e Us (Min. operating voltage) age category		24 V DC (16.8 V DC) @ ON tim PD3 / OV2	e 0.1 0.5 s max. / 48 V DC (33.6 V	/ DC) @ ON time 0.1 0.5 s ma
oil power dissipation, max	. (Ta = 20 °C / U_s)		35 W		
requency of operation (op	erations per hour, no load)	$T_a = 20 \ ^{\circ}C / 70 \ ^{\circ}C$	1,800 h ⁻¹ / 1,800 h ⁻¹		
ull-in time (T _a = 20 °C / U _s) oil suppression (integrated	/ Drop-off time (T _a = 20 °C / L d) / Coil terminal	s) typ.	20 ms / 13 ms Suppressor diode / Flat tab	s 6.3 x 0.8 mm	
lounting position			vertical / horizontal (mountin	ig see page 11)	
egree of protection		IEC 60529	IP00		
Aechanical endurance	main contacts mo	nostable / bistable auxiliary contacts	2,000,000 operations / 100, 1,000,000 operations	,000 operations	
hock / Vibration	IEC 6	1373 / ISO 16750-3	Category 1, Class B / Class	С	
emperatures	Operating temperature / S Altitude / H	itorage temperature umidity (EN 50125-1)	-40 °C +85 °C / -40 °C +		el / < 75 % on an annual averag
opprovals		,			
Veight			0.55 kg	0.63 kg	0.65 kg

* Corresponds to 50 switching operations 1.5 x $I_{\rm e}$ and 6,000 switching operations 1.0 x $I_{\rm e}$

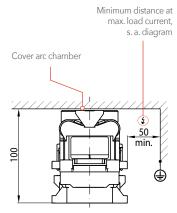
C310K/...

with large arc chamber



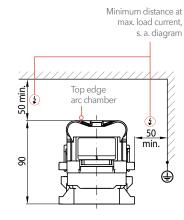
For the C310K/150, C310K/300 and stance of 20 mm to magnetically active, live or earthed parts.

C310A/... with arc chamber cover



The extinguishing chamber cover is part of the standard scope of delivery for the C310A/150, C310A/300 and C310A/500 series.

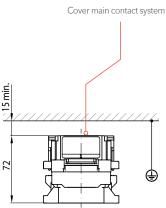
C310A/... w/o arc chamber cover



It is permissible to use the C310A/150, C310A/300 and C310A/500 series without arc chamber cover, taking into account additional clearance dimensions.

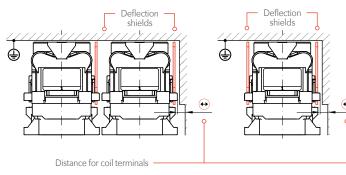
C3105/...

w/o arc chamber



For the C310S/150, C310S/300 and C310S/500 series there is a minimum distance of 15 mm to magnetically active, live or earthed parts.

Insertable deflection shields



C310A/... series only:

Mounting holes

 \cap 28

Ø5.5±0.2

Base plate, view from below

C310K/...

 \cap

The use of insertable deflection shields reduces the minimum distance to 0 mm. Without deflection shields, the minimum distance of the contactors, depending on the arrangement, can increase to 100 mm.

C310A/..., C310S/...

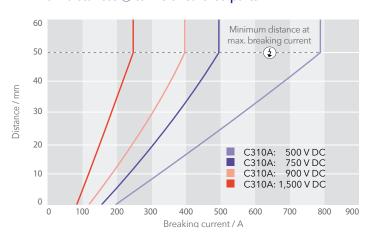
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Ø5.5±0.2

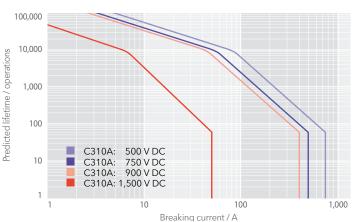
Base plate, view from below

 \cap

Minimum distances 🚯 to live or earthed parts



Electrical endurance

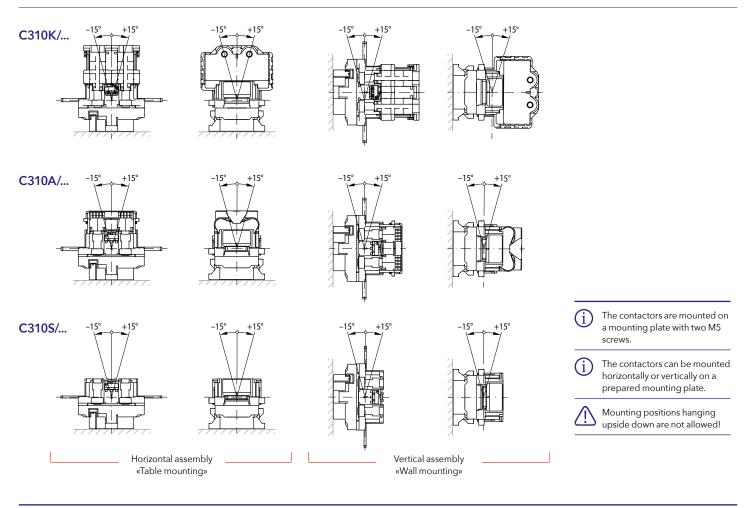


Predicted electrical endurance as a function of the breaking current

C310K/500 series there is a minimum di-

10 Contactors/C310

Mounting instructions



Maintenance and safety instructions

Maintenance:

- C310 series contactors are basically maintenance free.
- Make regular in-depth visual inspections once or twice a year.

Safety instructions:

- The device must be used according to the intended purpose as specified in the technical documentation. You are obliged to observe all specifications depending on operating temperature, degree of pollution etc. that are relevant to your application.
- Without further safety measures the contactors are not suited for use in potentially explosive atmospheres.
- In case of malfunction of the device or uncertainties stop using it any longer and contact the manufacturer instantly.
- Tampering with the device can seriously affect the safety of • people and equipment. This is not permitted and leads to an exclusion of liability and warranty.
- Coil suppression for reducing surges when the coil is switched off is optimally attuned to the contactors switching behaviour. The existing opening characteristic must not be negatively influenced by parallel connection with an external diode.
- Contactors running permanently may heat up. So make sure that the contactor has sufficiently cooled down before you start any inspection or maintenance work.

For detailed maintenance, safety and mounting instructions please refer to our operating manuals > C310-M.en!

- When installing contactors with magnetic blowout make sure to do it in such a way that no magnetizable parts can be attracted by the permanent magnets that are also capable of destroying all data of swipe cards.
- In general, strong electromagnetic fields can be generated in the area around the contactors. These can influence other components in the area of the contactors.
- Improper handling of the contactor, e.g. when hitting the floor with some impact, can result in breakage, visible cracks and deformation.



Defective contactors or parts (e.g. arc chambers, auxiliary switches) must be replaced immediately!

For a detailed list of all safety instructions see here: > schaltbau.info/safety3en!

We enable electrification for a sustainable future

Schaltbau is a global technology leader specializing in contactors, connectors, switches, and electrical devices.

As pioneers of electrification, Schaltbau has been championing safety on rail for generations. Building on nearly a century of rail experience, with our sub-brand Eddicy we also create future-oriented products and solutions with the highest standards of safety and reliability to switch, connect, control and protect DC applications in energy and e-mobility.

Headquartered in Germany, Schaltbau has a worldwide presence with 12 production and sales sites on all major continents.

Find out more on www.schaltbau.com.

