## **Product data sheet**



REV. COMB., AC3, 5.5KW/ 400V DC48V 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  |    |                                    |
| during transport   | °C | -55 80                             |
| during storage   | °C | -55 80                             |
| during operating   | °C | -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  | 1.2                                |
| Item designation   |    |                                    |
| <ul> <li>according to DIN 40719 extendable after IEC 204-2 / according<br/>to IEC 750</li> </ul> |    | К                                  |
| according to DIN EN 61346-2  |    | Q                                  |

| Manufacturer article number  |   |               |
|--|---|---------------|
| <ul> <li>1 / of the contactor included in the scope of supply</li> </ul> |   | 3RT2017-1BW42 |
| <ul> <li>2 / of the contactor included in the scope of supply</li> </ul> |   | 3RT2017-1BW42 |
| of the RS applied assembly kit   |   | 3RA2913-2AA1  |
| Mechanical operating cycles as operating time                            |   |               |
| 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:   |   |               |
| Product function   |   |               |
| • bus-communication  |   | No            |
| control circuit interface with IO link                                   |   | No            |
| Protocol / will be supported / AS interface protocol                     |   | No            |
| Main circuit:  |   |               |
| Number of poles / for main current circuit                               |   | 3             |
| Number of NC contacts / for main contacts                                |   | 0             |
| Number of NO contacts / for main contacts                                |   | 3             |
| Operating voltage / at AC-3 / rated value / maximum                      | V | 690           |
| Operating current  |   |               |
| • at AC-1 / at 400 V   |   |               |
| • at 40 °C ambient temperature / rated value                             | Α | 18            |
| • at 60 °C ambient temperature / rated value                             | Α | 16            |
| • at AC-2 / at 400 V / rated value                                       | Α | 7             |
| • at AC-3 / at 400 V / rated value                                       | Α | 12            |
| • at AC-4 / at 400 V / rated value                                       | Α | 6.5           |
| • with 1 current path / at DC-1  |   |               |
| • at 24 V / rated value  | Α | 20            |
| • at 110 V / rated value   | Α | 2.1           |
| • with 2 current paths in series / at DC-1                               |   |               |
| • at 24 V / rated value  | Α | 20            |
| • at 110 V / rated value   | Α | 12            |
| • with 3 current paths in series / at DC-1                               |   |               |
| • at 24 V / rated value  | Α | 20            |
| • at 110 V / rated value   | Α | 20            |
| • with 1 current path / at DC-3 / at DC-5                                |   |               |
| • at 24 V / rated value  | А | 20            |
| • at 110 V / rated value   | А | 0.15          |

| • with 2 current paths in series / at DC-3 / at DC-5 |     |       |
|--|-----|-------|
| • at 24 V / rated value                              | Α   | 20    |
| • at 110 V / rated value                             | Α   | 0.35  |
| • with 3 current paths in series / at DC-3 / at DC-5 |     |       |
| • at 24 V / rated value                              | Α   | 20    |
| • at 110 V / rated value                             | Α   | 20    |
| Service power  |     |       |
| • at AC-2 / at 400 V / rated value                   | kW  | 5.5   |
| • at AC-3  |     |       |
| • at 400 V / rated value                             | kW  | 5.5   |
| • at 500 V / rated value                             | kW  | 5.5   |
| • at 690 V / rated value                             | kW  | 5.5   |
| • at AC-4 / at 400 V / rated value                   | kW  | 2     |
| Off-load operating frequency                         | 1/h | 15    |
| Frequency of operation                               |     |       |
| • at AC-1 / according to IEC 60947-6-2 / maximum     | 1/h | 1,000 |
| • at AC-2 / according to IEC 60947-6-2 / maximum     | 1/h | 750   |
| • at AC-3 / according to IEC 60947-6-2 / maximum     | 1/h | 750   |
| • at AC-4 / according to IEC 60947-6-2 / maximum     | 1/h | 250   |
|  |     |       |

| Control circuit:  |    |              |
|---|----|--------------|
| Design of activation  |    | conventional |
| Type of voltage / of the controlled supply voltage                          |    | DC           |
| Control supply voltage frequency  |    |              |
| • 1 / rated value   | Hz | 50           |
| • 2 / rated value   | Hz | 60           |
| Control supply voltage / 1  |    |              |
| • for DC / rated value  | V  | 48           |
| Operating range factor control supply voltage rated value / of the solenoid |    |              |
| • for DC  |    | 0.85 1.1     |
| Pull-in power / of the solenoid / for DC                                    | W  | 4            |
| Holding power / of the solenoid / for DC                                    | W  | 4            |
| Resistive loss / of the magnet coil / for DC                                |    |              |
| • typical   | W  | 4            |

| Auxiliary circuit:                              |  |  |
|---|--|--|
| Product extension / auxiliary switch            | Yes  |  |
| Contact reliability / of the auxiliary contacts | < 1 error per 100 million operating cycles |  |
| Number of NC contacts / for auxiliary contacts  |  |  |
| • per direction of rotation                     | 0  |  |

| • instantaneous switching                      |   | 0   |
|--|---|-----|
| lagging switching                              |   | 0   |
| Number of NO contacts / for auxiliary contacts |   |     |
| • per direction of rotation                    |   | 0   |
| • instantaneous switching                      |   | 0   |
| leading switching                              |   | 0   |
| Operating current / of the auxiliary contacts  |   |     |
| • at AC-12 / maximum                           | Α | 10  |
| • at AC-15                                     |   |     |
| • at 230 V                                     | Α | 6   |
| • at 400 V                                     | Α | 3   |
| • at DC-12                                     |   |     |
| • at 48 V                                      | Α | 6   |
| • at 60 V                                      | Α | 6   |
| • at 110 V                                     | Α | 3   |
| • at 220 V                                     | Α | 1   |
| • at DC-13                                     |   |     |
| • at 24 V                                      | Α | 10  |
| • at 48 V                                      | Α | 2   |
| • at 60 V                                      | Α | 2   |
| • at 110 V                                     | Α | 1   |
| • at 220 V                                     | Α | 0.3 |

| Short-circuit:   |  |
|--|--|
| Design of the fuse link  |  |
| <ul> <li>for short-circuit protection of the main circuit</li> </ul> |  |
| with type of assignment 1 / required                                 | gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A |
| at type of coordination 2 / required                                 | gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A |
| • for short-circuit protection of the auxiliary switch / required    | fuse gL/gG: 10 A                               |

| Installation/mounting/dimensions:                 |    |  |
|---|----|--|
| Built in orientation                              |    | any  |
| Type of mounting                                  |    | screw and snap-on mounting onto 35 mm standard mounting rail |
| Width   | mm | 90   |
| Height  | mm | 68   |
| Depth   | mm | 73   |
| Distance, to be maintained, to the ranks assembly |    |  |
| • forwards  | mm | 6  |
| • backwards                                       | mm | 0  |

| • upwards                                       | mm | 6 |
|---|----|---|
| • downwards                                     | mm | 6 |
| • sidewards                                     | mm | 6 |
| Distance, to be maintained, to earthed part     |    |   |
| • forwards                                      | mm | 6 |
| • backwards                                     | mm | 0 |
| • upwards                                       | mm | 6 |
| • downwards                                     | mm | 6 |
| • sidewards                                     | mm | 6 |
| Distance, to be maintained, conductive elements |    |   |
| • forwards                                      | mm | 6 |
| • backwards                                     | mm | 0 |
| • upwards                                       | mm | 6 |
| • downwards                                     | mm | 6 |
| • sidewards                                     | mm | 6 |
|   |    |   |

| Connections:                                      |  |
|---|--|
| Design of the electrical connection               |  |
| for main current circuit                          | screw-type terminals   |
| for auxiliary and control current circuit         | screw-type terminals   |
| Type of the connectable conductor cross-section   |  |
| • for main contacts                               |  |
| • solid   | $2 \times (0.5 \dots 1.5 \text{ mm}^2), 2 \times (0.75 \dots 2.5 \text{ mm}^2), 2 \times (0.5 \dots 4 \text{ mm}^2)$ |
| • stranded  | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x (0.5 4 mm²)  |
| • finely stranded                                 |  |
| <ul> <li>with conductor end processing</li> </ul> | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  |
| • for AWG conductors / for main contacts          | 2x (20 16), 2x (18 14)   |
| for auxiliary contacts                            |  |
| • solid   | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  |
| • finely stranded                                 |  |
| <ul> <li>with conductor end processing</li> </ul> | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  |
| • for AWG conductors / for auxiliary contacts     | 2x (20 16), 2x (18 14)   |

| Certificates/approvals:     |                     |
|-----------------------------|---------------------|
| Verification of suitability | CE / UL / CSA / CCC |

### **General Product Approval**

### **Test Certificates**



ROSTEST



Manufacturer

# **Shipping Approval**













**Shipping Approval** 

othe



other

| UL/CSA ratings  |    |             |
|---|----|-------------|
| yielded mechanical performance (hp)                                   |    |             |
| • for single-phase squirrel cage motors                               |    |             |
| • at 110/120 V / rated value  | hp | 0.5         |
| • at 230 V / rated value  | hp | 2           |
| • for three-phase squirrel cage motors                                |    |             |
| • at 200/208 V / rated value  | hp | 1.5         |
| • at 220/230 V / rated value  | hp | 3           |
| • at 460/480 V / rated value  | hp | 7.5         |
| • at 575/600 V / rated value  | hp | 10          |
| Operating current (FLA) / for three-phase squirrel cage motors        |    |             |
| • at 480 V / rated value  | Α  | 11          |
| • at 600 V / rated value  | Α  | 11          |
| 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                                  |     |             |
| <ul> <li>with low demand rate / according to SN 31920</li> </ul>  | %   | 40          |
| <ul> <li>with high demand rate / according to SN 31920</li> </ul> | %   | 75          |
| T1 value / for proof test interval or service life                |     |             |
| • according to IEC 61508  | а   | 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**

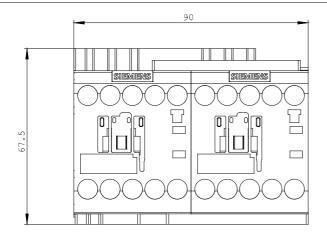
http://www.siemens.com/cax

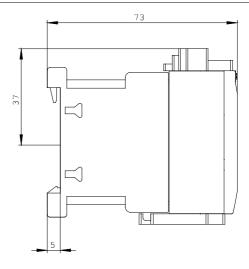
### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

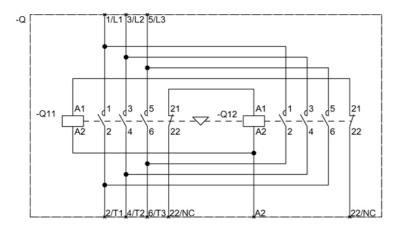
http://support.automation.siemens.com/WW/view/en/3RA2317-8XB30-1BW4/all

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RA2317-8XB30-1BW4







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