

STAR-DELTA COMB. AC3, 11KW/400V AC24V, 50/60HZ, 3-POLE,  
SZ S00, SPRING-LOADED TERMINAL ELECTR. AND MECH.  
INTERLOCK 3NO INTEGR.



|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product brand name            | SIRIUS                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Product designation           | Contactor assembly for star-delta (wye-delta) start                                                                                                                                                                                                                                                                                                                                                                             |
| Product type designation      | 3RA24                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Manufacturer's article number | <ul style="list-style-type: none"> <li>• 1 of the supplied contactor <a href="#">3RT2018-2AB01</a></li> <li>• 2 of the supplied contactor <a href="#">3RT2018-2AB01</a></li> <li>• 3 of the supplied contactor <a href="#">3RT2016-2AB01</a></li> <li>• of the supplied RS assembly kit <a href="#">3RA2913-2BB2</a></li> <li>• of the supplied function module for wye-delta circuits <a href="#">3RA2816-0EW20</a></li> </ul> |

| General technical data                                                                     |       |
|--------------------------------------------------------------------------------------------|-------|
| Size of contactor                                                                          | S00   |
| Product extension                                                                          | No    |
| <ul style="list-style-type: none"> <li>• Auxiliary switch</li> </ul>                       |       |
| Insulation voltage                                                                         |       |
| <ul style="list-style-type: none"> <li>• with degree of pollution 3 rated value</li> </ul> | 690 V |
| Degree of pollution                                                                        | 3     |
| Surge voltage resistance rated value                                                       | 6 kV  |
| Protection class IP                                                                        |       |

|                                                              |                            |
|--------------------------------------------------------------|----------------------------|
| • on the front                                               | IP20                       |
| <b>Shock resistance at rectangular impulse</b>               |                            |
| • at AC                                                      | 7,3g / 5 ms, 4,7g / 10 ms  |
| • at DC                                                      | 7.3g / 5 ms, 4.7g / 10 ms  |
| <b>Shock resistance with sine pulse</b>                      |                            |
| • at AC                                                      | 11,4g / 5 ms, 7,3g / 10 ms |
| • at DC                                                      | 11,4g / 5 ms, 7,3g / 10 ms |
| <b>Mechanical service life (switching cycles)</b>            |                            |
| • of contactor typical                                       | 10 000 000                 |
| • of the contactor with added auxiliary switch block typical | 10 000 000                 |
| <b>Equipment marking</b>                                     |                            |
| • acc. to DIN EN 81346-2                                     | Q                          |

#### Ambient conditions

|                            |                |
|----------------------------|----------------|
| <b>Ambient temperature</b> |                |
| • during operation         | -25 ... +60 °C |
| • during storage           | -55 ... +80 °C |

#### Main circuit

|                                                 |           |
|-------------------------------------------------|-----------|
| <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>                        |           |
| • at AC-3 rated value maximum                   | 690 V     |
| <b>Operating current</b>                        |           |
| • at AC-1 at 400 V                              |           |
| — at ambient temperature 40 °C rated value      | 22 A      |
| — at ambient temperature 60 °C rated value      | 20 A      |
| • at AC-2 at 400 V rated value                  | 25 A      |
| • at AC-3                                       |           |
| — at 400 V rated value                          | 25 A      |
| <b>No-load switching frequency</b>              | 1 500 1/h |
| <b>Operating frequency</b>                      |           |
| • at AC-1 maximum                               | 1 000 1/h |
| • at AC-2 maximum                               | 1 000 1/h |
| • at AC-3 maximum                               | 1 000 1/h |
| • at AC-4 maximum                               | 300 1/h   |

#### Control circuit/ Control

|                                                      |      |
|------------------------------------------------------|------|
| <b>Type of voltage of the control supply voltage</b> | AC   |
| <b>Control supply voltage 1 at AC</b>                |      |
| • at 50 Hz rated value                               | 24 V |

|                                                                                       |              |
|---------------------------------------------------------------------------------------|--------------|
| <b>Operating range factor control supply voltage rated value of magnet coil at AC</b> |              |
| • at 50 Hz                                                                            | 0.8 ... 1.1  |
| • at 60 Hz                                                                            | 0.85 ... 1.1 |
| <b>Apparent pick-up power of magnet coil at AC</b>                                    |              |
| • at 50 Hz                                                                            | 37 V·A       |
| <b>Inductive power factor with closing power of the coil</b>                          |              |
| • at 50 Hz                                                                            | 0.8          |
| <b>Apparent holding power of magnet coil at AC</b>                                    |              |
| • at 50 Hz                                                                            | 5.7 V·A      |
| <b>Inductive power factor with the holding power of the coil</b>                      |              |
| • at 50 Hz                                                                            | 0.28         |

#### Auxiliary circuit

|                                                                 |                                            |
|-----------------------------------------------------------------|--------------------------------------------|
| <b>Number of NC contacts</b>                                    |                                            |
| • for auxiliary contacts                                        |                                            |
| — instantaneous contact                                         | 0                                          |
| <b>Number of NO contacts</b>                                    |                                            |
| • for auxiliary contacts                                        |                                            |
| — instantaneous contact                                         | 3                                          |
| <b>Operating current of auxiliary contacts at AC-12 maximum</b> | 10 A                                       |
| <b>Operating current of auxiliary contacts at AC-15</b>         |                                            |
| • at 230 V                                                      | 6 A                                        |
| • at 400 V                                                      | 3 A                                        |
| <b>Operating current of auxiliary contacts at DC-13</b>         |                                            |
| • at 24 V                                                       | 10 A                                       |
| • at 60 V                                                       | 2 A                                        |
| • at 110 V                                                      | 1 A                                        |
| • at 220 V                                                      | 0.3 A                                      |
| <b>Contact reliability of auxiliary contacts</b>                | < 1 error per 100 million operating cycles |

#### UL/CSA ratings

|                                                             |             |
|-------------------------------------------------------------|-------------|
| <b>Contact rating of auxiliary contacts according to UL</b> | A600 / Q600 |
|-------------------------------------------------------------|-------------|

#### Short-circuit protection

|                                                                 |                                                |
|-----------------------------------------------------------------|------------------------------------------------|
| <b>Design of the fuse link</b>                                  |                                                |
| • for short-circuit protection of the main circuit              |                                                |
| — with type of coordination 1 required                          | gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 50 A     |
| — with type of assignment 2 required                            | gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 A |
| • for short-circuit protection of the auxiliary switch required | fuse gL/gG: 10 A                               |

#### Installation/ mounting/ dimensions

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <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>Mounting type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | screw and snap-on mounting onto 35 mm standard mounting rail                                                                         |
| <b>Height</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 84 mm                                                                                                                                |
| <b>Width</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 135 mm                                                                                                                               |
| <b>Depth</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 145 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 6 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 6 mm</li> <li>— downwards 6 mm</li> <li>— at the side 6 mm</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards 6 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 6 mm</li> <li>— at the side 6 mm</li> <li>— downwards 6 mm</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards 6 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 6 mm</li> <li>— downwards 6 mm</li> <li>— at the side 6 mm</li> </ul> </li> </ul> |                                                                                                                                      |

## Connections/Terminals

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| <b>Type of electrical connection</b>                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                    |
| <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control current circuit</li> </ul>                                                                                                                                                                                                                                                                                                                                         | spring-loaded terminals<br>spring-loaded terminals |
| <b>Type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                    |
| <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— solid 2x (0.5 ... 4 mm<sup>2</sup>)</li> <li>— single or multi-stranded 2x (0,5 ... 4 mm<sup>2</sup>)</li> <li>— finely stranded with core end processing 2x (0.5 ... 2.5 mm<sup>2</sup>)</li> <li>— finely stranded without core end processing 2x (0.5 ... 2.5 mm<sup>2</sup>)</li> </ul> </li> <li>• at AWG conductors for main contacts 1x (20 ... 12)</li> </ul> |                                                    |
| <b>Type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                    |
| <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— single or multi-stranded 2x (0,5 ... 2,5 mm<sup>2</sup>)</li> <li>— finely stranded with core end processing 2x (0.5 ... 1.5 mm<sup>2</sup>)</li> </ul> </li> </ul>                                                                                                                                                                                              |                                                    |

- finely stranded without core end processing
- at AWG conductors for auxiliary contacts

2x (0.5 ... 1.5 mm²)

2x (20 ... 14)

#### Safety related data

|                                                                           |           |
|---------------------------------------------------------------------------|-----------|
| <b>B10 value</b>                                                          |           |
| • with high demand rate acc. to SN 31920                                  | 1 000 000 |
| <b>Proportion of dangerous failures</b>                                   |           |
| • with low demand rate acc. to SN 31920                                   | 40 %      |
| • with high demand rate acc. to SN 31920                                  | 75 %      |
| <b>Failure rate [FIT]</b>                                                 |           |
| • with low demand rate acc. to SN 31920                                   | 100 FIT   |
| <b>T1 value for proof test interval or service life acc. to IEC 61508</b> | 20 y      |

#### Communication/ Protocol

|                                           |    |
|-------------------------------------------|----|
| <b>Product function Bus communication</b> | No |
| <b>Protocol is supported</b>              |    |
| • AS-interface protocol                   | No |

#### Certificates/approvals

| General Product Approval                                                            | Declaration of Conformity                                                                       | Test Certificates                        | Marine / Shipping                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------|
|  | <br>EG-Konf. | <a href="#">Special Test Certificate</a> | <a href="#">Type Test Certificates/Test Report</a>                                                      |
|                                                                                     |                                                                                                 |                                          | <br>ABS            |
|                                                                                     |                                                                                                 |                                          | <br>BUREAU VERITAS |

#### Marine / Shipping



#### other

#### Railway

[Environmental Confirmations](#) [Confirmation](#) [Vibration and Shock](#)

#### Further information

**Information- and Downloadcenter (Catalogs, Brochures,...)**  
<http://www.siemens.com/industrial-controls/catalogs>

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2417-8XF31-2AB0>

**Cax online generator**

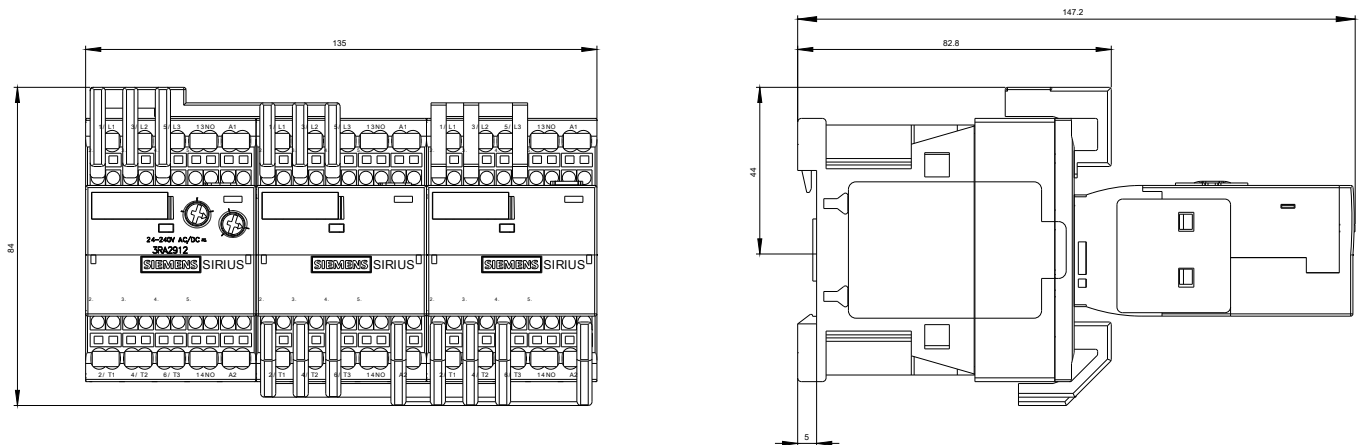
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2417-8XF31-2AB0>

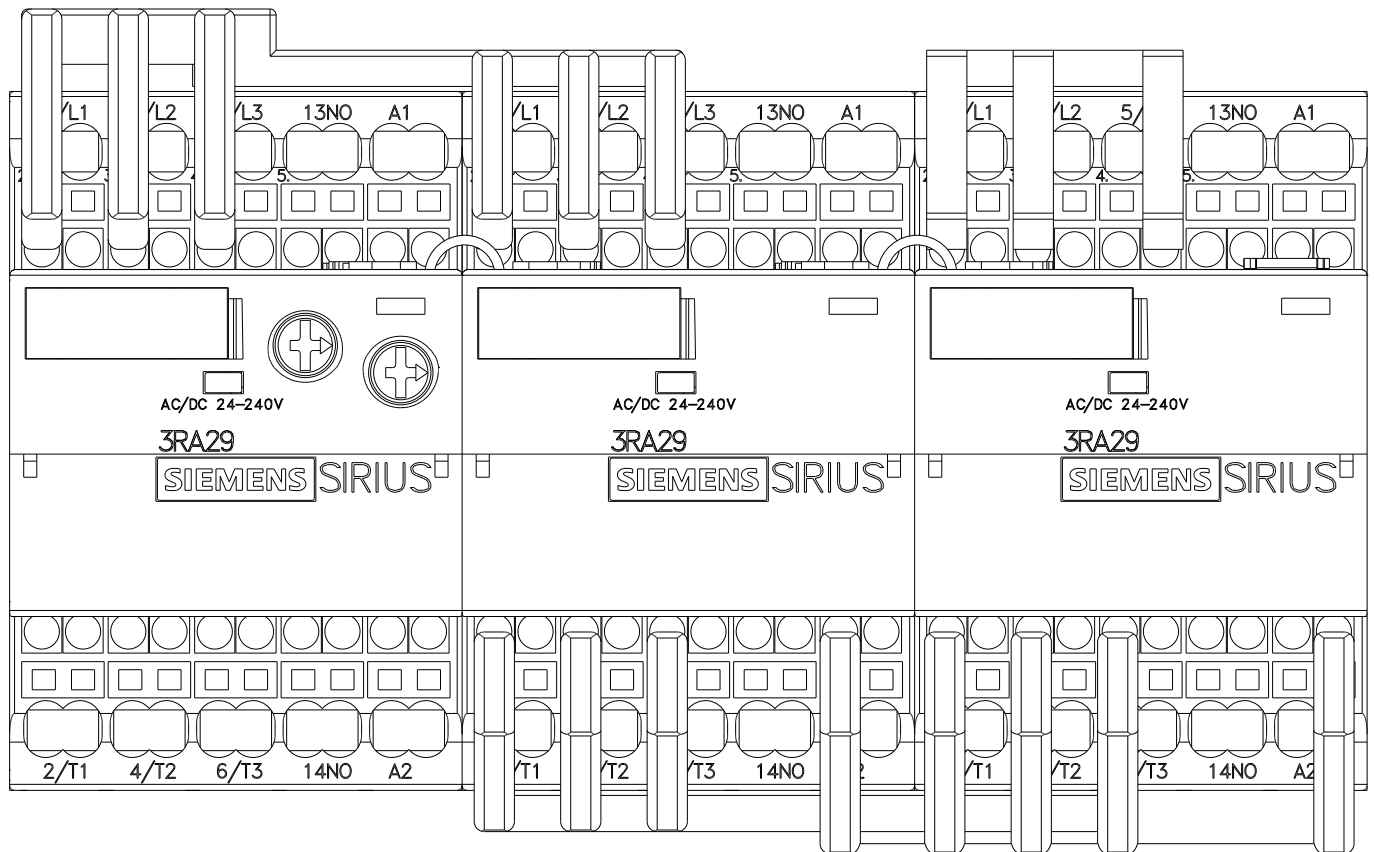
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

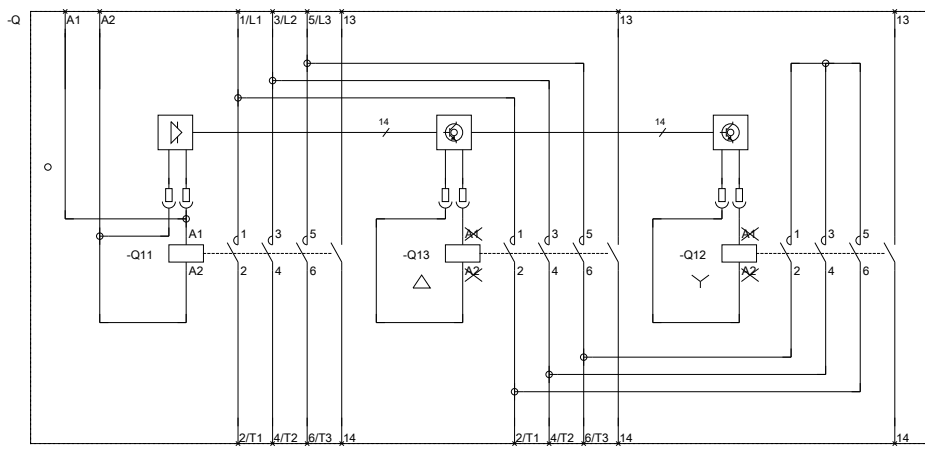
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2417-8XF31-2AB0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2417-8XF31-2AB0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2417-8XF31-2AB0&lang=en)







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