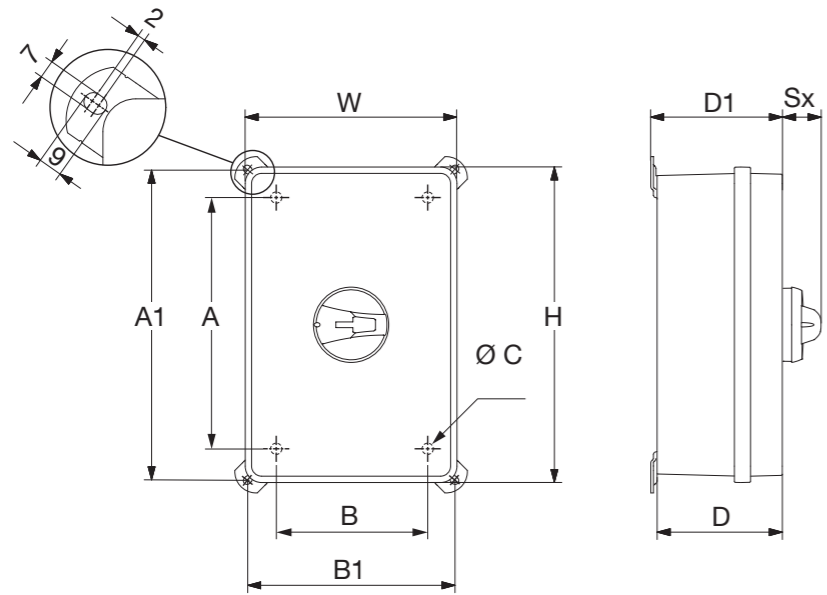


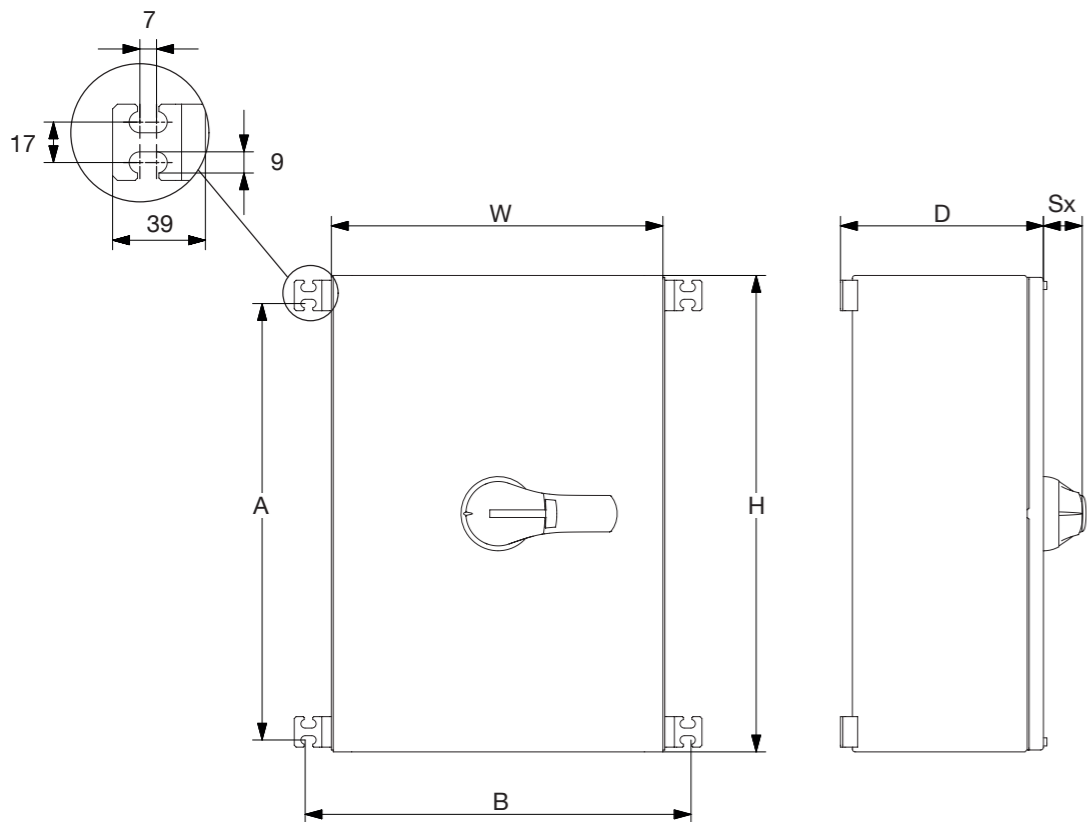
ALE1 / ALE3

Dimensions: mm



SIZE	A	A1	B	B1	ØC	D	D1	H	Sx	W
ALE1	137	163	129	155	6,5	119	124	168	37	160
ALE3	177	293	259	195	6,5	119	124	298	37	200

ALE5



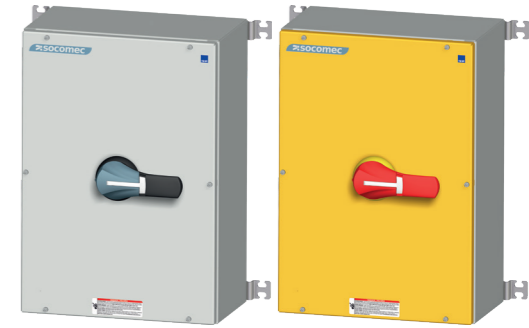
SIZE	A	B	D	H	Sx	W
ALE5	548	405	213	500	45	350



ALE1 25 A - 40 A (3-4P)

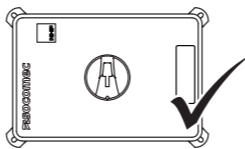
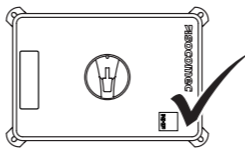
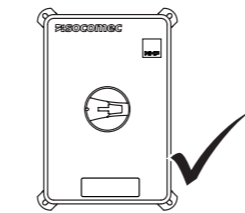


ALE3 63 A - 80 A - 100 A (3-4P)

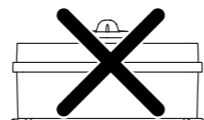


ALE5 160 A - 250 A (3-4P)

IP65 Configuration



not allowed for ALE5



ENCLOSED LOAD BREAK SWITCH
IP65 ALUMINUM ENCLOSURE SIRCO M - SIRCO

Optional for ALE1 and ALE3.
order ref. U000CB18.
Included for ALE5.

ALE1/3/5: 5 Nm - Flat

ALE1-3 : 1.5 Nm - Torx 25
ALE5 : 0.5 Nm - Pozidriv 2

Do not drill the back of the enclosure.
Please use suitable glands with IP rating equals or exceeds IP65.

⊕	Torque min. (Nm)		Torque max. (Nm)		Cu Section min. (mm)	Cu Section max. (mm)
	20-40 A	63-80 A	100 A	100 A		
N	20-40 A	1.5	1.8	3	1.5	16
	63-80 A	1.5	1.8	4.5	2.5	35
	100 A	3.2	3.7	5	10	70

⊕	Torque min. (Nm)		Torque max. (Nm)	
	M6	M8	M10	M12
N	4.5	8.3	20	40
	5.4	13	26	45

SIRCO M characteristics according to IEC 60947-3

16 A to 100 A

Thermal current I_{th} (40 °C)	25 A	40 A	63 A	80 A	100 A
Frame size	M1	M1	M2	M2	M3
Rated insulation voltage U_i (V)	800	800	800	800	800
Rated impulse withstand voltage U_{imp} (kV)	8	8	8	8	8

Rated operational currents I_g (A)

Rated voltage	Utilisation category	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾
415 VAC	AC-20 A / AC-20 B	25/25	40/40	63/63	80/80	100/100
415 VAC	AC-21 A / AC-21 B	25/25	40/40	63/63	80/80	100/100
415 VAC	AC-22 A / AC-22 B	25/25	40/40	63/63	80/80	100/100
415 VAC	AC-23 A / AC-23 B	25/25	40/40	63/63	80/80	100/100
500 VAC	AC-20 A / AC-20 B	25/25	40/40	63/63	80/80	100/100
500 VAC	AC-21 A / AC-21 B	25/25	40/40	63/63	80/80	100/100
500 VAC	AC-22 A / AC-22 B	25/25	40/40	63/63	80/80	100/100
500 VAC	AC-23 A / AC-23 B	25/25	25/25	63/63	63/63	80/80
690 VAC	AC-20 A / AC-20 B	25/25	40/40	63/63	80/80	100/100
690 VAC	AC-21 A / AC-21 B	25/25	40/40	63/63	80/80	100/100
690 VAC	AC-22 A / AC-22 B	25/25	32/40	40/63	63/80	80/100
690 VAC	AC-23 A / AC-23 B	25/25	25/25	40/40	40/40	63/63

110 VDC	DC-20 A / DC-20 B	25/25	40/40	63/63	80/80	100/100
110 VDC	DC-21 A / DC-21 B	25/25 ⁽²⁾	40/40 ⁽²⁾	63/63 ⁽²⁾	80/80 ⁽²⁾	100/100 ⁽²⁾
250 VDC	DC-20 A / DC-20 B	25/25	40/40	63/63	80/80	100/100
250 VDC	DC-21 A / DC-21 B	25/25 ⁽³⁾	40/40 ⁽³⁾	63/63 ⁽³⁾	80/80 ⁽³⁾	100/100 ⁽³⁾
400 VDC	DC-20 A / DC-20 B	25/25	40/40	63/63	80/80	100/100
400 VDC	DC-21 A / DC-21 B	25/25 ⁽⁴⁾	25/25 ⁽⁴⁾	40/40 ⁽⁴⁾	40/40 ⁽⁴⁾	63/63 ⁽⁴⁾

Operational power in AC-23 (kW)

400 VAC without pre-break AC(kW) ⁽⁵⁾	11	18.5	30	37	45
500 VAC without pre-break AC(kW) ⁽⁵⁾	11	18.5	30	37	45
690 VAC without pre-break AC(kW) ⁽⁵⁾	15	15	30	37	45

Fuse protected short-circuit withstand (kA rms prospective)⁽⁶⁾

Prospective short-circuit current (kA rms)	50	50	50	50	25
Associated fuse rating (A)	25	40	63	80	100

Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s

Rated short-time withstand current 0.3s. I_{cw} (kA rms)	2.5	2.5	3	3	5
--	-----	-----	---	---	---

Short-circuit capacity (without protection)

Rated short-time withstand current 1s. I_{cw} (kA rms)	1.26	1.26	1.5	1.5	2.75
Rated peak withstand current (kA peak) ⁽⁵⁾	6	6	9	9	12

Connection

Minimum Cu cable cross-section (mm ²)	1.5	1.5	2.5	2.5	10
Maximum Cu cable cross-section (mm ²)	16	16	35	35	70
Tightening torque (Nm)	3	3	4.5	4.5	5

Mechanical characteristics

Durability (number of operating cycles)	100 000	100 000	100 000	100 000	100 000
Operating effort - 3 pole device (Nm)	1	1	1.4	1.4	1.6
Operating effort - 4 pole device (Nm)	1.2	1.2	1.6	1.6	2
Weight of a 3 pole device (kg)	0.18	0.18	0.27	0.27	0.55
Weight of a 4 pole device (kg)	0.23	0.23	0.33	0.33	0.72
IP rating	IP65				

Accessories

Unswitched neutral (Reference)	2200 5005	2200 5005	2200 5009	2200 5009	22005011
Auxiliary contacts NO + NC (Reference)			2299 0001		
Auxiliary contacts 2NC (Reference)			2299 0011		
Terminal shrouds - Reference for 1P	2294 1005	2294 1005	2294 1009	2294 1009	2294 1011
Terminal shrouds - Reference for 3P	2294 3005	2294 3005	2294 3009	2294 3009	2294 3016
Mounting brackets for ALE1 & ALE3 (Reference)			U000CB18		

(1) Category with index A = frequent operation -

Category with index B = infrequent operation.

(2) One pole per polarity.

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

(4) 4-pole device with 2 poles in series per polarity.

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

(6) For a rated operational voltage $U_e = 415$ VAC.

SIRCO characteristics according to IEC 60947-3

160 A - 250 A

Thermal current I_{th} at 40°C	160 A	250 A
Frame size	B3	B4
Rated insulation voltage U_i (V)	800	800
Rated impulse withstand voltage U_{imp} (kV)	8	8

Rated operational currents I_g (A)

Rated voltage	Utilisation category	A / B ⁽¹⁾	A / B ⁽¹⁾
415 VAC	AC-20 A / AC-20 B	160 / 160	250 / 250
415 VAC	AC-21 A / AC-21 B	160 / 160	250 / 250
415 VAC	AC-22 A / AC-22 B	160 / 160	250 / 250
415 VAC	AC-23 A / AC-23 B	160 / 160	250 / 250
220 VDC	DC-20 A / DC-20 B	160 / 160	250 / 250
220 VDC	DC-21 A / DC-21 B	160 / 160	250 / 250
220 VDC	DC-22 A / DC-22 B	160 / 160	250 / 250
220 VDC	DC-23 A / DC-23 B	125 / 125	200 / 200
440 VDC	DC-20 A / DC-20 B	160 / 160	250 / 250
440 VDC	DC-21 A / DC-21 B	160 ⁽³⁾ / 160 ⁽³⁾	200 ⁽³⁾ / 200 ⁽³⁾
440 VDC	DC-22 A / DC-22 B	125 ⁽³⁾ / 125 ⁽³⁾	200 ⁽³⁾ / 200 ⁽³⁾
440 VDC	DC-23 A / DC-23 B	125 ⁽⁴⁾ / 125 ⁽⁴⁾	200 ⁽⁴⁾ / 200 ⁽⁴⁾
500 VDC	DC-20 A / DC-20 B	160 / 160	250 / 250
500 VDC	DC-21 A / DC-21 B	125 ⁽³⁾ / 125 ⁽³⁾	200 ⁽³⁾ / 200 ⁽³⁾
500 VDC	DC-22 A / DC-22 B	125 ⁽⁴⁾ / 125 ⁽⁴⁾	200 ⁽⁴⁾ / 200 ⁽⁴⁾
500 VDC	DC-23 A / DC-23 B	125 ⁽⁴⁾ / 125 ⁽⁴⁾	200 ⁽⁴⁾ / 200 ⁽⁴⁾

Operational power in AC-23 (kW)⁽¹⁾⁽⁶⁾

At 415 VAC without AC pre-break ⁽¹⁾	80 / 80	132 / 132
--	---------	-----------

Reactive power (kvar)

At 400 VAC (kvar) ⁽⁵⁾	75	115
----------------------------------	----	-----

gG DIN fuse protected short-circuit withstand (kA rms prospective)⁽⁶⁾

Prospective short-circuit current (kA rms)	100	50
Associated fuse rating (A)	160	250

Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s

Rated short-time withstand current 0.3s. I_{cw} (kA rms)	15	17
--	----	----

Short-circuit operation (switch only)

Rated short-time withstand current I_{cw} 1s (kA rms)	7	9
Rated peak withstand current in I_{cc} (kA peak) ⁽⁶⁾⁽⁷⁾	20	30

Connection

Minimum Cu cable cross-section (mm ²)	50	95
Maximum Cu cable cross-section (mm ²)	95	150
Tightening torque min/max (Nm)	8.3 / 13	20 / 26

Mechanical characteristics

Durability (number of operating cycles)	10 000	10 000
Operating effort (Nm)	6.5	10
Weight of a 3-pole device (kg)	1.5	2
Weight of a 4-pole device (kg)	1.5	2
IP rating	IP65	

Accessories

Disconnectable solid neutral (accessory)	NB16 0000	NB25 0000
Auxiliary contacts 1st NO + NC (Reference)	2699 0031	
Auxiliary contacts 2nd NO + NC (Reference)	2699 0032	
Terminal shrouds - Reference for 3P	2694 3014	2694 3021
Terminal shrouds - Reference for 4P	2694 4014	2694 4021
Mounting brackets for ALE5 (Reference)	5160 0002	

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

(2) With terminal shrouds or phase barrier.

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

(4) 4-pole device with 2 poles in series per polarity.

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

(6) For a rated operational voltage $U_e = 415$ VAC.

(7) Coordination tables with circuit breaker: please consult NHP.