

reversing contactor assembly, AC-3e/AC-3, 9 A, 4 kW / 400 V, 3-pole, 110 V DC, screw terminal, electrical and mechanical interlock



|                                                         |                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| product brand name                                      | SIRIUS                                                                                                                                                                                                                                                                                                                  |
| product designation                                     | Reversing contactor assembly                                                                                                                                                                                                                                                                                            |
| product type designation                                | 3RA23                                                                                                                                                                                                                                                                                                                   |
| manufacturer's article number                           | <ul style="list-style-type: none"> <li>• 1 of the supplied contactor <a href="#">3RT2016-1BB42</a></li> <li>• 2 of the supplied contactor <a href="#">3RT2016-1BB42</a></li> <li>• of the supplied RH assembly kit <a href="#">3RA2913-2AA1</a></li> </ul>                                                              |
| <b>General technical data</b>                           |                                                                                                                                                                                                                                                                                                                         |
| size of contactor                                       | S00                                                                                                                                                                                                                                                                                                                     |
| product extension auxiliary switch                      | Yes                                                                                                                                                                                                                                                                                                                     |
| shock resistance at rectangular impulse                 | <ul style="list-style-type: none"> <li>• at AC 6,7g / 5 ms, 4,2g / 10 ms</li> <li>• at DC 6,7g / 5 ms, 4,2g / 10 ms</li> </ul>                                                                                                                                                                                          |
| shock resistance with sine pulse                        | <ul style="list-style-type: none"> <li>• at AC 10,5g / 5 ms, 6,6g / 10 ms</li> <li>• at DC 10,5g / 5 ms, 6,6g / 10 ms</li> </ul>                                                                                                                                                                                        |
| mechanical service life (operating cycles)              | <ul style="list-style-type: none"> <li>• of contactor typical 10 000 000</li> <li>• of the contactor with added auxiliary switch block typical 10 000 000</li> </ul>                                                                                                                                                    |
| reference code according to IEC 81346-2                 | Q                                                                                                                                                                                                                                                                                                                       |
| Substance Prohibitance (Date)                           | 10/01/2009                                                                                                                                                                                                                                                                                                              |
| <b>Ambient conditions</b>                               |                                                                                                                                                                                                                                                                                                                         |
| installation altitude at height above sea level maximum | 2 000 m                                                                                                                                                                                                                                                                                                                 |
| ambient temperature                                     | <ul style="list-style-type: none"> <li>• during operation -25 ... +60 °C</li> <li>• during storage -55 ... +80 °C</li> </ul>                                                                                                                                                                                            |
| <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                                       | <ul style="list-style-type: none"> <li>• at AC-3 rated value maximum 690 V</li> <li>• at AC-3e rated value maximum 690 V</li> </ul>                                                                                                                                                                                     |
| operational current                                     | <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value 9 A</li> <li>— at 500 V rated value 7.7 A</li> <li>— at 690 V rated value 6.7 A</li> </ul> </li> <li>• at AC-3e <ul style="list-style-type: none"> <li>— at 400 V rated value 9 A</li> </ul> </li> </ul> |

|                                                                 |                                                                                                                                      |
|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| — at 500 V rated value                                          | 7.7 A                                                                                                                                |
| — at 690 V rated value                                          | 6.7 A                                                                                                                                |
| <b>operating power</b>                                          |                                                                                                                                      |
| • at AC-3                                                       |                                                                                                                                      |
| — at 400 V rated value                                          | 4 kW                                                                                                                                 |
| — at 500 V rated value                                          | 4 kW                                                                                                                                 |
| — at 690 V rated value                                          | 5.5 kW                                                                                                                               |
| • at AC-3e                                                      |                                                                                                                                      |
| — at 400 V rated value                                          | 4 kW                                                                                                                                 |
| — at 690 V rated value                                          | 5.5 kW                                                                                                                               |
| • at AC-4 at 400 V rated value                                  | 4 kW                                                                                                                                 |
| <b>operating frequency</b>                                      |                                                                                                                                      |
| • at AC-3 maximum                                               | 750 1/h                                                                                                                              |
| • at AC-3e maximum                                              | 750 1/h                                                                                                                              |
| <b>Control circuit/ Control</b>                                 |                                                                                                                                      |
| <b>type of voltage of the control supply voltage</b>            | DC                                                                                                                                   |
| <b>control supply voltage 1</b>                                 |                                                                                                                                      |
| • at DC rated value                                             | 110 V                                                                                                                                |
| <b>closing power of magnet coil at DC</b>                       | 4 W                                                                                                                                  |
| <b>holding power of magnet coil at DC</b>                       | 4 W                                                                                                                                  |
| <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>             |                                                                                                                                      |
| • at 480 V rated value                                          | 7.6 A                                                                                                                                |
| • at 600 V rated value                                          | 9 A                                                                                                                                  |
| yielded mechanical performance [hp] for 3-phase AC motor        |                                                                                                                                      |
| • at 200/208 V rated value                                      | 2 hp                                                                                                                                 |
| • at 220/230 V rated value                                      | 3 hp                                                                                                                                 |
| • at 460/480 V rated value                                      | 5 hp                                                                                                                                 |
| • at 575/600 V rated value                                      | 7.5 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>                                  |                                                                                                                                      |
| • for short-circuit protection of the main circuit              |                                                                                                                                      |
| — with type of coordination 1 required                          | gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A                                                                                              |
| — with type of assignment 2 required                            | gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A                                                                                              |
| • for short-circuit protection of the auxiliary switch required | 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                                                                                   |
| <b>type of connectable conductor cross-sections for main contacts</b> |                                                                                                        |
| • 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

|                                                                         |                                                  |
|-------------------------------------------------------------------------|--------------------------------------------------|
| B10 value with high demand rate according to SN 31920                   | 1 000 000                                        |
| <b>proportion of dangerous failures</b>                                 |                                                  |
| • with low demand rate according to SN 31920                            | 40 %                                             |
| • with high demand rate according to SN 31920                           | 75 %                                             |
| failure rate [FIT] with low demand rate according to SN 31920           | 100 FIT                                          |
| T1 value for proof test interval or service life according to IEC 61508 | 20 a                                             |
| <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  |

#### Certificates/ approvals

|                          |                           |
|--------------------------|---------------------------|
| General Product Approval | Declaration of Conformity |
|--------------------------|---------------------------|



[Confirmation](#)



EG-Konf.

|                   |                   |
|-------------------|-------------------|
| Test Certificates | Marine / Shipping |
|-------------------|-------------------|

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



LRS

|                   |       |         |                |
|-------------------|-------|---------|----------------|
| Marine / Shipping | other | Railway | Dangerous Good |
|-------------------|-------|---------|----------------|



[Confirmation](#)

[Vibration and Shock](#)

[Transport Information](#)

#### Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

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

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=3RA2316-8XB30-1BF4>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2316-8XB30-1BF4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2316-8XB30-1BF4>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2316-8XB30-1BF4&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2316-8XB30-1BF4&lang=en)

Characteristic: Tripping characteristics,  $I^2t$ , Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2316-8XB30-1BF4/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2316-8XB30-1BF4&objecttype=14&gridview=view1>



