



Power contactor, AC-3 40 A, 18.5 kW / 400 V 110 V AC, 50 Hz / 120 V, 60 Hz, 3-pole, Size S2, Screw terminal Reusable packaging = 30 units !!!  
Phased-out product !!! Successor is SIRIUS 3RT2 Preferred successor type is

|                                                                                                  |                        |
|--------------------------------------------------------------------------------------------------|------------------------|
| <b>product brand name</b>                                                                        | SIRIUS                 |
| <b>product designation</b>                                                                       | power contactor        |
| <b>General technical data</b>                                                                    |                        |
| <b>size of contactor</b>                                                                         | S2                     |
| insulation voltage rated value                                                                   | 690 V                  |
| <b>degree of pollution</b>                                                                       | 3                      |
| <b>surge voltage resistance rated value</b>                                                      | 6 kV                   |
| maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1 | 400 V                  |
| protection class IP                                                                              |                        |
| • on the front                                                                                   | IP20                   |
| • of the terminal                                                                                | IP00                   |
| <b>shock resistance at rectangular impulse</b>                                                   |                        |
| • at AC                                                                                          | 10g / 5 ms, 5g / 10 ms |
| <b>shock resistance with sine pulse</b>                                                          |                        |
| • at AC                                                                                          | 15g / 5 ms, 8g / 10 ms |
| <b>mechanical service life (switching cycles)</b>                                                |                        |
| • of contactor typical                                                                           | 10 000 000             |
| • of the contactor with added electronically optimized auxiliary switch block typical            | 5 000 000              |
| • of the contactor with added auxiliary switch block typical                                     | 10 000 000             |
| <b>reference code acc. to IEC 81346-2</b>                                                        | Q                      |
| <b>Substance Prohibitance (Date)</b>                                                             | 01.05.2012             |
| <b>Ambient conditions</b>                                                                        |                        |
| installation altitude at height above sea level maximum                                          | 2 000 m                |
| <b>ambient temperature</b>                                                                       |                        |
| • during operation                                                                               | -25 ... +60 °C         |
| • during storage                                                                                 | -55 ... +80 °C         |
| <b>Main circuit</b>                                                                              |                        |
| <b>number of poles for main current circuit</b>                                                  | 3                      |
| <b>number of NO contacts for main contacts</b>                                                   | 3                      |
| <b>number of NC contacts for main contacts</b>                                                   | 0                      |
| <b>operational current</b>                                                                       |                        |
| • at AC-1 at 400 V at ambient temperature 40 °C rated value                                      | 60 A                   |
| • at AC-1                                                                                        |                        |
| — up to 690 V at ambient temperature 40 °C rated value                                           | 60 A                   |
| — up to 690 V at ambient temperature 60 °C rated value                                           | 55 A                   |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> <li>• at AC-4 at 400 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                       | 40 A<br>24 A<br>35 A                                                                  |
| <b>connectable conductor cross-section in main circuit at AC-1</b> <ul style="list-style-type: none"> <li>• at 60 °C minimum permissible</li> <li>• at 40 °C minimum permissible</li> </ul>                                                                                                                                                                                                                                                                                                                         | 16 mm <sup>2</sup><br>16 mm <sup>2</sup>                                              |
| <b>operational current for approx. 200000 operating cycles at AC-4</b> <ul style="list-style-type: none"> <li>• at 400 V rated value</li> <li>• at 690 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                     | 18.5 A<br>12.6 A                                                                      |
| <b>operating power</b> <ul style="list-style-type: none"> <li>• at AC-1 <ul style="list-style-type: none"> <li>— at 230 V at 60 °C rated value</li> <li>— at 400 V rated value</li> <li>— at 690 V rated value</li> <li>— at 690 V at 60 °C rated value</li> </ul> </li> <li>• at AC-2 at 400 V rated value</li> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul> | 22 kW<br>38 kW<br>66 kW<br>66 kW<br>18.5 kW<br><br>11 kW<br>18.5 kW<br>22 kW<br>22 kW |
| <b>operating power for approx. 200000 operating cycles at AC-4</b> <ul style="list-style-type: none"> <li>• at 400 V rated value</li> <li>• at 690 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                         | 9.5 kW<br>11.4 kW                                                                     |
| <b>thermal short-time current limited to 10 s</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 400 A                                                                                 |
| <b>no-load switching frequency</b> <ul style="list-style-type: none"> <li>• at AC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                        | 5 000 1/h                                                                             |
| <b>operating frequency</b> <ul style="list-style-type: none"> <li>• at AC-1 maximum</li> <li>• at AC-2 maximum</li> <li>• at AC-3 maximum</li> <li>• at AC-4 maximum</li> </ul>                                                                                                                                                                                                                                                                                                                                     | 1 200 1/h<br>600 1/h<br>1 000 1/h<br>300 1/h                                          |
| <b>Control circuit/ Control</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |
| <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>control supply voltage frequency</b> <ul style="list-style-type: none"> <li>• 1 rated value</li> <li>• 2 rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                  | 50 Hz<br>60 Hz                                                                        |
| <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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 166 VA                                                                                |
| <b>inductive power factor with closing power of the coil</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.71                                                                                  |
| <b>apparent holding power of magnet coil at AC</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 12.6 VA                                                                               |
| <b>inductive power factor with the holding power of the coil</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.37                                                                                  |
| <b>closing delay</b> <ul style="list-style-type: none"> <li>• at AC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                      | 10 ... 24 ms                                                                          |
| <b>opening delay</b> <ul style="list-style-type: none"> <li>• at AC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                      | 7 ... 20 ms                                                                           |
| <b>arcing time</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 10 ... 15 ms                                                                          |
| <b>Auxiliary circuit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                       |
| number of NC contacts for auxiliary contacts<br>instantaneous contact                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0                                                                                     |

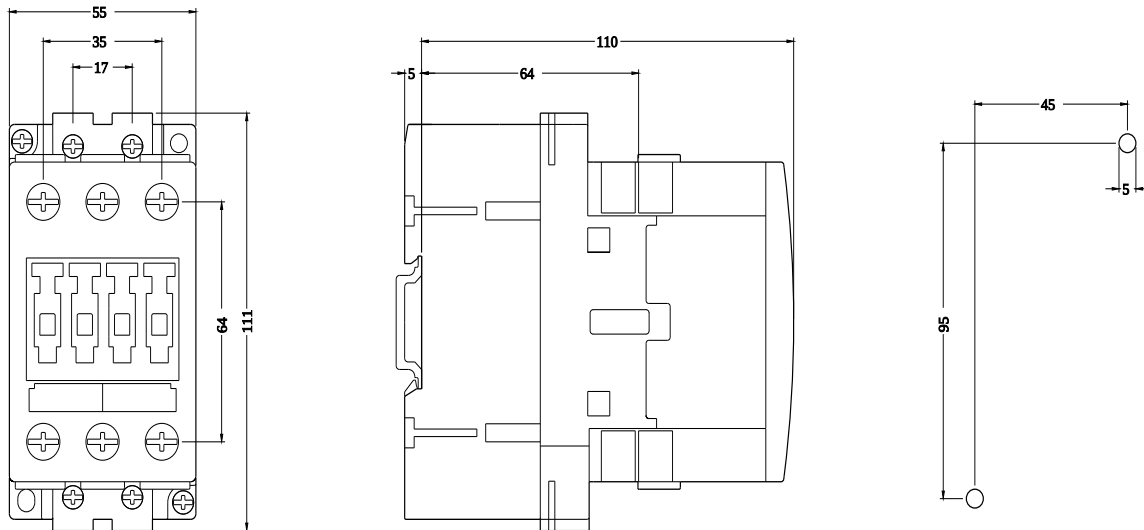
|                                                                                                                                                                                                                       |                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| number of NO contacts for auxiliary contacts instantaneous contact                                                                                                                                                    | 0                                                                                                            |
| operational current at AC-12 maximum                                                                                                                                                                                  | 10 A                                                                                                         |
| <b>operational current at AC-15</b>                                                                                                                                                                                   |                                                                                                              |
| • at 230 V rated value                                                                                                                                                                                                | 6 A                                                                                                          |
| • at 400 V rated value                                                                                                                                                                                                | 3 A                                                                                                          |
| <b>operational current at DC-12</b>                                                                                                                                                                                   |                                                                                                              |
| • at 60 V rated value                                                                                                                                                                                                 | 6 A                                                                                                          |
| • at 110 V rated value                                                                                                                                                                                                | 3 A                                                                                                          |
| • at 220 V rated value                                                                                                                                                                                                | 1 A                                                                                                          |
| <b>operational current at DC-13</b>                                                                                                                                                                                   |                                                                                                              |
| • at 24 V rated value                                                                                                                                                                                                 | 10 A                                                                                                         |
| • at 60 V rated value                                                                                                                                                                                                 | 2 A                                                                                                          |
| • at 110 V rated value                                                                                                                                                                                                | 1 A                                                                                                          |
| • at 220 V rated value                                                                                                                                                                                                | 0.3 A                                                                                                        |
| <b>contact reliability of auxiliary contacts</b>                                                                                                                                                                      | 1 faulty switching per 100 million (17 V, 1 mA)                                                              |
| <b>UL/CSA ratings</b>                                                                                                                                                                                                 |                                                                                                              |
| <b>contact rating of auxiliary contacts according to UL</b>                                                                                                                                                           | A600 / Q600                                                                                                  |
| <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                                                                                                                                                                                | fuse gL/gG: 125 A                                                                                            |
| — with type of assignment 2 required                                                                                                                                                                                  | fuse gL/gG: 63 A                                                                                             |
| • for short-circuit protection of the auxiliary switch required                                                                                                                                                       | fuse gL/gG: 10 A                                                                                             |
| <b>Installation/ mounting/ dimensions</b>                                                                                                                                                                             |                                                                                                              |
| <b>fastening method</b>                                                                                                                                                                                               | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022                       |
| • side-by-side mounting                                                                                                                                                                                               | Yes                                                                                                          |
| <b>height</b>                                                                                                                                                                                                         | 112 mm                                                                                                       |
| <b>width</b>                                                                                                                                                                                                          | 55 mm                                                                                                        |
| <b>depth</b>                                                                                                                                                                                                          | 115 mm                                                                                                       |
| required spacing for grounded parts at the side                                                                                                                                                                       | 6 mm                                                                                                         |
| <b>Connections/ Terminals</b>                                                                                                                                                                                         |                                                                                                              |
| <b>type of electrical connection</b>                                                                                                                                                                                  |                                                                                                              |
| • for main current circuit                                                                                                                                                                                            | screw-type terminals                                                                                         |
| • for auxiliary and control circuit                                                                                                                                                                                   | screw-type terminals                                                                                         |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                   |                                                                                                              |
| • for main contacts                                                                                                                                                                                                   |                                                                                                              |
| — solid                                                                                                                                                                                                               | 2x (0.75 ... 16 mm <sup>2</sup> )                                                                            |
| — stranded                                                                                                                                                                                                            | 2x (0.75 ... 25 mm <sup>2</sup> )                                                                            |
| — solid or stranded                                                                                                                                                                                                   | 2x (0.75 ... 16 mm <sup>2</sup> )                                                                            |
| — finely stranded with core end processing                                                                                                                                                                            | 2x (0.75 ... 16 mm <sup>2</sup> )                                                                            |
| — finely stranded without core end processing                                                                                                                                                                         | 2x (0.75 ... 16 mm <sup>2</sup> )                                                                            |
| • at AWG cables for main contacts                                                                                                                                                                                     | 2x (18 ... 2)                                                                                                |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                   |                                                                                                              |
| • for auxiliary contacts                                                                                                                                                                                              |                                                                                                              |
| — solid                                                                                                                                                                                                               | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), max. 2x (0.75 ... 4 mm <sup>2</sup> ) |
| — finely stranded with core end processing                                                                                                                                                                            | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )                                        |
| • at AWG cables for auxiliary contacts                                                                                                                                                                                | 2x (20 ... 16), 2x (18 ... 14), 1x 12                                                                        |
| <b>Certificates/ approvals</b>                                                                                                                                                                                        |                                                                                                              |
| <b>Further information</b>                                                                                                                                                                                            |                                                                                                              |
| Information- and Downloadcenter (Catalogs, Brochures,...)                                                                                                                                                             |                                                                                                              |
| <a href="https://www.siemens.com/ic10">https://www.siemens.com/ic10</a>                                                                                                                                               |                                                                                                              |
| Industry Mall (Online ordering system)                                                                                                                                                                                |                                                                                                              |
| <a href="https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1035-1AK60-Z X95">https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1035-1AK60-Z X95</a>                             |                                                                                                              |
| Cax online generator                                                                                                                                                                                                  |                                                                                                              |
| <a href="http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&amp;mlfb=3RT1035-1AK60-Z X95">http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&amp;mlfb=3RT1035-1AK60-Z X95</a> |                                                                                                              |
| Service&Support (Manuals, Certificates, Characteristics, FAQs,...)                                                                                                                                                    |                                                                                                              |
| <a href="https://support.industry.siemens.com/cs/ww/en/ps/3RT1035-1AK60-Z X95">https://support.industry.siemens.com/cs/ww/en/ps/3RT1035-1AK60-Z X95</a>                                                               |                                                                                                              |
| Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)                                                                                                         |                                                                                                              |
| <a href="http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1035-1AK60-Z X95&amp;lang=en">http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1035-1AK60-Z X95&amp;lang=en</a>                     |                                                                                                              |

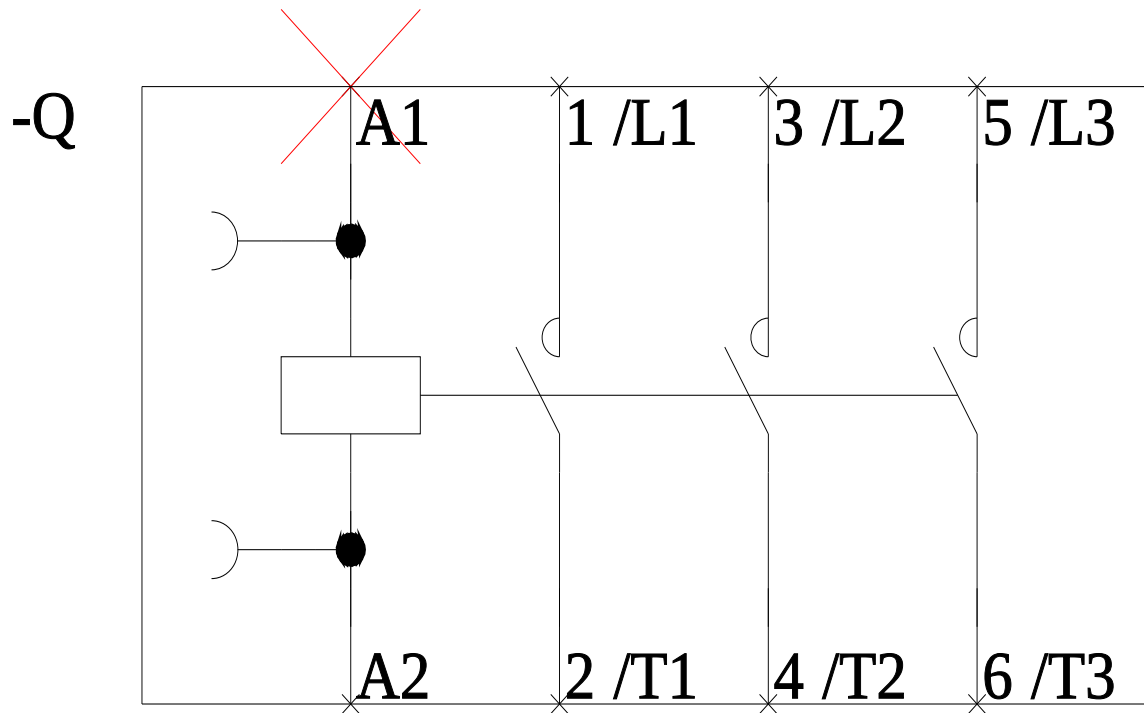
Characteristic: Tripping characteristics,  $I^2t$ , Let-through current

[https://support.industry.siemens.com/cs/ww/en/ps/3RT1035-1AK60-Z\\_X95/char](https://support.industry.siemens.com/cs/ww/en/ps/3RT1035-1AK60-Z_X95/char)

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

[http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1035-1AK60-Z\\_X95&objecttype=14&gridview=view1](http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1035-1AK60-Z_X95&objecttype=14&gridview=view1)





last modified:

12/1/2021 [🔗](#)