



Contactor assembly for star-delta (wye-delta) start AC-3, 55 kW/400 V 20-33 V AC/DC Size S3, screw terminal electrical and mechanical interlock 3 NO+3 NC, integrated varistor

|                                                                |                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>product brand name</b>                                      | SIRIUS                                                                                                                                                                                                                                              |
| <b>product designation</b>                                     | Contactor assembly for star-delta (wye-delta) start                                                                                                                                                                                                 |
| <b>product type designation</b>                                | 3RA24                                                                                                                                                                                                                                               |
| <b>manufacturer's article number</b>                           |                                                                                                                                                                                                                                                     |
| • 1 of the supplied contactor                                  | <a href="#">3RT2045-1NB30</a>                                                                                                                                                                                                                       |
| • 2 of the supplied contactor                                  | <a href="#">3RT2045-1NB30</a>                                                                                                                                                                                                                       |
| • 3 of the supplied contactor                                  | <a href="#">3RT2035-1NB30</a>                                                                                                                                                                                                                       |
| • of the supplied RS assembly kit                              | <a href="#">3RA2943-2C</a>                                                                                                                                                                                                                          |
| • of the supplied function module for wye-delta circuits       | <a href="#">3RA2816-0EW20</a>                                                                                                                                                                                                                       |
| <b>General technical data</b>                                  |                                                                                                                                                                                                                                                     |
| <b>size of contactor</b>                                       | S3                                                                                                                                                                                                                                                  |
| <b>product extension auxiliary switch</b>                      | No                                                                                                                                                                                                                                                  |
| <b>shock resistance at rectangular impulse</b>                 |                                                                                                                                                                                                                                                     |
| • at AC                                                        | 6.7 g / 5 ms, 4.0 g / 10 ms                                                                                                                                                                                                                         |
| • at DC                                                        | 6.7 g / 5 ms, 4 g / 10 ms                                                                                                                                                                                                                           |
| <b>shock resistance with sine pulse</b>                        |                                                                                                                                                                                                                                                     |
| • at AC                                                        | 10.6 g / 5 ms, 6.3 g / 10 ms                                                                                                                                                                                                                        |
| • at DC                                                        | 10.6 g / 5 ms, 6.3 g / 10 ms                                                                                                                                                                                                                        |
| <b>mechanical service life (operating cycles)</b>              |                                                                                                                                                                                                                                                     |
| • of contactor typical                                         | 10 000 000                                                                                                                                                                                                                                          |
| • of the contactor with added auxiliary switch block typical   | 10 000 000                                                                                                                                                                                                                                          |
| <b>reference code according to IEC 81346-2</b>                 | Q                                                                                                                                                                                                                                                   |
| <b>Substance Prohibitance (day/month/year)</b>                 | 03/01/2017                                                                                                                                                                                                                                          |
| <b>SVHC substance name</b>                                     | Lead CAS-No. 7439-92-1<br>Lead monoxide (lead oxide) CAS-No. 1317-36-8<br>2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5<br>Melamine CAS-No. 108-78-1<br>6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1 |
| <b>Net Weight</b>                                              | 6 kg                                                                                                                                                                                                                                                |
| <b>Ambient conditions</b>                                      |                                                                                                                                                                                                                                                     |
| <b>installation altitude at height above sea level maximum</b> | 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>operating voltage</b>                                       |                                                                                                                                                                                                                                                     |

|                                                                                                                                                                                                                                                                                                                         |                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at AC-3 rated value maximum</li> </ul>                                                                                                                                                                                                                                         | 690 V                                                                                                                                |
| <b>operational current</b>                                                                                                                                                                                                                                                                                              |                                                                                                                                      |
| <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>                                                                                                                                                                                   | 115 A                                                                                                                                |
| <b>operating power</b>                                                                                                                                                                                                                                                                                                  |                                                                                                                                      |
| <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> </ul>                                                                                                                                                   | 55 kW<br>90 kW                                                                                                                       |
| <b>operating frequency</b>                                                                                                                                                                                                                                                                                              |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• at AC-3 maximum</li> </ul>                                                                                                                                                                                                                                                     | 1 000 1/h                                                                                                                            |
| <b>Control circuit/ Control</b>                                                                                                                                                                                                                                                                                         |                                                                                                                                      |
| <b>type of voltage of the control supply voltage</b>                                                                                                                                                                                                                                                                    | AC/DC                                                                                                                                |
| <b>control supply voltage 1 at AC</b>                                                                                                                                                                                                                                                                                   |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                        | 20 ... 33 V<br>20 ... 33 V                                                                                                           |
| <b>control supply voltage 1 at DC</b>                                                                                                                                                                                                                                                                                   | 20 ... 33 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>0.85 ... 1.1                                                                                                          |
| <b>design of the surge suppressor</b>                                                                                                                                                                                                                                                                                   | with varistor                                                                                                                        |
| <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>                                                                                                                                                                                                                                        | 328 VA<br>328 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>                                                                                                                                                                                                                                        | 0.95<br>0.95                                                                                                                         |
| <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>                                                                                                                                                                                                                                        | 8.2 VA<br>8.2 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>                                                                                                                                                                                                                                        | 0.95<br>0.95                                                                                                                         |
| <b>closing power of magnet coil at DC</b>                                                                                                                                                                                                                                                                               | 154 W                                                                                                                                |
| <b>holding power of magnet coil at DC</b>                                                                                                                                                                                                                                                                               | 5.6 W                                                                                                                                |
| <b>Auxiliary circuit</b>                                                                                                                                                                                                                                                                                                |                                                                                                                                      |
| <b>number of NC contacts for auxiliary contacts</b>                                                                                                                                                                                                                                                                     |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• instantaneous contact</li> </ul>                                                                                                                                                                                                                                               | 3                                                                                                                                    |
| <b>number of NO contacts for auxiliary contacts</b>                                                                                                                                                                                                                                                                     |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>• instantaneous contact</li> </ul>                                                                                                                                                                                                                                               | 3                                                                                                                                    |
| <b>contact reliability of auxiliary contacts</b>                                                                                                                                                                                                                                                                        | < 1 error per 100 million operating cycles                                                                                           |
| <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>                                                                                                                                                                                                                                                                                          |                                                                                                                                      |
| <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> <li>• for short-circuit protection of the auxiliary switch required</li> </ul> | gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 250 A<br>gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A<br>fuse gG: 10 A                                |
| <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</b>                                                                                                                                                                                                                                                                                                 | screw and snap-on mounting onto 35 mm DIN rail                                                                                       |
| <b>height</b>                                                                                                                                                                                                                                                                                                           | 180 mm                                                                                                                               |
| <b>width</b>                                                                                                                                                                                                                                                                                                            | 220 mm                                                                                                                               |
| <b>depth</b>                                                                                                                                                                                                                                                                                                            | 244 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> </ul> </li> </ul>                                                                                                                                                                            | 10 mm                                                                                                                                |

- backwards 0 mm
- upwards 10 mm
- downwards 10 mm
- at the side 10 mm
- for grounded parts
  - forwards 10 mm
  - backwards 0 mm
  - upwards 10 mm
  - at the side 10 mm
  - downwards 10 mm
- for live parts
  - forwards 10 mm
  - backwards 0 mm
  - upwards 10 mm
  - downwards 10 mm
  - at the side 10 mm

#### Connections/ Terminals

|                                                                       |                                                                                                    |
|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>type of electrical connection</b>                                  |                                                                                                    |
| • for main current circuit                                            | screw-type terminals                                                                               |
| • for auxiliary and control circuit                                   | screw-type terminals                                                                               |
| • at contactor for auxiliary contacts                                 | Screw-type terminals                                                                               |
| • of magnet coil                                                      | Screw-type terminals                                                                               |
| <b>type of connectable conductor cross-sections for main contacts</b> |                                                                                                    |
| • solid or stranded                                                   | 2x (2.5 ... 16 mm <sup>2</sup> ), 2x (10 ... 50 mm <sup>2</sup> ), 1x (10 ... 70 mm <sup>2</sup> ) |
| • finely stranded with core end processing                            | 2x (2.5 ... 35 mm <sup>2</sup> ), 1x (2.5 ... 50 mm <sup>2</sup> )                                 |
| • finely stranded without core end processing                         | 2x (10 ... 35 mm <sup>2</sup> ), 1x (10 ... 50 mm <sup>2</sup> )                                   |
| <b>type of connectable conductor cross-sections</b>                   |                                                                                                    |
| • for auxiliary contacts                                              |                                                                                                    |
| — solid or stranded                                                   | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 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> )                              |
| • for AWG cables for auxiliary contacts                               | 2x (20 ... 16), 2x (18 ... 14)                                                                     |

#### Safety related data

|                                                                |                                                  |
|----------------------------------------------------------------|--------------------------------------------------|
| product function suitable for safety function                  | Yes                                              |
| <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 |

#### Communication/ Protocol

|                                                         |    |
|---------------------------------------------------------|----|
| <b>product function bus communication</b>               | No |
| protocol is supported AS-Interface protocol             | No |
| product function control circuit interface with IO link | No |

#### Approvals Certificates

|             |                          |       |
|-------------|--------------------------|-------|
| Environment | General Product Approval | other |
|-------------|--------------------------|-------|

[Environmental Confirmations](#)



[Confirmation](#)

[Confirmation](#)

|       |                 |
|-------|-----------------|
| other | Dangerous goods |
|-------|-----------------|



[Transport Information](#)

#### 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=3RA2444-8XF32-1NB3>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2444-8XF32-1NB3>

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

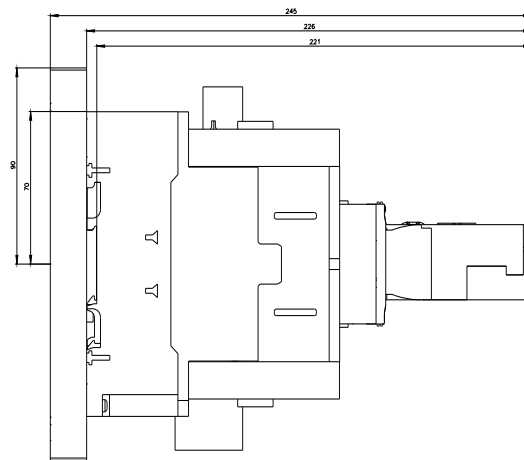
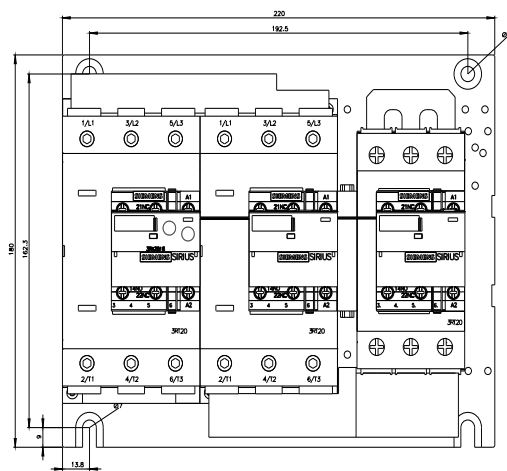
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2444-8XF32-1NB3&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2444-8XF32-1NB3&lang=en)

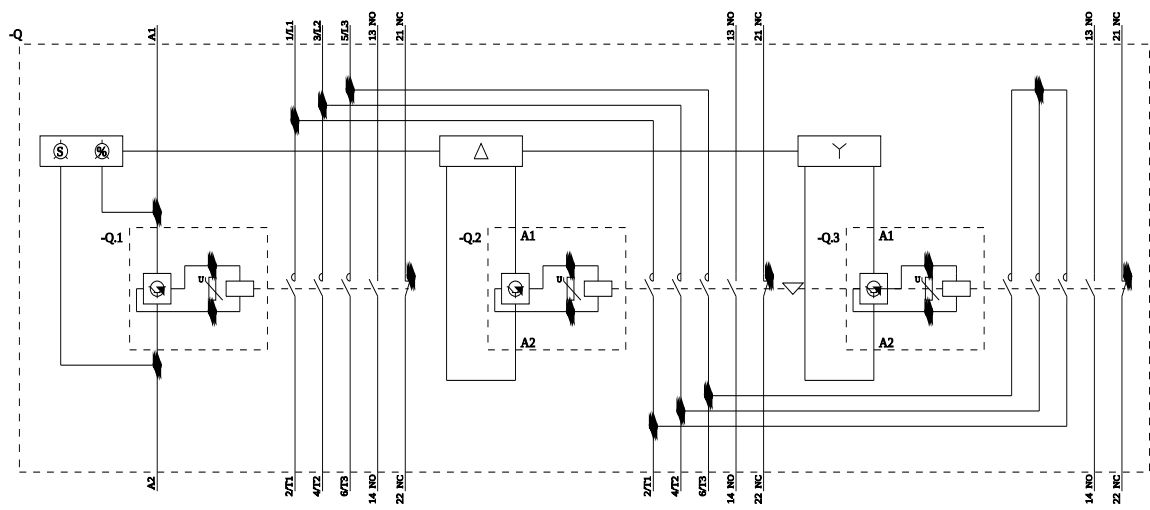
Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2444-8XF32-1NB3>

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