

Contactor assembly for star-delta (wye-delta) start AC-3, 11 kW/400 V, 24 V AC  
50/60 Hz, 3-pole, size S0 screw terminals electrical and mechanical interlock 3 NO  
+ 3 NC integrated



|                                                              |                                                                                                                       |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| product brand name                                           | SIRIUS                                                                                                                |
| product designation                                          | Contactor assembly for star-delta (wye-delta) start                                                                   |
| product type designation                                     | 3RA24                                                                                                                 |
| manufacturer's article number                                |                                                                                                                       |
| • 1 of the supplied contactor                                | <a href="#">3RT2024-1AC20</a>                                                                                         |
| • 2 of the supplied contactor                                | <a href="#">3RT2024-1AC20</a>                                                                                         |
| • 3 of the supplied contactor                                | <a href="#">3RT2024-1AC20</a>                                                                                         |
| • of the supplied RS assembly kit                            | <a href="#">3RA2923-2BB1</a>                                                                                          |
| • of the supplied function module for wye-delta circuits     | <a href="#">3RA2816-0EW20</a>                                                                                         |
| General technical data                                       |                                                                                                                       |
| size of contactor                                            | S0                                                                                                                    |
| product extension auxiliary switch                           | No                                                                                                                    |
| shock resistance at rectangular impulse                      |                                                                                                                       |
| • at AC                                                      | 7,5g / 5 ms, 4,7g / 10 ms                                                                                             |
| • at DC                                                      | 10g / 5 ms, 7,5g / 10 ms                                                                                              |
| shock resistance with sine pulse                             |                                                                                                                       |
| • at AC                                                      | 11,8g / 5 ms, 7,4g / 10 ms                                                                                            |
| • at DC                                                      | 15g / 5 ms, 10g / 10 ms                                                                                               |
| mechanical service life (operating cycles)                   |                                                                                                                       |
| • of contactor typical                                       | 10 000 000                                                                                                            |
| • of the contactor with added auxiliary switch block typical | 10 000 000                                                                                                            |
| reference code according to IEC 81346-2                      | Q                                                                                                                     |
| Substance Prohibitance (Date)                                | 10/01/2009                                                                                                            |
| SVHC substance name                                          | Lead - 7439-92-1<br>Lead monoxide (lead oxide) - 1317-36-8<br>6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1 |
| Weight                                                       | 1.862 kg                                                                                                              |
| Ambient conditions                                           |                                                                                                                       |
| installation altitude at height above sea level maximum      | 2 000 m                                                                                                               |
| ambient temperature                                          |                                                                                                                       |
| • during operation                                           | -25 ... +60 °C                                                                                                        |
| • during storage                                             | -55 ... +80 °C                                                                                                        |
| Main circuit                                                 |                                                                                                                       |
| number of poles for main current circuit                     | 3                                                                                                                     |
| number of NO contacts for main contacts                      | 3                                                                                                                     |
| number of NC contacts for main contacts                      | 0                                                                                                                     |
| operating voltage                                            |                                                                                                                       |
| • at AC-3 rated value maximum                                | 690 V                                                                                                                 |
| operational current                                          |                                                                                                                       |
| • at AC-3                                                    |                                                                                                                       |
| — at 400 V rated value                                       | 25 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 500 V rated value</li> <li>at 690 V rated value</li> </ul> </li> </ul>                                                                                                                                                                         | 11 kW<br>15.6 kW<br>19 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                                                                                                                                   |
| <b>control supply voltage 1 at AC</b>                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                      |
| <ul style="list-style-type: none"> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> </ul>                                                                                                                                                                                                                                                                  | 24 V<br>24 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>                                                                                                                                                                                                                                                                                          | 138 VA<br>136 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>                                                                                                                                                                                                                                                                                          | 0.72<br>0.74                                                                                                                         |
| <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>                                                                                                                                                                                                                                                                                          | 18.8 VA<br>15 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>                                                                                                                                                                                                                                                                                          | 0.25<br>0.28                                                                                                                         |
| <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: 63 A<br>gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 25 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>                                                                                                                                                                                                                                                                                                                                                         | 101 mm                                                                                                                               |
| <b>width</b>                                                                                                                                                                                                                                                                                                                                                          | 135 mm                                                                                                                               |
| <b>depth</b>                                                                                                                                                                                                                                                                                                                                                          | 171 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>backwards</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>backwards</li> <li>upwards</li> <li>at the side</li> </ul> </li> </ul> | 6 mm<br>0 mm<br>6 mm<br>6 mm<br>6 mm<br><br>6 mm<br>0 mm<br>6 mm<br>6 mm                                                             |

|                  |      |
|------------------|------|
| — downwards      | 6 mm |
| • for live parts |      |
| — forwards       | 6 mm |
| — backwards      | 0 mm |
| — upwards        | 6 mm |
| — downwards      | 6 mm |
| — at the side    | 6 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                                                               | 2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )                       |
| • solid or stranded                                                   | 2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )                       |
| • finely stranded with core end processing                            | 2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 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                                              |
| 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 |
| protocol is supported AS-Interface protocol             | No |
| product function control circuit interface with IO link | No |

#### Approvals Certificates

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



[Special Test Certificate](#)



| Maritime application | other |
|----------------------|-------|
|----------------------|-------|



| other | Railway | Environment |
|-------|---------|-------------|
|-------|---------|-------------|

[Confirmation](#)

[Special Test Certificate](#)

[Environmental Confirmations](#)

#### Further information

##### Information on the packaging

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

##### Information for data generation and storage

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

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

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

##### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2423-8XF32-1AC2>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2423-8XF32-1AC2>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2423-8XF32-1AC2>

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

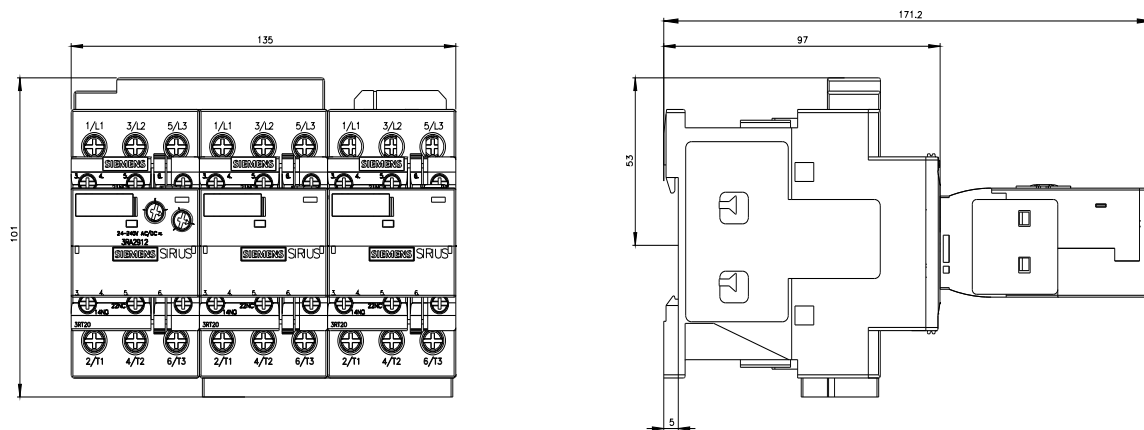
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2423-8XF32-1AC2&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2423-8XF32-1AC2&lang=en)

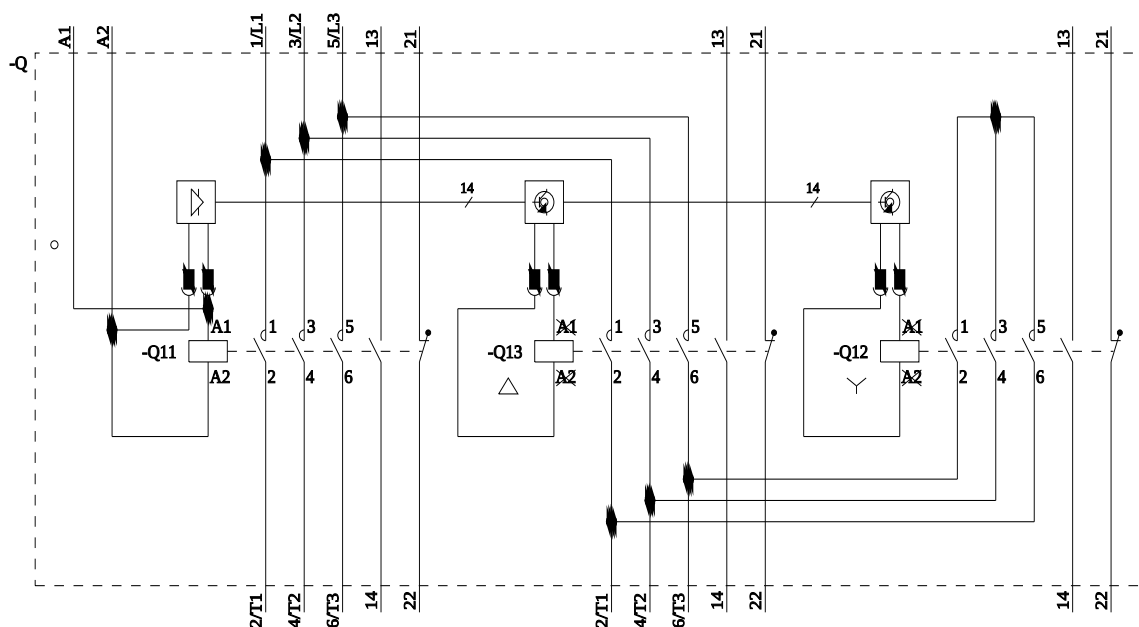
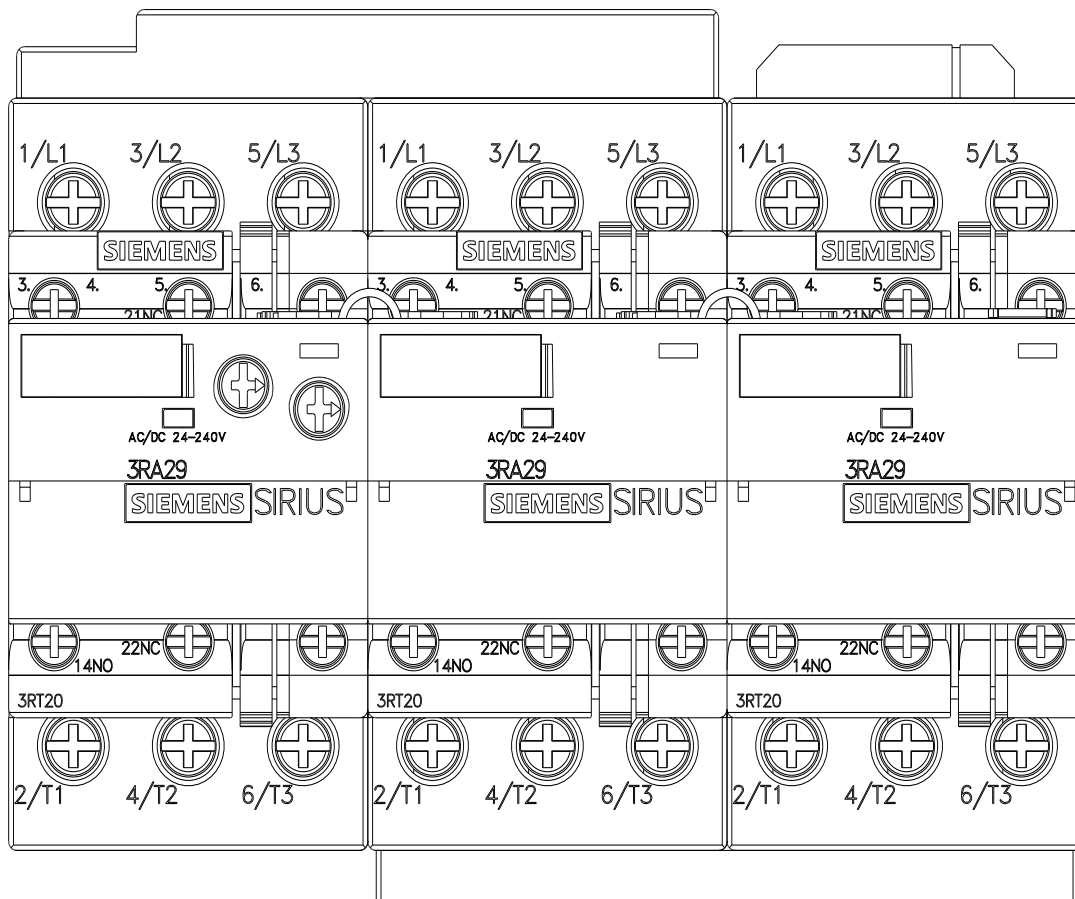
Characteristic: Tripping characteristics,  $I^2t$ , Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2423-8XF32-1AC2/char>

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

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2423-8XF32-1AC2&objecttype=14&gridview=view1>





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