

Reversing contactor assembly AC-3,4 kW/400 V, AC230V, 50/60 Hz  
3-pole, Size S00 screw terminal electrical and mechanical interlock  
with 2x front-side auxiliary switch Varistor plugged on

|                                   |                              |
|-----------------------------------|------------------------------|
| product brand name                | SIRIUS                       |
| product designation               | Reversing contactor assembly |
| product type designation          | 3RA23                        |
| manufacturer's article number     |                              |
| • of the supplied RH assembly kit | <a href="#">3RA2913-2AA1</a> |

### General technical data

|                                                                 |                            |
|-----------------------------------------------------------------|----------------------------|
| size of contactor                                               | S00                        |
| product extension                                               |                            |
| • auxiliary switch                                              | Yes                        |
| protection class IP                                             |                            |
| • on the front                                                  | IP20                       |
| shock resistance at rectangular impulse                         |                            |
| • at AC                                                         | 6,7g / 5 ms, 4,2g / 10 ms  |
| • at DC                                                         | 6,7g / 5 ms, 4,2g / 10 ms  |
| shock resistance with sine pulse                                |                            |
| • at AC                                                         | 10,5g / 5 ms, 6,6g / 10 ms |
| • at DC                                                         | 10,5g / 5 ms, 6,6g / 10 ms |
| mechanical service life (switching cycles)                      |                            |
| • of contactor typical                                          | 10 000 000                 |
| • of the contactor with added auxiliary switch<br>block typical | 10 000 000                 |
| reference code acc. to DIN EN 81346-2                           | Q                          |

### Ambient conditions

|                                                              |                |
|--------------------------------------------------------------|----------------|
| • installation altitude at height above sea level<br>maximum | 2 000 m        |
| ambient temperature                                          |                |
| • during operation                                           | -25 ... +60 °C |
| • during storage                                             | -55 ... +80 °C |

### Main circuit

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

|                                                                                                                                                                                                     |                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| <b>operating current</b>                                                                                                                                                                            |                                  |
| <ul style="list-style-type: none"> <li>• at AC-3</li> <li>— at 400 V rated value</li> </ul>                                                                                                         | 9 A                              |
| <b>operating power</b>                                                                                                                                                                              |                                  |
| <ul style="list-style-type: none"> <li>• at AC-3</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> <li>• at AC-4 at 400 V rated value</li> </ul> | 4 kW<br>4.5 kW<br>5.5 kW<br>4 kW |
| operating frequency at AC-3 maximum                                                                                                                                                                 | 750 1/h                          |

#### Control circuit/ Control

|                                                                                                          |                             |
|----------------------------------------------------------------------------------------------------------|-----------------------------|
| <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> | 230 V<br>230 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>design of the surge suppressor</b>                                                                    | with varistor               |
| <b>apparent pick-up power of magnet coil at AC</b>                                                       |                             |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>                                             | 27 V·A                      |
| <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>                                             | 4.2 V·A                     |
| <b>inductive power factor with the holding power of the coil</b>                                         |                             |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>                                             | 0.25                        |

#### Auxiliary circuit

|                                                                                                                |                                            |
|----------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| <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> | 2<br>4                                     |
| <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> | 2<br>4                                     |
| <b>contact reliability of auxiliary contacts</b>                                                               | < 1 error per 100 million operating cycles |

#### UL/CSA ratings

|                                                                                                          |              |
|----------------------------------------------------------------------------------------------------------|--------------|
| <b>full-load current (FLA) for three-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]</b>                                                                                                                                                                                                                             |                                |
| <ul style="list-style-type: none"> <li>• for three-phase AC motor <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> </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                    |

## Short-circuit protection

|                                                                                                                                                                                                                                                                                                                       |                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <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 assignment 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 |

## Installation/ mounting/ dimensions

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <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>mounting type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | screw and snap-on mounting onto 35 mm standard mounting rail                                                                         |
| <b>height</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 68 mm                                                                                                                                |
| <b>width</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 90 mm                                                                                                                                |
| <b>depth</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 130 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> <li>— backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</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<br>0 mm<br>6 mm<br>6 mm<br>6 mm         |

## Connections/ Terminals

|                                                                                         |                                                                                                        |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>type of electrical connection</b>                                                    |                                                                                                        |
| • for main current circuit                                                              | screw-type terminals                                                                                   |
| <b>type of connectable conductor cross-sections</b>                                     |                                                                                                        |
| • 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>            |
| — single or multi-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> )                                  |
| • at AWG conductors for main contacts                                                   | 2x (20 ... 16), 2x (18 ... 14)                                                                         |
| • type of connectable conductor cross-sections for auxiliary contacts                   |                                                                                                        |
| — single or multi-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> )                                  |
| • type of connectable conductor cross-sections at AWG conductors for auxiliary contacts | 2x (20 ... 16), 2x (18 ... 14)                                                                         |

## Safety related data

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

## Communication/ Protocol

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

## Certificates/ approvals

| General Product Approval                                                          |                                                                                   |                                                                                   | Declaration of Conformity                                                         | Test Certificates                        |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------|
|  |  |  |  | <a href="#">Miscellaneous</a>            |
| CSA                                                                               | UL                                                                                |                                                                                   | EG-Konf.                                                                          | <a href="#">Special Test Certificate</a> |

| Test Certificates                                  | Marine / Shipping                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
|----------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <a href="#">Type Test Certificates/Test Report</a> |  |  |  |  |  |
|                                                    | ABS                                                                               | BUREAU VERITAS                                                                    | LRS                                                                               | PRS                                                                                 | RINA                                                                                |

| Marine / Shipping                                                                 | other                        |
|-----------------------------------------------------------------------------------|------------------------------|
|  | <a href="#">Confirmation</a> |
|  |                              |
| RMRS                                                                              |                              |

## Further information

### 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=3RA2316-8XB34-1CP0>

### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2316-8XB34-1CP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2316-8XB34-1CP0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2316-8XB34-1CP0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2316-8XB34-1CP0&lang=en)

### Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2316-8XB34-1CP0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2316-8XB34-1CP0&objecttype=14&gridview=view1>

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