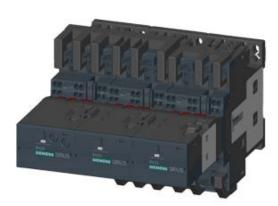
# **SIEMENS**

### Data sheet

# 3RA2423-8XF32-2AL2

STAR-DELTA COMB. AC3, 11KW/400V AC230V, 50/60HZ, 3-POLE SZ S0, SPRING-LOADED TERMINAL ELECTR. AND MECH. INTERLOCK 3NO+3NC INTEGR.



| product brand name   | SIRIUS  |
|--|---|
| Product designation  | star-delta (wye-delta) contactor assembly 3RA24 |
| Manufacturer article number  |   |
| <ul><li>1 of the supplied contactor</li></ul>                              | 3RT2024-2AL20                                   |
| <ul> <li>2 of the supplied contactor</li> </ul>                            | 3RT2024-2AL20                                   |
| <ul> <li>3 of the supplied contactor</li> </ul>                            | 3RT2024-2AL20                                   |
| <ul> <li>of the supplied RS assembly kit</li> </ul>                        | 3RA2923-2BB2                                    |
| <ul> <li>of the supplied function module for wye-delta circuits</li> </ul> | 3RA2816-0EW20                                   |

| General technical data:  |    |                               |
|--|----|-------------------------------|
| Insulation voltage   |    |                               |
| <ul> <li>with degree of pollution 3 Rated value</li> </ul>       | V  | 690                           |
| Degree of pollution  |    | 3                             |
| Shock resistance   |    | 12.5g / 5 ms and 7.8g / 10 ms |
| Surge voltage resistance Rated value                             | kV | 6                             |
| Mechanical service life (switching cycles)                       |    |                               |
| <ul> <li>of the contactor typical</li> </ul>                     |    | 10 000 000                    |
| <ul> <li>of the contactor with added auxiliary switch</li> </ul> |    | 10 000 000                    |
| block typical  |    |                               |
| Protection class IP  |    |                               |
| • on the front   |    | IP20                          |
| Equipment marking  |    |                               |
| ● acc. to DIN EN 81346-2   |    | Q                             |

| Main circuit:                            |   |  |
|--|---|--|
| Number of poles for main current circuit | 3 |  |

| Number of NC contacts for main contacts  |     | 0       |
|--|-----|---------|
| Number of NO contacts for main contacts  |     | 3       |
| Operating voltage  |     |         |
| • at AC-3 Rated value maximum  | V   | 690     |
| Operating current  |     |         |
| • at AC-1  |     |         |
| — at 400 V at ambient temperature 40 °C<br>Rated value                               | Α   | 40      |
| — at 400 V at ambient temperature 60 °C<br>Rated value                               | Α   | 35      |
| • at AC-2 at 400 V Rated value   | Α   | 25      |
| • at AC-3  |     |         |
| — at 400 V Rated value   | Α   | 25      |
| Operating power  |     |         |
| • at AC-2 at 400 V Rated value   | kW  | 11      |
| • at AC-4 at 400 V Rated value   | kW  | 2       |
| Operating power  |     |         |
| • at AC-3  |     |         |
| — at 400 V Rated value   | kW  | 11      |
| — at 500 V Rated value   | kW  | 15.6    |
| — at 690 V Rated value   | kW  | 19      |
| Operating frequency  |     |         |
| • at AC-3 maximum  | 1/h | 1 000   |
| No-load switching frequency  | 1/h | 1 500   |
| Control circuit/ Control:  |     |         |
| Type of voltage of the control supply voltage  |     | AC      |
| Control supply voltage 1 with AC   |     |         |
| • at 50 Hz Rated value   | V   | 230     |
| • at 60 Hz Rated value   | V   | 230     |
| Operating range factor control supply voltage rated value of the magnet coil with AC |     |         |
| ● at 50 Hz   |     | 0.8 1.1 |
| ● at 60 Hz   |     | 0.8 1.1 |
| Auxiliary circuit:   |     |         |
| Number of NC contacts  |     |         |
| • for auxiliary contacts   |     |         |
| <ul> <li>instantaneous contact</li> </ul>  |     | 3       |
| <ul><li>— lagging switching</li></ul>  |     | 0       |
| Number of NO contacts  |     |         |
| <ul> <li>for auxiliary contacts</li> </ul>   |     |         |
|  |     |         |
| <ul> <li>instantaneous contact</li> </ul>  |     | 3       |

| Product expansion Auxiliary switch                                   |    | No   |
|--|----|--|
| Operating current of the auxiliary contacts at AC-12 maximum         | A  | 10   |
| Operating current of the auxiliary contacts at AC-15                 | -  |  |
| ● at 230 V   | Α  | 6  |
| ● at 400 V   | Α  | 3  |
| Operating current of the auxiliary contacts at DC-13                 |    |  |
| ● at 24 V  | Α  | 10   |
| ● at 60 V  | Α  | 2  |
| ● at 110 V   | Α  | 1  |
| ● at 220 V   | Α  | 0.3  |
| Contact reliability of the auxiliary contacts                        | _  | < 1 error per 100 million operating cycles   |
| UL/CSA ratings:  |    |  |
| Contact rating of the auxiliary contacts acc. to UL                  |    | A600 / Q600  |
| Short-circuit:   |    |  |
| Design of the fuse link  |    |  |
| <ul> <li>for short-circuit protection of the main circuit</li> </ul> |    |  |
| <ul><li>— with type of assignment 1 required</li></ul>               |    | gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE:<br>63 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:                                  |    |  |
| mounting position  |    | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| Mounting type  | -  | screw and snap-on mounting onto 35 mm standard mounting rail   |
| Height   | mm | 114  |
| Width  | mm | 135  |
| Depth  | mm | 171  |
| Required spacing   |    |  |
| <ul><li>with side-by-side mounting</li></ul>                         |    |  |
| — forwards   | mm | 6  |
| — Backwards  | mm | 0  |
| — upwards  | mm | 6  |
| — downwards  | mm | 6  |
| — at the side  | mm | 6  |
| • far analysidad v   |    |  |

for grounded partsforwards

— Backwards

6

mm

mm

| — upwards      | mm | 6 |
|----------------|----|---|
| — at the side  | mm | 6 |
| — downwards    | mm | 6 |
| for live parts |    |   |
| — forwards     | mm | 6 |
| — Backwards    | mm | 0 |
| — upwards      | mm | 6 |
| — downwards    | mm | 6 |
| — at the side  | mm | 6 |
|                |    |   |

| Connections/ Terminals:   |     |                         |
|---|-----|-------------------------|
| Type of electrical connection                                       |     |                         |
| for main current circuit  |     | spring-loaded terminals |
| <ul> <li>for auxiliary and control current circuit</li> </ul>       |     | spring-loaded terminals |
| Type of connectable conductor cross-section                         |     |                         |
| • for main contacts   |     |                         |
| <ul><li>— single or multi-stranded</li></ul>                        |     | 2x (1 10 mm²)           |
| <ul> <li>finely stranded with core end processing</li> </ul>        |     | 2x (1 6 mm²)            |
| <ul> <li>finely stranded without core end<br/>processing</li> </ul> |     | 2x (1 6 mm²)            |
| <ul> <li>for AWG conductors for main contacts</li> </ul>            |     | 1x (18 8)               |
| <ul> <li>for auxiliary contacts</li> </ul>                          |     |                         |
| <ul> <li>single or multi-stranded</li> </ul>                        |     | 2x (0,5 2,5 mm²)        |
| <ul> <li>finely stranded with core end processing</li> </ul>        |     | 2x (0.5 1.5 mm²)        |
| <ul> <li>finely stranded without core end<br/>processing</li> </ul> |     | 2x (0.5 1.5 mm²)        |
| <ul> <li>for AWG conductors for auxiliary contacts</li> </ul>       |     | 2x (20 14)              |
| Apparent pick-up power of the magnet coil with AC                   |     |                         |
| ● at 50 Hz  | V·A | 65                      |

| Safety related data:   |     |             |
|--|-----|-------------|
| B10 value with high demand rate acc. to SN 31920                   |     | 1 000 000   |
| Proportion of dangerous failures                                   |     |             |
| <ul> <li>with low demand rate acc. to SN 31920</li> </ul>          | %   | 40          |
| <ul> <li>with high demand rate acc. to SN 31920</li> </ul>         | %   | 75          |
| Failure rate [FIT] with low demand rate acc. to SN 31920           | FIT | 100         |
| T1 value for proof test interval or service life acc. to IEC 61508 | У   | 20          |
| Protection against electrical shock                                |     | finger-safe |

| Mechanical data:  |    |  |
|-------------------|----|--|
| Size of contactor | S0 |  |

# Communication/ Protocol:

| Product function Bus communication                      | No |
|---|----|
| Protocol is supported                                   |    |
| AS-interface protocol                                   | No |
| Product function Control circuit interface with IO link | No |

| Ambient conditions:                             |    |                 |
|---|----|-----------------|
| Installation altitude at height above sea level | m  | 2 000           |
| maximum   |    |                 |
| Ambient temperature                             |    |                 |
| <ul> <li>during operation</li> </ul>            | °C | -25 <b>+</b> 60 |
| <ul><li>during storage</li></ul>                | °C | -55 <b>+</b> 80 |

## Certificates/ approvals:

| General  | Declaration of | Test         | Shipping Approval |
|----------|----------------|--------------|-------------------|
| Product  | Conformity     | Certificates |                   |
| Approval |                |              |                   |





**Special Test** Certificate







other

#### **Shipping Approval**



GL



LRS







Environmental Confirmations

#### other

other

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

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

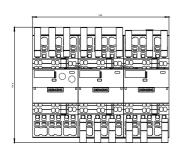
http://www.siemens.com/industrymall

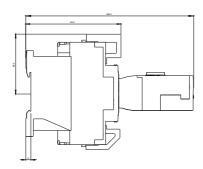
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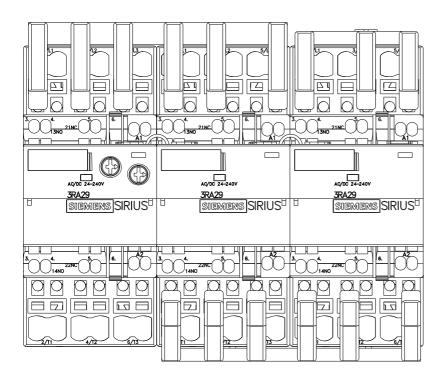
 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RA24238XF322AL2}$ 

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RA24238XF322AL2/all

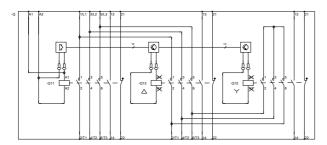
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA24238XF322AL2&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA24238XF322AL2&lang=en</a>







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