

reversing contactor assembly, AC-3e/AC-3, 9 A, 4 kW / 400 V, 3-pole, 110 V DC, with varistor plugged on, screw terminal, electrical and mechanical interlock, 2 x auxiliary switch plugged on, auxiliary contacts: 2 x 3 NO + 1 NC

|                                                              |                               |
|--------------------------------------------------------------|-------------------------------|
| <b>product brand name</b>                                    | SIRIUS                        |
| <b>product designation</b>                                   | Reversing contactor assembly  |
| <b>product type designation</b>                              | 3RA23                         |
| <b>manufacturer's article number</b>                         |                               |
| • 1 of the supplied contactor                                | <a href="#">3RT2016-1DF47</a> |
| • 2 of the supplied contactor                                | <a href="#">3RT2016-1DF47</a> |
| • of the supplied RH assembly kit                            | <a href="#">3RA2913-2AA1</a>  |
| <b>General technical data</b>                                |                               |
| <b>size of contactor</b>                                     | S00                           |
| product extension auxiliary switch                           | Yes                           |
| <b>shock resistance at rectangular impulse</b>               |                               |
| • at AC                                                      | 6,7 g / 5 ms, 4,2 g / 10 ms   |
| • at DC                                                      | 6,7 g / 5 ms, 4,2 g / 10 ms   |
| <b>shock resistance with sine pulse</b>                      |                               |
| • at AC                                                      | 10,5 g / 5 ms, 6,6 g / 10 ms  |
| • at DC                                                      | 10,5 g / 5 ms, 6,6 g / 10 ms  |
| <b>mechanical service life (operating cycles)</b>            |                               |
| • of contactor typical                                       | 10 000 000                    |
| • of the contactor with added auxiliary switch block typical | 10 000 000                    |
| <b>reference code according to IEC 81346-2</b>               | Q                             |
| <b>Substance Prohibitance (day/month/year)</b>               | 07/01/2006                    |
| <b>SVHC substance name</b>                                   | Lead CAS-No. 7439-92-1        |
| <b>Net Weight</b>                                            | 0.718 kg                      |
| <b>Ambient conditions</b>                                    |                               |
| installation altitude at height above sea level maximum      | 2 000 m                       |
| <b>ambient temperature</b>                                   |                               |
| • during operation                                           | -25 ... +60 °C                |
| • during storage                                             | -55 ... +80 °C                |
| <b>Main circuit</b>                                          |                               |
| <b>number of poles for main current circuit</b>              | 3                             |
| <b>number of NO contacts for main contacts</b>               | 3                             |
| <b>number of NC contacts for main contacts</b>               | 0                             |
| <b>operating voltage</b>                                     |                               |
| • at AC-3 rated value maximum                                | 690 V                         |
| • at AC-3e rated value maximum                               | 690 V                         |
| <b>operational current</b>                                   |                               |
| • at AC-3                                                    |                               |
| — at 400 V rated value                                       | 9 A                           |
| — at 500 V rated value                                       | 7.7 A                         |
| — at 690 V rated value                                       | 6.7 A                         |
| • at AC-3e                                                   |                               |
| — at 400 V rated value                                       | 9 A                           |
| — 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                        |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <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 690 V rated value</li> </ul> </li> <li>• at AC-4 at 400 V rated value</li> </ul>                                                                                                                                                                                                                                                                                           | 4 kW<br>5.5 kW<br>4 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                     | DC                                                                                                                                   |
| <b>control supply voltage 1 at DC rated value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 110 V                                                                                                                                |
| <b>design of the surge suppressor</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | with varistor                                                                                                                        |
| <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>number of NC contacts for auxiliary contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• per direction of rotation</li> <li>• instantaneous contact</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                           | 1<br>2                                                                                                                               |
| <b>number of NO contacts for auxiliary contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• per direction of rotation</li> <li>• instantaneous contact</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                           | 3<br>6                                                                                                                               |
| <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>                                                                                                                                                                                                                                                                                                                                                                                                 | 7.6 A<br>9 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>                                                                                                                                                                                                                                                                                                                 | 2 hp<br>3 hp<br>5 hp<br>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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                      |
| <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: 35 A<br>gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 145 mm                                                                                                                               |
| <b>required spacing</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards</li> </ul> </li> </ul> | 6 mm<br>0 mm<br>6 mm<br>6 mm<br>6 mm<br><br>6 mm<br>0 mm<br>6 mm<br>6 mm<br>6 mm<br><br>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

|                                                                |                                                  |
|----------------------------------------------------------------|--------------------------------------------------|
| 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

|                          |
|--------------------------|
| <b>Test Certificates</b> |
|--------------------------|

[Special Test Certificate](#)

#### 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=3RA2316-8XB37-1DF4>

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**  
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2316-8XB37-1DF4>

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**  
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2316-8XB37-1DF4&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2316-8XB37-1DF4&lang=en)

**Cax online generator**  
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2316-8XB37-1DF4>

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

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