



3RV29 infeed system

Overview

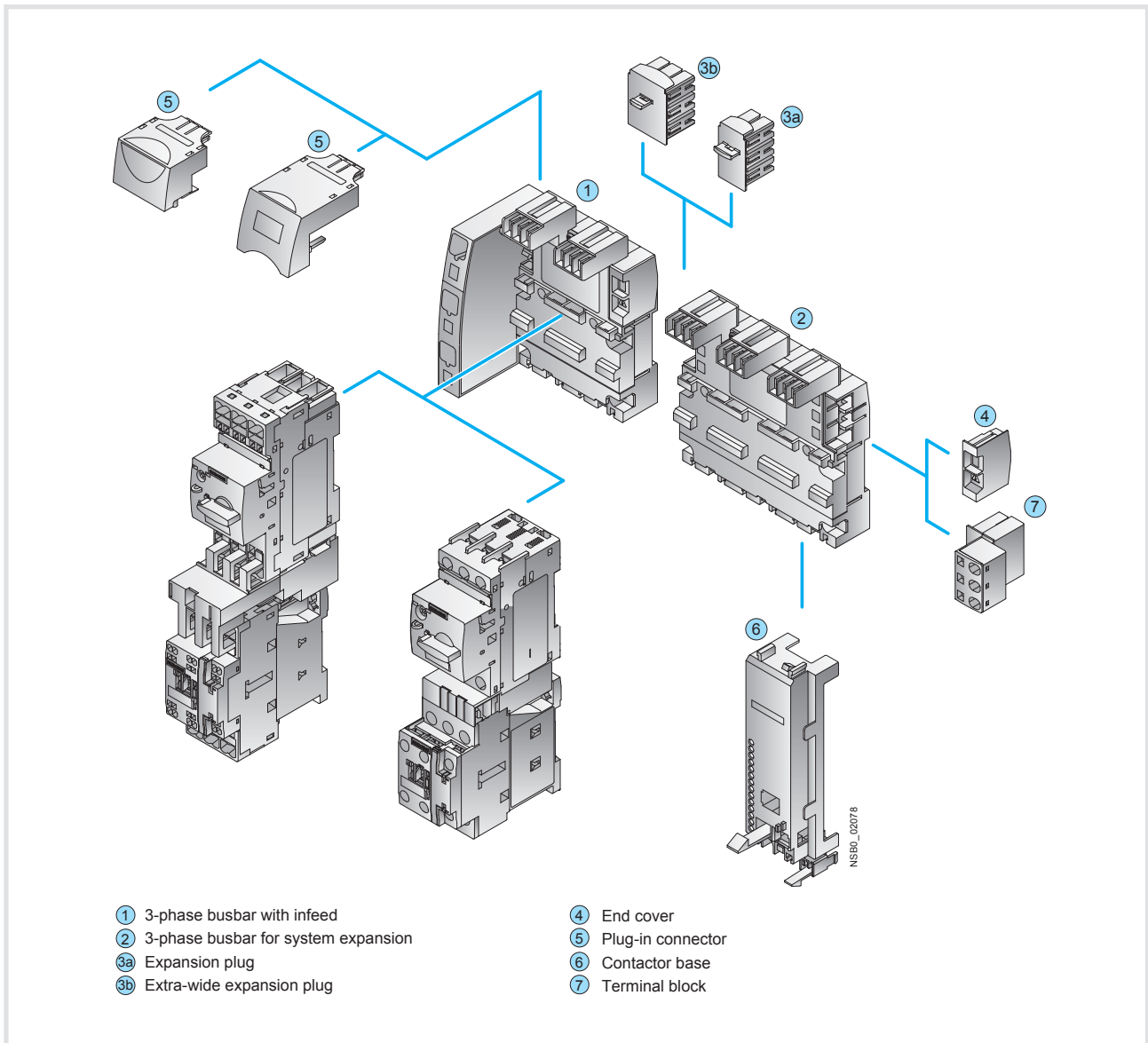
The 3RV29 infeed system is a convenient means of energy supply and distribution for a group of several motor starter protectors or complete motor starters with a screw or spring-type connection in sizes S00 and S0 (exception: this system cannot be used for the 3RV21, 3RV27 and 3RV28 motor starter protectors/circuit breakers).

The UL508 Type E system is based on a basic module complete with a lateral incoming unit (three-phase busbar with infeed). This infeed with spring-type terminals is mounted on the right or left depending on the version and can be supplied with a maximum conductor cross-section of 4 AWG (with end sleeve). A basic module has two sockets onto each of which a motor starter protector can be snapped.

Expansion modules are available for extending the system (three-phase busbars for system expansion). The individual modules are connected through an expansion plug.

The electrical connection between the three-phase busbars and the motor starter protectors is implemented through plug-in connectors. The complete system can be mounted on a TH 35 standard mounting rail to EN 60715 and can be expanded as required up to a maximum current carrying capacity of 63 A.

The system is mounted extremely quickly and easily thanks to the simple plug-in technique. Thanks to the lateral infeed, the system also saves space in the control cabinet. The additional overall height required for the infeed unit is only 30 mm. The alternative infeed possibilities on each side offer a high degree of flexibility for configuring the control cabinet: Infeed on left-hand or right-hand side as well as infeed on one side and out-feed on the other side to supply further loads are all possible. A terminal block with spring-type connections in combination with a standard mounting rail enables the integration of not only SIRIUS motor starter protectors but also single-phase, 2-phase and 3-phase components such as 5SY miniature circuit breakers or SIRIUS relay components.



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① Three-phase busbars with infeed

A three-phase busbar with infeed unit is required for connecting the energy supply. This module comprises one infeed module and 2 sockets which each accept one motor starter protector. A choice of two versions with infeed on the left or right is available. The infeed is connected using spring-type terminals. The spring-type terminals permit conductor cross-sections of up to 25 mm² with end sleeves. An end cover is supplied with each module.

② Three-phase busbars for system expansion

The three-phase busbars for system expansion allow the system to be expanded. There is a choice of modules with 2 or 3 sockets. The system can be expanded as required up to a maximum current carrying capacity of 63 A. An expansion plug is supplied with each module.

③^a Expansion plug

The expansion plug is used for electrical connection of adjacent three-phase busbars. The current carrying capacity of this plug equals 63 A. One expansion plug is supplied with each three-phase busbar for system expansion. Additional expansion plugs are therefore only required as spare parts.

③^b Extra-wide expansion plug

The wide expansion plug makes the electrical connection between two three-phase busbars, thus performing the same function as the 3RV29 17-5BA00 expansion plug; the electrical characteristics (e.g. a current carrying capacity of 63 A) are identical.

The 3RV29 17-5E expansion plug is 10 mm wider than the 3RV29 17-5BA00 expansion plug, hence in the plugged state there is a distance of 10 mm between the connected three-phase busbars. This distance can be used to lay the auxiliary current and control current wiring ("wiring duct"). The motor starter protector and contactor can be wired from underneath, which means that the complete cable duct above the system can be omitted.

④ End cover

The end cover is used to cover the three-phase busbar at the open end of the system. This cover is therefore only required once for each system. An end cover is supplied with each three-phase busbar system with infeed. Further end covers are therefore only required as spare parts.

⑤ Plug-in connector

The plug-in connector is used for the electrical connection between the three-phase busbar and the 3RV2 motor starter protector. These plug-in connectors are available in versions for screw or spring-type terminals.

⑥ Contactor base

Motor starters can be assembled in the system using the contactor base. The contactor bases are suitable for contactors sizes S00 and S0 with spring-type and screw terminals and are simply snapped onto the three-phase busbars. Direct-on-line starters and reversing starters are possible. One contactor base is required for direct-on-line starters and two are required for reversing starters.

To assemble motor starters for reversing starters, the contactor bases can be arranged alongside each other (90 mm overall width). In this case the mechanical interlocking of the contactors is possible. The contactor bases are also suitable for soft starters size S00 and S0 with screw connection.

The infeed system is designed for mounting on a 35 mm standard mounting rail with 7.5 mm overall depth. This standard mounting rail gives the contactor base a stable mounting surface to sit on. If standard mounting rails with a depth of 15 mm are used, the spacer connected to the bottom of the contactor base must be knocked out and plugged into the mating piece that is also on the underside. Then the contactor base also has a stable mounting surface. When standard mounting rails with a depth of 7.5 mm are used, the spacer has no function and can be removed.

The link modules are used for direct start motor starters, in which case the use of a contactor base is not absolutely necessary. Motor starter protector and contactor assemblies can then be directly snapped onto the sockets of the three-phase busbars. For starters of size S00 and S0, the corresponding 3RA19 21-1...., 3RA29 11-2...., 3RA29 21-1.... or 3RA29 21-2.... link modules should generally be used.

⑦ Terminal block

The 3RV29 17-5D terminal block enables the integration of not only SIRIUS motor starter protectors but also single-phase, 2-phase and 3-phase components. Using the terminal block the 3 phases can be fed out of the system; which means that single-phase loads can also be integrated in the system. The terminal block is plugged into the slot of the expansion plug and thus enables outfeeding from the middle or end of the infeed system. The terminal block can be rotated through 180° and be locked to the support modules of the infeed system. The 3RV19 17-7B 45 mm standard mounting rail for screwing onto the support plate is available in addition in order to be able to plug the single-phase, 2-phase and 3-phase components onto the infeed system.

3RV Motor Starter Protectors

Accessories

SIRIUS

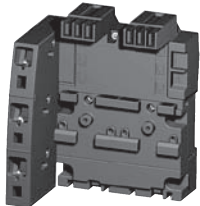


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Selection and ordering data

| Type | Version | For 3RV20, 3RV23, 3RV24 motor starter protectors | Order No. | Standard Pack Quantity | Weight approx. |
|------|---------|--|-----------|------------------------|----------------|
| | | Size | | | kg |

Three-phase busbars with infeed



3RV29 17-1A

3-phase busbars with infeed
incl. end cover
3RV29 17-6A

For 2 motor starter protectors with screw connection or spring-type terminals

- With infeed on the left S00, S0
- With infeed on the right S00, S0

3RV29 17-1A

1 unit

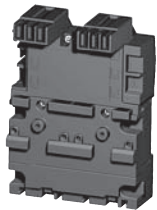
0.369

3RV29 17-1E

1 unit

0.369

Three-phase busbars for system expansion



3RV29 17-4A

Three-phase busbars
incl. 3RV29 17-5BA00 expansion plug

For motor starter protectors with screw connection or spring-type terminals

- For 2 motor starter protectors S00, S0
- For 3 motor starter protectors S00, S0

3RV29 17-4A

1 unit

0.229

3RV29 17-4B

1 unit

0.328

Plug-in connectors



3RV29 17-5AA00

Plug-in connectors
to make contact with the motor starter protectors

- For spring-type terminals
 - Single-unit packaging S00¹⁾ S0²⁾
 - Multi-unit packaging S00¹⁾ S0²⁾

Spring-type terminals



3RV29 17-5AA00
3RV29 27-5AA00

1 unit
1 unit

0.046
0.059

3RV29 17-5A
3RV29 27-5A

10 units
10 units

0.046
0.059



3RV29 17-5CA00

- For screw terminals
 - Single-unit packaging S00¹⁾ S0²⁾
 - Multi-unit packaging S00¹⁾ S0²⁾

Screw terminals



3RV29 17-5CA00
3RV19 27-5AA00

1 unit
1 unit

0.029
0.040

3RV29 17-5C
3RV19 27-5A

10 units
10 units

0.029
0.036

| Type | Version | For contactors | Order No. | Standard Pack Quantity | Weight approx. |
|------|---------|----------------|-----------|------------------------|----------------|
| | | Size | | | kg |

Contactor bases



3RV29 27-7AA00

Contactor bases
for mounting
direct-on-line or
reversing starters

- Single-unit packaging S00
- S0

3RV29 17-7AA00

1 unit

0.042

3RV29 27-7AA00






1 unit

0.050

¹⁾ I > 14 A, note derating; see the system manual "SIRIUS Innovations", Chapter "Motor Starter Protectors".

²⁾ I > 16 A, note derating; see the system manual "SIRIUS Innovations", Chapter "Motor Starter Protectors".



| Type | Version | Order No. | Standard Pack Quantity | Weight approx. kg |
|--|---|-----------------------|------------------------|----------------------|
| Terminal blocks | | | | |
|  3RV29 17-5D | Terminal blocks For integration of single-phase, two-phase and three-phase components | Single-unit packaging | 3RV29 17-5D | 1 unit 0.049 |
| 45 mm standard mounting rails | | | | |
|  3RV19 17-7B | 45 mm standard mounting rails for mounting onto bus bar adapters | Single-unit packaging | 3RV19 17-7B | 1 unit 0.261 |
| Extra-wide expansion plugs | | | | |
|  3RV29 17-5E | Extra-wide expansion plugs as accessory | Single-unit packaging | 3RV29 17-5E | 1 unit 0.037 |
| Expansion plugs | | | | |
|  3RV29 17-5BA00 | Expansion plugs¹⁾ as spare part | Single-unit packaging | 3RV29 17-5BA00 | 1 unit 0.026 |
| End covers | | | | |
|  3RV29 17-6A | End covers²⁾ as spare part | Multi-unit packaging | 3RV29 17-6A | 10 units 0.005 |

¹⁾ The expansion plug is included in the scope of supply of the 3RV29 17-4 three-phase busbars for system expansion.

²⁾ The end cover is included in the scope of supply of the 3RV29 17-1 three-phase busbars with infeed system.