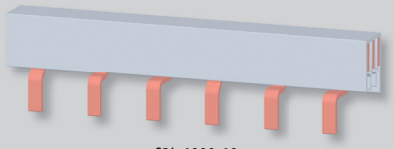
# INTERCONNECTING BUSBARS



S3L-1000-10

## Interconnecting busbars

- For interconnection of 1 to 4-pole circuit breakers, residual current circuit breakers, switches, lightning current arresters and surge voltage arresters.
- Interconnecting busbars of S3L-...FI design:
  - Special interconnecting busbars (without N-pole) for easier connection of the residual current circuit breaker and circuit breaker, where it is required that the row of circuit breakers begins at the N-pole of the residual current circuit breaker.
  - advantage (compared to solution with standard busbar with N-pole) it is not necessary to cut the outlets of the N-pole.

### Interconnecting busbars of length 1 m

- For devices with pole spacing 17.8 mm:
  - miniature circuit breakers LTP, LTS, LTK, LTN-UC
  - residual current circuit breakers LFN, LFE, OLI, OLE
  - switches MSO, MSN etc.

| Number of poles | Number of outlets | Cross-section [mm²] | Type | Order code | End cap | Weight [kg] | Package [pcs] |
|---|---|---|---|---|---|---|---|
| 1 | 57 | 10 | **S1L-1000-10** | OEZ:37373 | EKC-1 | 0.204 | 50 |
| | | 16 | **S1L-1000-16** | OEZ:37375 | EKC-1 | 0.302 | 50 |
| 2 | 28x 2 | 16 | **S2L-1000-16** | OEZ:37378 | EKC-2+3 | 0.477 | 20 |
| 3 | 19x 3 | 10 | **S3L-1000-10** | OEZ:38484 | EKC-3 | 0.505 | 20 |
| | | 16 | **S3L-1000-16** | OEZ:37379 | EKC-2+3 | 0.737 | 20 |
| 3+N | 27x 2 | 16 | **S3L+N-1000-16** | OEZ:38487 | EKC-4 | 1.205 | 15 |
| 4 | 14x 4 | 16 | **S4L-1000-16** | OEZ:38486 | EKC-4 | 1.205 | 15 |

### Interconnecting busbars of length 1 m

- For devices with pole spacing 27 mm:
  - miniature circuit breakers LVN
  - 1-module devices (e.g. miniature circuit breakers LTP, LTS, LTK, LTN-UC, switches MSO, MSN etc.) with auxiliary switch.

| Number of poles | Number of outlets | Cross-section [mm²] | Type | Order code | End cap | Weight [kg] | Package [pcs] |
|---|---|---|---|---|---|---|---|
| 1 | 37 | 16 | **S1L-27-1000-16** | OEZ:37376 | EKC-1 | 0.201 | 50 |
| | | 25 | **S1L-27-1000-25** | OEZ:37377 | EKC-1-36 | 0.315 | 30 |
| 3 | 12x 3 | 16 | **S3L-27-1000-16** | OEZ:37380 | EKC-2+3 | 0.537 | 20 |
| | | 25 | **S3L-27-1000-25** | OEZ:37381 | EKC-3-36 | 0.995 | 10 |
| 4 | 9x 4 | 25 | **S4L-27-1000-25 *)** | OEZ:37382 | EKC-3-36 | 1.327 | 15 |

*) The busbar consists of one 3-pole and one 1-pole busbar.

### Short interconnecting busbars

- For devices with pole spacing 17.8 mm:
  - miniature circuit breakers LTP, LTS, LTK, LTN-UC
  - residual current circuit breakers LFN, LFE, OLI, OLE
  - switches MSO, MSN etc.
- They are manufactured already covered, and must not be shortened.

| Number of poles | Number of outlets | Cross-section [mm²] | Type | Order code | End cap *) | Weight [kg] | Package [pcs] |
|---|---|---|---|---|---|---|---|
| 1 | 12 | 10 | **S1L-210-10** | OEZ:38475 | ✓ | 0.045 | 50 |
| | | 16 | **S1L-210-16** | OEZ:37374 | ✓ | 0.047 | 50 |
| 2 | 6x 2 | 10 | **S2L-210-10** | OEZ:38476 | ✓ | 0.067 | 20 |
| | | 16 | **S2L-210-16** | OEZ:38477 | ✓ | 0.110 | 20 |
| 3 | 2x 3 | 10 | **S3L-106-10** | OEZ:38478 | ✓ | 0.055 | 25 |
| | | 16 | **S3L-106-16** | OEZ:38479 | ✓ | 0.080 | 25 |
| | 3x 3 | 10 | **S3L-160-10** | OEZ:38480 | ✓ | 0.085 | 25 |
| | | 16 | **S3L-160-16** | OEZ:38481 | ✓ | 0.115 | 25 |
| | 4x 3 | 10 | **S3L-210-10** | OEZ:38482 | ✓ | 0.110 | 25 |
| | | 16 | **S3L-210-16** | OEZ:38483 | ✓ | 0.150 | 25 |

*) ✓ = The busbar is covered.

# INTERCONNECTING BUSBARS

### Special interconnecting busbars

- For 2 and 3-module devices with auxiliary switch.
- For easier connection of circuit breaker with residual current circuit breaker (version S3L-...FI).

| Number of poles | Number of outlets | Cross-section [mm²] | Type | Order code | End cap | Weight [kg] | Package [pcs] |
|---|---|---|---|---|---|---|---|
| 2 | 22x 2 | 16 | **S2L+N+9-1000-16** [1] | OEZ:39849 | EKC-2+3 | 0.710 | 20 |
| 3 | 3x 3 + 2x 1 | 10 | **S3L-210FI-10** [2] | OEZ:43144 | ✓ *) | 0.074 | 25 |
| | | 16 | **S3L-210FI-16** [2] | OEZ:43146 | ✓ *) | 0.099 | 25 |
| | 16x 3 | 16 | **S3L+9-1000-16** [3] | OEZ:38485 | EKC-2+3 | 0.720 | 20 |
| | 22x 2 | 16 | **S3L+N+9-1000-16** [1] | OEZ:39616 | EKC-4 | 0.983 | 15 |

[1] For 2-module (L+N) devices with auxiliary switch

[2] For interconnection of circuit breakers and residual current circuit breakers, where it is required that the row of circuit breakers begins at the N-pole of the residual current circuit breaker In connection of the LTE/LTN circuit breakers and LFN/LFE residual current circuit breaker by the busbar from the bottom the diameter of the connected N conductor is limited to approx. 5 mm, because the busbar covers the N-terminal of the pole for the greater part.

[3] For 3-module (L123) devices with auxiliary switch

*) ✓= The busbar is covered.

## Accessories of interconnecting busbars

### End caps

- For covering the ends of interconnecting busbars.

EKC-1

EKC-2+3

EKC-3

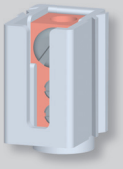
EKC-3-36

EKC-4

| Type | Order code | Description | Weight [kg] | Package [pcs] |
|---|---|---|---|---|
| **EKC-1** | OEZ:37383 | for 1-pole rails by cross-section 10, 12, 16 mm² | 0.0005 | 10 |
| **EKC-2+3** | OEZ:37384 | for 2-pole rails and for 3-pole rails by cross-section 16 mm² | 0.0010 | 10 |
| **EKC-3** | OEZ:37385 | for 3-pole rails by cross-section 10 mm² | 0.0010 | 10 |
| **EKC-3-36** | OEZ:37386 | for 3-pole rails and for 4-pole rails by cross-section 25 mm² | 0.0020 | 10 |
| **EKC-4** | OEZ:37387 | for 4-pole rails by cross-section 16 mm² | 0.0020 | 10 |
| **EKC-1-36** | OEZ:43854 | for 1-pole rails by cross-section 25 mm² | 0.0010 | 10 |

### Power supply unit

- It enables power supply of interconnecting busbars by conductors of cross section up to 35 mm².
- The blocks can be assembled in series to create a multi-pole connection unit.
- Degree of protection IP20.

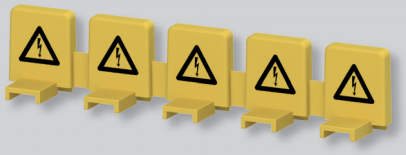


ES-35-GS

| Type | Order code | Weight [kg] | Package [pcs] |
|---|---|---|---|
| **ES-35-GS** | OEZ:37388 | 0.035 | 10 |

### Outlet cover

- It enables isolation of unused outlets of interconnecting busbars.
- For covering five unused outlets.

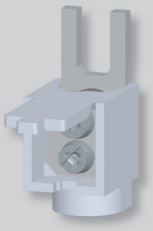


EKD-5

| Type | Order code | Weight [kg] | Package [pcs] |
|---|---|---|---|
| **EKD-5** | OEZ:43147 | 0.004 | 10 |

# INTERCONNECTING BUSBARS

## Terminal extensions

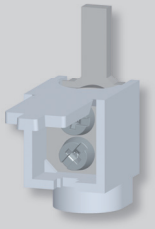


AS-25-G

### Terminal extension up to 25 mm² with fork

- For connection of another conductor to the head part of the terminal.
- Cross-section of Cu conductors: 6 ÷ 25 mm².

| Type | Order code | Accessory to | Weight [kg] | Package [pcs] |
|---|---|---|---|---|
| **AS-25-G** | OEZ:37390 | SJB, SJBC, SVBC, SVC | 0.013 | 30 |

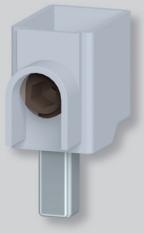


AS-25-S

### Terminal extension up to 25 mm² with pin

- For connection of conductors to the clamp part of the terminal.
- Cross-section of Cu conductors: 6 ÷ 25 mm².

| Type | Order code | Weight [kg] | Package [pcs] |
|---|---|---|---|
| **AS-25-S** | OEZ:37389 | 0.014 | 30 |

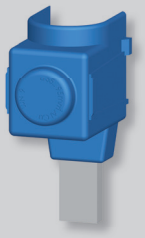


AS-50-S-AL01

### Terminal extension up to 50 mm²

- For connection of Al or Cu conductors.
- Cross-section of Cu conductors: 2.5 ÷ 50 mm².
- Cross-section of Al conductors: 2.5 ÷ 50 mm².

| Type | Order code | Accessory to | Weight [kg] | Package [pcs] |
|---|---|---|---|---|
| **AS-50-S-AL01** | OEZ:38749 | LTP, LTS, LTN-UC, LVN, LST-DC, LFE, LFN, OLE, OLI, OFI100/125, SJB, SJBC, SVBC, SVC, MSO, MSN | 0.018 | 1 |

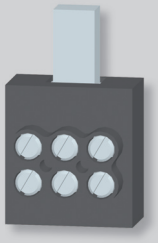


CS-FH000-1NP95

### Terminal extensions up to 95 mm²

- For connection of Cu/Al conductors of cross section 35 ÷ 95 mm².
- With direct or outbowed terminal.

| Type | Order code | | Accessory to | Weight [kg] | Package [pcs] |
|---|---|---|---|---|---|
| **CS-FH000-3NP95** | OEZ:13740 | straight terminal<br>– the package contains the set of 3 pieces | LVN, LST-DC | 0.176 | 1 |
| **CS-FH000-1NP95** | OEZ:14378 | straight terminal | LVN, LST-DC | 0.060 | 1 |
| **CS-FH000-3NV95** | OEZ:13742 | outbowed terminal<br>– the package contains the set of 3 pieces | LVN, LST-DC | 0.184 | 1 |



N3x10-FH000

### Terminal extension up to 3x 10 mm²

- For connection of 3 conductors per device pole of cross section 10 mm².

| Type | Order code | Accessory to | Weight [kg] | Package [pcs] |
|---|---|---|---|---|
| **N3x10-FH000** | OEZ:14127 | LVN, LST-DC, SJB, SJBC, SVBC, SVM | 0.035 | 1 |

# INTERCONNECTING BUSBARS

## Specifications

| Type | | S1L.. | S2L-.., S3L-.., S4L-.. |
|---|---|---|---|
| Rated operating voltage | $U_e$ | AC 690 V / DC 1000 V | AC/DC 500 V |
| Loading current | | 63 ÷ 180 A | 63 ÷ 180 A |
| Cross-section | | 10 ÷ 25 mm² | 10 ÷ 25 mm² |
| Short-circuit strength with backup fuse 250 A gG | | 50 kA | 50 kA |
| Overvoltage category | | III | III |
| Rated impulse voltage | | 8 kV | 8 kV |
| Degree of protection | | IP20 | IP20 |
| Busbar material | | E-Cu-F25 | E-Cu-F25 |
| Insulation material | | PC/ABS-Blend | PC/ABS-Blend |

## Max. loading current per phase

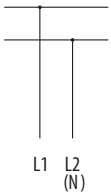
| | Rail cross-section | | | |
|---|---|---|---|---|
| | 10 mm² | 16 mm² | 20 mm² | 25 mm² |
| Power supply from the rail edge | 63 A | 80 A | 90 A | 100 A |
| Power supply from the rail centre [1] | 100 A | 130 A | 150 A | 180 A |

[1] Max. loading current in one direction must not be higher than max. loading current at power supply from the rail edge.

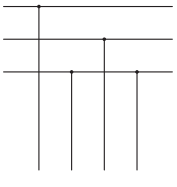
## Diagram

**S1L**

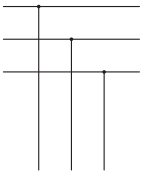

**S2L**



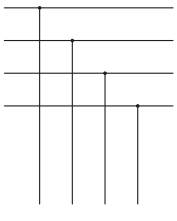

**S2L+N**



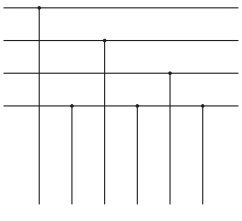

**S3L**



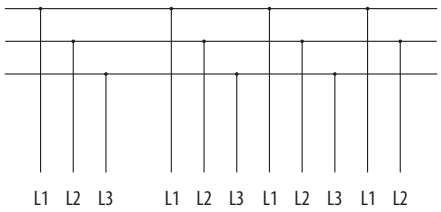

**S4L**



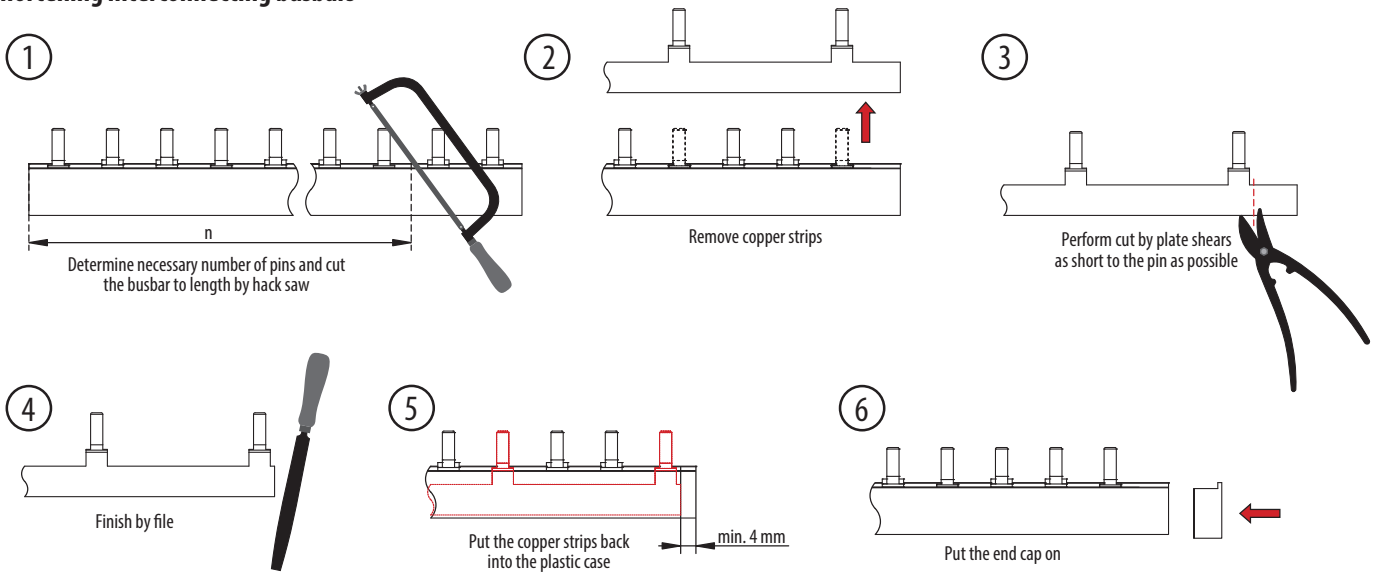

**S3L+N**




**S3L-210FI**



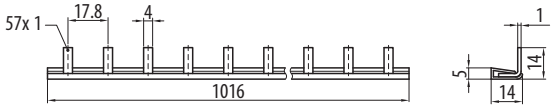

## Shortening interconnecting busbars



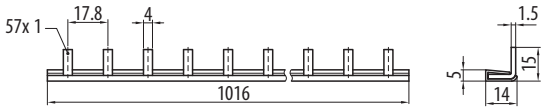
# INTERCONNECTING BUSBARS

## Dimensions

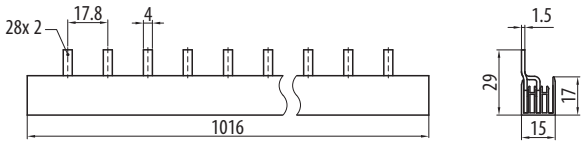
### S1L-1000-10




### S1L-1000-16



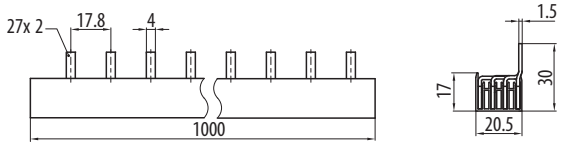

### S2L-1000-16



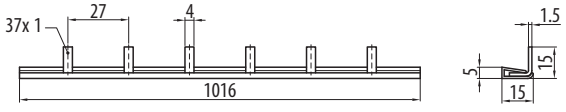

### S3L-1000-10


### S3L-1000-16

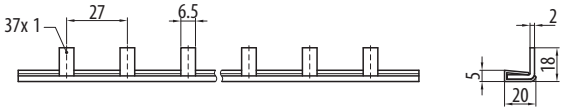

### S3L+N-1000-16, S4L-1000-16



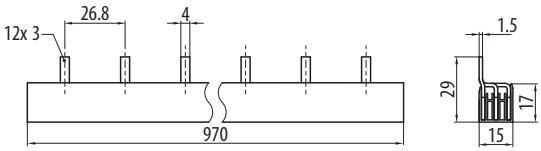

### S1L-27-1000-16



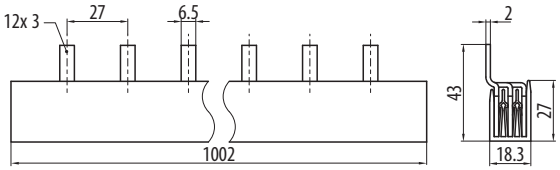

### S1L-27-1000-25



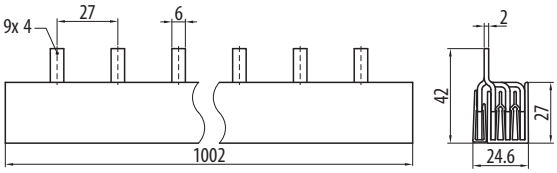

### S3L-27-1000-16



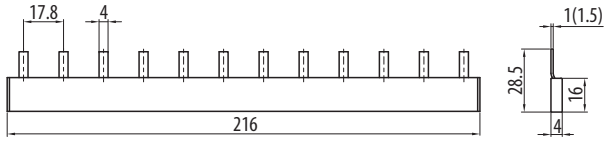

### S3L-27-1000-25



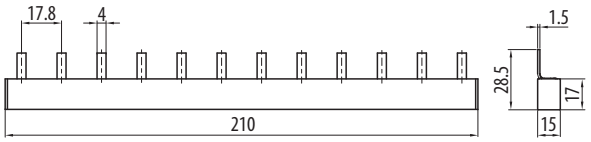

### S4L-27-1000-25



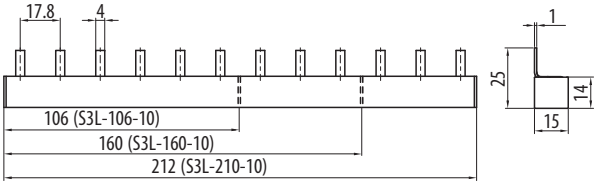

### S1L-210-10, S1L-210-16




### S2L-210-10, S2L-210-16



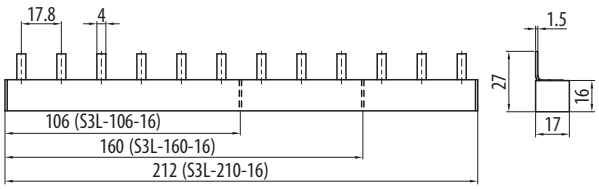

### S3L-106-10, S3L-106-10, S3L-210-10



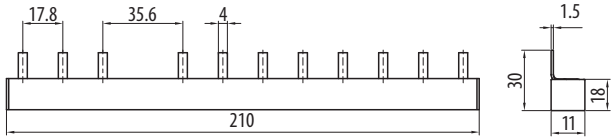
# INTERCONNECTING BUSBARS

## Dimensions

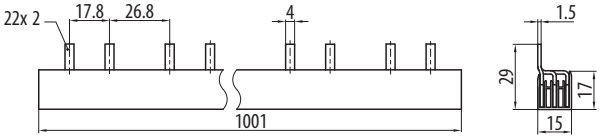
### S3L-106-16, S3L-106-16, S3L-210-16



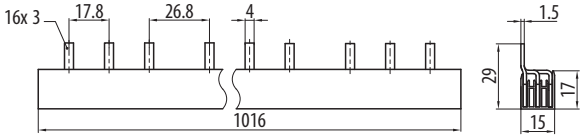

### S3L-210FI-16



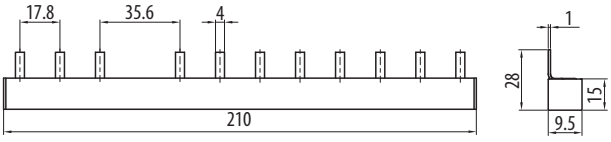

### S2L+N+9-1000-16



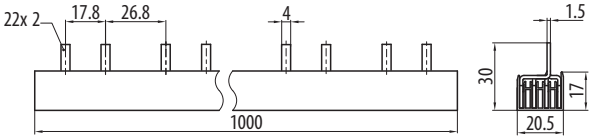

### S3L+9-1000-16



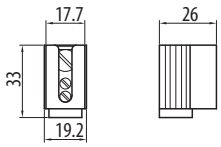

### S3L-210FI-10




### S3L+N+9-1000-16

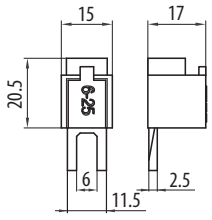



### ES-35-GS

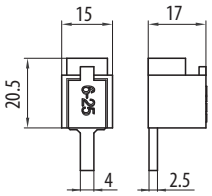



## Dimensions of terminal extensions

### AS-25-G




### AS-25-S

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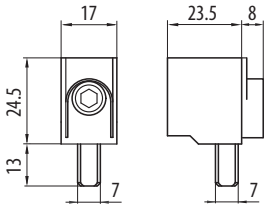
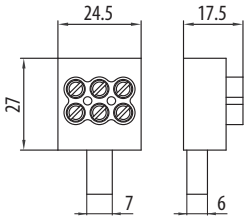



### N3x10-FH000

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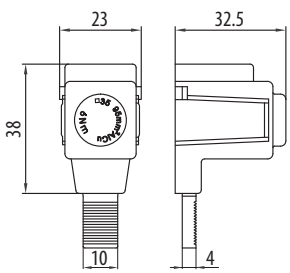


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