



SIDER

Load break switches for power distribution
from 125 to 3150 A with visible breaking

Load break
switches



SIDER ND 4 x 500 A
External right side operation



SIDER 3 x 1250 A
external front operation



SIDER 2500 A
direct front operation handle

The solution for

- > Main switchboard
- > Distribution panels
- > Safety enclosures for emergency load break
- > Normal atmosphere
- > Explosive atmosphere



Strong points

- > Safety thanks to visible breaking
- > Modularity

Conformity to standards

- > IEC 60947-3
- > EN 60947-3
- > VDE 0660-107 (1992)
- > NBN EN 60947-3
- > BS EN 60947-3



Approvals and certifications

- > GOST (Russie)

Function

SIDER units are manually operated 3 or 4-pole load break switches. They make and break under load conditions and provide safe isolation for any low voltage circuit.

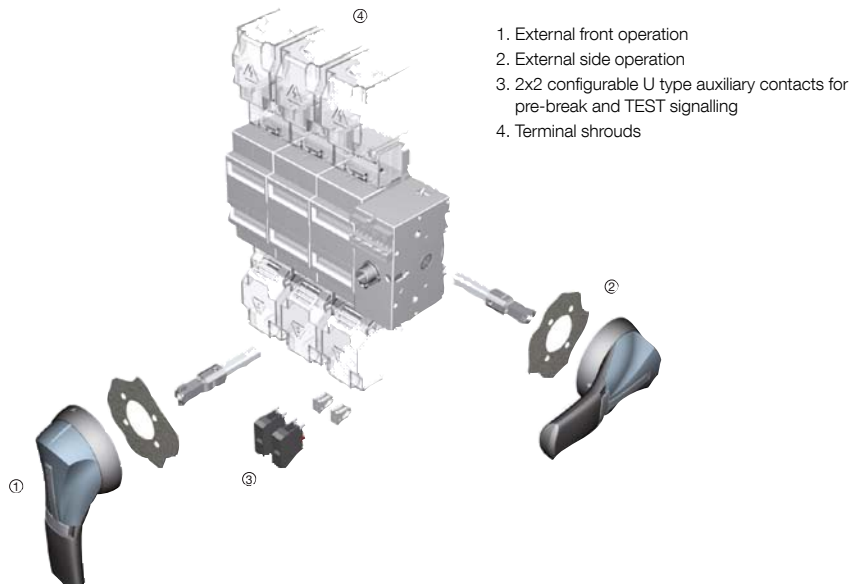
Advantages

Safety thanks to visible breaking

Visible breaking and positive break indication ensure safe switching. The user can assess the condition of the device either during a preventive check or before an operation. SIDER load break switches are most suitable for use in safety enclosures in explosive atmospheres (zones 21 and 22). The addition of a mechanical flag indicator, directly connected to the device's breaking system, provides reliable position information on the front of the enclosure.

Functional diagram

For further details see the installation instructions supplied with the product.



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References

Front operation

| Rating (A) | No. of poles | Switch body Direct operation | Switch body External operation | Direct handle | External handle | Shaft for external handle | Auxiliary contact | | | | |
|------------|--------------|---------------------------------|-----------------------------------|--|--|---|---|---|---|---|--|
| ND 125 A | 3 P | 2915 3012 | 2921 3012 | Black 3629 7901 ⁽¹⁾ | S2 type Black IP55 1421 2111 ⁽¹⁾ Black IP65 1423 2111 Red IP65 1424 2111 | 200 mm 1400 1020 320 mm 1400 1032 ⁽⁴⁾ 500 mm 1400 1050 | 1 st contact NO/NC 3999 0021 ⁽²⁾⁽³⁾ 2 contacts NO/NC 3999 0022 ⁽²⁾⁽³⁾ 1 contact NC 3999 0701 ⁽⁴⁾⁽⁵⁾ 1 contact NO 3999 0702 ⁽⁴⁾⁽⁵⁾ | | | | |
| | 4 P | 2915 4012 | 2921 4012 | | | | | | | | |
| ND 200 A | 3 P | 2915 3021 | 2921 3020 | | | | | | | | |
| | 4 P | 2915 4021 | 2921 4020 | | | | | | | | |
| ND 250 A | 3 P | 2915 3025 | 2921 3025 | | | | | | | | |
| | 4 P | 2915 4025 | 2921 4025 | | | | | | | | |
| ND 315 A | 3 P | 2915 3031 | 2921 3031 | | | | | | | | |
| | 4 P | 2915 4031 | 2921 4031 | | | | | | | | |
| ND 400 A | 3 P | 2915 3041 | 2921 3041 | | | | | | | | |
| | 4 P | 2915 4041 | 2921 4041 | | | | | | | | |
| ND 500 A | 3 P | 2915 3051 | 2921 3051 | | | | | | | | |
| | 4 P | 2915 4051 | 2921 4051 | | | | | | | | |
| 630 A | 3 P | 2900 3063 | 2900 3063 | | | | | Black 2799 7012 ⁽¹⁾ Red 2799 7013 | Type S4 Black IP65 1443 3111 ⁽¹⁾ Red / Yellow IP65 1444 3111 | 200 mm 1401 1520 320 mm 1401 1532 ⁽⁴⁾ 400 mm 1401 1540 | 1 st NO / NC contact 2799 0001 2 nd NO / NC contact 2799 0002 |
| | 4 P | 2900 4063 | 2900 4063 | | | | | | | | |
| 800 A | 3 P | 2900 3080 | 2900 3080 | | | | | | | | |
| | 4 P | 2900 4080 | 2900 4080 | | | | | | | | |
| 1250 A | 3 P | 2900 3120 | 2900 3120 | | | | | | | | |
| | 4 P | 2900 4120 | 2900 4120 | | | | | | | | |
| 1600 A | 3 P | 2900 3160 | 2900 3160 | | | | | | | | |
| | 4 P | 2900 4160 | 2900 4160 | | | | | | | | |
| 1800 A | 3 P | 2901 3180 ⁽⁶⁾ | | | | | | | | | |
| 2000 A | 3 P | 2901 3200 ⁽⁶⁾ | | | | | | | | | |
| 2500 A | 3 P | 2901 3250 ⁽⁶⁾ | | | | | | | | | |
| 3150 A | 3 P | 2901 3310 ⁽⁶⁾ | | | | | | | | | |

(1) Standard.

(2) Auxiliary signal contact - Type S.

(3) For direct operation.

(4) For external operation.

(5) Auxiliary signal contact - Type U.

(6) Switch body front operation

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References

Side operation

| Rating (A) | No. of poles | Switch body Direct operation | Switch body External right side operation | Direct handle | External handle | Shaft for external handle | Auxiliary contact |
|------------|--------------|---------------------------------|---|---|---|---|---|
| ND 125 A | 3 P | 2915 3012 | 2921 3012 | Black 3629 7901 ⁽¹⁾ | S2 type Black IP55 1425 2111 ⁽¹⁾ Black IP65 1427 2111 Red / Yellow IP65 1428 2111 | 200 mm 1400 1020 ⁽¹⁾ | 1 st contact NO/NC 3999 0021 ⁽²⁾⁽³⁾ 2 contacts NO/NC 3999 0022 ⁽²⁾⁽³⁾ 1 contact NC 3999 0701 ⁽⁴⁾⁽⁶⁾ 1 contact NO 3999 0702 ⁽⁴⁾⁽⁶⁾ |
| | 4 P | 2915 4012 | 2921 4012 | | | | |
| ND 200 A | 3 P | 2915 3021 | 2921 3020 | | | | |
| | 4 P | 2915 4021 | 2921 4020 | | | | |
| ND 250 A | 3 P | 2915 3025 | 2921 3025 | | | | |
| | 4 P | 2915 4025 | 2921 4025 | | | | |
| ND 315 A | 3 P | 2915 3031 | 2921 3031 | | | | |
| | 4 P | 2915 4031 | 2921 4031 | | | | |
| ND 400 A | 3 P | 2915 3041 | 2921 3041 | | | | |
| | 4 P | 2915 4041 | 2921 4041 | | | | |
| ND 500 A | 3 P | 2915 3051 | 2921 3051 | | | | |
| | 4 P | 2915 4051 | 2921 4051 | | | | |
| 630 A | 3 P | 2905 3063 | 2905 3063 | Black 2799 7052 ⁽¹⁾ Conversion kit 2799 7070 ⁽⁵⁾ Red 2799 7053 Conversion kit 2799 7070 ⁽⁵⁾ | S3 type Black IP65 1437 3111 ⁽¹⁾ Red / Yellow IP65 1438 3111 | 200 mm 1404 1520 ⁽¹⁾ | 1 st contact NO/NC 2799 0011 2 nd contact NO/NC 2799 0012 |
| | 4 P | 2905 4063 | 2905 4063 | | | | |
| 800 A | 3 P | 2905 3080 | 2905 3080 | | | | |
| | 4 P | 2905 4080 | 2905 4080 | | | | |
| 1250 A | 3 P | 2905 3120 | 2905 3120 | | | | |
| | 4 P | 2905 4120 | 2905 4120 | | | | |
| 1600 A | 3 P | 2905 3160 | 2905 3160 | | | | |
| | 4 P | 2905 4160 | 2905 4160 | | | | |

(1) Standard.

(2) Auxiliary signal contact - Type S.

(3) For direct operation.

(4) For external operation.

(5) Conversion kit necessary for any direct operation.

(6) Auxiliary signal contact - Type U.

Accessories

Direct operation handle

| For front operation | | |
|---------------------|---------------|--------------------------------|
| Rating (A) | Handle colour | Reference |
| ND 125 ... ND 500 | Black | 3629 7901 |
| 630 ... 3150 | Black | 2799 7012⁽¹⁾ |
| 630 ... 3150 | Red | 2799 7013 |

(1) Standard.

| For side operation | | |
|--------------------|---------------|------------------|
| Rating (A) | Handle colour | Reference |
| ND 125 ... ND 500 | Black | 3629 7901 |
| 630 ... 1600 | Black | 2799 7052 |
| 630 ... 1600 | Red | 2799 7053 |

| Direct side operation escutcheon | | |
|----------------------------------|-------------|--------------------------------|
| Rating (A) | External IP | Reference |
| 630 ... 1600 | IP54 | 2799 7070⁽¹⁾ |

(1) To be ordered together with a direct side operation handle.



External operation handle

| For front operation | | | | |
|---------------------|---------------|-------------|----------------------------|--------------------------------|
| Rating (A) | Handle colour | Handle type | External IP ⁽¹⁾ | Reference |
| ND 125 ... ND 500 | Black | S2 | IP55 | 1421 2111⁽²⁾ |
| ND 125 ... ND 500 | Black | S2 | IP65 | 1423 2111 |
| ND 125 ... ND 500 | Red | S2 | IP65 | 1424 2111 |
| 630 ... 3150 | Black | S4 | IP65 | 1443 3111⁽²⁾ |
| 630 ... 3150 | Red | S4 | IP65 | 1444 3111 |

(1) IP: protection degree according to IEC 60529 standard. (2) Standard.

| For right side operation | | | | |
|--------------------------|---------------|-------------|----------------------------|------------------|
| Rating (A) | Handle colour | Handle type | External IP ⁽¹⁾ | Reference |
| ND 125 ... ND 500 | Black | S2 | IP55 | 1425 2111 |
| ND 125 ... ND 500 | Red | S2 | IP65 | 1428 2111 |
| 630 ... 1600 | Black | S3 | IP65 | 1437 3111 |
| 630 ... 1600 | Red | S3 | IP65 | 1438 3111 |

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



Shaft guide for external operation

Use

To guide the shaft extension into the external handle. This accessory enables the handle to engage the extension shaft with a misalignment of up to 15 mm.

Required for a shaft length over 320 mm.

| Description | Reference |
|-------------|------------------|
| Shaft guide | 1429 0000 |



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Accessories (continued)

Type S handle adapter

Use

Enables S-type handles to be fitted in place of existing older style Socomec handles.

Dimensions

Adds 12 mm to the handle depth.



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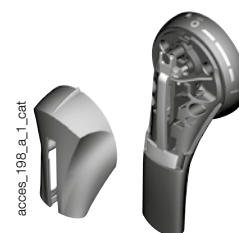
| Handle colour | To be ordered in multiples of | External IP ⁽¹⁾ | Reference |
|---------------|-------------------------------|----------------------------|-----------|
| Black | 1 | IP65 | 1493 0000 |

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

Alternative S type handle cover colour

Use

For single lever handle S1, S2, S3 types and double lever handle S4 type. Other colours available - please contact us.



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| Handle colour | To be ordered in multiples of | Handle type | Reference |
|---------------|-------------------------------|-------------|-----------|
| Light grey | 50 | S1, S2 | 1401 0001 |
| Dark grey | 50 | S1, S2 | 1401 0011 |
| Light grey | 50 | S4 | 1401 0031 |
| Dark grey | 50 | S4 | 1401 0041 |

Shaft for external operation

Use

Standard lengths:

- 80 mm,
- 200 mm,
- 320 mm,
- 400 mm,
- 500 mm.

Other lengths available - please contact us.

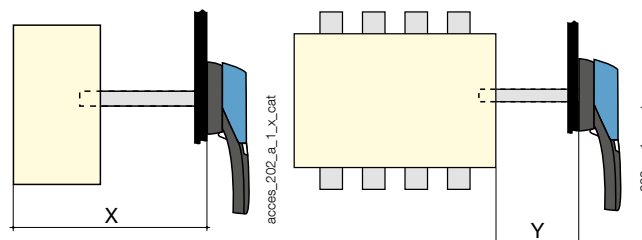


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| For front operation | | | | |
|---------------------|------------------|-------------------|---------|-----------|
| Rating (A) | Dimension X (mm) | Shaft length (mm) | Type | Reference |
| ND 125 ... ND 500 | 95 ... 230 | 200 mm | 10 x 10 | 1400 1020 |
| ND 125 ... ND 500 | 95 ... 350 | 320 mm | 10 x 10 | 1400 1032 |
| ND 125 ... ND 500 | 95 ... 530 | 500 mm | 10 x 10 | 1400 1050 |
| 630 ... 3150 | 295 ... 555 | 200 mm | 15 x 12 | 1401 1520 |
| 630 ... 3150 | 295 ... 675 | 320 mm | 15 x 12 | 1401 1532 |
| 630 ... 3150 | 295 ... 755 | 400 mm | 15 x 12 | 1401 1540 |

| For side operation | | | | |
|--------------------|------------------|-------------------|---------|-----------|
| Rating (A) | Dimension Y (mm) | Shaft length (mm) | Type | Reference |
| ND 125 ... ND 500 | 20 ... 110 | 80 mm | 10 x 10 | included |
| ND 125 ... ND 500 | 20 ... 230 | 200 mm | 10 x 10 | 1400 1020 |
| 630 ... 1600 | 98 ... 258 | 200 mm | 15 x 12 | 1404 1520 |



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Auxiliary contacts for pre-break and signalling - Front operation

Use

Pre-break and signalling of positions 0 and I:

- 1 to 2 NO/NC auxiliary contacts,
- 1 to 4 NO or NC auxiliary contacts,
- 1 to 4 NO+NC auxiliary contacts.

Connection to the control circuit

6.35 mm fast-on terminal.

Characteristics

NO/NC A/C: IP2X.

Electrical characteristics

30 000 operations.



| NO/NC contact Rating (A) | Position AC | Reference |
|--------------------------|-----------------|--------------------------|
| ND 125 ... ND 500 | 1 st | 3999 0021 ⁽¹⁾ |
| ND 125 ... ND 500 | 2 nd | 3999 0022 ⁽¹⁾ |
| 630 ... 1600 | 1 st | 2799 0001 |
| 630 ... 1600 | 2 nd | 2799 0002 |

(1) For direct operation.

| NC contact Rating (A) | Position AC | Reference |
|-----------------------|-------------|--------------------------|
| ND 125 ... ND 500 | 1 to 4 | 3999 0701 ⁽¹⁾ |

(1) For external operation.

Characteristics

| Rating (A) | Contact type | Current nominal (A) | Operating current I _o (A) | | | |
|-------------------|------------------|---------------------|--------------------------------------|---------------|--------------|--------------|
| | | | 250 VAC AC-13 | 400 VAC AC-13 | 24 VDC DC-13 | 48 VDC DC-13 |
| ND 125 ... ND 500 | changeover NO/NC | 16 | | 3 | 12 | 2 |
| ND 125 ... ND 500 | NC | 10 | 6 | 4 | 5 | 3 |
| ND 125 ... ND 500 | NO | 10 | 6 | 4 | 5 | 3 |
| 630 ... 1600 | changeover NO/NC | 16 | 12 | 8 | 14 | 6 |
| 630 ... 1600 | NO + NC | 15 | 10 | 6 | 15 | 12 |

| NO contact Rating (A) | Position AC | Reference |
|-----------------------|-------------|--------------------------|
| ND 125 ... ND 500 | 1 to 4 | 3999 0702 ⁽¹⁾ |

(1) For external operation.

| NO + NC contact Rating (A) | Position AC | Reference |
|----------------------------|-------------|-----------|
| 630 ... 1600 | 1 | 2799 0005 |

| Low level NO/NC auxiliary contacts Rating (A) | Position AC | Reference |
|---|-------------|-----------|
| 630 ... 1600 | 1 | 2699 0101 |

Auxiliary contacts for pre-break and signalling - Right side operation

Use

Pre-break and signalling of positions 0 and I:

- 1 to 2 NO/NC auxiliary contacts,
- 1 to 4 NO or NC auxiliary contacts.

Connection to the control circuit

By 6.35 mm fast-on terminal.

Characteristics

NO/NC A/C: IP2X.

Electrical characteristics

30 000 operations.



| NO/NC contact Rating (A) | Position AC | Reference |
|--------------------------|-----------------|-----------|
| ND 125 ... ND 500 | 1 st | 3999 0021 |
| ND 125 ... ND 500 | 2 | 3999 0022 |
| 630 ... 1600 | 1 st | 2799 0011 |
| 630 ... 1600 | 2 nd | 2799 0012 |

| NC contact Rating (A) | Position AC | Reference |
|-----------------------|-------------|-----------|
| ND 125 ... ND 500 | 1 to 4 | 3999 0701 |

| NO contact Rating (A) | Position AC | Reference |
|-----------------------|-------------|-----------|
| ND 125 ... ND 500 | 1 to 4 | 3999 0702 |

| Low level NO/NC auxiliary contacts Rating (A) | Position AC | Reference |
|---|-------------|-----------|
| 630 ... 1600 | 1 | 2799 0111 |

Characteristics

| Rating (A) | Contact type | Current nominal (A) | Operating current I _o (A) | | | |
|-------------------|------------------|---------------------|--------------------------------------|---------------|--------------|--------------|
| | | | 250 VAC AC-13 | 400 VAC AC-13 | 24 VDC DC-13 | 48 VDC DC-13 |
| ND 125 ... ND 500 | changeover NO/NC | 16 | | 3 | 12 | 2 |
| ND 125 ... ND 500 | NC | 10 | 6 | 4 | 5 | 3 |
| ND 125 ... ND 500 | NO | 10 | 6 | 4 | 5 | 3 |
| 630 ... 1600 | changeover NO/NC | 16 | 12 | 8 | 14 | 6 |

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from 125 to 3150 A with visible breaking

Accessories (continued)

S type auxiliary contacts for signalisation - Front and right side operation

Use

Signalling of positions 0 and I,
1 to 4 NO+NC auxiliary contacts.

Connection to the control circuit

By terminals with a max. cross-section of
10 mm².

Electrical principle

The NO+NC S-type auxiliary contacts can
be configured as 2 NO or 2 NC.

Electrical characteristics

30 000 operations.



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| NO+NC contact Rating (A) | Position AC | Reference |
|-----------------------------|-------------|------------------|
| ND 125 ... ND 500 | 1 | 3999 0041 |
| ND 125 ... ND 500 | 2 | 3999 0042 |
| ND 125 ... ND 500 | 3 | 3999 0043 |
| ND 125 ... ND 500 | 4 | 3999 0044 |

Characteristics

| Rating (A) | Contact type | Current nominal (A) | Operating current I _e (A) | |
|-------------------|--------------|---------------------|--------------------------------------|------------|
| | | | 250 VAC | 400 VAC |
| ND 125 ... ND 500 | NO + NC | 20 | AC-13 10 | AC-13 8 |

Terminal shrouds

Use

Top or bottom protection against direct
contact with terminals or connection parts.

Perforations allow remote thermographic
inspection without the need to remove the
shrouds.

Advantage

| Rating (A) | No. of poles | Position | Reference |
|-------------------|--------------|---------------|---------------------------------|
| ND 125 ... ND 200 | 3 P | top or bottom | 3998 3016 ⁽¹⁾ |
| ND 125 ... ND 200 | 4 P | top or bottom | 3998 4016 ⁽²⁾ |
| ND 250 ... ND 500 | 3 P | top or bottom | 3998 3025 ⁽¹⁾ |
| ND 250 ... ND 500 | 4 P | top or bottom | 3998 4025 ⁽²⁾ |

(1) Reference composed of 3 pieces.

(2) Reference composed of 4 pieces.



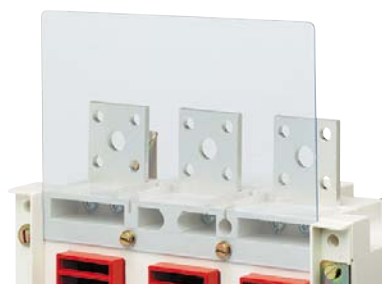
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Terminal screens

Use

Top or bottom protection against direct contact with terminals or connection parts.

| Rating (A) | No. of poles | Position | Reference |
|---------------|--------------|---------------|------------------|
| 630 ... 800 | 3 P | top or bottom | 2998 3080 |
| 630 ... 800 | 4 P | top or bottom | 2998 4080 |
| 1250 ... 3150 | 3 P | top or bottom | 2998 3120 |
| 1250 ... 1600 | 4 P | top or bottom | 2998 4120 |



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Inter-phase barrier

Use

Safe isolation between the terminals, essential for use at 690 VAC or
in a polluted or dusty atmosphere.

| Rating (A) | No. of poles | Reference |
|--------------|--------------|------------------|
| 630 ... 3150 | 3 P | 2998 0003 |
| 630 ... 1600 | 4 P | 2998 0004 |



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Handle key interlocking accessories

Use

Locking in position 0 of the front or side operation handle:

- using RONIS EL11AP lock in direct right-side operation (Fig. 1),
- using RONIS EL11AP lock in direct front operation (Fig. 2),

- using RONIS EL11AP or CASTELL type K-type lock in external front operation (Fig. 3),
- using RONIS EL11AP lock in external right-side operation,
- using CASTELL FS-type in external front operation (Fig. 4).

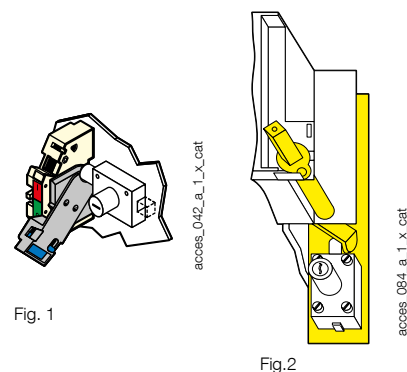


Fig. 1

Fig. 2

| Locking using RONIS EL11AP lock (not supplied) | | | |
|--|-----------------------|--------|---------------------------------|
| Rating (A) | Operation | Figure | Reference |
| ND 125 ... ND 500 | front direct | 1 | 3629 7913 ⁽¹⁾ |
| 630 ... 1600 | front direct | 2 | 2799 7007 ⁽²⁾ |
| ND 125 ... 1600 | external front | 3 | 1499 7701 |
| ND 125 ... ND 500 | direct side operation | 1 | 3629 7913 ⁽¹⁾ |
| ND 125 ... 1600 | external right side | 3 | 1499 7701 |

(1) Handle included.

(2) Factory mounting only.

| Locking using type K CASTELL lock (not supplied) | | | |
|--|----------------|--------|------------------|
| Rating (A) | Operation | Figure | Reference |
| ND 125 ... ND 500 | external front | 3 | 1499 7702 |

| Locking using type FS CASTELL lock (not supplied) | | | |
|---|----------------|--------|------------------|
| Rating (A) | Operation | Figure | Reference |
| ND 125 ND 500 | external front | 4 | 1499 7703 |

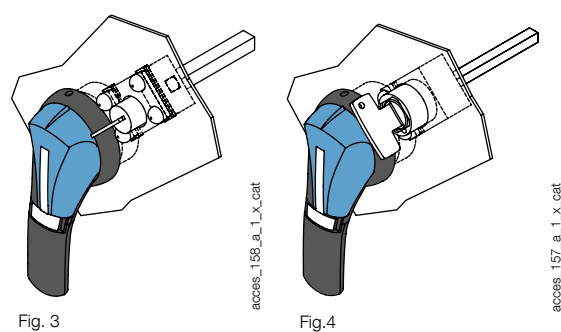


Fig. 3

Fig. 4

Other specific accessories

- Mechanical coupling device for combining switches with "n" poles of the same or different ratings.
- Mechanical interlocking device.
- Mechanical plates and escutcheon for standard systems.

SIDER

Load break switches for power distribution
from 125 to 3150 A with visible breaking

Characteristics according to IEC 60947-3

SIDER ND 125 to 500 A

| Thermal current I_{th} at 40°C | ND 125 A | ND 200 A | ND 250 A | ND 315 A | ND 400 A | ND 500 A |
|---|----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Rated insulation voltage U_i (V) | 800 | 800 | 800 | 800 | 800 | 800 |
| Rated impulse withstand voltage U_{imp} (kV) | 8 | 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⁾ |
| 415 VAC | AC-20 A / AC-20 B | 125/125 | 200/200 | 250/250 | 315/315 | 400/400 |
| 415 VAC | AC-21 A / AC-21 B | 125/125 | 200/200 | 250/250 | 315/315 | 400/400 |
| 415 VAC | AC-22 A / AC-22 B | 125/125 | 200/200 | 250/250 | 315/315 | 400/400 |
| 415 VAC | AC-23 A / AC-23 B | 125/125 | 200/200 | 250/250 | 315/315 | 400/400 |
| 500 VAC | AC-20 A / AC-20 B | 125/125 | 200/200 | 250/250 | 315/315 | 400/400 |
| 500 VAC | AC-21 A / AC-21 B | 125/125 | 160/160 | 250/250 | 250/250 | 400/400 |
| 500 VAC | AC-22 A / AC-22 B | 125/125 | 160/160 | 250/250 | 250/250 | 400/400 |
| 500 VAC | AC-23 A / AC-23 B | 125/125 | 160/160 | 250/250 | 250/250 | 315/315 |
| 690 VAC ⁽²⁾ | AC-20 A / AC-20 B | 125/125 | 200/200 | 250/250 | 315/315 | 400/400 |
| 690 VAC ⁽²⁾ | AC-21 A / AC-21 B | 125/125 | 160/160 | 250/250 | 315/315 | 400/400 |
| 690 VAC ⁽²⁾ | AC-22 A / AC-22 B | 125/125 | 160/160 | 250/250 | 315/315 | 400/400 |
| 690 VAC ⁽²⁾ | AC-23 A / AC-23 B | 125/125 | 160/160 | 250/250 | 250/250 | 315/315 |
| 220 VDC | DC-20 A / DC-20 B | 125/125 | 200/200 | 250/250 | 315/315 | 400/400 |
| 220 VDC | DC-21 A / DC-21 B | 125/125 | 160/160 | 250/250 | 250/250 | 315/315 ⁽³⁾ |
| 220 VDC | DC-22 A / DC-22 B | 125/125 | 160/160 | 250/250 | 250/250 | 315/315 ⁽³⁾ |
| 220 VDC | DC-23 A / DC-23 B | 125/125 | 125/125 | 200/200 | 200/200 | 200/315 ⁽³⁾ |
| 440 VDC | DC-20 A / DC-20 B | 125/125 | 200/200 | 250/250 | 315/315 | 400/400 |
| 440 VDC | DC-21 A / DC-21 B | 125/125 ⁽⁴⁾ | 160/160 ⁽⁴⁾ | 250/250 ⁽⁴⁾ | 250/250 ⁽⁴⁾ | 315/315 ⁽⁴⁾ |
| 440 VDC | DC-22 A / DC-22 B | 125/125 ⁽⁴⁾ | 160/160 ⁽⁴⁾ | 250/250 ⁽⁴⁾ | 250/250 ⁽⁴⁾ | 315/315 ⁽⁴⁾ |
| 440 VDC | DC-23 A / DC-23 B | 125/125 ⁽⁴⁾ | 125/125 ⁽⁴⁾ | 200/200 ⁽⁴⁾ | 200/200 ⁽⁴⁾ | 200/315 ⁽⁴⁾ |
| 500 VDC | DC-20 A / DC-20 B | 125/125 | 200/200 | 250/250 | 315/315 | 400/400 |
| 500 VDC | DC-21 A / DC-21 B | 125/125 ⁽⁴⁾ | 160/160 ⁽⁴⁾ | 250/250 ⁽⁴⁾ | 250/250 ⁽⁴⁾ | 315/315 ⁽⁴⁾ |
| 500 VDC | DC-22 A / DC-22 B | 125/125 ⁽⁴⁾ | 160/160 ⁽⁴⁾ | 250/250 ⁽⁴⁾ | 250/250 ⁽⁴⁾ | 315/315 ⁽⁴⁾ |
| 500 VDC | DC-23 A / DC-23 B | 125/125 ⁽⁴⁾ | 125/125 ⁽⁴⁾ | 200/200 ⁽⁴⁾ | 200/200 ⁽⁴⁾ | 200/315 ⁽⁴⁾ |
| Operational power in AC-23 A (kW) ⁽¹⁾⁽⁵⁾ | | | | | | |
| At 400 VAC without pre-break in AC-23 (kW) ⁽¹⁾ | 63/63 | 110/110 | 140/140 | 160/160 | 220/220 | 295/295 |
| At 500 VAC without pre-break in AC-23 (kW) ⁽¹⁾ | 85/85 | 110/110 | 160/160 | 160/160 | 220/220 | 220/220 |
| At 690 VAC without pre-break in AC-23 (kW) ⁽¹⁾ | 110/110 | 150/150 | 220/220 | 220/220 | 295/295 | 295/295 |
| Reactive power (kvar) | | | | | | |
| At 400 VAC (kvar) | 55 | 90 | 115 | 145 | 185 | 230 |
| Fuse protected short-circuit withstand (kA rms prospective)⁽⁶⁾ | | | | | | |
| Prospective short-circuit current (kA rms) | 100 | 60 | 100 | 60 | 50 | 30 |
| Associated fuse rating (A) | 125 | 200 | 150 | 315 | 400 | 500 |
| Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s | | | | | | |
| Prospective short-circuit 0.3s (kA rms) | 15 | 15 | 17 | 17 | 17 | 17 |
| Short-circuit capacity (without protection) | | | | | | |
| Rated short-time withstand current 1s. I_{cw} (kA rms) | 7 | 7 | 9 | 9 | 9 | 9 |
| Rated peak withstand current (kA peak) ⁽⁶⁾ | 20 | 20 | 32.5 | 32.5 | 40 | 40 |
| Connection | | | | | | |
| Minimum Cu cable cross-section (mm ²) | | | | | | |
| Minimum Cu busbar cross-section (mm ²) | | | | | | |
| Maximum Cu cable cross-section (mm ²) | 120 | 120 | 240 | 240 | 2 x 150 | 2 x 150 |
| Maximum Cu busbar width (mm) | 20 | 20 | 32 | 32 | 45 | 45 |
| Tightening torque min (Nm) | 9 | 9 | 20 | 20 | 20 | 20 |
| Mechanical characteristics | | | | | | |
| Durability (number of operating cycles) ⁽⁶⁾ | 10 000 | 10 000 | 10 000 | 10 000 | 10 000 | 10 000 |
| Operating effort (Nm) | 10 | 10 | 12 | 12 | 15 | 15 |
| Weight of a 3 pole device (kg) | 1.8 | 1.8 | 3.2 | 3.2 | 4.8 | 4.8 |
| Weight of a 4 pole device (kg) | 2.3 | 2.3 | 4.5 | 4.5 | 6.1 | 6.1 |

(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.

Characteristics according to IEC 60947-3

SIDER 630 to 3150 A

| Thermal current I_{th} at 40°C | 630 A | 800 A | 1250 A | 1600 A | 1800 A | 2000 A | 2500 A | 3150 A |
|---|----------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------|--------------------|--------------------|
| 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⁾ |
| 415 VAC | AC-20 A / AC-20 B | 630 / 630 | 800 / 800 | 1250 / 1250 | 1600 / 1600 | 1800 / 1800 | 2000/2000 | 2500/2500 |
| 415 VAC | AC-21 A / AC-21 B | 630 / 630 | 800 / 800 | 1250 / 1250 | 1600 / 1600 | 1800 / 1800 | 2000/2000 | 2500/2500 |
| 415 VAC | AC-22 A / AC-22 B | 630 / 630 | 800 / 800 | 1250 / 1250 | 1250 / 1250 | - | - | - |
| 415 VAC | AC-23 A / AC-23 B | 630 / 630 | 630 / 800 | 1000 / 1000 | 1000 / 1000 | - | - | - |
| 500 VAC | AC-20 A / AC-20 B | 630 / 630 | 800 / 800 | 1250 / 1250 | 1600 / 1600 | 1800 / 1800 | 2000/2000 | 2500/2500 |
| 500 VAC | AC-21 A / AC-21 B | 630 / 630 | 800 / 800 | 1250 / 1250 | 1600 / 1600 | - | - | - |
| 500 VAC | AC-22 A / AC-22 B | 630 / 630 | 800 / 800 | 1000 / 1000 | 1000 / 1000 | - | - | - |
| 500 VAC | AC-23 A / AC-23 B | 500 / 500 | 500 / 500 | 800 / 800 | 800 / 800 | - | - | - |
| 690 VAC ⁽²⁾ | AC-20 A / AC-20 B | 630 / 630 | 800 / 800 | 1250 / 1250 | 1600 / 1600 | 1800 / 1800 | 2000/2000 | 2500/2500 |
| 690 VAC ⁽²⁾ | AC-21 A / AC-21 B | 630 / 630 | 800 / 800 | 1000 / 1000 | 1250 / 1250 | - | - | - |
| 690 VAC ⁽²⁾ | AC-22 A / AC-22 B | 315 / 315 | 315 / 315 | 400 / 400 | 400 / 400 | - | - | - |
| 690 VAC ⁽²⁾ | AC-23 A / AC-23 B | 100 / 100 | 125 / 125 | 200 / 200 | 200 / 200 | - | - | - |
| 220 VDC | DC-20 A / DC-20 B | 630 / 630 | 800 / 800 | 1250 / 1250 | 1600 / 1600 | - | - | - |
| 220 VDC | DC-21 A / DC-21 B | 630 / 630 | 800 / 800 | 1000 / 1000 | 1250 / 1250 | - | - | - |
| 220 VDC | DC-22 A / DC-22 B | 630 / 630 | 800 / 800 | 800 / 800 | 800 / 800 | - | - | - |
| 220 VDC | DC-23 A / DC-23 B | 630 / 630 | 800 / 800 | 800 / 800 | 800 / 800 | - | - | - |
| 440 VDC | DC-20 A / DC-20 B | 630 / 630 | 800 / 800 | 1250 / 1250 | 1600 / 1600 | - | - | - |
| 440 VDC | DC-21 A / DC-21 B | 500 / 500 | 630 / 630 | 800 / 800 | 1000 / 1000 | - | - | - |
| 440 VDC | DC-22 A / DC-22 B | 630 / 630 ⁽⁴⁾ | 800 / 800 ⁽⁴⁾ | 800 / 800 ⁽⁴⁾ | 800 / 800 ⁽⁴⁾ | - | - | - |
| 440 VDC | DC-23 A / DC-23 B | 630 / 630 ⁽⁴⁾ | 800 / 800 ⁽⁴⁾ | 800 / 800 ⁽⁴⁾ | 800 / 800 ⁽⁴⁾ | - | - | - |
| 500 VDC | DC-20 A / DC-20 B | 630 / 630 | 800 / 800 | 1250 / 1250 | 1600 / 1600 | - | - | - |
| 500 VDC | DC-21 A / DC-21 B | 500 / 500 | 630 / 630 | 800 / 800 ⁽⁴⁾ | 1000 / 1000 | - | - | - |
| 500 VDC | DC-22 A / DC-22 B | 630 / 630 ⁽⁴⁾ | 800 / 800 ⁽⁴⁾ | 800 / 800 ⁽⁴⁾ | 800 / 800 ⁽⁴⁾ | - | - | - |
| 500 VDC | DC-23 A / DC-23 B | 630 / 630 ⁽⁴⁾ | 800 / 800 ⁽⁴⁾ | 800 / 800 ⁽⁴⁾ | 800 / 800 ⁽⁴⁾ | - | - | - |
| Operational power in AC-23 (kW)⁽¹⁾⁽⁵⁾ | | | | | | | | |
| At 400 VAC without pre-break auxiliary contact in AC-23 (kW) ⁽¹⁾ | 355 / 355 | 355 / 355 | 560 / 560 | 560 / 560 | - | - | - | - |
| At 500 VAC without pre-break in AC-23 (kW) ⁽¹⁾ | 355 / 355 | 355 / 355 | 560 / 560 | 560 / 560 | - | - | - | - |
| At 690 VAC without pre-break in AC-23 (kW) ⁽¹⁾ | 90 / 90 | 110 / 110 | 185 / 185 | 185 / 185 | - | - | - | - |
| Reactive power (kvar) | | | | | | | | |
| At 400 VAC (kvar) | 290 | 365 | 575 | - | - | - | - | - |
| Current rated as conditional short-circuit with fuse gG DIN | | | | | | | | |
| Prospective short-circuit current (kA rms) ⁽⁶⁾ | 100 | 70 | 100 | 120 | - | - | - | - |
| Associated fuse rating (A) ⁽⁵⁾ | 630 | 800 | 1250 | 2 x 800 | - | - | - | - |
| 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) | 50 | 50 | 100 | 100 | - | - | - | - |
| Short-circuit operation (switch only) | | | | | | | | |
| Rated short-time withstand current I_{cw} 1s (kA rms) | 26 | 26 | 50 | 50 | 50 | 50 | 50 | 50 |
| Rated peak withstand current in I_{cc} (kA peak) ⁽⁶⁾ | 55 | 55 | 100 | 110 | 80 | 80 | 80 | 80 |
| Connection | | | | | | | | |
| Minimum Cu cable cross-section (mm ²) | 2 x 150 | 2 x 185 | - | - | - | - | - | - |
| Minimum Cu cable cross-section (mm ²) | 2 x 30 x 5 | 2 x 40 x 5 | 2 x 60 x 5 | 2 x 80 x 5 | 2 x 80 x 5 | 2 x 80 x 10 | 4 x 100 x 5 | - |
| Minimum Cu cable cross-section (mm ²) | 2 x 300 | 2 x 300 | 4 x 185 | 6 x 240 | 6 x 240 | 3 x 100 x 5 | 2 x 100 x 10 | 3 x 100 x 10 |
| Maximum Cu busbar width (mm) | 63 | 63 | 100 | 100 | 100 | 100 | 100 | 100 |
| Tightening torque min/max (Nm) | 20 | 20 | 20 | 40 | 40 | - | - | - |
| Mechanical characteristics | | | | | | | | |
| Durability (number of operating cycles) ⁽⁷⁾ | 5000 | 4000 | 4000 | 3000 | 3000 | - | - | - |
| Operating effort (Nm) | 45 | 45 | 45 | 65 | 65 | - | - | - |
| Weight of a 3-pole device (kg) | 8 | 8.5 | 11 | 16.5 | 16.5 | - | - | - |
| Weight of a 4-pole device (kg) | 9.5 | 10 | 14 | 20.5 | 20.5 | - | - | - |

(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 $U_n = 415$ VAC.

(7) For higher endurances, please contact us.

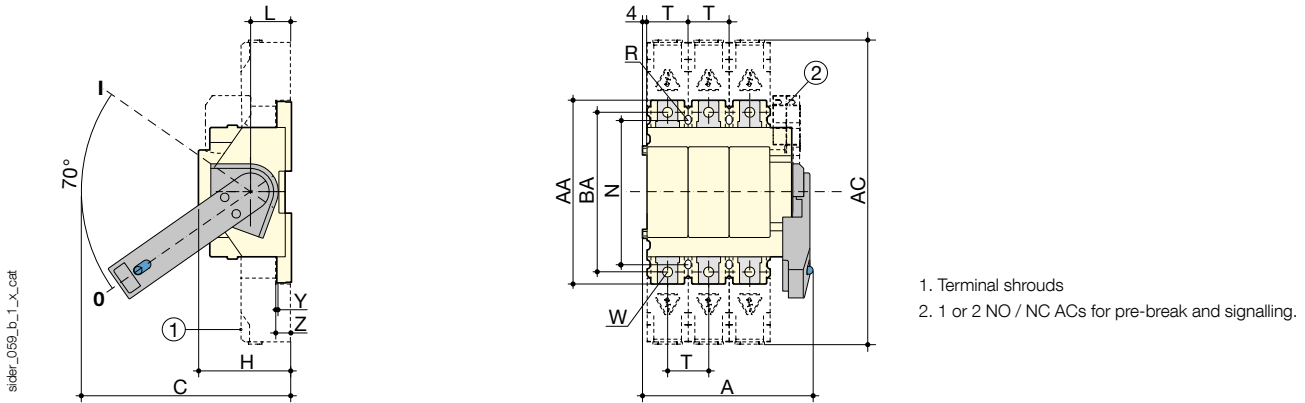
SIDER

Load break switches for power distribution
from 125 to 3150 A with visible breaking

Dimensions - Front operation

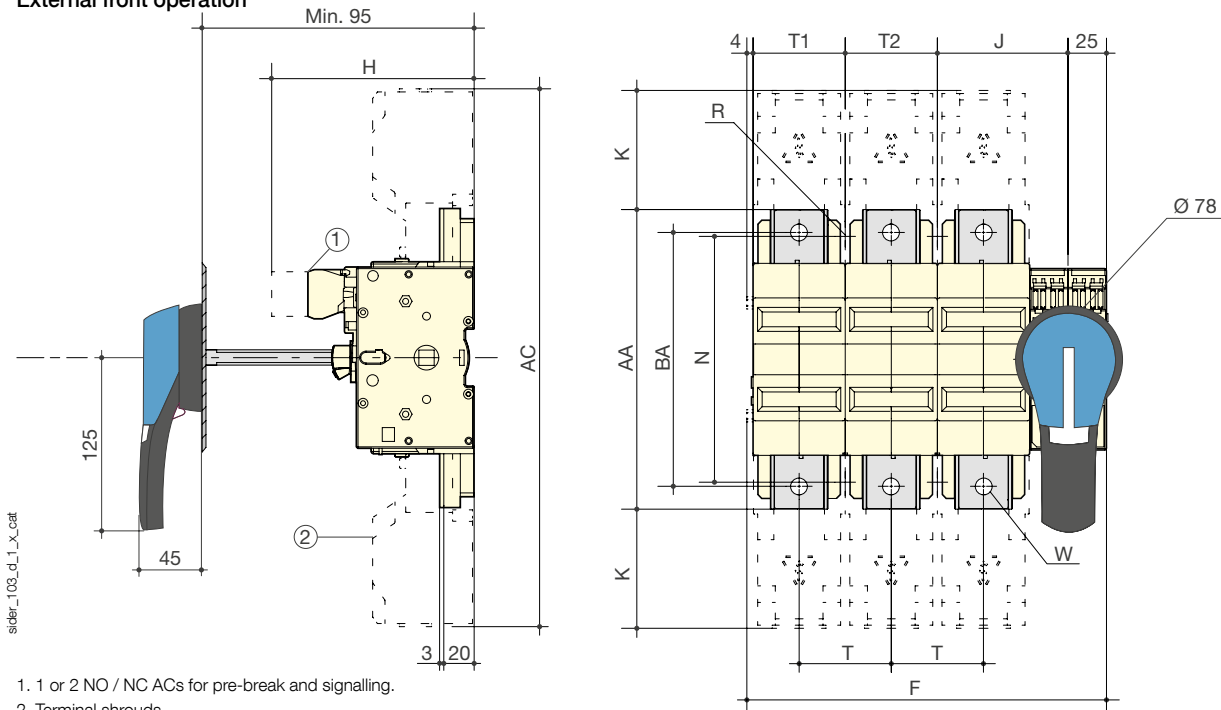
SIDER ND 125 to 500 A

Direct front operation



| Rating (A) | Overall dimensions | | | Terminal shrouds | Switch body | | Switch mounting | | Connection | | | | | |
|------------|--------------------|-------|-----|------------------|-------------|----|-----------------|---|------------|----|---|----|-----|-----|
| | A 3p. | A 4p. | C | AC | H | L | N | R | T | W | Y | Z | AA | BA |
| ND 125 | 160 | 196 | 178 | 268 | 82 | 36 | 130 | 5 | 36 | 8 | 3 | 20 | 162 | 141 |
| ND 200 | 160 | 196 | 178 | 268 | 82 | 36 | 130 | 5 | 36 | 8 | 3 | 20 | 162 | 141 |
| ND 250 | 232 | 322 | 173 | 350 | 77 | 31 | 162 | 6 | 60 | 10 | 3 | 20 | 195 | 165 |
| ND 315 | 232 | 322 | 173 | 350 | 77 | 31 | 162 | 6 | 60 | 10 | 3 | 20 | 195 | 165 |
| ND 400 | 280 | 346 | 173 | 360 | 77 | 31 | 172 | 6 | 66 | 10 | 3 | 20 | 214 | 175 |
| ND 500 | 280 | 346 | 173 | 360 | 77 | 31 | 172 | 6 | 66 | 10 | 3 | 20 | 214 | 175 |

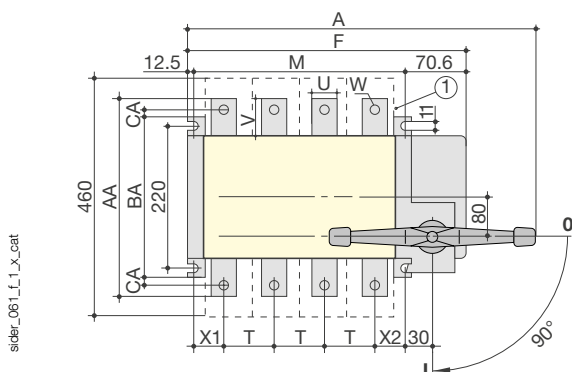
External front operation



| Rating (A) | Terminal shrouds | | Switch body | | | | Switch mounting | | | | Connection | | | |
|------------|------------------|-------|-------------|-----|----|------|-----------------|---|----|----|------------|-----|----|----|
| | AC | F 3p. | F 4p. | H | J | K | N | R | T | W | AA | BA | T1 | T2 |
| ND 125 | 268 | 148 | 184 | 137 | 54 | 53 | 130 | 5 | 36 | 8 | 162 | 141 | 36 | 36 |
| ND 200 | 268 | 148 | 184 | 137 | 54 | 53 | 130 | 5 | 36 | 8 | 162 | 141 | 36 | 36 |
| ND 250 | 350 | 234 | 294 | 132 | 85 | 77.5 | 162 | 6 | 60 | 10 | 195 | 165 | 60 | 60 |
| ND 315 | 350 | 234 | 294 | 132 | 85 | 77.5 | 162 | 6 | 60 | 10 | 195 | 165 | 60 | 60 |
| ND 400 | 360 | 252 | 318 | 132 | 91 | 73 | 172 | 6 | 66 | 10 | 214 | 175 | 66 | 66 |
| ND 500 | 360 | 252 | 318 | 132 | 91 | 73 | 172 | 6 | 66 | 10 | 214 | 175 | 66 | 66 |

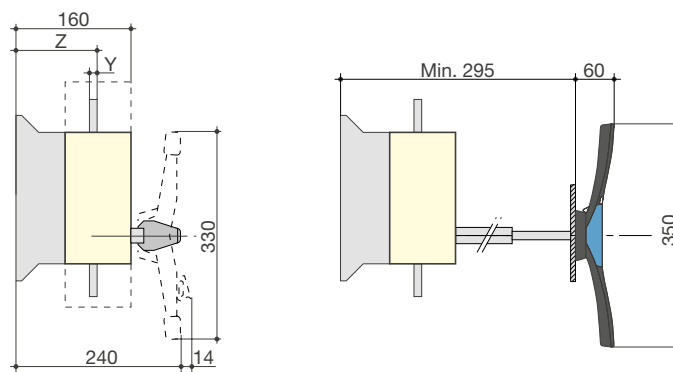
SIDER 630 to 1800 A

Direct front operation



sider_061_f_1_x_cat

External front operation

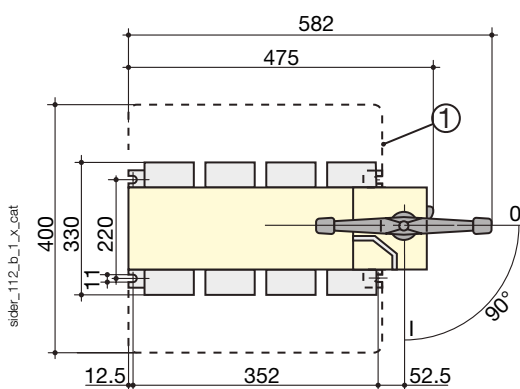


1. Terminal screens

| Rating (A) | Overall dimensions | | Switch body | | Switch mounting | | Connection | | | | | | | | | | | |
|------------|--------------------|-------|-------------|-------|-----------------|-------|------------|-----|----|---------|------|------|----|-----|-----|-----|----|--|
| | A 3p. | A 4p. | F 3p. | F 4p. | M 3p. | M 4p. | T | U | V | W | X1 | X2 | Y | Z | AA | BA | AC | |
| 630 | 463 | 543 | 358 | 438 | 255 | 335 | 80 | 40 | 50 | 13 | 42.5 | 52.5 | 6 | 106 | 300 | 260 | 20 | |
| 800 | 463 | 543 | 358 | 438 | 255 | 335 | 80 | 50 | 60 | 9 | 47.5 | 47.5 | 6 | 106 | 320 | | | |
| 1250 | 555 | 675 | 430 | 550 | 347 | 467 | 120 | 63 | 65 | 16 x 11 | 46.5 | 60.5 | 7 | 107 | 330 | | | |
| 1600 | 555 | 675 | 430 | 550 | 347 | 467 | 120 | 80 | 80 | 13 | 46.5 | 60.5 | 15 | 111 | 360 | | | |
| 1800 | 479 | | 417 | | 345 | | 120 | 100 | 80 | | 46.5 | 60.5 | 15 | 112 | 360 | 250 | | |

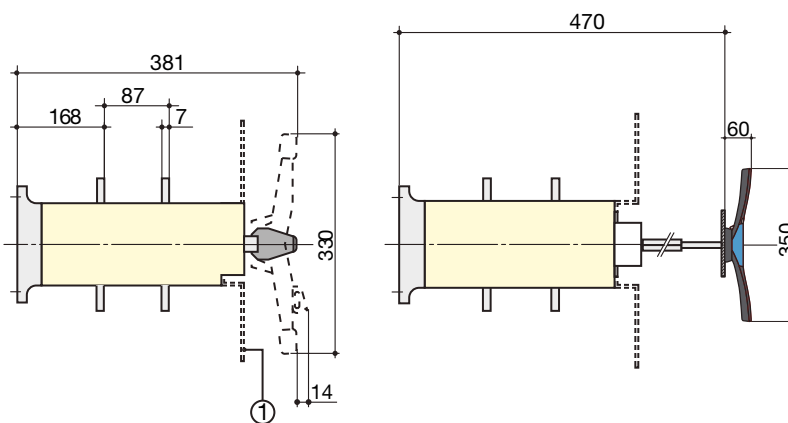
SIDER 2000 to 2500 A

Direct front operation



sider_112_b_1_x_cat

External front operation



1. Terminal screens.

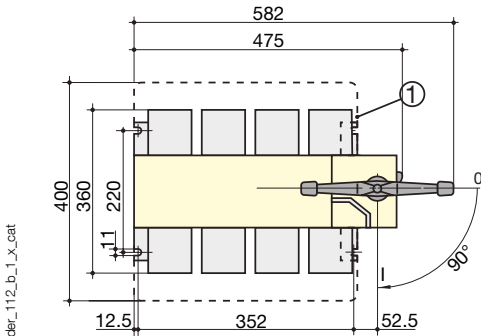
SIDER

Load break switches for power distribution
from 125 to 3150 A with visible breaking

Dimensions - Front operation (continued)

SIDER 3150 A

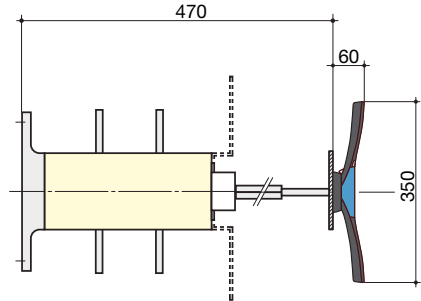
Direct front operation



sider_112_b_1_x_cat

1. Terminal screens.

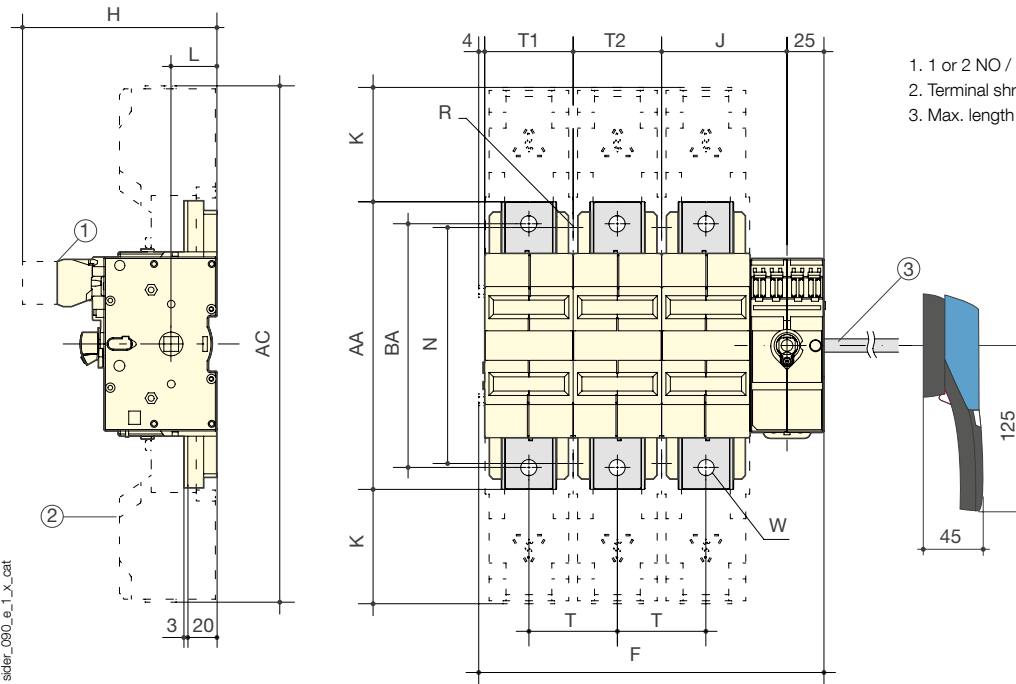
External front operation



Dimensions - Side operation

SIDER ND 125 to 500 A

External side operation



- 1. 1 or 2 NO / NC ACs for pre-break and signalling.
- 2. Terminal shrouds
- 3. Max. length with shaft extension: 230 mm

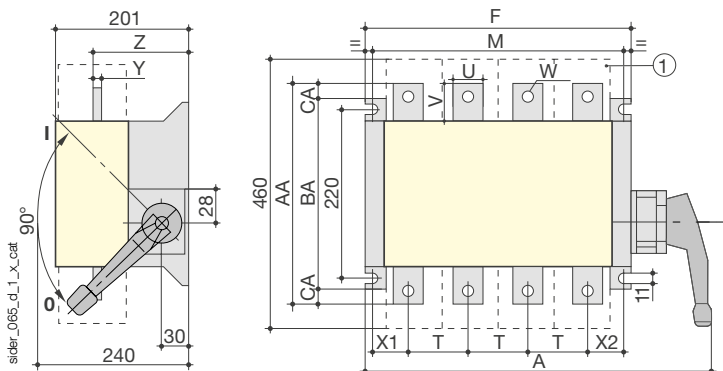
sider_090_e_1_x_cat

| Rating (A) | Terminal shrouds | | Overall dimensions | | Switch body | | | | Switch mounting | | Connection | | | | |
|------------|------------------|-------|--------------------|-----|-------------|------|----|-----|-----------------|----|------------|-----|-----|----|----|
| | AC | F 3p. | F 4p. | H | J | K | L | N | R | T | W | AA | BA | T1 | T2 |
| ND 125 | 268 | 148 | 184 | 137 | 54 | 53 | 36 | 130 | 5 | 36 | 8 | 162 | 141 | 36 | 36 |
| ND 200 | 268 | 148 | 184 | 137 | 54 | 53 | 36 | 130 | 5 | 36 | 8 | 162 | 141 | 36 | 36 |
| ND 250 | 350 | 234 | 294 | 132 | 85 | 77.5 | 31 | 162 | 6 | 60 | 10 | 195 | 165 | 60 | 60 |
| ND 315 | 350 | 234 | 294 | 132 | 85 | 77.5 | 31 | 162 | 6 | 60 | 10 | 195 | 165 | 60 | 60 |
| ND 400 | 360 | 252 | 318 | 132 | 91 | 73 | 31 | 172 | 6 | 66 | 10 | 214 | 175 | 66 | 66 |
| ND 500 | 360 | 252 | 318 | 132 | 91 | 73 | 31 | 172 | 6 | 66 | 10 | 214 | 175 | 66 | 66 |

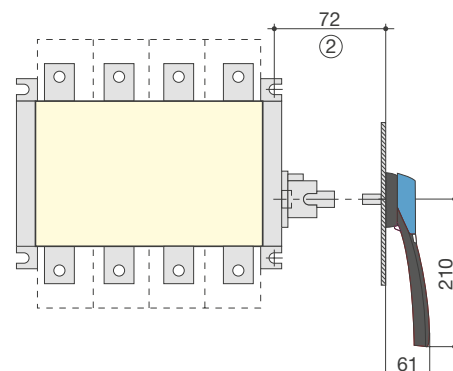
Dimensions - Side operation (continued)

SIDER 630 to 1600 A

Direct side operation



External side operation



1. Terminal screen
2. Min. length with shaft extension: 111 mm

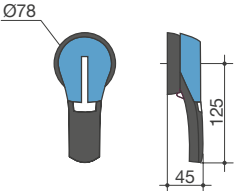
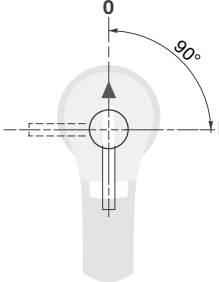
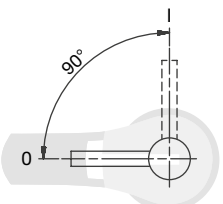
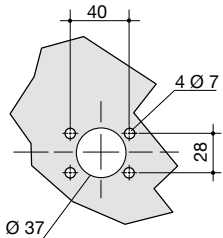
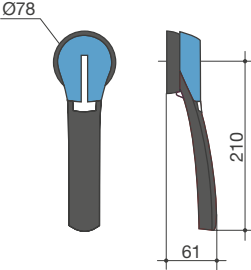
| Rating (A) | Overall dimensions | | Switch body | | Switch mounting | | Connection | | | | | | | | | | |
|------------|--------------------|-------|-------------|-------|-----------------|-------|------------|----|----|---------|------|------|----|-----|-----|-----|----|
| | A 3p. | A 4p. | F 3p. | F 4p. | M 3p. | M 4p. | T | U | V | W | X1 | X2 | Y | Z | AA | BA | AC |
| 630 | 395 | 475 | 280 | 360 | 255 | 335 | 80 | 40 | 50 | 13 | 42.5 | 52.5 | 6 | 147 | 300 | 260 | 20 |
| 800 | 395 | 475 | 280 | 360 | 255 | 335 | 80 | 50 | 60 | 15 | 47.5 | 47.5 | 6 | 147 | 320 | | |
| 1250 | 480 | 600 | 372 | 492 | 347 | 467 | 120 | 63 | 65 | 16 x 11 | 46.5 | 60.5 | 7 | 148 | 330 | | |
| 1600 | 480 | 600 | 372 | 492 | 347 | 467 | 120 | 80 | 80 | 13 | 46.5 | 60.5 | 15 | 152 | 360 | | |

SIDER

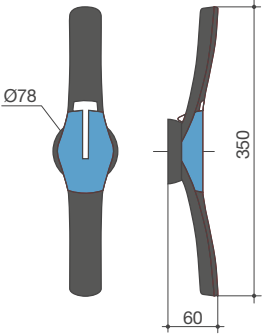
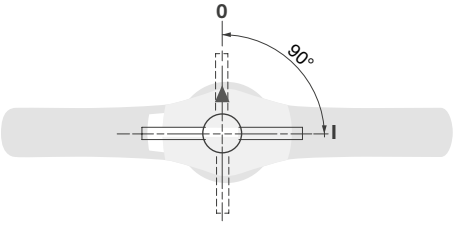
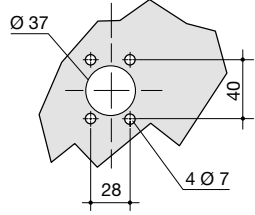
Load break switches for power distribution
from 125 to 3150 A with visible breaking

Dimensions for external handles

SIDER ND 125 to 500 A

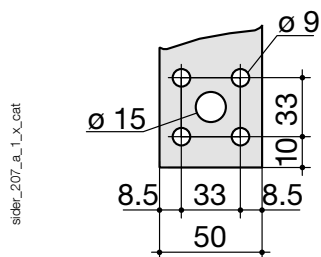
| Handle type | Front operation Direction of operation | Side operation Direction of operation | Door drilling |
|--|---|--|---|
| S2 type  |  | Right side operation  |  |
| S3 type  | | | |

SIDER 630 to 1800 A

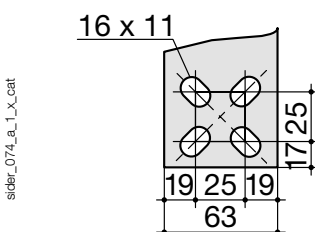
| Handle type | Front operation Direction of operation | Door drilling |
|---|---|---|
| S4 type  |  |  |

Connection terminal

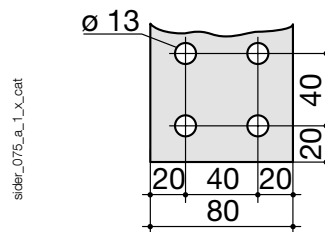
800 A



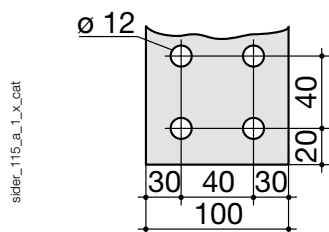
1250 A



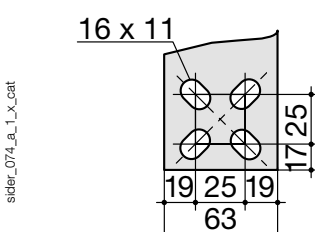
1600 A



1800 A



2000 to 2500 A



3150 A

