

High speed bi-directional circuit breaker for DC applications

DCBreak 900 / 1800 V

Main circuit			
Rated operational voltage (Ue)	900 V	1800 V	
Highest non-permanent voltage (U _{max2})	1000 V	1950 V	
Rated insulation voltage	2300 V	2300 V	
Rated impulse withstand voltage	18 kV	18 kV	
Rated operational current (T _{amb} = +40°C)	1400 A	1400 A	
Conventional free air thermal current (T _{amb} = +40°C)	1400 A	1400 A	
Rated short-circuit making and breaking capacity	30 kA	30 kA	
Rated time constant T1	30 kA/0 ms	17 kA/0 ms	
Rated time constant T2	30 kA/15 ms	30 kA/15 ms	
Rated time constant T3	30 kA/50 ms	30 kA/40 ms	
Rated time constant T4	30 kA/150 ms	30 kA/100 ms	
Operational performance capability	C3	C3	
Direct over-current release	0.9 - 1.3 kA	0.9 - 1.3 kA	
	1.3 - 1.8 kA	1.3 - 1.8 kA	
	1.8 - 2.5 kA	1.8 - 2.5 kA	
	2.5 - 3.6 kA	2.5 - 3.6 kA	
Peak arc voltage x Ue	2.5	2.5	
Power frequency withstand voltage (50 Hz, 1 min)	Across main contacts (open)	6.6 kV	
	Main circuit (closed) to earth and control circuit	6.6 kV	
	Low voltages circuit to earth	1.5 kV	
Standard applied	IEC 60077-3 and IEC 61373	IEC 60077-3 and IEC 61373	
Control circuit			
Nominal voltage	24 / 36 / 48 / 72 / 110 V	24 / 36 / 48 / 72 / 110 V	
Nominal closing power (T _{amb} = +20°C)	1000 W	1000 W	
Nominal holding power (T _{amb} = +20°C)	10 W	10 W	
Control type	Holding resistance (not included)	Holding resistance (not included)	
Auxiliary contacts circuit			
Number of standard contacts	2 NO / 2 NC	2 NO / 2 NC	
	4 NO / 4 NC	4 NO / 4 NC	
	6 NO / 6 NC	6 NO / 6 NC	
	8 NO / 8 NC	8 NO / 8 NC	
Contact material	Hard Silver	Hard Silver	
Rated voltage (potential free contacts)	24 to 110 V	24 to 110 V	
Rated current	10 A	10 A	
Maximum breaking current	Ohmic load at 110 V DC	1 A	
	Inductive load = 15 ms at 110 V DC	0.3 A	
Minimum let-through current at 24 V DC 10 mA	10 mA	10 mA	
Operating conditions			
Ambient temperature (according to class T1 of IEC 60077-1 Table 2)	T. amb	Air temperature external to vehicle	-25°C ÷ + 40°C
		Inside vehicle compartment temperature	-25°C ÷ + 50°C
		Inside cubicle temperature	-25°C ÷ + 70°C
Relative humidity		95% at 40 °C	
Altitude	h	≤ 1400 m	
Minimum mechanical durability	200 000 operations	200 000 operations	
Mechanical lifetime	500 000 operations	500 000 operations	
Altitude max	1400 m	1400 m	
Humidity max	95%	95%	
Pollution degree	PD3	PD3	

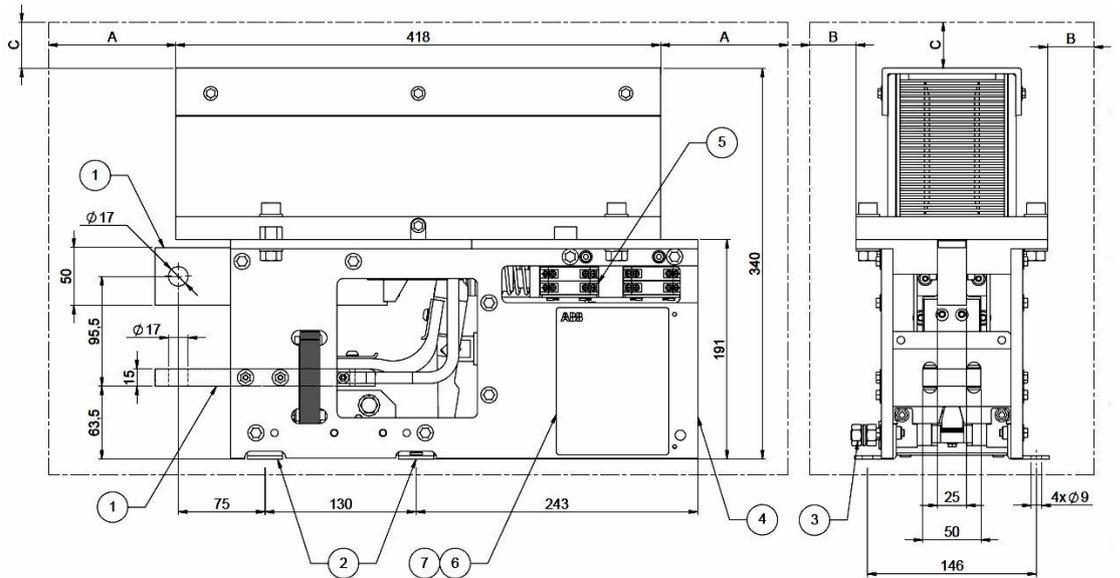
Minimum flashover distance	A	B	C
DCBreak 900 V			
to insulated wall	90	50	30
to earth (metal wall)	300	100	150
DCBreak 1800 V			
to insulated wall	90	50	30
to earth (metal wall)	300	100	150

Main dimensions

DCBreak 915

- Key
- 1 Main connections
 - 2 Fixing points
 - 3 Earthing point
 - 4 Actuator supply point
 - 5 Auxiliary contacts
 - 6 Adhesive rating plate
 - 7 Aluminum rating plate (on request)

Circuit breaker weight (kg) 28



DCBreak 1815

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Circuit breaker weight (kg) 38

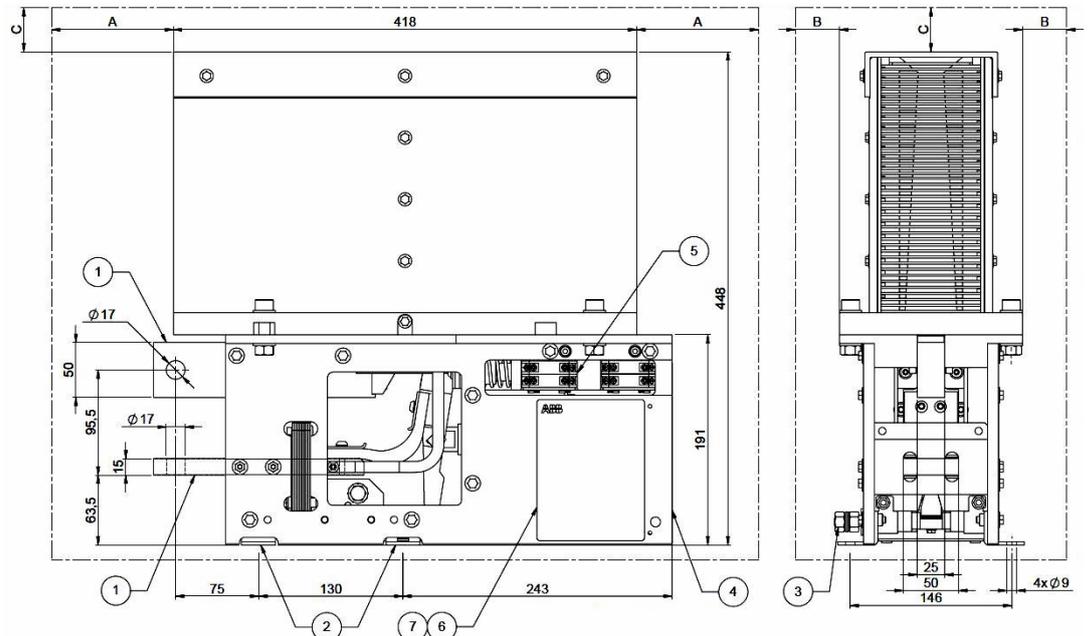


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