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Betagard

Betagard 5SL5 DC Circuit Breaker

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Betagard Circuit Breakers

Betagard Circuit Breakers Type 5SL5



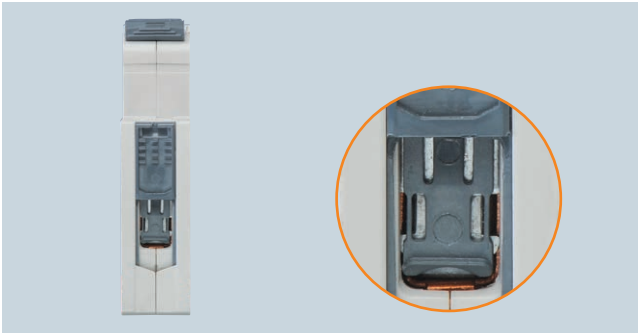
Ergonomically designed, with a user friendly lever for effortless switching



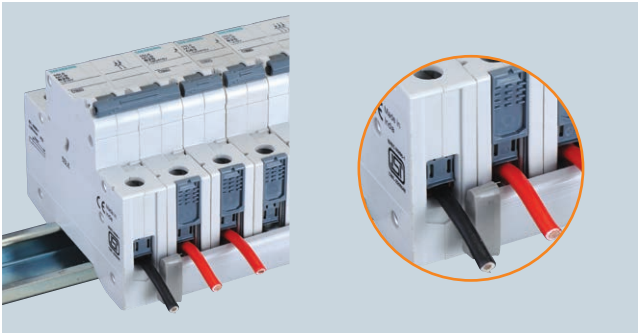
To highlight exact switching position, easily recognizable color coded ON-OFF is embedded on the attractive grey lever



Uniquely designed square terminal to accommodate wire up to 25 Sqmm



Highly effective touch protection against accidental contact



Enables firm mounting of Bus bar together with wire and front access of wires for safer installation



Terminals can accommodate 2 wires of same cross section (Solid up to 2 X 10 mm² and finely stranded with end sleeve up to 2 X 4 mm²) without twisting wire strands facilitates easier and safe wiring



Side mounting accessories like auxiliary switches, UV, Shunt trip and fault signalling contacts available for special applications.



Lever locking device with maximum 6 mm shackle

Overview

In alternating current circuits, arc quenching is assisted by the fact that current passes through zero, and that the current can only continue to flow if the arc is re-stuck across the open contacts during the following half wave. Direct current does not provide such assistance. In this case, a high arc voltage must be developed in order to stop the flow of the DC current.

Therefore, the DC switching capacity depends on the arc quenching method employed by the switching device, on the network voltage & on the inductive reactance of the circuit.

In order to address DC network protection, Siemens offers 5SL5 series DC circuit breakers from 0.5A to 63A in Single pole & Double pole version.

When using DC CBs in DC networks, care must be taken to ensure the contact polarity of the connections.

For this reason, the polarity of the DC circuit breaker is clearly marked and must be observed when connecting the cables and conductors.

Technical Specifications



			Betagard 5SL5
Standards			IS/IEC 60947-2
Rated voltage Un		V DC	220V for 1 pole 440V for 2 pole
Rated current In		A	0.5 to 63 ¹⁾
Operational voltage According to IEC60947-2	Min Max	VDC/pole VDC/pole	24 220V
Breaking capacity			
Icu		kA DC	10
Insulation coordination		VDC/pole	250
Overtoltage category			III
Pollution degree			2
Touch protection	According to IEC50274		Yes
Handle end position, sealable			Yes
Degree of protection	According to EN60529	Directly installed	IP20
Conductor cross section		mm ²	0.75...25
Installation			
Mains connection			Specified Connections (refer connection diagram)
DC			
Mounting position			Any
Mechanical service life			20000
Electrical endurance			8000
Storage temperature		°C	-40...+75
Ambient temperature		°C	-25...+70, max 95% humidity
Shock	IEC60068-2-27 / IEC61373	m/s ²	50m/s ² at 30ms
Resistance to vibration		m/s ²	RMS 5.72 m/s ² , 5 to 150 Hz

¹⁾ 3A, 8A & 13A are not available in the range

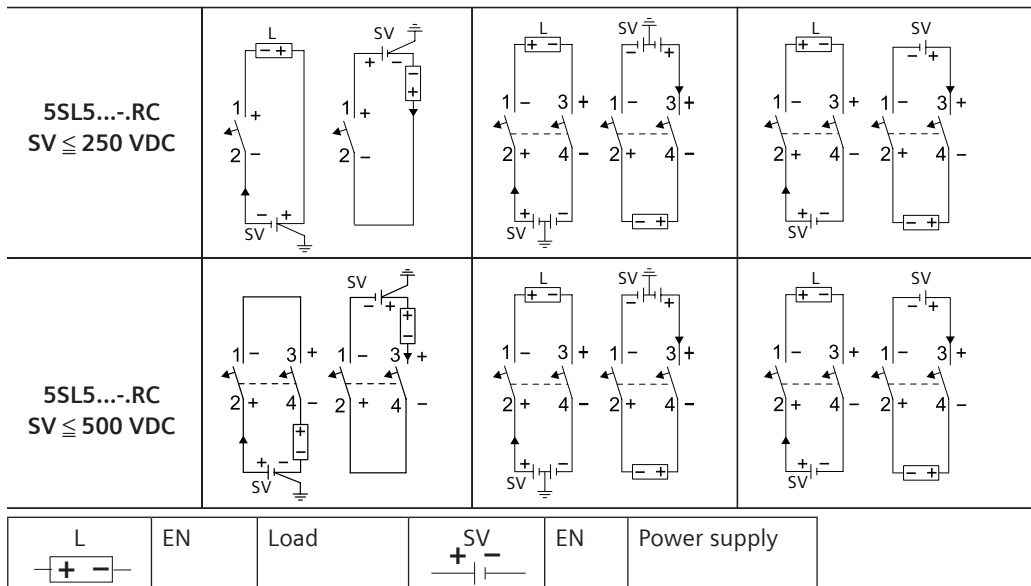
Betagard Circuit Breakers

Betagard DC Circuit Breakers Type 5SL5

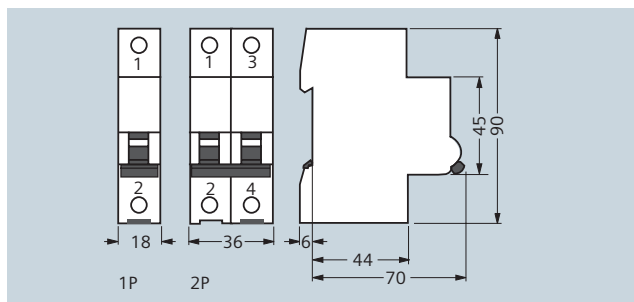
Selection and ordering data

Icu 10000A	Rated current I _n (A)	MW (1 MW=18 mm)	Reference No	Std. Pkg. (Nos)
1P, 220V DC 	0.5	1	5SL51057RC	1/12
	1		5SL51017RC	1/12
	2		5SL51027RC	1/12
	4		5SL51047RC	1/12
	6		5SL51067RC	1/12
	10		5SL51107RC	1/12
	16		5SL51167RC	1/12
	20		5SL51207RC	1/12
	25		5SL51257RC	1/12
	32		5SL51327RC	1/12
	40		5SL51407RC	1/12
	50		5SL51507RC	1/12
	63		5SL51637RC	1/12
2P, 440V DC 	0.5	2	5SL52057RC	1/6
	1		5SL52017RC	1/6
	2		5SL52027RC	1/6
	4		5SL52047RC	1/6
	6		5SL52067RC	1/6
	10		5SL52107RC	1/6
	16		5SL52167RC	1/6
	20		5SL52207RC	1/6
	25		5SL52257RC	1/6
	32		5SL52327RC	1/6
	40		5SL52407RC	1/6
	50		5SL52507RC	1/6
	63		5SL52637RC	1/6

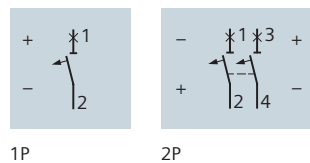
Connection Diagram








Dimensions



Symbols






Selection and ordering data

	Rated current U_n V	MW (1 MW=18 mm)	Reference No	Std. Pkg. (Nos)
	Auxiliary switches (AS)			
	1 NO + 1 NC For low power	0.5	5ST3 010 5ST3 013	1 1
	2 NO For low power		5ST3 011 5ST3 014	1 1
	2 NC For low power		5ST3 012 5ST3 015	1 1
	Auxiliary switches (AS) with TEST button			
	1 NO + 1 NC For low power	0.5	5ST3 010-2 5ST3 013-2	1 1
2 NO For low power		5ST3 011-2 5ST3 014-2	1 1	
2 NC For low power		5ST3 012-2 5ST3 015-2	1 1	
	Fault signal contacts (FC)			
	1 NO + 1 NC	0.5	5ST3 020	1
	2 NO 2 NC		5ST3 021 5ST3 021	1 1
	Fault signal contacts (FC) with TEST and ACKNOWLEDGE button			
	1 NO + 1 NC	0.5	5ST3 020-2	1
	2 NO 2 NC		5ST3 021-2 5ST3 021-2	1 1
	Undervoltage releases (UR)			
	With integrated auxiliary switch			
	230 AC	1	5ST3 040	1
	110 DC		5ST3 041	1
	24 DC		5ST3 042	1
	Without integrated auxiliary switch			
230 AC	1	5ST3 043	1	
110 DC		5ST3 044	1	
24 DC		5ST3 045	1	
	Shunt trips (units)			
	110 ... 415 V AC	1	5ST3 030	1
24 ... 60 V AC/DC	1	5ST3 031	1	

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Accessories

Selection and ordering data


	Version	MW (1 MW=18 mm)	Reference No	Std. Pkg. (Nos)
	Handle locking devices Sealable to prevent undesired mechanical ON/OFF switching For 5SP and 5SL5 miniature circuit breakers For padlock with max. 3 mm shackle		5ST3 801	1
		For 5SL miniature circuit breakers For padlock with 3 ... 6 mm shackle	5ST3 806	5
	Padlocks For 5ST3 801 and 5ST3 806 handle locking devices		5ST3 802	1

Rotary Handle Assembly

Benefits

- Series of MCBs/ Isolators can be fitted with Betagard Rotary Handle Assembly (ROH) for installation in Switchgear Cubicles and Distribution Panels
- The ROH gives operating uniformity and improves the aesthetics of the panel.
- The ROH can be padlocked in OFF position with the help of suitable padlocks thereby ensuring complete safety to operating personal during maintenance.
- Door interlock and defeat facility is available as a standard feature.

Technical Details:

	Product	Order No	Weight 1 item Kg	Std. Pkg. (Nos)
	Rotary Handle Assembly	5ST38140RC	0.584	1

Accessory mounting guide

