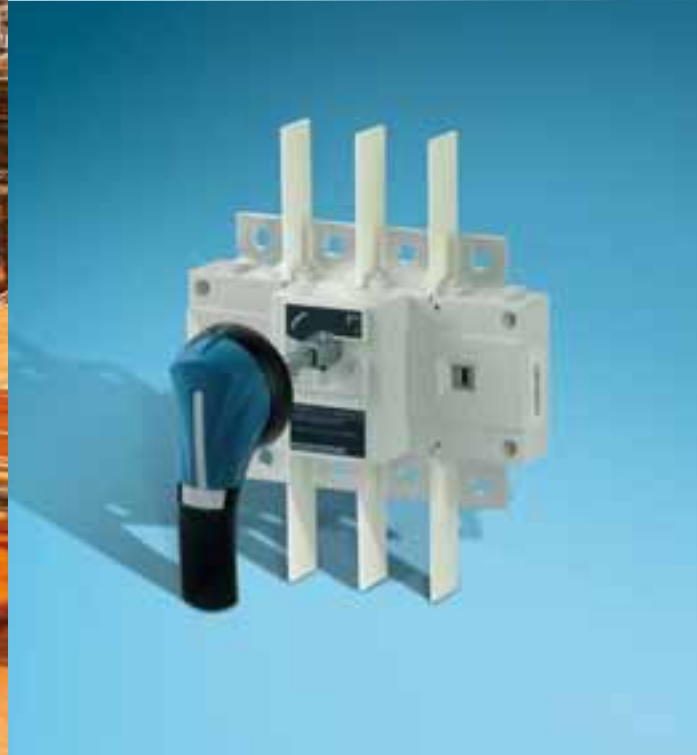


SIRCO

Manual load break and isolation switches for
power distribution applications

from 63 to 3200 A

2017



your energy
our expertise





SIRCO

Load break and isolation switches for power distribution from 63 to 5000 A

Load break & isolation switches



SIRCO
4 P 400 A with direct handle

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SIRCO
4 P 400 A with external handle

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The solution for

- > Main switchboard
- > Distribution panel
- > Emergency breaking
- > Network coupling
- > Local safety breaking



Function

SIRCO are manually operated load break and isolation switches. They make and break under load conditions and provide safe isolation. SIRCO are designed for 415 VAC electrical circuits.

Advantages

Reliability and performance

The double breaking per pole, achieved through its sliding bar contact system, is a proven design that offers very high durability and short-circuit withstand. It provides an improved breaking performance with quick opening and rapid closure.

Safety of property and personnel

The position indicator is located directly on the sliding bar contact mechanism, ensuring it can be seen in all circumstances.

The use of glass fibre reinforced polyester gives the SIRCO both high mechanical and thermal resistance.

General characteristics

- Double positive break indication given through a position indication window, located directly on the product, and by the operating handle.
- Severe load duty categories (AC-22 and AC-23).

Simplicity

The SIRCO range is available as a kit with direct or external handles or as a bare switch product. It includes a wide choice of common accessories that enable:

- Simple installation.
- Reduced stock management and storage costs.

Easy to install

The design of external contacts enables an easy connection thanks to:

- Low profile,
- Wide terminals,
- Spreader accessories which facilitate connections with larger cables, up to 1250 A.

Strong points

- > Reliability and performance
- > Safety of property and personnel
- > Simplicity
- > Easy to install

Compliance with standards

- > IS/IEC 60947-3

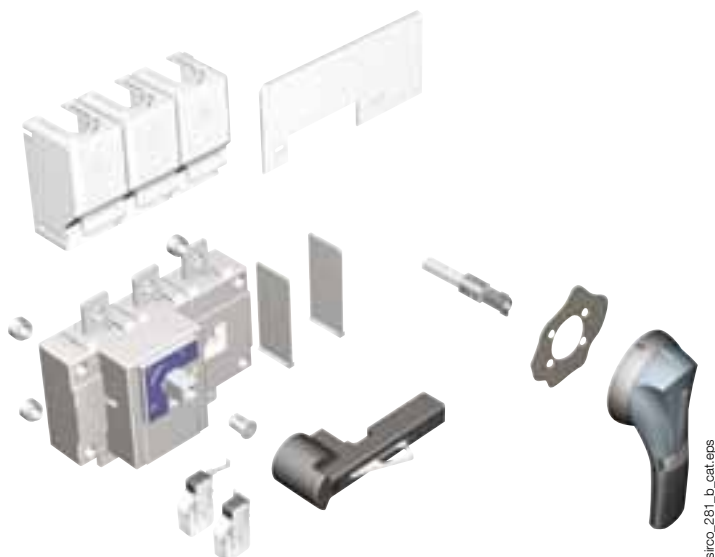


Enclosed switch solution

- > Suitable for environments subject to mechanical risk and dust hazards
- > Isolation and padlocking
- > Top and bottom extension boxes available
- > Colour: STR RAL 7035
- > Cable gland plates: top/ bottom
- > Steel, thickness 1.2 to 2.0 mm
- > Coating: epoxy polyester powder
- > 4 wall mounting brackets provided
- > Door: solid with hinges
- > Metal cam lock



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References - SIRCO kit and enclosed solutions

3 & 4 poles

Rating (A) / Frame size	No. of poles	Kit 1 with direct handle ⁽¹⁾	Kit 2 with external handle ⁽²⁾	Enclosed solutions		
				Enclosure size	Enclosed switch	Top or bottom ⁽⁴⁾ extension box
63 A / B2	4 P	26K1 4006A ⁽³⁾	26K2 4006A ⁽³⁾	Size 1	26E1 4006A	26E1 0001A
100 A / B2	4 P	26K1 4010A ⁽³⁾	26K2 4010A ⁽³⁾		26E1 4010A	
CD 125 A / B2	4 P	26K1 4011A ⁽³⁾	26K2 4011A ⁽³⁾		26E1 4011A	
125 A / B3	3 P	26K1 3012A	26K2 3012A	Size 2	26E1 3012A	26E1 0002A
	4 P	26K1 4012A	26K2 4012A		26E1 4012A	
160 A / B3	3 P	26K1 3016A	26K2 3016A		26E1 3016A	
	4 P	26K1 4016A	26K2 4016A		26E1 4016A	
CD 200 A / B3	3 P	26K1 3019A	26K2 3019A		26E1 3019A	
	4 P	26K1 4019A	26K2 4019A		26E1 4019A	
200 A / B4	3 P	26K1 3020A	26K2 3020A	Size 3	26E1 3020A	26E1 0003A
	4 P	26K1 4020A	26K2 4020A		26E1 4020A	
250 A / B4	3 P	26K1 3025A	26K2 3025A		26E1 3025A	
	4 P	26K1 4025A	26K2 4025A		26E1 4025A	
CD 315 A / B4	3 P	26K1 3030A	26K2 3030A		26E1 3030A	
	4 P	26K1 4030A	26K2 4030A		26E1 4030A	
CD 400 A / B4	3 P	26K1 3039A	26K2 3039A		26E1 3039A	
	4 P	26K1 4039A	26K2 4039A		26E1 4039A	
315 A / B5	3 P	26K1 3031A	26K2 3031A		Size 4	
	4 P	26K1 4031A	26K2 4031A	26E1 4031A		
400 A / B5	3 P	26K1 3040A	26K2 3040A	26E1 3040A		
	4 P	26K1 4040A	26K2 4040A	26E1 4040A		
500 A / B5	3 P	26K1 3050A	26K2 3050A	Size 5	26E1 3050A	26E1 0004A
	4 P	26K1 4050A	26K2 4050A		26E1 4050A	
630 A / B5	3 P	26K1 3063A	26K2 3063A		26E1 3063A	
	4 P	26K1 4063A	26K2 4063A		26E1 4063A	
CD 800 A / B5	3 P	26K1 3079A	26K2 3079A		26E1 3079A	
	4 P	26K1 4079A	26K2 4079A	26E1 4079A		
800 A / B6	3 P	26K1 3080A	26K2 3080A	Size 6	26E1 3080A	26E1 0006A
	4 P	26K1 4080A	26K2 4080A		26E1 4080A	
1000 A / B6	3 P	26K1 3100A	26K2 3100A		26E1 3100A	
	4 P	26K1 4100A	26K2 4100A		26E1 4100A	
CD 1250 A / B6	3 P	26K1 3124A	26K2 3124A		26E1 3124A	
	4 P	26K1 4124A	26K2 4124A		26E1 4124A	
1250 A / B7	3 P	26K1 3125A	26K2 3125A	Size 7	26E1 3125A	26E1 0007A
	4 P	26K1 4125A	26K2 4125A		26E1 4125A	
1600 A / B7	3 P	26K1 3160A	26K2 3160A		26E1 3160A	
	4 P	26K1 4160A	26K2 4160A		26E1 4160A	
1800 A / B7	3 P	26K1 3180A	26K2 3180A			
	4 P	26K1 4180A	26K2 4180A			
2000 A / B8	3 P	26K1 3200A	26K2 3200A			
	4 P	26K1 4200A	26K2 4200A			
2500 A / B8	3 P	26K1 3250A	26K2 3250A			
	4 P	26K1 4250A	26K2 4250A			
3200 A / B8	3 P	26K1 3320A	26K2 3320A			
	4 P	26K1 4320A	26K2 4320A			

(1) Kit 1 includes: Switch body + direct handle + interphase barriers.

(2) Kit 2 includes Switch body + external handle + 200 mm shaft + interphase barriers.

(3) Without interphase barriers.

(4) Optional extension boxes may be attached to the Top or/and Bottom of the enclosed transfer switch.

Also available

> For ratings of 4000 and 5000 A, consult us.

References - Spares and accessories

3 & 4 poles

Rating (A) / Frame size	No. of poles	Switch body	Direct handle	External handle	Shaft for external handle	Auxiliary contacts	Terminal shrouds	Terminal screens	Spreaders	Interphase barriers set
63 A / B2	4 P	26RD 4006A	4299 0001A	4259 0001A	-	1 st NO/NC contact 2609 1020A	4 P 2994 4008A	-	-	-
100 A / B2	4 P	26RD 4010A								
CD 125 A / B2	4 P	26RD 4011A								
125 A / B3	3 P	26RD 3012A	B1 type 2699 5042A				3 P 2694 3014A 4 P 2694 4014A	Standard 3 P 2698 3012A 4 P 2698 4012A	3 P 4106 3016A 4 P 4106 4016A	3 P 2998 5033A 4 P 2998 5034A
160 A / B3	3 P	26RD 3016A								
	4 P	26RD 4016A								
	3 P	26RD 3019A								
CD 200 A / B3	4 P	26RD 4019A								
200 A / B4	3 P	26RD 3020A	B2 type 2699 5052A	S2 type Black IP55 1421 2111A	200 mm 1400 1020A	3 P 2694 3021A 4 P 2694 4021A	Standard 3 P 2698 3020A 4 P 2698 4020A	3 P 4106 3025A 4 P 4106 4025A	3 P 2998 5023A 4 P 2998 5024A	
	4 P	26RD 4020A								
250 A / B4	3 P	26RD 3025A								
	4 P	26RD 4025A								
CD 315 A / B4	3 P	26RD 3030A								
	4 P	26RD 4030A								
	3 P	26RD 3039A								
CD 400 A / B4	4 P	26RD 4039A								
	3 P	26RD 3031A								
	4 P	26RD 4031A								
400 A / B5	3 P	26RD 3040A	B2 type 2699 5052A	S2 type Black IP55 1421 2111A	250 mm 1400 1025A	3 P 2694 3021A 4 P 2694 4021A	Standard 3 P 2698 3050A 4 P 2698 4050A	3 P 4106 3050A 4 P 4106 4050A	3 P 2998 5013A 4 P 2998 5014A	
	4 P	26RD 4040A								
500 A / B5	3 P	26RD 3050A								
	4 P	26RD 4050A								
630 A / B5	3 P	26RD 3063A								
	4 P	26RD 4063A								
CD 800 A / B5	3 P	26RD 3079A								
	4 P	26RD 4079A								
800 A / B6	3 P	26RD 3080A								
	4 P	26RD 4080A								
1000 A / B6	3 P	26RD 3100A	B2 type 2699 5052A	S2 type Black IP55 1421 2111A	320 mm 1400 1032A	3 P 2694 3051A 4 P 2694 4051A	Wide 3 P top 2698 3051A 3 P bottom 2698 8051A 4 P 2698 4051A	3 P 4106 3040A 4 P 4106 4040A	3 P 2998 5013A 4 P 2998 5014A	
	4 P	26RD 3124A								
CD 1250 A / B6	4 P	26RD 4124A								
	3 P	26RD 3125A								
	4 P	26RD 4125A								
1600 A / B7	3 P	26RD 3160A								
	4 P	26RD 4160A								
1800A / B7	3 P	26RD 3180A								
	4 P	26RD 4180A								
2000 A / B8	3 P	26RD 3200A			B2 type 2699 5052A		S2 type Black IP55 1421 2111A	500 mm 1400 1050A		2 nd NO/NC contact 2699 0032A
	4 P	26RD 4200A								
2500 A / B8	3 P	26RD 3250A								
	4 P	26RD 4250A								
3200 A / B8	3 P	26RD 3320A								
	4 P	26RD 4320A								
	3 P	26RD 3200A								
	4 P	26RD 4200A								
	3 P	26RD 3250A								
	4 P	26RD 4250A								
	3 P	26RD 3320A								
	4 P	26RD 4320A								
	3 P	26RD 3200A	B2 type 2699 5052A	S5 type Black IP65 1453 8111A	200 mm 2799 3015A	1 st NO/NC contact 2699 0031A	Standard 3 P 2698 3200A 4 P 2698 4200A			
	4 P	26RD 4200A								
	3 P	26RD 3250A								
	4 P	26RD 4250A								
	3 P	26RD 3320A								
	4 P	26RD 4320A								
	3 P	26RD 3200A								
	4 P	26RD 4200A								
	3 P	26RD 3250A								
	4 P	26RD 4250A								
	3 P	26RD 3320A								
	4 P	26RD 4320A								

Accessories

Direct operation handle

Rating (A) / Frame size	No. of poles	Handle type	Handle colour	Reference
63 ... CD 125 / B2	4 P	SH0	Black	4299 0001A
125 ... CD 200 / B3	3 / 4 P	B1	Black	2699 5042A
200 ... CD 800 / B4-B5	3 / 4 P	B2	Black	2699 5052A
800 ... 3200 / B6...B8	3 / 4 P	C2	Black	2799 7012A



External operation handle

Use

Door interlocked external operation handles include an escutcheon, are padlockable and must be used with an extension shaft.

Front operation

Rating (A) / Frame size	No. of poles	Handle type	Handle colour	External IP ⁽¹⁾	Reference
63...CD 125 / B2	4 P	SH0	Black	IP42	4259 0001A
125 ... CD 800 / B3 ... B5	3 / 4 P	S2	Black	IP55	1421 2111A
800 ... 1800 / B6-B7	3 / 4 P	S4	Black	IP65	1443 3111A
2000 ... 3200 / B8	3 / 4 P	S5	Black	IP65	1453 8111A

(1) IP: protection degree according to IEC 60529.



Shaft for external operation

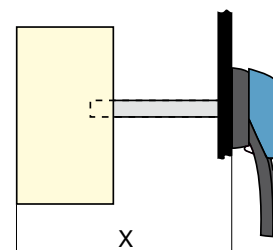
Use

Standard lengths:

- 200 mm
- 250 mm
- 320 mm
- 500 mm
- 750 mm

Other lengths available: please consult us.

Rating (A) / Frame size	Side X (mm)	Length (mm)	Reference
125 ... CD 200 / B3	125 ... 250	200	1400 1020A
	125 ... 300	250	1400 1025A
	125 ... 370	320	1400 1032A
	125 ... 550	500	1400 1050A
	125 ... 850	750	1400 1075A
200 ... 250 / B4	135 ... 265	200	1400 1020A
	135 ... 315	250	1400 1025A
	135 ... 385	320	1400 1032A
	135 ... 565	500	1400 1050A
	135 ... 880	750	1400 1075A
315 ... CD 800 / B5	165 ... 295	200	1400 1020A
	165 ... 345	250	1400 1025A
	165 ... 415	320	1400 1032A
	165 ... 595	500	1400 1050A
	165 ... 940	750	1400 1075A
800 ... 1800 / B6...B7	221 ... 343	200	1401 1520A
	221 ... 463	320	1401 1532A
2000 ... 3200 / B8	415 ... 570	200	2799 3015A
	415 ... 690	320	2799 3018A



Accessories (continued)

Auxiliary contact

Use

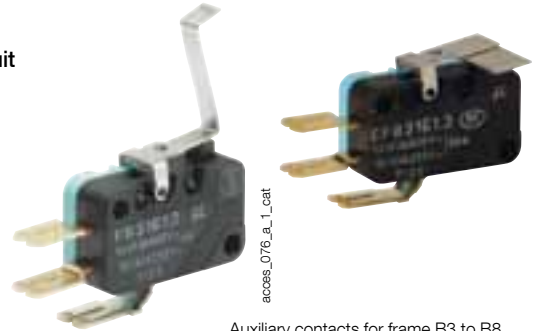
Pre-break and signalling
of positions 0 and I:
- 1 to 2 NO/NC auxiliary contacts.

Characteristics

IP2 with front operation.

Connection to the control circuit

By 6.35 mm fast-on terminals.



Auxiliary contacts for frame B3 to B8

NO/NC contact

Rating (A) / Frame size	AC position	Reference
63 ... CD 125 / B2	1 st	2609 1020A
63 ... CD 125 / B2	2 nd	2609 2020A
125 ... 3200 / B3-B8	1 st	2699 0031A
125 ... 3200 / B3-B8	2 nd	2699 0032A

Characteristics

Rating (A) / Frame size	Contact type	Rated current (A)	Operating current I _e (A)									Electrical endurance		
			230 VAC		400 VAC			24 VDC			48 VDC			
			AC-12	AC-13/15	AC-12	AC-13/15	DC-12	DC-13	DC-14	DC-12	DC-13		DC-14	
63 ... CD 125 / B2	NO/NC	16	16 (EN61058-1)	-	-	-	-	-	-	-	-	-	-	10 000
125 ... 3200 / B3-B8	NO/NC	16	16	4	12	3	2.5	2.5	1	2.5	1.2	0.2	30 000	

Interphase barrier set

Use

Ensures a safe isolation between the terminals, essential for use in a polluted or dusty atmosphere.

Rating (A) / Frame size	No. of poles	No. of pieces	Reference
125 ... CD 200 / B3	3 P	4 pcs	2998 5033A
125 ... CD 200 / B3	4 P	6 pcs	2998 5034A
200 ... CD 400 / B4	3 P	4 pcs	2998 5023A
200 ... CD 400 / B4	4 P	6 pcs	2998 5024A
315 ... CD 800 / B5	3 P	4 pcs	2998 5013A
315 ... CD 800 / B5	4 P	6 pcs	2998 5014A



Terminal shrouds

Use

Provides top or bottom protection against
direct contact with terminals or live parts.
Each reference includes 1 shroud for top or
bottom use.

Advantage

Perforations allow remote thermographic
inspection without the need to remove the
shrouds. The terminal shrouds also provide
phase separation.

Rating (A) / Frame size	No. of poles	Position	Reference
63 ... CD 125 / B2	4 P	Top or bottom	2994 4008A
125 ... CD 200 / B3	3 P	Top or bottom	2694 3014A
125 ... CD 200 / B3	4 P	Top or bottom	2694 4014A
200 ... CD 400 / B4	3 P	Top or bottom	2694 3021A
200 ... CD 400 / B4	4 P	Top or bottom	2694 4021A
315 ... CD 800 / B5	3 P	Top or bottom	2694 3051A
315 ... CD 800 / B5	4 P	Top or bottom	2694 4051A



Terminal screens

Use

Top or bottom protection from direct contact with terminals or connection parts.
In case of use with spreaders, use the wide screens.

Rating (A) / Frame size	No. of poles	Position	Type	Reference
125 ... CD 200 / B3	3 P	Top or bottom	Standard	2698 3012A
	4 P			2698 4012A
	3 P	Top	Wide	2698 3013A
	3 P	Bottom		2698 8013A
	4 P	Top or bottom		2698 4013A
200 ... CD 400 / B4	3 P	Top or bottom	Standard	2698 3020A
	4 P			2698 4020A
	3 P	Top	Wide	2698 3021A
	3 P	Bottom		2698 8021A
	4 P	Top or bottom		2698 4021A
315 ... CD 800 / B5	3 P	Top or bottom	Standard	2698 3050A
	4 P			2698 4050A
	3 P	Top	Wide	2698 3051A
	3 P	Bottom		2698 8051A
	4 P	Top or bottom		2698 4051A
800 ... CD 1250 / B6	3 P	Top or bottom	Standard	2698 3080A
	4 P			2698 4080A
	3 P	Top	Wide	2698 3081A
	3 P	Bottom		2698 8081A
	4 P	Top or bottom		2698 4081A
1250 ... 1800 / B7	3 P	Top or bottom	Standard	2698 3120A
	4 P			2698 4120A
2000 ... 3200 / B8	3 P	Top or bottom	Standard	2698 3200A
	4 P			2698 4200A



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Spreaders

Use

They widen the terminals and increase the pitch of the products, therefore enabling wider connections.

Rating (A) / Frame size	No. of poles	Reference
125 ... CD 200 / B3	3 P	4106 3016A
	4 P	4106 4016A
200 ... 250 / B4	3 P	4106 3025A
	4 P	4106 4025A
CD 315 ... CD 400 / B4	3 P	4106 3040A
	4 P	4106 4040A
315 ... 500 / B5	3 P	4106 3050A
	4 P	4106 4050A
630 ... CD 800 / B5	3 P	4106 3063A
	4 P	4106 4063A
800 ... CD 1250 / B6	3 P	4106 3120A
	4 P	4106 4120A



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Accessories (continued)

Copper bar connection kits

Use

For ratings 2000 to 3200 A. The connection pieces provide a link between the two power terminals of the same pole (Fig. 1 and Fig 2).

For 3200 A rating, connection pieces (part A) are supplied as standard. Bolt sets must be ordered separately.

Top or bottom flat connection - Fig. 1

Rating (A) / Frame size	Part	Quantity to order per pole ⁽¹⁾	Reference
2000 ... 2500 / B8	Connection - part A	1	2619 1200A
2000 ... 2500 / B8	Bolt set - part B	1	2699 1200A
3200 / B8	Connection - part A		included
3200 / B8	Bolt set - part B	1	2699 1200A

(1) Example for 3-pole device equipped top only: order 3 times the indicated quantity.

Fig. 1

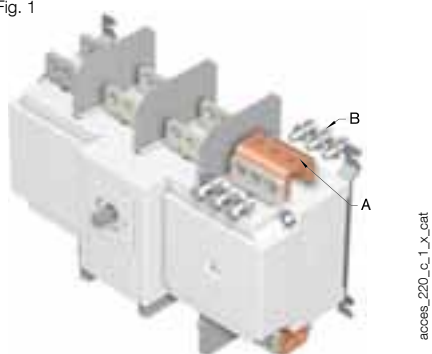
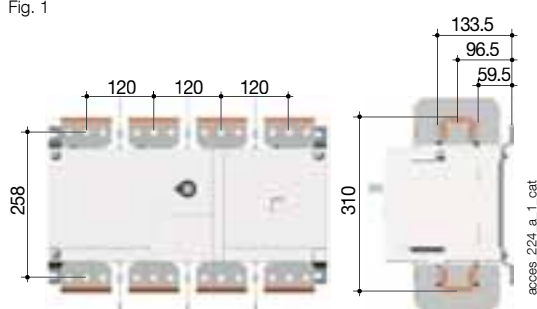


Fig. 1



Top or bottom edgewise connection - Fig. 2

Rating (A) / Frame size	Part	Quantity to order per pole ⁽¹⁾	Reference
2000 ... 2500 / B8	Connection - part A	1	2619 1200A
2000 ... 2500 / B8	T piece - part C	1	2629 1200A ⁽²⁾
2000 ... 2500 / B8	Bracket - part D	1	2639 1200A ⁽²⁾
3200 / B8	Connection - part A		included
3200 / B8	T piece - part C	1	2629 1200A
3200 / B8	Bracket - part D	1	2639 1200A

(1) Example for 4-pole device equipped top only: order 4 times the indicated quantity.

(2) Bolt set is provided with the accessories.

Fig. 2

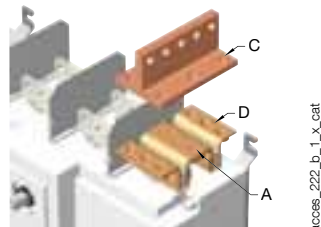
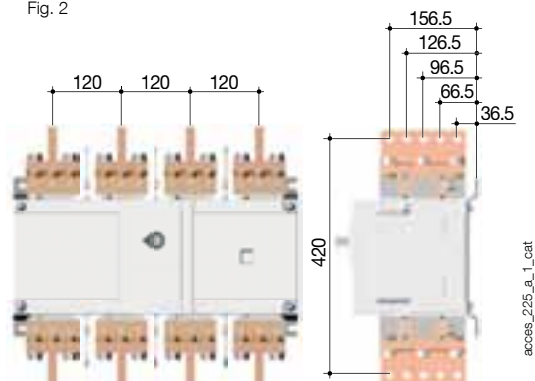


Fig. 2



Characteristics according to IEC 60947-3

63 to 250 A

Thermal current I_{th} at 40°C	63 A	100 A	CD 125 A	125 A	160 A	CD 200 A	200 A	250 A	
Frame size	B2	B2	B2	B3	B3	B3	B4	B4	
Rated insulation voltage U_i (V)	800	800	800	800	800	800	800	800	
Rated impulse withstand voltage U_{imp} (kV)	6	6	6	8	8	8	8	8	
Rated operational currents I_e (A)									
Rated voltage	Utilisation category	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	
415 VAC	AC-20 A / AC-20 B	63/63	100/100	125/125	125/125	160/160	200/200	250/250	
415 VAC	AC-21 A / AC-21 B	63/63	100/100	100/125	125/125	160/160	200/200	250/250	
415 VAC	AC-22 A / AC-22 B	63/63	100/100	100/100	125/125	160/160	200/200	250/250	
415 VAC	AC-23 A / AC-23 B	-/63	-/63	-/63	125/125	160/160	200/200	250/250	
220 VDC	DC-20 A / DC-20 B				125/125	160/160	200/200	250/250	
220 VDC ⁽²⁾	DC-21 A / DC-21 B				125/125	160/160	200/200	250/250	
220 VDC ⁽²⁾	DC-22 A / DC-22 B				125/125	160/160	200/200	250/250	
220 VDC ⁽²⁾	DC-23 A / DC-23 B				125/125	160/160	200/200	250/250	
500 VDC	DC-20 A / DC-20 B				125/125	160/160	200/200	250/250	
500 VDC ⁽²⁾	DC-21 A / DC-21 B				125/125	125/125	160/200	200/200	
500 VDC ⁽²⁾	DC-22 A / DC-22 B				125/125	125/125	160/160	200/200	
500 VDC ⁽²⁾	DC-23 B				-/125	-/125	-/160	-/200	
Operational power in AC-23 (kW) ⁽³⁾									
At 415 VAC without AC pre-break		-/30	-/30	-/30	63/63	80/80	80/80	100/100	115/115
Reactive power in AC-23 (kvar)									
At 415 VAC (kvar)		-/30	-/30	-/30	60/60	75/75	75/75	100/100	125/125
gG DIN fuse protected short-circuit withstand at 415 VAC									
Prospective short-circuit current (kA rms)		50	25	15	100	100	50	80	80
Associated fuse rating (A)		63	100	125	125	160	200	200	250
Short-circuit withstand without protection as per IEC 60947-3 ⁽⁴⁾									
Rated short-time withstand current 0.3s I_{cw} (kA rms)		3.5	3.5	3.5	15	15	15	15	15
Rated short-time withstand current 1s I_{cw} (kA rms)		2.5	2.5	2.5	7	7	7	8	8
Rated peak withstand current in I_{cc} at 415 VAC (kA peak)		12	12	12	20	20	20	30	30
Connection									
Minimum Cu cable cross-section (mm ²)		10	10	10	35	35	50	50	95
Maximum Cu cable cross-section (mm ²)		50	50	50	50	95	95	95	150
Recommended Al cable cross-section (mm ²)		35	50	50	70	95	150	150	185
Recommended Al busbar cross-section (mm ²)					20x8	20x8	25x10	25x10	25x10
Maximum busbar width (mm)					25	25	25	32	32
Maximum busbar width with spreaders (mm)					25	25	25	25	25
Tightening torque min/max (Nm)		1.2/3	1.2/3	1.2/3	9/-	9/-	9/-	20/-	20/-
Mechanical characteristics									
Durability (number of operating cycles)		25000	25000	25000	10000	10000	10000	10000	10000
Operating effort (Nm)		3.5	3.5	3.5	6.5	6.5	6.5	10	10
Weight of a 3 pole device with no accessories (kg)					1	1	1	2	2
Weight of a 4 pole device with no accessories (kg)		0.86	0.86	0.86	1.5	1.5	1.5	2.5	2.5

(1) Category with index A = frequent operation - Category with index B = infrequent operation.

(2) 3-pole device with 2 pole in series for the "+" an 1 pole for the "-".

4-pole device with 2 poles in series by polarity.

(3) The power value is given for information only, the current values vary from one manufacturer to another.

(4) For coordination with specific circuit-breaker references, higher short-circuit current values are available. Please consult us.

Characteristics according to IEC 60947-3 (continued)

CD 315 to 800 A

Thermal current I_{th} at 40°C	CD 315 A	CD 400 A	315 A	400 A	500 A	630 A	CD 800 A	800 A
Frame size	B4	B4	B5	B5	B5	B5	B5	B6
Rated insulation voltage U_i (V)	800	800	1000	1000	1000	1000	1000	1000
Rated impulse withstand voltage U_{imp} (kV)	8	8	12	12	12	12	12	12
Rated operational currents I_e (A)								
Rated voltage	Utilisation category	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾
415 VAC	AC-20 A / AC-20 B	315/315	400/400	315/315	400/400	500/500	630/630	800/800
415 VAC	AC-21 A / AC-21 B	315/315	400/400	315/315	400/400	500/500	630/630	800/800
415 VAC	AC-22 A / AC-22 B	315/315	400/400	315/315	400/400	500/500	630/630	800/800
415 VAC	AC-23 A / AC-23 B	250/250	250/250	315/315	400/400	500/500	500/500	800/800
220 VDC	DC-20 A / DC-20 B			315/315	400/400	500/500	630/630	800/800
220 VDC ⁽²⁾	DC-21 A / DC-21 B			315/315	400/400	500/500	630/630	800/800
220 VDC ⁽²⁾	DC-22 A / DC-22 B			315/315	400/400	500/500	630/630	800/800
220 VDC ⁽²⁾	DC-23 A / DC-23 B			315/315	400/400	500/500	630/630	800/800
500 VDC	DC-20 A / DC-20 B			315/315	400/400	500/500	630/630	800/800
500 VDC ⁽²⁾	DC-21 A / DC-21 B			315/315	400/400	400/400	500/500	800/800
500 VDC ⁽²⁾	DC-22 A / DC-22 B			315/315	315/400	315/400	500/500	800/800
500 VDC ⁽²⁾	DC-23 B			-/315	-/400	-/400	-/500	-/800
Operational power in AC-23 (kW)⁽³⁾								
At 415 VAC without AC pre-break	115/115	115/115	145/145	190/190	235/235	235/235	235/235	375/375
Reactive power in AC-23 (kvar)								
At 415 VAC (kvar)	125/125	125/125	150/150	200/200	250/250	250/250	250/250	400/400
gG DIN fuse protected short-circuit withstand at 415 VAC								
Prospective short-circuit current (kA rms)	50	50	100	100	100	70	50	50
Associated fuse rating (A)	315	400	315	400	500	630	630	800
Short-circuit withstand without protection as per IEC 60947-3⁽⁴⁾								
Rated short-time withstand current 0.3s I_{cw} (kA rms)	15	15	15	15	15	15	15	50
Rated short-time withstand current 1s I_{cw} (kA rms)	8	8	11	11	11	11	11	35
Rated peak withstand current in I_{cc} at 415 VAC (kA peak)	30	30	45	45	45	45	45	55
Connection								
Minimum Cu cable cross-section (mm ²)	120	185	120	185	2x95	2x120	2x185	2x185
Maximum Cu cable cross-section (mm ²)	240	240	240	240	2x300	2x300	2x300	2x300
Recommended Al cable cross-section (mm ²)	240	300	240	300				
Recommended Cu busbar cross-section (mm ²)					2x32x5	2x40x5	2x50x5	2x50x5
Recommended Al busbar cross-section (mm ²)	2x25x10	2x25x10	40x10	40x12	50x12	2x50x10	2x50x10	2x50x10
Maximum busbar width (mm)	32	32	40	40	50	50	50	63
Maximum busbar width with spreaders (mm)	40	40	40	40	50	60	50	75
Tightening torque min/max (Nm)	20/-	20/-	20/-	20/-	20/-	20/-	20/-	40/45
Mechanical characteristics								
Durability (number of operating cycles)	10000	10000	8000	5000	5000	5000	5000	3000
Operating effort (Nm)	10	10	14.5	14.5	14.5	14.5	14.5	37
Weight of a 3 pole device with no accessories (kg)	2	2	3.5	3.5	3.5	3.5	3.5	8
Weight of a 4 pole device with no accessories (kg)	2.5	2.5	4	4	4	4	4	10

(1) Category with index A = frequent operation - Category with index B = infrequent operation.

(2) 3-pole device with 2 pole in series for the "+" and 1 pole for the "-".

4-pole device with 2 poles in series by polarity.

(3) The power value is given for information only, the current values vary from one manufacturer to another.

(4) For coordination with specific circuit-breaker references, higher short-circuit current values are available. Please consult us.

1000 to 3200 A

Thermal current I_{th} at 40°C	1000 A	CD 1250 A	1250 A	1600 A	1800 A	2000 A	2500 A	3200 A
Frame size	B6	B6	B7	B7	B7	B8	B8	B8
Rated insulation voltage U_i (V)	1000	1000	1000	1000	1000	1000	1000	1000
Rated impulse withstand voltage U_{imp} (kV)	12	12	12	12	12	12	12	12

Rated operational currents I_e (A)

Rated voltage	Utilisation category	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾
415 VAC	AC-20 A / AC-20 B	1000/1000	1250/1250	1250/1250	1600/1600	1800/1800	2000/2000	2500/2500	3200/3200
415 VAC	AC-21 A / AC-21 B	1000/1000	1250/1250	1250/1250	1600/1600	1600/1800	2000/2000	2500/2500	3200/3200
415 VAC	AC-22 A / AC-22 B	1000/1000	1250/1250	1250/1250	1600/1600	1600/1600	2000/2000	2500/2500	2500/3200
415 VAC	AC-23 A / AC-23 B	1000/1000	1250/1250	1250/1250	1250/1250	1250/1250	1600/1600	1600/1600	1600/1600
220 VDC	DC-20 A / DC-20 B	1000/1000	1250/1250	1250/1250	1600/1600	1800/1800	2000/2000	2500/2500	3200/3200
220 VDC ⁽²⁾	DC-21 A / DC-21 B	1000/1000	1250/1250	1250/1250	1250/1600	1250/1600	2000/2000	2000/2500	2000/2500
220 VDC ⁽²⁾	DC-22 A / DC-22 B	1000/1000	1250/1250	1250/1250	1250/1250	1250/1250	1250/1600	1250/1600	1250/1600
220 VDC ⁽²⁾	DC-23 A / DC-23 B	1000/1000	1250/1250	1250/1250	1250/1250	1250/1250	1250/1250	1250/1250	1250/1250
500 VDC	DC-20 A / DC-20 B	1000/1000	1250/1250	1250/1250	1600/1600	1800/1800	2000/2000	2500/2500	3200/3200
500 VDC ⁽²⁾	DC-21 A / DC-21 B	1000/1000	1250/1250	1250/1250	1250/1600	1250/1600	1250/1250	1250/1250	1250/1250
500 VDC ⁽²⁾	DC-22 A / DC-22 B	1000/1000	1250/1250	1250/1250	1250/1250	1250/1250	1250/1250	1250/1250	1250/1250
500 VDC ⁽²⁾	DC-23 B	-/1000	-/1250	-/1250	-/1250	-/1250	-/1000	-/1000	-/1000

Operational power in AC-23 (kW)⁽³⁾

At 415 VAC without AC pre-break	450/450	560/560	560/560	560/560	560/560	560/560	710/710	710/710	710/710
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Reactive power in AC-23 (kvar)

At 415 VAC (kvar)	500/500	650/650	650/650	650/650	650/650	650/650	850/850	850/850	850/850
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gG DIN fuse protected short-circuit withstand at 415 VAC

Prospective short-circuit current (kA rms)	100	100	100	100	100	100	100	100
Associated fuse rating (A)	1000	1250	1250	2x800	2x800	2x1000	2x1250	

Short-circuit withstand without protection as per IEC 60947-3⁽⁴⁾

Rated short-time withstand current 0.3s I_{cw} (kA rms)	65	65	100	100	100	100	100	100
Rated short-time withstand current 1s I_{cw} (kA rms)	35	35	50	50	50	50	50	50
Rated peak withstand current in I_{cc} at 415 VAC (kA peak)	80	80	110	110	110	110	120	120

Connection

Maximum Cu cable cross-section (mm ²)	4x185	4x185	4x185	6x185	6x185			
Recommended Cu busbar cross-section (mm ²)	2x63x5	2x60x7	2x80x5	2x100x5	3x100x5	3x100x5	2x100x10	3x100x10
Recommended Al busbar cross-section (mm ²)	2x60x10	3x60x10	2x75x10	2x100x10	3x80x10	3x80x10	3x100x10	4x100x10
Maximum busbar width (mm)	63	63	100	100	100	100	100	100
Maximum busbar width with spreaders (mm)	75	75						
Tightening torque min/max (Nm)	40/45	40/45	40/45	40/45	40/45	40/45	40/-	40/-

Mechanical characteristics

Durability (number of operating cycles)	3000	3000	4000	4000	4000	3000	3000	3000
Operating effort (Nm)	37	37	56	56	56	75	75	75
Weight of a 3 pole device with no accessories (kg)	8	8	12	12	12	22	22	22
Weight of a 4 pole device with no accessories (kg)	10	10	15	15	15	25	25	25

(1) Category with index A = frequent operation - Category with index B = infrequent operation.

(2) 3-pole device with 2 pole in series for the "+" an 1 pole for the "-".

4-pole device with 2 poles in series by polarity.

(3) The power value is given for information only, the current values vary from one manufacturer to another.

(4) For coordination with specific circuit-breaker references, higher short-circuit current values are available. Please consult us.

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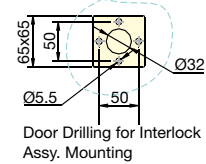
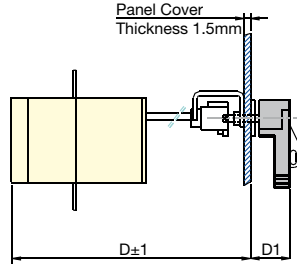
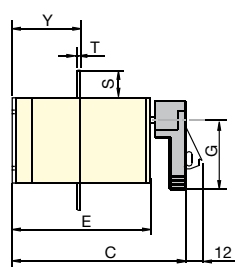
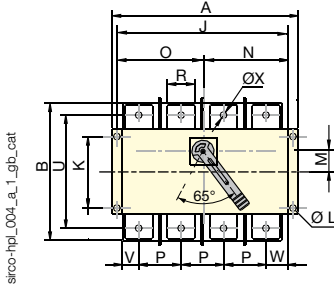
Load break and isolation switches for power distribution
from 63 to 5000 A

Dimensions

63 to CD 125 A / B2

Direct front operation

External front operation

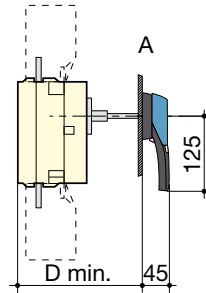
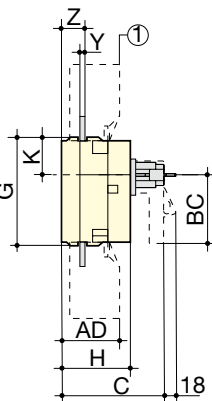
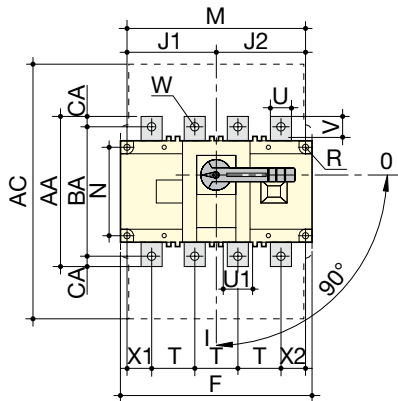


Rating (A) / Frame size	Overall dimensions					Fixing of Sw.					Connection terminal							Sw. Wt.					
	A	B	C	D	D1	E	G	J	K	L	M	N	O	P	R	S	T	U	V	W	ØX	Y	Open Ex. (kg)
63 ... CD 125 / B2	152.5	106	120	130	46.5	70	56	138.5	53	6.5	14	67.5	68	26.5	14	17	2	91	9.75	17	6.5	53	0.86

125 to CD 800 A / B3 to B5

Direct front operation

External front operation



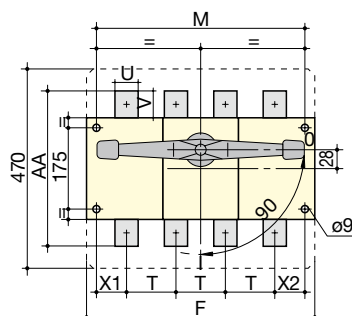
1. Terminal shrouds

A. S2 type handle

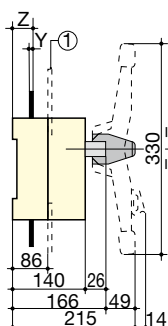
Rating (A) / Frame size	Overall dimensions		Standard Terminal shrouds			Switch body						Switch mounting					Connection													
	C	D min	AC	AD	F 3p.	F 4p.	G	H	J1 3p.	J1 4p.	J2	K	BC	M 3p.	M 4p.	N	R	T	U	U1	V	W	X1 3p.	X1 4p.	X2	Y	Z	AA	BA	CA
125 ... CD 200 / B3	115	125	235	50	140	170	93	65	45	75	75	31.5	80	120	150	65	5.5	36	20	20.5	25	9	28	22	20	3.5	20.5	135	115	10
200 ... 250 / B4			280	60	180	230	108	75	55	105	105	34	115	160	210	80	5.5	50	20	25.5	21.5	11	33	33	27	3.5	22.5	160	130	15
CD 315 ... CD 400 / B4	160	165	401	89	230	290	170	110	75	135	135	55	115	210	270	140	7	65	32	45.5	29	11	42.5	37.5	37.5	5	36	235	205	15
315 ... 500 / B5																														
630 ... CD 800 / B5																			45	45.5	41.5	13	42.5	37.5	37.5	5	36	260	220	20

800 to 1800A - B6 - B7

Direct front operation

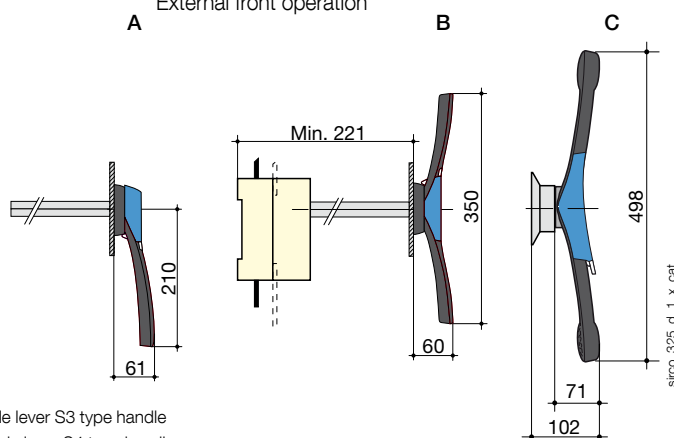


1. Standard terminal screens



A. Single lever S3 type handle
B. Double lever S4 type handle
C. Double lever S5 type handle

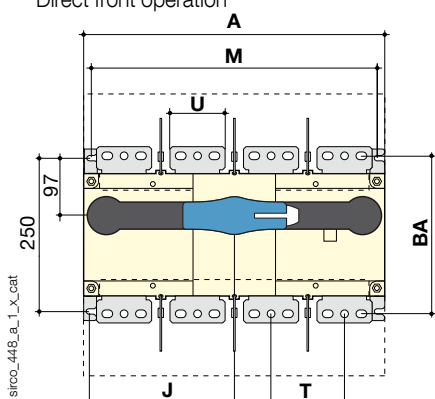
External front operation



Rating (A) / Frame size	Switch body		Switch mounting		Connection							
	F 3p.	F 4p.	M 3p.	M 4p.	T	U	V	Y	X1	X2	Z	AA
800 ... 1000 / B6	280	360	255	335	80	50	60.5	7	47.5	47.5	46.5	321
CD 1250 / B6						60	65					330
1250 ... 1800 / B7	372	492	347	467	120	90	44	8	53.5	53.5	47.5	288

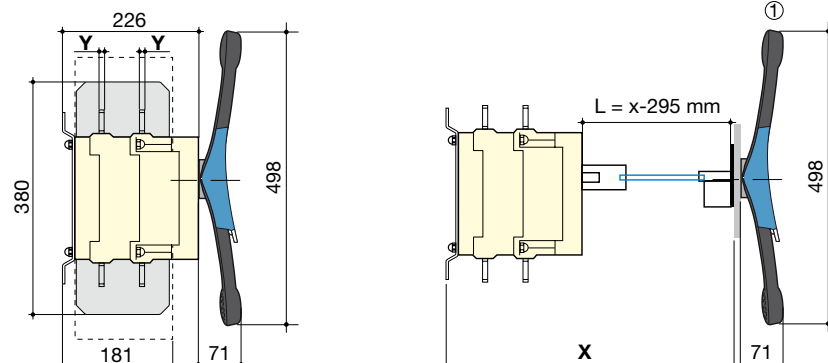
2000 to 3200 A - B8

Direct front operation



1. Double lever S5 type handle

External front operation

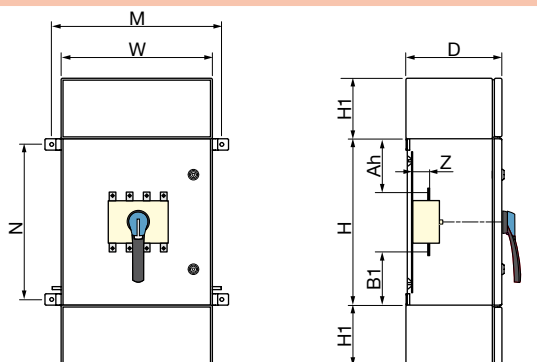


Rating (A) / Frame size	Overall dimensions		Switch body		Switch mounting		Connection			
	A 3p.	A 4p.	J 3p.	J 4p.	M 3p.	M 4p.	T	U	Y	BA
2000 ... 3200 / B8	372	492	173.5	233.5	347	367	120	90	8	258

Enclosed dimensions

Rating (A) / Enclosure size	H x W x D (mm)	M (mm)	N (mm)	Z (mm)	Ah (mm)	B1 (mm)	H1 (mm)
63 ... CD 125 / size 1	200 x 250 x 150	250	160	52.8	65.25	65.25	100
125 ... CD 200 / size 2	350 x 350 x 200	300	210	33	78.5	78.5	150
200 ... CD 400 / size 3	450 x 400 x 200	350	360	44	146	146	150
315 ... 400 / size 4	500 x 500 x 250	450	360	60.3	115	115	200
500 ... CD 800 / size 5	600 x 500 x 250	450	460	51.3	165	165	200
800 ... CD 1250 / size 6	700 x 700 x 300	550	460	47	165	165	250
1250 ... 1600 / size 7	800 x 750 x 300	650	560	47.5	215	215	300

Drawings as shown include the optional top and bottom extension boxes (W x H1).

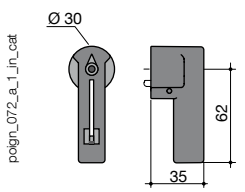
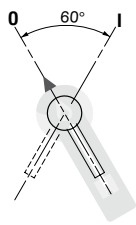
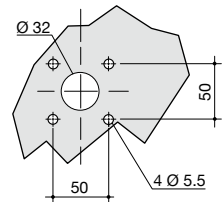


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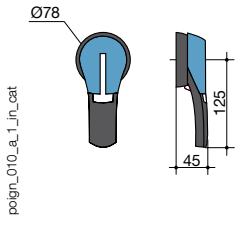
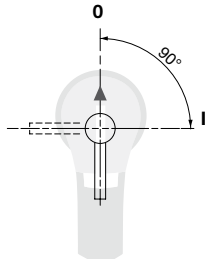
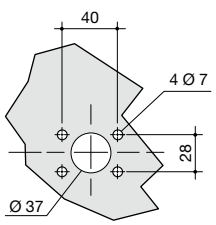
Load break and isolation switches for power distribution
from 63 to 5000 A

Dimensions for external handles

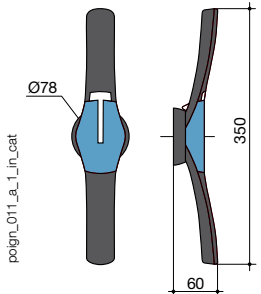
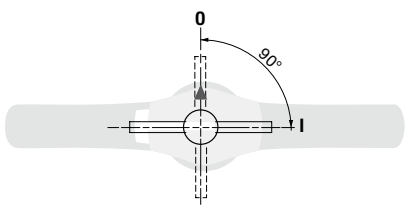
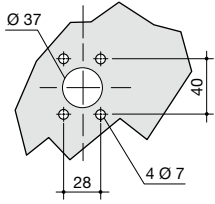
For use with frame B2

Handle type	Front operation Direction of operation	Door drilling
SH0 type 		

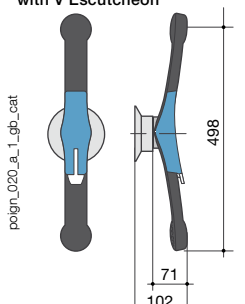
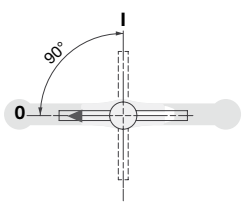
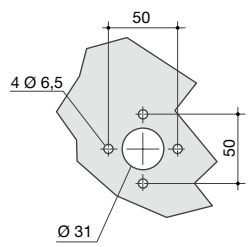
For use with frames B3 - B4 - B5

Handle type	Front operation Direction of operation	Door drilling
S2 type 		

For use with frames B6 - B7

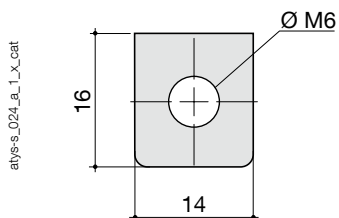
Handle type	Front operation Direction of operation	Door drilling
S4 type 		

For use with frames B7 - B8

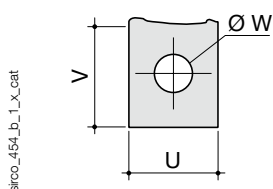
Handle type	Front operation Direction of operation	Door drilling
S5 type with V Escutcheon 		

Connection terminal dimensions

63 to CD 125 A / B2

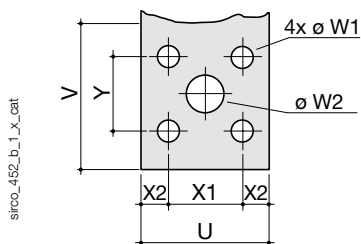


125 to CD 800 A / B3 - B5



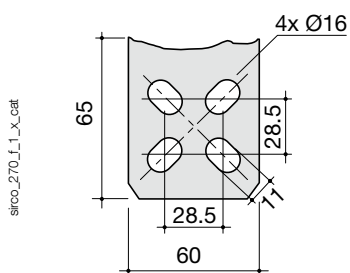
Rating (A) / Frame size	U	V	W
125 ... CD200 / B3	20	25	9
200 ... CD400 / B4	25	21.5	11
315 ... 400 / B5	32	29	
500 / B5	45	41.5	13
630 ... CD 800 / B6			

800 to 1000 A / B6



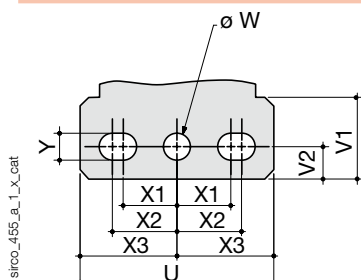
Rating (A) / Frame size	U	V	W1	W2	X1	X2	Y
800 ... 1000 / B6	50	60.5	9	16	28.5	11	33

CD 1250 A / B6



Rating (A) / Frame size	U	V1	V2	W	X1	Y
CD 1250 A / B6	60	65	28.5	16	28.5	11

1250 to 3200 A / B7 - B8



Rating (A) / Frame size	U	V1	V2	W	X1	X2	X3	Y
1250 ... 3200 / B7 - B8	90	35.8	15	12.5	25	30	45	12.5

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Lakshmiapuram, Ganapathy
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