



contactor AC-1, 22 A, 400 V / 40 °C, 4-pole, 24 V AC, 50/60 Hz, spring-loaded terminal, size: S00

|                                                                               |                            |
|-------------------------------------------------------------------------------|----------------------------|
| product brand name                                                            | SIRIUS                     |
| product designation                                                           | Contactor                  |
| product type designation                                                      | 3RT23                      |
| <b>General technical data</b>                                                 |                            |
| size of contactor                                                             | S00                        |
| product extension                                                             |                            |
| • function module for communication                                           | No                         |
| • auxiliary switch                                                            | Yes                        |
| power loss [W] for rated value of the current                                 |                            |
| • at AC in hot operating state                                                | 6.4 W                      |
| • at AC in hot operating state per pole                                       | 1.6 W                      |
| • without load current share typical                                          | 1.4 W                      |
| type of calculation of power loss depending on pole                           | quadratic                  |
| insulation voltage                                                            |                            |
| • of main circuit with degree of pollution 3 rated value                      | 690 V                      |
| • of the auxiliary and control circuit with degree of pollution 3 rated value | 690 V                      |
| surge voltage resistance                                                      |                            |
| • of main circuit rated value                                                 | 6 kV                       |
| • of auxiliary circuit rated value                                            | 6 kV                       |
| shock resistance at rectangular impulse                                       |                            |
| • at AC                                                                       | 7,3g / 5 ms, 4,7g / 10 ms  |
| shock resistance with sine pulse                                              |                            |
| • at AC                                                                       | 11,4g / 5 ms, 7,3g / 10 ms |
| mechanical service life (operating cycles)                                    |                            |
| • of contactor typical                                                        | 30 000 000                 |
| • of the contactor with added auxiliary switch block typical                  | 10 000 000                 |
| reference code according to IEC 81346-2                                       | Q                          |
| Substance Prohibittance (Date)                                                | 10/01/2009                 |
| Weight                                                                        | 0.255 kg                   |
| <b>Ambient conditions</b>                                                     |                            |
| installation altitude at height above sea level maximum                       | 2 000 m                    |
| ambient temperature                                                           |                            |
| • during operation                                                            | -25 ... +60 °C             |
| • during storage                                                              | -55 ... +80 °C             |
| relative humidity minimum                                                     | 10 %                       |
| relative humidity at 55 °C according to IEC 60068-2-30 maximum                | 95 %                       |
| <b>Environmental footprint</b>                                                |                            |
| Environmental Product Declaration(EPD)                                        | Yes                        |
| global warming potential [CO <sub>2</sub> eq] total                           | 94.8 kg                    |

|                                                                                                                                                                                                                                                                                                                   |                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| global warming potential [CO2 eq] during manufacturing                                                                                                                                                                                                                                                            | 1.15 kg                                 |
| global warming potential [CO2 eq] during operation                                                                                                                                                                                                                                                                | 93.8 kg                                 |
| global warming potential [CO2 eq] after end of life                                                                                                                                                                                                                                                               | -0.178 kg                               |
| <b>Main circuit</b>                                                                                                                                                                                                                                                                                               |                                         |
| <b>number of poles for main current circuit</b>                                                                                                                                                                                                                                                                   | 4                                       |
| <b>number of NO contacts for main contacts</b>                                                                                                                                                                                                                                                                    | 4                                       |
| <b>type of voltage for main current circuit</b>                                                                                                                                                                                                                                                                   | AC                                      |
| <b>operational current</b>                                                                                                                                                                                                                                                                                        |                                         |
| <ul style="list-style-type: none"> <li>• at AC-1 at 400 V at ambient temperature 40 °C rated value</li> </ul>                                                                                                                                                                                                     | 22 A                                    |
| <ul style="list-style-type: none"> <li>• at AC-1 <ul style="list-style-type: none"> <li>— up to 690 V at ambient temperature 40 °C rated value</li> </ul> </li> </ul>                                                                                                                                             | 22 A                                    |
| <ul style="list-style-type: none"> <li>— up to 690 V at ambient temperature 60 °C rated value</li> </ul>                                                                                                                                                                                                          | 20 A                                    |
| <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul> </li> </ul>                                                                                                                                                                             | 12 A                                    |
| <ul style="list-style-type: none"> <li>• at AC-4 at 400 V rated value</li> </ul>                                                                                                                                                                                                                                  | 8.5 A                                   |
| minimum cross-section in main circuit at maximum AC-1 rated value                                                                                                                                                                                                                                                 | 4 mm <sup>2</sup>                       |
| <b>operational current</b>                                                                                                                                                                                                                                                                                        |                                         |
| <ul style="list-style-type: none"> <li>• <b>at 1 current path at DC-1</b> <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> </ul> </li> </ul>                      | 20 A<br>20 A<br>2.1 A<br>0.8 A<br>0.6 A |
| <ul style="list-style-type: none"> <li>• <b>with 2 current paths in series at DC-1</b> <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> </ul> </li> </ul>         | 20 A<br>20 A<br>12 A<br>1.6 A<br>0.8 A  |
| <ul style="list-style-type: none"> <li>• <b>with 3 current paths in series at DC-1</b> <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> </ul> </li> </ul>         | 20 A<br>20 A<br>20 A<br>20 A<br>1.3 A   |
| <ul style="list-style-type: none"> <li>• <b>at 1 current path at DC-3 at DC-5</b> <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> </ul>                                                                              | 20 A<br>0.5 A<br>0.15 A                 |
| <ul style="list-style-type: none"> <li>• <b>with 2 current paths in series at DC-3 at DC-5</b> <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> </ul>                                                                 | 20 A<br>5 A<br>0.35 A                   |
| <ul style="list-style-type: none"> <li>• <b>with 3 current paths in series at DC-3 at DC-5</b> <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> </ul> </li> </ul> | 20 A<br>20 A<br>20 A<br>1.5 A<br>0.2 A  |
| <b>operating power</b>                                                                                                                                                                                                                                                                                            |                                         |
| <ul style="list-style-type: none"> <li>• at AC-3 at 400 V rated value</li> </ul>                                                                                                                                                                                                                                  | 5.5 kW                                  |
| <ul style="list-style-type: none"> <li>• at AC-4 at 400 V rated value</li> </ul>                                                                                                                                                                                                                                  | 4 kW                                    |
| <b>no-load switching frequency</b>                                                                                                                                                                                                                                                                                |                                         |
| <ul style="list-style-type: none"> <li>• at AC</li> </ul>                                                                                                                                                                                                                                                         | 10 000 1/h                              |
| operating frequency at AC-1 maximum                                                                                                                                                                                                                                                                               | 1 000 1/h                               |
| <b>Control circuit/ Control</b>                                                                                                                                                                                                                                                                                   |                                         |
| <b>type of voltage</b>                                                                                                                                                                                                                                                                                            | AC                                      |
| <b>type of voltage of the control supply voltage</b>                                                                                                                                                                                                                                                              | AC                                      |

|                                                                                       |                                                                                                                                      |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>control supply voltage at AC</b>                                                   |                                                                                                                                      |
| • at 50 Hz rated value                                                                | 24 V                                                                                                                                 |
| • at 60 Hz rated value                                                                | 24 V                                                                                                                                 |
| <b>operating range factor control supply voltage rated value of magnet coil at AC</b> |                                                                                                                                      |
| • at 50 Hz                                                                            | 0.8 ... 1.1                                                                                                                          |
| • at 60 Hz                                                                            | 0.85 ... 1.1                                                                                                                         |
| <b>apparent pick-up power of magnet coil at AC</b>                                    |                                                                                                                                      |
| • at 50 Hz                                                                            | 37 VA                                                                                                                                |
| • at 60 Hz                                                                            | 33 VA                                                                                                                                |
| <b>inductive power factor with closing power of the coil</b>                          |                                                                                                                                      |
| • at 50 Hz                                                                            | 0.8                                                                                                                                  |
| • at 60 Hz                                                                            | 0.75                                                                                                                                 |
| <b>apparent holding power of magnet coil at AC</b>                                    |                                                                                                                                      |
| • at 50 Hz                                                                            | 5.7 VA                                                                                                                               |
| • at 60 Hz                                                                            | 4.4 VA                                                                                                                               |
| <b>inductive power factor with the holding power of the coil</b>                      |                                                                                                                                      |
| • at 50 Hz                                                                            | 0.25                                                                                                                                 |
| • at 60 Hz                                                                            | 0.25                                                                                                                                 |
| <b>closing delay</b>                                                                  |                                                                                                                                      |
| • at AC                                                                               | 9 ... 35 ms                                                                                                                          |
| <b>opening delay</b>                                                                  |                                                                                                                                      |
| • at AC                                                                               | 7 ... 13 ms                                                                                                                          |
| <b>arcing time</b>                                                                    | 10 ... 15 ms                                                                                                                         |
| <b>control version of the switch operating mechanism</b>                              | Standard A1 - A2                                                                                                                     |
| <b>Auxiliary circuit</b>                                                              |                                                                                                                                      |
| <b>number of NC contacts for auxiliary contacts</b>                                   |                                                                                                                                      |
| • attachable                                                                          | 2                                                                                                                                    |
| <b>number of NO contacts for auxiliary contacts</b>                                   |                                                                                                                                      |
| • attachable                                                                          | 2                                                                                                                                    |
| <b>Short-circuit protection</b>                                                       |                                                                                                                                      |
| <b>design of the fuse link</b>                                                        |                                                                                                                                      |
| • for short-circuit protection of the main circuit                                    |                                                                                                                                      |
| — with type of coordination 1 required                                                | gG: 35 A (690 V, 100 kA)                                                                                                             |
| — with type of coordination 2 required                                                | gG: 20 A (690 V, 100 kA)                                                                                                             |
| <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 side-by-side mounting</b>                                         | Yes                                                                                                                                  |
| <b>fastening method</b>                                                               | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715                                                             |
| <b>height</b>                                                                         | 70 mm                                                                                                                                |
| <b>width</b>                                                                          | 45 mm                                                                                                                                |
| <b>depth</b>                                                                          | 73 mm                                                                                                                                |
| <b>required spacing</b>                                                               |                                                                                                                                      |
| • with side-by-side mounting                                                          |                                                                                                                                      |
| — forwards                                                                            | 10 mm                                                                                                                                |
| — upwards                                                                             | 10 mm                                                                                                                                |
| — downwards                                                                           | 10 mm                                                                                                                                |
| — at the side                                                                         | 0 mm                                                                                                                                 |
| • for grounded parts                                                                  |                                                                                                                                      |
| — forwards                                                                            | 10 mm                                                                                                                                |
| — upwards                                                                             | 10 mm                                                                                                                                |
| — at the side                                                                         | 6 mm                                                                                                                                 |
| — downwards                                                                           | 10 mm                                                                                                                                |
| • for live parts                                                                      |                                                                                                                                      |
| — forwards                                                                            | 10 mm                                                                                                                                |
| — upwards                                                                             | 10 mm                                                                                                                                |
| — downwards                                                                           | 10 mm                                                                                                                                |
| — at the side                                                                         | 6 mm                                                                                                                                 |
| <b>Connections/ Terminals</b>                                                         |                                                                                                                                      |
| <b>type of electrical connection</b>                                                  |                                                                                                                                      |

|                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control circuit</li> <li>• at contactor for auxiliary contacts</li> <li>• of magnet coil</li> </ul>                                                                                                                                                                                 | spring-loaded terminals<br>spring-loaded terminals<br>Spring-type terminals<br>Spring-type terminals                                                             |
| <b>type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>— finely stranded without core end processing</li> </ul> </li> <li>• for AWG cables for main contacts</li> </ul>           | 2x (0.5 ... 4 mm <sup>2</sup> )<br>2x (0,5 ... 4 mm <sup>2</sup> )<br>2x (0.5 ... 2.5 mm <sup>2</sup> )<br>2x (0.5 ... 2.5 mm <sup>2</sup> )<br>2x (20 ... 12)   |
| <b>connectable conductor cross-section for main contacts</b> <ul style="list-style-type: none"> <li>• solid</li> <li>• solid or stranded</li> <li>• stranded</li> <li>• finely stranded with core end processing</li> <li>• finely stranded without core end processing</li> </ul>                                                                                                 | 0.5 ... 4 mm <sup>2</sup><br>0.5 ... 4 mm <sup>2</sup><br>0.5 ... 4 mm <sup>2</sup><br>0.5 ... 2.5 mm <sup>2</sup><br>0.5 ... 2.5 mm <sup>2</sup>                |
| <b>connectable conductor cross-section for auxiliary contacts</b> <ul style="list-style-type: none"> <li>• solid or stranded</li> <li>• finely stranded with core end processing</li> <li>• finely stranded without core end processing</li> </ul>                                                                                                                                 | 0.5 ... 4 mm <sup>2</sup><br>0.5 ... 2.5 mm <sup>2</sup><br>0.5 ... 2.5 mm <sup>2</sup>                                                                          |
| <b>type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>— finely stranded without core end processing</li> </ul> </li> <li>• for AWG cables for auxiliary contacts</li> </ul> | 2x (0.5 ... 2.5 mm <sup>2</sup> )<br>2x (0,5 ... 4 mm <sup>2</sup> )<br>2x (0.5 ... 2.5 mm <sup>2</sup> )<br>2x (0.5 ... 2.5 mm <sup>2</sup> )<br>2x (20 ... 12) |
| <b>AWG number as coded connectable conductor cross section for main contacts</b>                                                                                                                                                                                                                                                                                                   | 20 ... 12                                                                                                                                                        |
| <b>AWG number as coded connectable conductor cross section for auxiliary contacts</b>                                                                                                                                                                                                                                                                                              | 20 ... 12                                                                                                                                                        |
| <b>Safety related data</b>                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                  |
| <b>product function</b> <ul style="list-style-type: none"> <li>• mirror contact according to IEC 60947-4-1</li> <li>• positively driven operation according to IEC 60947-5-1</li> </ul>                                                                                                                                                                                            | Yes; with 3RH29<br>No                                                                                                                                            |
| <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                                                                                                                 |
| <b>Communication/ Protocol</b>                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                  |
| <b>product function bus communication</b>                                                                                                                                                                                                                                                                                                                                          | No                                                                                                                                                               |
| <b>Approvals Certificates</b>                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                  |
| <b>General Product Approval</b>                                                                                                                                                                                                                                                                                                                                                    | EMV                                                                                                                                                              |



#### Test Certificates

#### Maritime application

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



#### Maritime application

#### other



[Miscellaneous](#)



[Confirmation](#)

Railway

Environment

[Special Test Certificate](#)



[Environmental Confirmations](#)

#### 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=3RT2317-2AB00>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2317-2AB00>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2317-2AB00>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2317-2AB00&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2317-2AB00&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2317-2AB00/char>

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

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2317-2AB00&objecttype=14&gridview=view1>



