SIEMENS

Data sheet

3RA2416-8XF31-1BB4

STAR-DELTA COMB. AC3, 7.5KW/400V DC24V, 3-POLE SZ S00, SCREW TERMINAL ELECTR. AND MECH. INTERLOCK 3NO INTEGR.



| product brand name | SIRIUS |
|--|---|
| Product designation | star-delta (wye-delta) contactor assembly 3RA24 |
| Manufacturer article number | |
| 1 of the supplied contactor | 3RT2017-1BB41 |
| 2 of the supplied contactor | 3RT2017-1BB41 |
| 3 of the supplied contactor | 3RT2015-1BB41 |
| of the supplied RS assembly kit | 3RA2913-2BB1 |
| of the supplied function module for wye-delta circuits | 3RA2816-0EW20 |

| General technical data: | | |
|--|----|------------------------------|
| Insulation voltage | | |
| with degree of pollution 3 Rated value | V | 690 |
| Degree of pollution | | 3 |
| Shock resistance | | 9.8g / 5 ms and 5.9g / 10 ms |
| Surge voltage resistance Rated value | kV | 6 |
| Mechanical service life (switching cycles) | | |
| of the contactor typical | | 10 000 000 |
| of the contactor with added auxiliary switch | | 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 | |

| | 0 |
|-----|--|
| | 3 |
| | |
| V | 690 |
| | |
| | |
| Α | 22 |
| A | 20 |
| Α | 16 |
| | |
| Α | 16 |
| | |
| kW | 7.5 |
| | |
| | |
| kW | 7.5 |
| kW | 10.3 |
| kW | 9.2 |
| | |
| 1/h | 1 000 |
| 1/h | 1 500 |
| | |
| | DC |
| | |
| V | 24 |
| | 0.85 1.1 |
| W | 5.9 |
| W | 5.9 |
| | |
| | |
| | |
| | |
| | 0 |
| | 0 0 |
| | |
| | |
| | |
| | 0 |
| | A A A A kW kW kW the state of t |

| Operating current of the auxiliary contacts at AC-12 maximum | А | 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 | |
| JL/CSA ratings: | | | |
| Contact rating of the auxiliary contacts acc. to UL | | A600 / Q600 | |
| Short-circuit: | | | |
| Design of the fuse link | | | |
| • for short-circuit protection of the main circuit | | | |
| — with type of assignment 1 required | | gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A | |
| — with type of assignment 2 required | | gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A | |
| • for short-circuit protection of the auxiliary switch required | | fuse gL/gG: 10 A | |
| nstallation/ 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 | 60 | |
| Width | | 68 | |
| — " | mm | 135 | |
| Depth | | | |
| • | mm | 135 | |
| Required spacing • with side-by-side mounting | mm | 135 | |
| Required spacing | mm | 135 | |
| Required spacing • with side-by-side mounting | mm mm | 135 145 | |
| Required spacing • with side-by-side mounting — forwards | mm mm | 135 145 6 | |
| Required spacing • with side-by-side mounting — forwards — Backwards | mm mm mm | 135 145 6 0 | |
| Required spacing • with side-by-side mounting — forwards — Backwards — upwards | mm mm mm mm | 135 145 6 0 6 | |
| Required spacing • with side-by-side mounting — forwards — Backwards — upwards — downwards | mm mm mm mm mm | 135 145 6 0 6 6 | |
| Required spacing • with side-by-side mounting — forwards — Backwards — upwards — downwards — at the side | mm mm mm mm mm | 135 145 6 0 6 6 | |
| Required spacing • with side-by-side mounting — forwards — Backwards — upwards — downwards — at the side • for grounded parts | mm mm mm mm mm mm | 135 145 6 0 6 6 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 | screw-type terminals |
| for auxiliary and control current circuit | screw-type terminals |
| Type of connectable conductor cross-section | |
| • for main contacts | |
| — single or multi-stranded | 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x (0,5 4 mm²) |
| finely stranded with core end processing | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) |
| for AWG conductors for main contacts | 2x (20 16), 2x (18 14) |
| • for auxiliary contacts | |
| — single or multi-stranded | 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²) |
| finely stranded with core end processing | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) |
| for AWG conductors for auxiliary contacts | 2x (20 16), 2x (18 14) |

| Safety related data: | | |
|--|-----|-------------|
| B10 value with high demand rate acc. to SN 31920 | | 1 000 000 |
| Proportion of dangerous failures | | |
| with low demand rate acc. to SN 31920 | % | 40 |
| with high demand rate acc. to SN 31920 | % | 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 |

| Size of contactor | S00 |
|---|-----|
| 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:

Mechanical data:

| Installation altitude at height above sea level | m | 2 000 |
|---|----|-----------------|
| maximum | | |
| Ambient temperature | | |
| during operation | °C | -25 +60 |
| during storage | °C | -55 + 80 |

Certificates/ approvals:

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













other

Shipping Approval



GL











Environmental Confirmations

other

other

Further information

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

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

Industry Mall (Online ordering system)

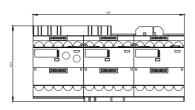
http://www.siemens.com/industrymall

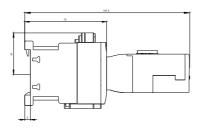
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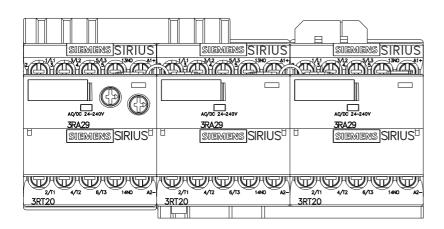
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA24168XF311BB4

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RA24168XF311BB4/all

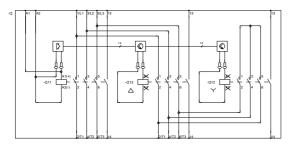
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA24168XF311BB4&lang=en







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