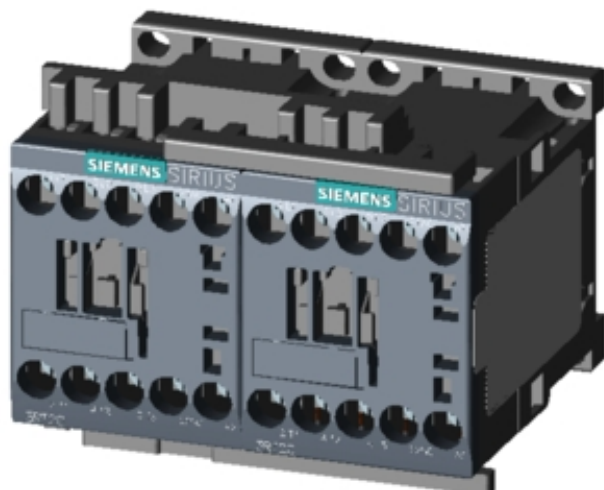




REV. COMB. AC3, 3KW/400V AC24V,  
50/60 HZ, 3-POLE,  
SZ S00 SCREW TERMINAL ELECTR. AND MECH.  
INTERLOCK

### General technical data:

|                                                                                                                                                                                  |    |                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------------------------------------|
| product brand name                                                                                                                                                               |    | SIRIUS                                    |
| product designation                                                                                                                                                              |    | reversing contactor assembly 3RA23        |
| Product function                                                                                                                                                                 |    | reversing contactor                       |
| Size of the contactor                                                                                                                                                            |    | S00                                       |
| Protection class IP / on the front                                                                                                                                               |    | IP20                                      |
| Degree of pollution                                                                                                                                                              |    | 3                                         |
| Insulation voltage / with degree of pollution 3 / rated value                                                                                                                    | V  | 690                                       |
| Installation altitude / at a height over sea level / maximum                                                                                                                     | m  | 2,000                                     |
| Ambient temperature <ul style="list-style-type: none"> <li>during transport</li> <li>during storage</li> <li>during operating</li> </ul>                                         | °C | -55 ... +80<br>-55 ... +80<br>-25 ... +60 |
| Resistance against shock                                                                                                                                                         |    | 9.8g / 5 ms and 5.9g / 10 ms              |
| Impulse voltage resistance / rated value                                                                                                                                         | kV | 6                                         |
| Active power loss / per conductor / typical                                                                                                                                      | W  | 0.4                                       |
| Item designation <ul style="list-style-type: none"> <li>according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</li> <li>according to DIN EN 61346-2</li> </ul> |    | K<br>Q                                    |

|                                                                |  |                               |
|----------------------------------------------------------------|--|-------------------------------|
| <b>Manufacturer article number</b>                             |  |                               |
| • 1 / of the contactor included in the scope of supply         |  | <a href="#">3RT2015-1AB02</a> |
| • 2 / of the contactor included in the scope of supply         |  | <a href="#">3RT2015-1AB02</a> |
| • of the RS applied assembly kit                               |  | <a href="#">3RA2913-2AA1</a>  |
| <b>Mechanical operating cycles as operating time</b>           |  |                               |
| • of the main contacts / typical                               |  | 10,000,000                    |
| • of the auxiliary contacts / typical                          |  | 10,000,000                    |
| • of the contactor / typical                                   |  | 10,000,000                    |
| • of the contactor with added auxiliary switch block / typical |  | 10,000,000                    |

#### Communication:

|                                                             |  |    |
|-------------------------------------------------------------|--|----|
| <b>Product function</b>                                     |  |    |
| • bus-communication                                         |  | No |
| • control circuit interface with IO link                    |  | No |
| <b>Protocol / will be supported / AS interface protocol</b> |  | No |

#### Main circuit:

|                                                            |   |     |
|------------------------------------------------------------|---|-----|
| <b>Number of poles / for main current circuit</b>          |   | 3   |
| <b>Number of NC contacts / for main contacts</b>           |   | 0   |
| <b>Number of NO contacts / for main contacts</b>           |   | 3   |
| <b>Operating voltage / at AC-3 / rated value / maximum</b> | V | 690 |
| <b>Operational current</b>                                 |   |     |
| • at AC-1 / at 400 V                                       |   |     |
| • at 40 °C ambient temperature / rated value               | A | 18  |
| • at 60 °C ambient temperature / rated value               | A | 16  |
| • at AC-2 / at 400 V / rated value                         | A | 7   |
| • at AC-3 / at 400 V / rated value                         | A | 7   |
| • at AC-4 / at 400 V / rated value                         | A | 6.5 |
| • with 1 current path / at DC-1                            |   |     |
| • at 24 V / rated value                                    | A | 15  |
| • at 110 V / rated value                                   | A | 1.5 |
| • with 2 current paths in series / at DC-1                 |   |     |
| • at 24 V / rated value                                    | A | 15  |
| • at 110 V / rated value                                   | A | 8.4 |
| • with 3 current paths in series / at DC-1                 |   |     |
| • at 24 V / rated value                                    | A | 15  |
| • at 110 V / rated value                                   | A | 15  |
| • with 1 current path / at DC-3 / at DC-5                  |   |     |
| • at 24 V / rated value                                    | A | 15  |
| • at 110 V / rated value                                   | A | 0.1 |

|                                                                                                                                                                                                                                                                                                                                                                                                |     |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------|
| <ul style="list-style-type: none"> <li>• with 2 current paths in series / at DC-3 / at DC-5 <ul style="list-style-type: none"> <li>• at 24 V / rated value</li> <li>• at 110 V / rated value</li> </ul> </li> <li>• with 3 current paths in series / at DC-3 / at DC-5 <ul style="list-style-type: none"> <li>• at 24 V / rated value</li> <li>• at 110 V / rated value</li> </ul> </li> </ul> | A   | 15    |
|                                                                                                                                                                                                                                                                                                                                                                                                | A   | 0.25  |
|                                                                                                                                                                                                                                                                                                                                                                                                | A   | 15    |
|                                                                                                                                                                                                                                                                                                                                                                                                | A   | 15    |
| <b>Service power</b>                                                                                                                                                                                                                                                                                                                                                                           |     |       |
| <ul style="list-style-type: none"> <li>• at AC-2 / at 400 V / rated value</li> </ul>                                                                                                                                                                                                                                                                                                           | kW  | 3     |
| <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-4 / at 400 V / rated value</li> </ul>                                                                                                                                        | kW  | 3     |
|                                                                                                                                                                                                                                                                                                                                                                                                | kW  | 3.5   |
|                                                                                                                                                                                                                                                                                                                                                                                                | kW  | 4     |
|                                                                                                                                                                                                                                                                                                                                                                                                | kW  | 1.15  |
| <b>Off-load operating frequency</b>                                                                                                                                                                                                                                                                                                                                                            | 1/h | 15    |
| <b>Frequency of operation</b>                                                                                                                                                                                                                                                                                                                                                                  |     |       |
| <ul style="list-style-type: none"> <li>• at AC-1 / according to IEC 60947-6-2 / maximum</li> </ul>                                                                                                                                                                                                                                                                                             | 1/h | 1,000 |
| <ul style="list-style-type: none"> <li>• at AC-2 / according to IEC 60947-6-2 / maximum</li> </ul>                                                                                                                                                                                                                                                                                             | 1/h | 750   |
| <ul style="list-style-type: none"> <li>• at AC-3 / according to IEC 60947-6-2 / maximum</li> </ul>                                                                                                                                                                                                                                                                                             | 1/h | 750   |
| <ul style="list-style-type: none"> <li>• at AC-4 / according to IEC 60947-6-2 / maximum</li> </ul>                                                                                                                                                                                                                                                                                             | 1/h | 250   |

|                                                                                        |     |              |
|----------------------------------------------------------------------------------------|-----|--------------|
| <b>Control circuit:</b>                                                                |     |              |
| <b>Design of activation</b>                                                            |     | conventional |
| <b>Type of voltage / of the controlled supply voltage</b>                              |     | AC           |
| <b>Control supply voltage frequency</b>                                                |     |              |
| <ul style="list-style-type: none"> <li>• 1 / rated value</li> </ul>                    | Hz  | 50           |
| <ul style="list-style-type: none"> <li>• 2 / rated value</li> </ul>                    | Hz  | 60           |
| <b>Control supply voltage / 1</b>                                                      |     |              |
| <ul style="list-style-type: none"> <li>• at 50 Hz / for AC / rated value</li> </ul>    | V   | 24           |
| <ul style="list-style-type: none"> <li>• at 60 Hz / for AC / rated value</li> </ul>    | V   | 24           |
| <b>Operating range factor control supply voltage rated value / of the magnet coil</b>  |     |              |
| <ul style="list-style-type: none"> <li>• at 50 Hz / for AC</li> </ul>                  |     | 0.8 ... 1.1  |
| <ul style="list-style-type: none"> <li>• at 60 Hz / for AC</li> </ul>                  |     | 0.85 ... 1.1 |
| <b>Apparent pull-in power / of the solenoid / for AC</b>                               | V·A | 27           |
| <b>Apparent holding power / of the solenoid / for AC</b>                               | V·A | 4.2          |
| <b>Inductive power factor</b>                                                          |     |              |
| <ul style="list-style-type: none"> <li>• with the pull-in power of the coil</li> </ul> |     | 0.8          |
| <ul style="list-style-type: none"> <li>• with the pull-in power of the coil</li> </ul> |     | 0.25         |
| <b>Auxiliary circuit:</b>                                                              |     |              |
| <b>Product extension / auxiliary switch</b>                                            |     | Yes          |

|                                                        |   |                                            |
|--------------------------------------------------------|---|--------------------------------------------|
| <b>Contact reliability / of the auxiliary contacts</b> |   | < 1 error per 100 million operating cycles |
| <b>Number of NC contacts / for auxiliary contacts</b>  |   |                                            |
| • per direction of rotation                            |   | 0                                          |
| • instantaneous switching                              |   | 0                                          |
| • lagging switching                                    |   | 0                                          |
| <b>Number of NO contacts / for auxiliary contacts</b>  |   |                                            |
| • per direction of rotation                            |   | 0                                          |
| • instantaneous switching                              |   | 0                                          |
| • leading switching                                    |   | 0                                          |
| <b>Operating current / of the auxiliary contacts</b>   |   |                                            |
| • at AC-12 / maximum                                   | A | 10                                         |
| • at AC-15                                             |   |                                            |
| • at 230 V                                             | A | 6                                          |
| • at 400 V                                             | A | 3                                          |
| • at DC-12                                             |   |                                            |
| • at 48 V                                              | A | 6                                          |
| • at 60 V                                              | A | 6                                          |
| • at 110 V                                             | A | 3                                          |
| • at 220 V                                             | A | 1                                          |
| • at DC-13                                             |   |                                            |
| • at 24 V                                              | A | 10                                         |
| • at 48 V                                              | A | 2                                          |
| • at 60 V                                              | A | 2                                          |
| • at 110 V                                             | A | 1                                          |
| • at 220 V                                             | A | 0.3                                        |

#### Short-circuit:

##### Design of the fuse link

- for short-circuit protection of the main circuit
- with type of assignment 1 / required
- at type of coordination 2 / required
- for short-circuit protection of the auxiliary switch / required

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A  
gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A  
fuse gL/gG: 10 A

#### Installation/mounting/dimensions:

|                          |    |                                                              |
|--------------------------|----|--------------------------------------------------------------|
| <b>mounting position</b> |    | any                                                          |
| <b>Type of mounting</b>  |    | screw and snap-on mounting onto 35 mm standard mounting rail |
| <b>Width</b>             | mm | 90                                                           |
| <b>Height</b>            | mm | 68                                                           |
| <b>Depth</b>             | mm | 73                                                           |

|                                                          |    |   |
|----------------------------------------------------------|----|---|
| <b>Distance, to be maintained, to the ranks assembly</b> |    |   |
| • forwards                                               | mm | 6 |
| • backwards                                              | mm | 0 |
| • upwards                                                | mm | 6 |
| • downwards                                              | mm | 6 |
| • sideways                                               | mm | 6 |
| <b>Distance, to be maintained, to earthed part</b>       |    |   |
| • forwards                                               | mm | 6 |
| • backwards                                              | mm | 0 |
| • upwards                                                | mm | 6 |
| • downwards                                              | mm | 6 |
| • sideways                                               | mm | 6 |
| <b>Distance, to be maintained, conductive elements</b>   |    |   |
| • forwards                                               | mm | 6 |
| • backwards                                              | mm | 0 |
| • upwards                                                | mm | 6 |
| • downwards                                              | mm | 6 |
| • sideways                                               | mm | 6 |

#### Connections:

|                                                        |  |                                                                                                           |
|--------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------|
| <b>Design of the electrical connection</b>             |  |                                                                                                           |
| • for main current circuit                             |  | screw-type terminals                                                                                      |
| • for auxiliary and control current circuit            |  | screw-type terminals                                                                                      |
| <b>Type of the connectable conductor cross-section</b> |  |                                                                                                           |
| • for main contacts                                    |  |                                                                                                           |
| • solid                                                |  | 2 x (0.5 ... 1.5 mm <sup>2</sup> ), 2 x (0.75 ... 2.5 mm <sup>2</sup> ), 2 x (0.5 ... 4 mm <sup>2</sup> ) |
| • 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 conductor end processing                        |  | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )                                     |
| • for AWG conductors / for main contacts               |  | 2x (20 ... 16), 2x (18 ... 14)                                                                            |
| • for auxiliary contacts                               |  |                                                                                                           |
| • solid                                                |  | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )                                     |
| • finely stranded                                      |  |                                                                                                           |
| • with conductor end processing                        |  | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )                                     |
| • for AWG conductors / for auxiliary contacts          |  | 2x (20 ... 16), 2x (18 ... 14)                                                                            |

#### Certificates/approvals:

|                                    |  |                     |
|------------------------------------|--|---------------------|
| <b>Verification of suitability</b> |  | CE / UL / CSA / CCC |
|------------------------------------|--|---------------------|

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

#### Shipping Approval



#### Shipping Approval

other



[other](#)

#### UL/CSA ratings

##### yielded mechanical performance (hp)

- for single-phase squirrel cage motors
  - at 110/120 V / rated value
  - at 230 V / rated value
- for three-phase squirrel cage motors
  - at 200/208 V / rated value
  - at 220/230 V / rated value
  - at 460/480 V / rated value
  - at 575/600 V / rated value

|    |      |
|----|------|
| hp | 0.25 |
| hp | 0.75 |
| hp | 1.5  |
| hp | 2    |
| hp | 3    |
| hp | 5    |

##### Operating current (FLA) / for three-phase squirrel cage motors

- at 480 V / rated value
- at 600 V / rated value

|   |     |
|---|-----|
| A | 4.8 |
| A | 6.1 |

##### Contact rating designation / for auxiliary contacts / according to UL

A600 / Q600

#### Safety:

##### B10 value / with high demand rate

- according to SN 31920

1,000,000

##### Failure rate (FIT value) / with low demand rate

- according to SN 31920

FIT 100

##### Proportion of dangerous failures

- with low demand rate / according to SN 31920
- with high demand rate / according to SN 31920

|   |    |
|---|----|
| % | 40 |
| % | 75 |

##### T1 value / for proof test interval or service life

- according to IEC 61508

a 20

##### Protection against electrical shock

finger-safe

#### Further information:

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

<http://www.siemens.com/industrial-controls/catalogs>

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

<http://www.siemens.com/industrial-controls/mall>

##### CAX-Online-Generator

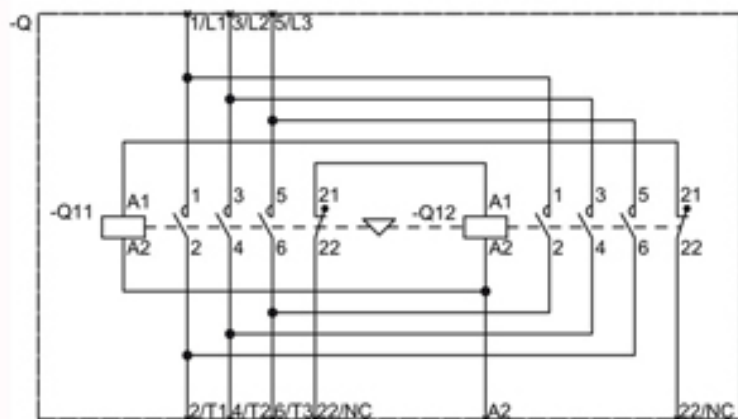
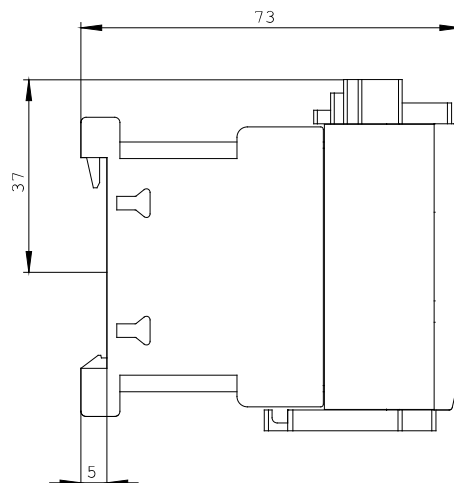
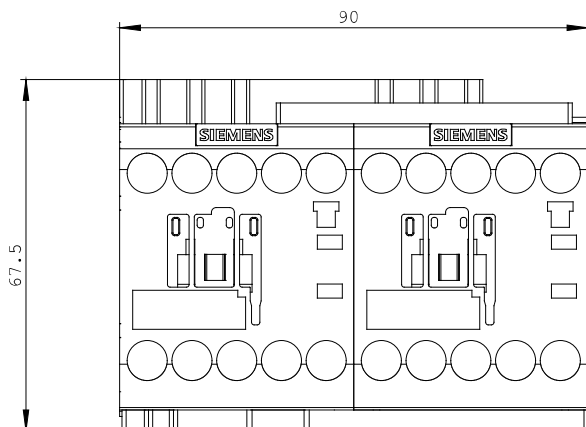
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RA2315-8XB30-1AB0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RA2315-8XB30-1AB0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2315-8XB30-1AB0)



last change:

Feb 4, 2013