



contactor AC-1, 18 A, 400 V / 40 °C, 4-pole, 110 V AC, 50 Hz / 120 V, 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                                                | 4.4 W                        |
| • at AC in hot operating state per pole                                       | 1.1 W                        |
| • without load current share typical                                          | 1.1 W                        |
| type of calculation of power loss current-dependent                           | 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                                                                       | 6,7 g / 5 ms, 4,2 g / 10 ms  |
| shock resistance with sine pulse                                              |                              |
| • at AC                                                                       | 10,5 g / 5 ms, 6,6 g / 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 Prohibition (day/month/year)                                        | 10/01/2009                   |
| Net Weight                                                                    | 0.253 g                      |
| <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>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>                                                                      | 18 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>              | 18 A       |
| <ul style="list-style-type: none"> <li>— up to 690 V at ambient temperature 60 °C rated value</li> </ul>                                                                           | 16 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>                                              | 9 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                                                                                                                  | 2.5 mm²    |
| <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> </ul> </li> </ul>                      | 16 A       |
| <ul style="list-style-type: none"> <li>— at 60 V rated value</li> </ul>                                                                                                            | 16 A       |
| <ul style="list-style-type: none"> <li>— at 110 V rated value</li> </ul>                                                                                                           | 2.1 A      |
| <ul style="list-style-type: none"> <li>— at 220 V rated value</li> </ul>                                                                                                           | 0.8 A      |
| <ul style="list-style-type: none"> <li>— at 440 V rated value</li> </ul>                                                                                                           | 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> </ul> </li> </ul>         | 16 A       |
| <ul style="list-style-type: none"> <li>— at 60 V rated value</li> </ul>                                                                                                            | 16 A       |
| <ul style="list-style-type: none"> <li>— at 110 V rated value</li> </ul>                                                                                                           | 12 A       |
| <ul style="list-style-type: none"> <li>— at 220 V rated value</li> </ul>                                                                                                           | 1.6 A      |
| <ul style="list-style-type: none"> <li>— at 440 V rated value</li> </ul>                                                                                                           | 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> </ul> </li> </ul>         | 16 A       |
| <ul style="list-style-type: none"> <li>— at 60 V rated value</li> </ul>                                                                                                            | 16 A       |
| <ul style="list-style-type: none"> <li>— at 110 V rated value</li> </ul>                                                                                                           | 16 A       |
| <ul style="list-style-type: none"> <li>— at 220 V rated value</li> </ul>                                                                                                           | 16 A       |
| <ul style="list-style-type: none"> <li>— at 440 V rated value</li> </ul>                                                                                                           | 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> </ul> </li> </ul>              | 16 A       |
| <ul style="list-style-type: none"> <li>— at 60 V rated value</li> </ul>                                                                                                            | 0.5 A      |
| <ul style="list-style-type: none"> <li>— at 110 V rated value</li> </ul>                                                                                                           | 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> </ul> </li> </ul> | 16 A       |
| <ul style="list-style-type: none"> <li>— at 60 V rated value</li> </ul>                                                                                                            | 5 A        |
| <ul style="list-style-type: none"> <li>— at 110 V rated value</li> </ul>                                                                                                           | 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> </ul> </li> </ul> | 16 A       |
| <ul style="list-style-type: none"> <li>— at 60 V rated value</li> </ul>                                                                                                            | 16 A       |
| <ul style="list-style-type: none"> <li>— at 110 V rated value</li> </ul>                                                                                                           | 16 A       |
| <ul style="list-style-type: none"> <li>— at 220 V rated value</li> </ul>                                                                                                           | 1.5 A      |
| <ul style="list-style-type: none"> <li>— at 440 V rated value</li> </ul>                                                                                                           | 0.2 A      |
| <b>operating power</b>                                                                                                                                                             |            |
| <ul style="list-style-type: none"> <li>• at AC-3 at 400 V rated value</li> </ul>                                                                                                   | 4 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 |
| <b>operating frequency</b>                                                                                                                                                         |            |
| <ul style="list-style-type: none"> <li>• at AC-1 maximum</li> </ul>                                                                                                                | 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>                                                                                                                                                |            |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                      | 110 V<br>120 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>0.8 ... 1.1                                                                                                           |
| <b>apparent pick-up power of magnet coil at AC</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                              | 26.4 VA<br>26.4 VA                                                                                                                   |
| <b>inductive power factor with closing power of the coil</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.81<br>0.81                                                                                                                         |
| <b>apparent holding power of magnet coil at AC</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4.4 VA<br>4.4 VA                                                                                                                     |
| <b>inductive power factor with the holding power of the coil</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.24<br>0.24                                                                                                                         |
| <b>closing delay</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• at AC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 9 ... 35 ms                                                                                                                          |
| <b>opening delay</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• at AC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• attachable</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2                                                                                                                                    |
| <b>number of NO contacts for auxiliary contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• attachable</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2                                                                                                                                    |
| <b>Short-circuit protection</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                      |
| <b>design of the fuse link</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• for short-circuit protection of the main circuit <ul style="list-style-type: none"> <li>— with type of coordination 1 required</li> <li>— with type of coordination 2 required</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                | gG: 35 A (690 V, 100 kA)<br>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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</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>— 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>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul> | 10 mm<br>10 mm<br>10 mm<br>0 mm<br><br>10 mm<br>10 mm<br>6 mm<br>10 mm<br><br>10 mm<br>10 mm<br>10 mm<br>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 ... 16), 2x (18 ... 14), 2x 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 ... 16), 2x (18 ... 14), 2x 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                                                                                                                                                                               |

#### Safety related data

|                                                                                                                                                                                         |                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| <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 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|

#### Electrical Safety

|                                                                |                                                  |
|----------------------------------------------------------------|--------------------------------------------------|
| <b>protection class IP on the front according to IEC 60529</b> | IP20                                             |
| <b>touch protection on the front according to IEC 60529</b>    | finger-safe, for vertical contact from the front |

#### Communication/ Protocol

|                                           |    |
|-------------------------------------------|----|
| <b>product function bus communication</b> | No |
|-------------------------------------------|----|

#### Approvals Certificates

|                                                                                                                                                                                                                                                                                                    |                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| <b>Environmental Product Declaration</b>                                                                                                                                                                                                                                                           |                                            |
| <ul style="list-style-type: none"> <li>• global warming potential [CO2 eq] / during manufacturing</li> <li>• global warming potential [CO2 eq] / during operation</li> <li>• global warming potential [CO2 eq] / after end of life</li> <li>• global warming potential [CO2 eq] / total</li> </ul> | 1.15 kg<br>93.8 kg<br>-0.178 kg<br>94.8 kg |

#### Environment General Product Approval

[Environmental Con-  
firmations](#)



|                          |     |                   |                      |
|--------------------------|-----|-------------------|----------------------|
| General Product Approval | EMV | Test Certificates | Maritime application |
|--------------------------|-----|-------------------|----------------------|



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



#### Maritime application



#### other

[Confirmation](#)



[Miscellaneous](#)

#### Railway

[Special Test Certificate](#)

#### Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2316-2AK60>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2316-2AK60>

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

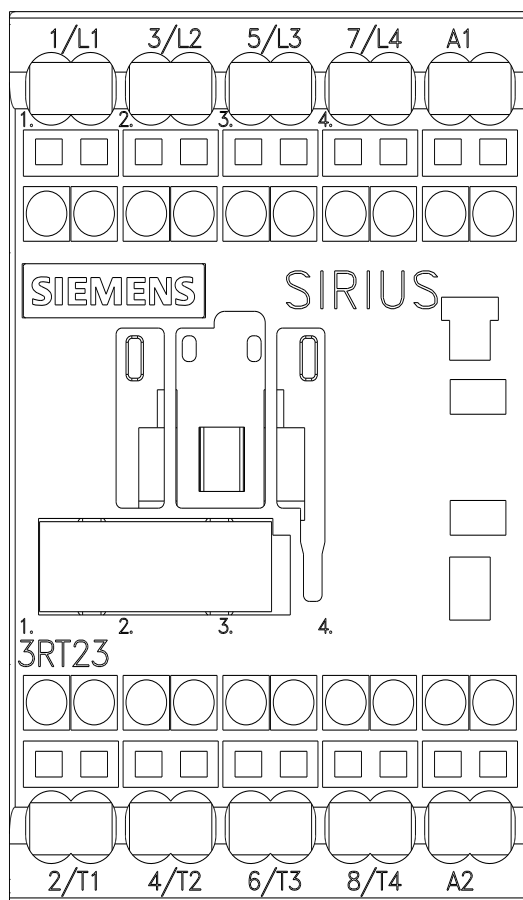
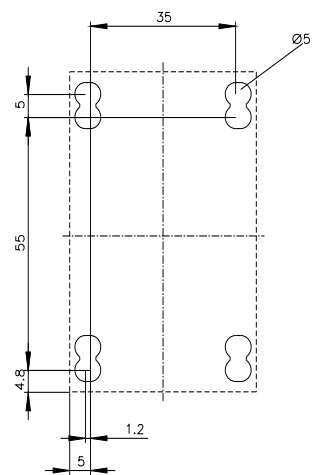
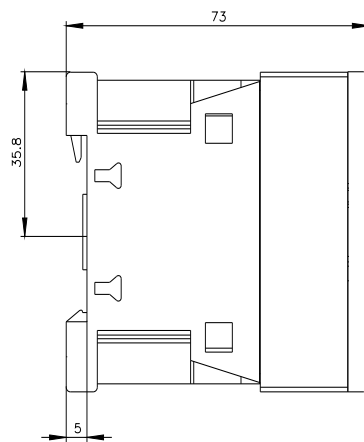
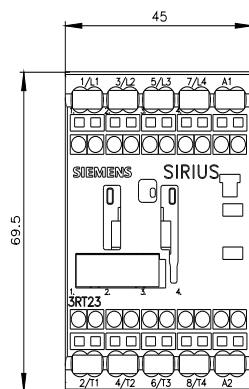
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2316-2AK60&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2316-2AK60&lang=en)

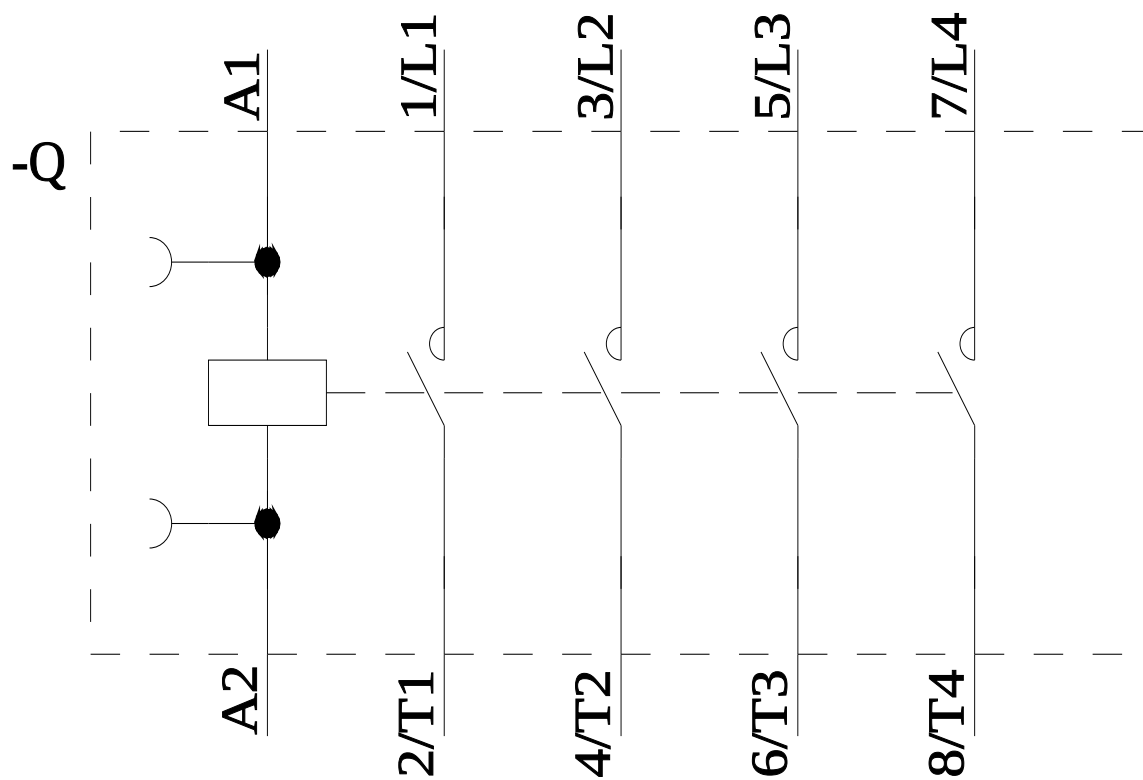
Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2316-2AK60>

Characteristic curves

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





last modified:

4/4/2026 