

reversing contactor assembly, AC-3e/AC-3, 16 A, 7.5 kW / 400 V, 3-pole, 110 V AC, 50 Hz / 120 V, 60 Hz, screw terminal, electrical and mechanical interlock



|                                                              |                               |
|--------------------------------------------------------------|-------------------------------|
| product brand name                                           | SIRIUS                        |
| product designation                                          | Reversing contactor assembly  |
| product type designation                                     | 3RA23                         |
| manufacturer's article number                                |                               |
| • 1 of the supplied contactor                                | <a href="#">3RT2018-1AK62</a> |
| • 2 of the supplied contactor                                | <a href="#">3RT2018-1AK62</a> |
| • of the supplied RH assembly kit                            | <a href="#">3RA2913-2AA1</a>  |
| <b>General technical data</b>                                |                               |
| size of contactor                                            | S00                           |
| product extension auxiliary switch                           | Yes                           |
| shock resistance at rectangular impulse                      |                               |
| • at AC                                                      | 7,3g / 5 ms, 4,7g / 10 ms     |
| • at DC                                                      | 7.3g / 5 ms, 4.7g / 10 ms     |
| shock resistance with sine pulse                             |                               |
| • at AC                                                      | 11,4g / 5 ms, 7,3g / 10 ms    |
| • at DC                                                      | 11,4g / 5 ms, 7,3g / 10 ms    |
| mechanical service life (operating cycles)                   |                               |
| • of contactor typical                                       | 10 000 000                    |
| • of the contactor with added auxiliary switch block typical | 10 000 000                    |
| reference code according to IEC 81346-2                      | Q                             |
| Substance Prohibitance (Date)                                | 10/01/2009                    |
| Net Weight                                                   | 0.5 kg                        |
| <b>Ambient conditions</b>                                    |                               |
| installation altitude at height above sea level maximum      | 2 000 m                       |
| ambient temperature                                          |                               |
| • during operation                                           | -25 ... +60 °C                |
| • during storage                                             | -55 ... +80 °C                |
| <b>Main circuit</b>                                          |                               |
| number of poles for main current circuit                     | 3                             |
| number of NO contacts for main contacts                      | 3                             |
| number of NC contacts for main contacts                      | 0                             |
| operating voltage                                            |                               |
| • at AC-3 rated value maximum                                | 690 V                         |
| • at AC-3e rated value maximum                               | 690 V                         |
| operational current                                          |                               |
| • at AC-3                                                    |                               |
| — at 400 V rated value                                       | 16 A                          |
| — at 500 V rated value                                       | 12.4 A                        |
| — at 690 V rated value                                       | 8.9 A                         |

|                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at AC-3e <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>                                                                                                                                                                                             | 16 A<br>12.4 A<br>8.9 A                                                                                                              |
| <b>operating power</b> <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> <li>• at AC-3e <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> <li>• at AC-4 at 400 V rated value</li> </ul> | 7.5 kW<br>7.5 kW<br>7.5 kW<br>7.5 kW<br>7.5 kW<br>5.5 kW                                                                             |
| <b>operating frequency</b> <ul style="list-style-type: none"> <li>• at AC-3 maximum</li> <li>• at AC-3e maximum</li> </ul>                                                                                                                                                                                                                                                                         | 750 1/h<br>750 1/h                                                                                                                   |
| <b>Control circuit/ Control</b>                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                      |
| <b>type of voltage of the control supply voltage</b>                                                                                                                                                                                                                                                                                                                                               | AC                                                                                                                                   |
| <b>control supply voltage 1 at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul>                                                                                                                                                                                                                                                     | 110 V<br>120 V                                                                                                                       |
| <b>operating range factor control supply voltage rated value of magnet coil at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                             | 0.8 ... 1.1<br>0.85 ... 1.1                                                                                                          |
| <b>apparent pick-up power of magnet coil at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>                                                                                                                                                                                                                                                                                    | 37 VA                                                                                                                                |
| <b>inductive power factor with closing power of the coil</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>                                                                                                                                                                                                                                                                          | 0.8                                                                                                                                  |
| <b>apparent holding power of magnet coil at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>                                                                                                                                                                                                                                                                                    | 5.7 VA                                                                                                                               |
| <b>inductive power factor with the holding power of the coil</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>                                                                                                                                                                                                                                                                      | 0.28                                                                                                                                 |
| <b>Auxiliary circuit</b>                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                      |
| <b>contact reliability of auxiliary contacts</b>                                                                                                                                                                                                                                                                                                                                                   | < 1 error per 100 million operating cycles                                                                                           |
| <b>UL/CSA ratings</b>                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                      |
| <b>full-load current (FLA) for 3-phase AC motor</b> <ul style="list-style-type: none"> <li>• at 480 V rated value</li> <li>• at 600 V rated value</li> </ul>                                                                                                                                                                                                                                       | 14 A<br>11 A                                                                                                                         |
| <b>yielded mechanical performance [hp] for 3-phase AC motor</b> <ul style="list-style-type: none"> <li>• at 200/208 V rated value</li> <li>• at 220/230 V rated value</li> <li>• at 460/480 V rated value</li> <li>• at 575/600 V rated value</li> </ul>                                                                                                                                           | 3 hp<br>5 hp<br>10 hp<br>10 hp                                                                                                       |
| <b>contact rating of auxiliary contacts according to UL</b>                                                                                                                                                                                                                                                                                                                                        | A600 / Q600                                                                                                                          |
| <b>Short-circuit protection</b>                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                      |
| <b>design of the fuse link</b> <ul style="list-style-type: none"> <li>• for short-circuit protection of the main circuit <ul style="list-style-type: none"> <li>— with type of coordination 1 required</li> <li>— with type of coordination 2 required</li> </ul> </li> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>                                             | gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 50 A<br>gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 25 A<br>fuse gG: 10 A                                  |
| <b>Installation/ mounting/ dimensions</b>                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                      |
| <b>mounting position</b>                                                                                                                                                                                                                                                                                                                                                                           | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| <b>fastening method</b>                                                                                                                                                                                                                                                                                                                                                                            | screw and snap-on mounting onto 35 mm DIN rail                                                                                       |
| <b>height</b>                                                                                                                                                                                                                                                                                                                                                                                      | 68 mm                                                                                                                                |
| <b>width</b>                                                                                                                                                                                                                                                                                                                                                                                       | 90 mm                                                                                                                                |
| <b>depth</b>                                                                                                                                                                                                                                                                                                                                                                                       | 73 mm                                                                                                                                |
| <b>required spacing</b>                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                      |

- with side-by-side mounting
  - forwards 6 mm
  - backwards 0 mm
  - upwards 6 mm
  - downwards 6 mm
  - at the side 6 mm
- for grounded parts
  - forwards 6 mm
  - backwards 0 mm
  - upwards 6 mm
  - at the side 6 mm
  - downwards 6 mm
- for live parts
  - forwards 6 mm
  - backwards 0 mm
  - upwards 6 mm
  - downwards 6 mm
  - at the side 6 mm

#### Connections/ Terminals

|                                                                |                                                                                                        |
|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>type of electrical connection</b>                           |                                                                                                        |
| • for main current circuit                                     | screw-type terminals                                                                                   |
| • for auxiliary and control circuit                            | screw-type terminals                                                                                   |
| • at contactor for auxiliary contacts                          | Screw-type terminals                                                                                   |
| • of magnet coil                                               | Screw-type terminals                                                                                   |
| type of connectable conductor cross-sections for main contacts |                                                                                                        |
| • solid                                                        | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>            |
| • solid or stranded                                            | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 4 mm <sup>2</sup> ) |
| • finely stranded with core end processing                     | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )                                  |
| <b>type of connectable conductor cross-sections</b>            |                                                                                                        |
| • for auxiliary contacts                                       |                                                                                                        |
| — solid or stranded                                            | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )                                  |
| — finely stranded with core end processing                     | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )                                  |
| • for AWG cables for auxiliary contacts                        | 2x (20 ... 16), 2x (18 ... 14)                                                                         |

#### Safety related data

|                                                                |                                                  |
|----------------------------------------------------------------|--------------------------------------------------|
| product function suitable for safety function                  | Yes                                              |
| <b>Electrical Safety</b>                                       |                                                  |
| <b>protection class IP on the front according to IEC 60529</b> | IP20                                             |
| <b>touch protection on the front according to IEC 60529</b>    | finger-safe, for vertical contact from the front |

#### Communication/ Protocol

|                                                         |     |
|---------------------------------------------------------|-----|
| <b>product function bus communication</b>               | Yes |
| protocol is supported AS-Interface protocol             | No  |
| product function control circuit interface with IO link | No  |

#### Approvals Certificates

| General Product Approval | Test Certificates |
|--------------------------|-------------------|
|--------------------------|-------------------|



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

#### Maritime application



|                      |       |         |             |
|----------------------|-------|---------|-------------|
| Maritime application | other | Railway | Environment |
|----------------------|-------|---------|-------------|



[Confirmation](#)

[Special Test Certificate](#)

[Environmental Confirmations](#)

#### Further information

##### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

##### Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

##### Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/ic10>

##### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2318-8XB30-1AK6>

##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2318-8XB30-1AK6>

##### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

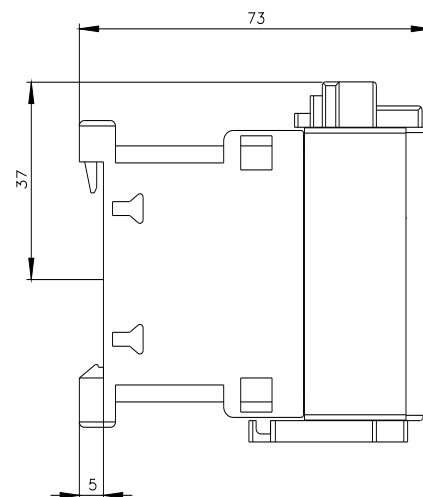
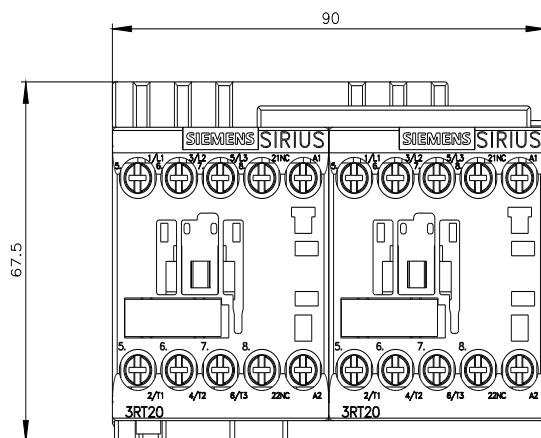
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2318-8XB30-1AK6&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2318-8XB30-1AK6&lang=en)

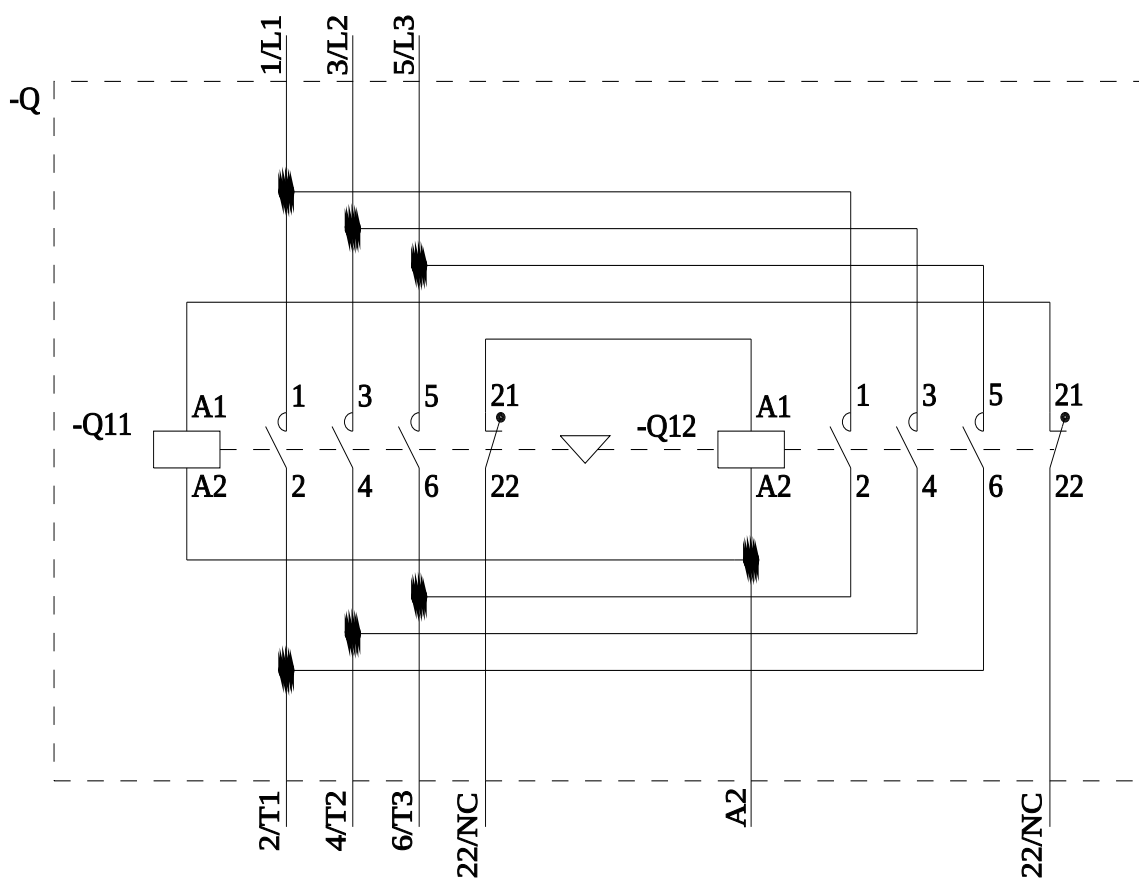
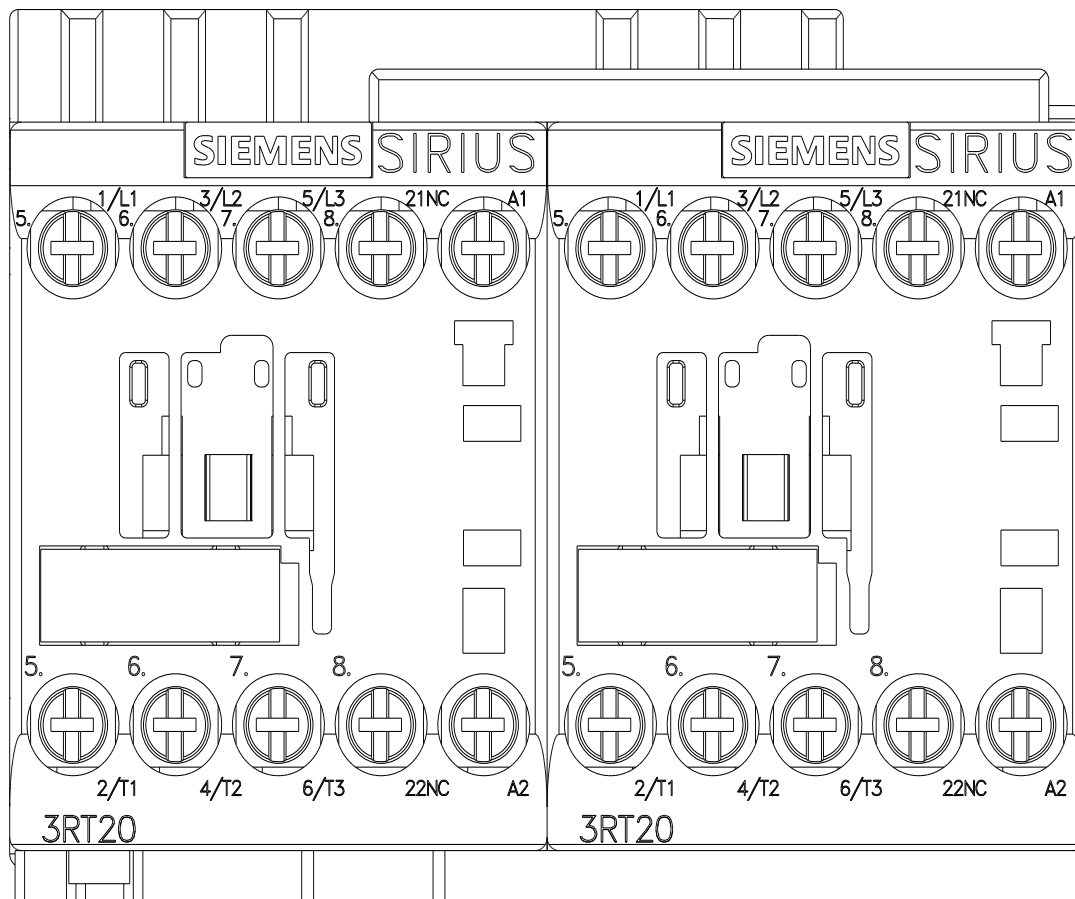
##### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2318-8XB30-1AK6>

##### Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP='HAUPT'></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP='HAUPT'></mmp_prod_no>)





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