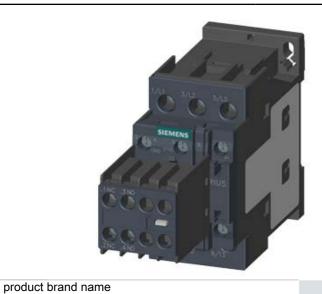
# **SIEMENS**

Data sheet 3RT2023-1AF04



CONTACTOR, AC-3, 4KW/400V, 2NO+2NC, AC110V 50HZ, 3-POLE, SZ S0 SCREW TERMINAL REMOVABLE AUX. SWITCH

| Product designation  |    | 3RT2 contactor |  |
|--|----|----------------|--|
| General technical data:  |    |                |  |
| Insulation voltage   |    |                |  |
| Rated value  | V  | 690            |  |
| Degree of pollution  |    | 3              |  |
| 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 electronics-<br/>compatible auxiliary switch block typical</li> </ul> |    | 5 000 000      |  |
| <ul> <li>of the contactor with added auxiliary switch<br/>block typical</li> </ul>                         |    | 10 000 000     |  |
| Thermal short-time current restricted to 10 s  | Α  | 80             |  |
| Protection class IP  |    |                |  |
| • on the front   |    | IP20           |  |
| of the terminal  |    | IP20           |  |
| Equipment marking  |    |                |  |

**SIRIUS** 

| 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                        |   |

• acc. to DIN EN 61346-2

• acc. to DIN EN 81346-2

Q

Q

| <ul> <li>at AC-3 Rated value maximum</li> </ul>                                  | V | 690  |
|--|---|------|
| Operating current  |   |      |
| • at AC-1  |   |      |
| <ul> <li>— at 400 V at ambient temperature 40 °C</li> <li>Rated value</li> </ul> | Α | 40   |
| — up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ Rated value           | Α | 40   |
| — up to 690 V at ambient temperature 60 $^{\circ}\mathrm{C}$ Rated value         | Α | 35   |
| • at AC-2 at 400 V Rated value   | Α | 9    |
| • at AC-3  |   |      |
| — at 400 V Rated value   | Α | 9    |
| — at 500 V Rated value   | Α | 9    |
| — at 690 V Rated value   | Α | 9    |
| • at AC-4 at 400 V Rated value   | Α | 8.5  |
| Operating current with 1 current path  |   |      |
| • at DC-1  |   |      |
| — at 24 V Rated value  | Α | 35   |
| — at 110 V Rated value   | Α | 4.5  |
| — at 220 V Rated value   | Α | 1    |
| — at 440 V Rated value   | Α | 0.4  |
| — at 600 V Rated value   | Α | 0.25 |
| • at DC-3 at DC-5  |   |      |
| — at 24 V Rated value  | Α | 20   |
| — at 110 V Rated value   | Α | 2.5  |
| — at 220 V Rated value   | Α | 1    |
| — at 440 V Rated value   | Α | 0.09 |
| — at 600 V Rated value   | Α | 0.06 |
| Operating current with 2 current paths in series                                 |   |      |
| • at DC-1  |   |      |
| — at 24 V Rated value  | Α | 35   |
| — at 110 V Rated value   | Α | 35   |
| — at 220 V Rated value   | Α | 5    |
| — at 440 V Rated value   | Α | 1    |
| — at 600 V Rated value   | Α | 0.8  |
| • at DC-3 at DC-5  |   |      |
| — at 110 V Rated value   | Α | 15   |
| — at 220 V Rated value   | Α | 3    |
| — at 24 V Rated value  | Α | 35   |
| — at 440 V Rated value   | Α | 0.27 |
| — at 600 V Rated value   | Α | 0.16 |
| Operating current with 3 current paths in series                                 |   |      |

| • at DC-1   |     |       |
|---|-----|-------|
| — at 24 V Rated value                                 | Α   | 35    |
| — at 110 V Rated value                                | Α   | 35    |
| — at 220 V Rated value                                | Α   | 35    |
| — at 440 V Rated value                                | Α   | 2.9   |
| — at 600 V Rated value                                | Α   | 1.4   |
| • at DC-3 at DC-5                                     |     |       |
| — at 110 V Rated value                                | Α   | 35    |
| — at 220 V Rated value                                | Α   | 10    |
| — at 24 V Rated value                                 | Α   | 35    |
| — at 440 V Rated value                                | Α   | 0.6   |
| — at 600 V Rated value                                | Α   | 0.6   |
| Operating power                                       |     |       |
| • at AC-1 at 400 V Rated value                        | kW  | 23    |
| • at AC-2 at 400 V Rated value                        | kW  | 4     |
| • at AC-4 at 400 V Rated value                        | kW  | 4     |
| Operating power                                       |     |       |
| • at AC-1   |     |       |
| — at 230 V at 60 °C Rated value                       | kW  | 13.3  |
| — at 230 V Rated value                                | kW  | 13.3  |
| — at 400 V at 60 °C Rated value                       | kW  | 23    |
| — at 690 V at 60 °C Rated value                       | kW  | 40    |
| — at 690 V Rated value                                | kW  | 40    |
| • at AC-3   |     |       |
| — at 230 V Rated value                                | kW  | 2.2   |
| — at 400 V Rated value                                | kW  | 4     |
| — at 690 V Rated value                                | kW  | 7.5   |
| Operating power for ≥ 200000 operating cycles at AC-4 |     |       |
| • at 400 V Rated value                                | kW  | 2     |
| • at 690 V Rated value                                | kW  | 2.5   |
| Operating frequency                                   |     |       |
| • at AC-3 maximum                                     | 1/h | 1 000 |
| Control circuit/ Control:                             |     |       |
| Type of voltage of the control supply voltage         |     | AC    |
| Control supply voltage with AC                        |     |       |
| • at 50 Hz Rated value                                | V   | 110   |
| Operating range factor control supply voltage rated   |     |       |

| A '1'     |            |
|-----------|------------|
| AHYIIIAN  | / CITCLUIT |
| Auxiliary | on care.   |

• at 50 Hz

value of the magnet coil with AC

0.8 ... 1.1

| Number of NC contacts   |              |   |
|---|--------------|---|
| for auxiliary contacts  |              |   |
| instantaneous contact   |              | 2   |
| Number of NO contacts   |              |   |
| for auxiliary contacts  |              |   |
| — instantaneous contact   |              | 2   |
| Product expansion Auxiliary switch                                    |              | No  |
| Operating current at AC-15  |              |   |
| • at 230 V Rated value  | Α            | 6   |
| • at 400 V Rated value  | Α            | 3   |
| • at 690 V Rated value  | Α            | 1   |
| Operating current   |              |   |
| • at DC-12 at 125 V Rated value                                       | Α            | 2   |
| • at DC-12 at 220 V Rated value                                       | Α            | 1   |
| • at DC-12 at 600 V Rated value                                       | Α            | 0.15  |
| • at DC-13 at 125 V Rated value                                       | Α            | 0.9   |
| • at DC-13 at 220 V Rated value                                       | Α            | 0.3   |
| • at DC-13 at 600 V Rated value                                       | Α            | 0.1   |
| Operating current   |              |   |
| ● at DC-12  |              |   |
| — at 60 V Rated value   | Α            | 6   |
| — at 110 V Rated value  | Α            | 3   |
| • at DC-13  |              |   |
| — at 24 V Rated value   | Α            | 6   |
| — at 60 V Rated value   | Α            | 2   |
| — at 110 V Rated value  | Α            | 1   |
| Contact reliability of the auxiliary contacts                         |              | 1 faulty switching per 100 million (17 V, 1 mA) |
| JL/CSA ratings:   | _            |   |
| Full-load current (FLA) for three-phase AC motor                      |              |   |
| • at 480 V Rated value  | Α            | 7.6   |
| • at 600 V Rated value  | Α            | 9   |
| yielded mechanical performance [hp]                                   |              |   |
| • for single-phase AC motor at 110/120 V Rated                        | metric       | 1   |
| value   | hp           |   |
| • for single-phase AC motor at 230 V Rated                            | metric       | 1   |
| value   | hp           |   |
| • for three-phase AC motor at 200/208 V Rated                         | metric       | 2   |
| value   | hp           |   |
| <ul> <li>for three-phase AC motor at 220/230 V Rated value</li> </ul> | metric<br>hp | 3   |
| • for three-phase AC motor at 460/480 V Rated value                   | metric<br>hp | 5   |

| • for three-phase AC motor at 575/600 V Rated       | metric | 7.5         |
|---|--------|-------------|
| value   | hp     |             |
| 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    |
| <ul> <li>for short-circuit protection of the auxiliary switch<br/>required</li> </ul> | 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 according to DIN EN 50022 |
| Side-by-side mounting                        |    | Yes  |
| Height                                       | mm | 85   |
| Width  | mm | 45   |
| Depth  | mm | 141  |
| Required spacing                             |    |  |
| <ul><li>with side-by-side mounting</li></ul> |    |  |
| — forwards                                   | mm | 0  |
| — Backwards                                  | mm | 0  |
| — upwards                                    | mm | 0  |
| — downwards                                  | mm | 0  |
| — at the side                                | mm | 0  |
| • for grounded parts                         |    |  |
| — forwards                                   | mm | 0  |
| — Backwards                                  | mm | 0  |
| — upwards                                    | mm | 0  |
| — at the side                                | mm | 6  |
| — downwards                                  | mm | 0  |
| • for live parts                             |    |  |
| — forwards                                   | mm | 0  |
| — Backwards                                  | mm | 0  |
| — upwards                                    | mm | 0  |
| — downwards                                  | mm | 0  |
| — at the side                                | mm | 6  |
|  |    |  |

## Connections/ Terminals:

| • for main current circuit     • for auxiliary and control current circuit  Type of connectable conductor cross-section     • for main contacts     — single or multi-stranded     — finely stranded with core end processing     • for AWG conductors for main contacts     — single or multi-stranded     — finely stranded with core end processing     • for auxiliary contacts     — single or multi-stranded     — finely stranded with core end processing     • for auxiliary contacts     — single or multi-stranded     — finely stranded with core end processing     • for AWG conductors for auxiliary contacts     — single or multi-stranded     — finely stranded with core end processing     • for AWG conductors for auxiliary contacts  Apparent pick-up power of the magnet coil with AC     • at 50 Hz   Safety related data:  B10 value with high demand rate acc. to SN 31920     • with low demand rate acc. to SN 31920     • with low demand rate acc. to SN 31920     • with high demand rate acc. to SN 31920     • with high demand rate acc. to SN 31920     • with high demand rate acc. to SN 31920     • with high demand rate acc. to SN 31920     • root test interval or service life acc. to     If yes     T1 value for proof test interval or service life acc. to     If yes     T2 yes     T2 yes     T3  Failure rate [FIT] with low demand rate acc. to SN 31920     Protection against electrical shock  Mechanical data:  Size of contactor  S0  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature     • during operation     • C    -25 +60     • during storage     *C    -55 +80  | Type of electrical connection                                 |     |   |
|--|---|-----|---|
| Type of connectable conductor cross-section  • for main contacts  — single or multi-stranded — finely stranded with core end processing • for AWG conductors for main contacts  • single or multi-stranded — finely stranded with core end processing • for auxiliary contacts — single or multi-stranded — finely stranded with core end processing • for AWG conductors for auxiliary contacts — single or multi-stranded — finely stranded with core end processing • for AWG conductors for auxiliary contacts  Apparent plck-up power of the magnet coll with AC • at 50 Hz   Safety related data:  B10 value with high demand rate acc. to SN 31920  Proportion of dangerous failures • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920  Product function Mirror contact acc. to IEC 60947-4-1 T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  Mechanical data:  Size of contactor  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature • during operation  **C -25 +60   | for main current circuit                                      |     | screw-type terminals                      |
| • for main contacts  — single or multi-stranded — finely stranded with core end processing • for AWG conductors for main contacts • for auxiliary contacts — single or multi-stranded — finely stranded with core end processing • for AWG conductors for main contacts  — single or multi-stranded — finely stranded with core end processing • for AWG conductors for auxiliary contacts  — single or multi-stranded — finely stranded with core end processing • for AWG conductors for auxiliary contacts  Apparent pick-up power of the magnet coil with AC • at 50 Hz  Safety related data:  B10 value with high demand rate acc. to SN 31920  Proportion of dangerous failures • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN 31920  Product function Mirror contact acc. to IEC 60947-4-1  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  finger-safe  Mechanical data:  Size of contactor  S0  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature • during operation  *C -25 +60   | <ul> <li>for auxiliary and control current circuit</li> </ul> |     | screw-type terminals                      |
| single or multi-stranded finely stranded with core end processing  • for AWG conductors for main contacts • for auxiliary contacts single or multi-stranded finely stranded with core end processing • for AWG conductors for main contacts  single or multi-stranded finely stranded with core end processing • for AWG conductors for auxiliary contacts  single or multi-stranded finely stranded with core end processing • for AWG conductors for auxiliary contacts  Apparent pick-up power of the magnet coil with AC • at 50 Hz  Safety related data:  B10 value with high demand rate acc. to SN 31920  Proportion of dangerous failures • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN 31920  Froduct function Mirror contact acc. to IEC 60947-4-1  T1 value for proof test interval or service life acc. to [EC 61947-4-1]  T1 value for proof test interval or service life acc. to [EC 60947-4-1]  Size of contactor  S0  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature • during operation  **C -25 +60   | Type of connectable conductor cross-section                   |     |   |
| finely stranded with core end processing  • for AWG conductors for main contacts  • for auxilliary contacts  single or multi-stranded  finely stranded with core end processing  • for AWG conductors for auxiliary contacts  single or multi-stranded  finely stranded with core end processing  • for AWG conductors for auxiliary contacts  Apparent pick-up power of the magnet coil with AC  • at 50 Hz  Safety related data:  B10 value with high demand rate acc. to SN 31920  Proportion of dangerous failures  • with low demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with light demand rate acc. to SN 31920  • with light demand rate acc. to SN 31920  • with light demand rate acc. to SN 31920  • with light demand rate acc. to SN 31920  • with light demand rate acc. to SN 31920  • with light demand rate acc. to SN 31920  • with light demand rate acc. to SN 31920  • with light demand rate acc. to SN 31920  • with light demand rate acc. to SN 31920  • with light demand rate acc. to SN 31920  • with light demand rate acc. to SN 31920  • with light demand rate acc. to SN 31920  • with light demand rate acc. to SN 31920  • with light demand rate acc. to SN 31920  • with light demand rate acc. to SN 31920  • with light dema                | • for main contacts   |     |   |
| • for AWG conductors for main contacts     • for auxiliary contacts     • single or multi-stranded     — finely stranded with core end processing     • for AWG conductors for auxiliary contacts  Apparent pick-up power of the magnet coll with AC     • at 50 Hz  Safety related data:  B10 value with high demand rate acc. to SN 31920  Proportion of dangerous failures     • with low demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  Proportion of the magnet rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with low demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920      • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920  • with ligh demand rate acc. to SN 31920       • with ligh demand rate acc. to SN 31920      • with ligh demand rate acc. to SN 31920      • with ligh demand rate acc. to SN 31920      • with ligh demand rate acc. to SN 31920      • with ligh demand rate acc. to SN 31920      • with ligh demand rate acc. to SN 31920      • with ligh demand rate acc. to SN 31920      • with ligh demand rate acc. to SN 31920      • with ligh demand rate acc. to SN 31920      • with ligh demand rate acc.      | <ul><li>— single or multi-stranded</li></ul>                  |     | 2x (1 2,5 mm²), 2x (2,5 10 mm²)           |
| • for auxiliary contacts     — single or multi-stranded     — finely stranded with core end processing     • for AWG conductors for auxiliary contacts  Apparent pick-up power of the magnet coll with AC     • at 50 Hz   Safety related data:  B10 value with high demand rate acc. to SN 31920  Proportion of dangerous failures  • with low demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  * with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN 31920  Product function Mirror contact acc. to IEC 60947-4-1  T1 value for proof test interval or service life acc. to  IEC 61508  Protection against electrical shock  Mechanical data:  Size of contactor  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature  • during operation  *C -25 +60  | <ul> <li>finely stranded with core end processing</li> </ul>  |     | 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² |
| - single or multi-stranded - finely stranded with core end processing • for AWG conductors for auxiliary contacts  Apparent pick-up power of the magnet coil with AC • at 50 Hz  Safety related data:  B10 value with high demand rate acc. to SN 31920 • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN 31920  Product function Mirror contact acc. to IEC 60947-4-1 T1 value for proof test interval or service life acc. to IEC 61508 Protection against electrical shock  Mechanical data:  Size of contactor  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature • during operation  2x (0.5 1,5 mm²), 2x (0.75 2,5 mm²) 2x (20 16), 2x (18 14)  4x (0.5 1,5 mm²), 2x (0.75 2,5 mm²) 2x (20 16), 2x (18 14)  4x (20 16), 2x (18  | <ul> <li>for AWG conductors for main contacts</li> </ul>      |     | 2x (16 12), 2x (14 8)                     |
| - finely stranded with core end processing  • for AWG conductors for auxiliary contacts  Apparent pick-up power of the magnet coil with AC  • at 50 Hz  Safety related data:  B10 value with high demand rate acc. to SN 31920  Proportion of dangerous failures  • with low demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN 31920  Product function Mirror contact acc. to IEC 60947-4-1  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  Mechanical data:  Size of contactor  Ambient conditions:  Installation altitude at height above sea level maximum  Amblent temperature  • during operation  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (20 16), 2x (18 14)  40  40  40  40  40  40  40  40  40   | • for auxiliary contacts                                      |     |   |
| for AWG conductors for auxiliary contacts  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  Proportion of dangerous failures     with low demand rate acc. to SN 31920     with high demand rate acc. to SN 31920     with high demand rate acc. to SN 31920     with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN 31920  Product function Mirror contact acc. to IEC 60947-4-1  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  Mechanical data:  Size of contactor  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature     during operation  C C -25 +60   | <ul><li>single or multi-stranded</li></ul>                    |     | 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)       |
| Apparent pick-up power of the magnet coil with AC  • at 50 Hz  Safety related data:  B10 value with high demand rate acc. to SN 31920  Proportion of dangerous failures  • with low demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  • with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN 31920  Product function Mirror contact acc. to IEC 60947-4-1  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  Mechanical data:  Size of contactor  S0  Ambient conditions:  Installation altitude at height above sea level maximum  Amblent temperature  • during operation  V·A 65   V·A 65   S0  40  40  40  40  40  40  40  40  4  | <ul> <li>finely stranded with core end processing</li> </ul>  |     | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)       |
| * at 50 Hz     * At 50 Hz     * At 50 Hz  B10 value with high demand rate acc. to SN 31920 Proportion of dangerous failures     * with low demand rate acc. to SN 31920     * with high demand rate acc. to SN 31920     * with high demand rate acc. to SN 31920     * with high demand rate acc. to SN 31920     * with low demand rate acc. to SN 31920     * Failure rate [FIT] with low demand rate acc. to SN 31920 Product function Mirror contact acc. to IEC 60947-4-1     * T1 value for proof test interval or service life acc. to IEC 61508 Protection against electrical shock    Mechanical data:   | <ul> <li>for AWG conductors for auxiliary contacts</li> </ul> |     | 2x (20 16), 2x (18 14)                    |
| Safety related data:  B10 value with high demand rate acc. to SN 31920   | Apparent pick-up power of the magnet coil with AC             |     |   |
| B10 value with high demand rate acc. to SN 31920 Proportion of dangerous failures  • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 Failure rate [FIT] with low demand rate acc. to SN 31920 Product function Mirror contact acc. to IEC 60947-4-1 T1 value for proof test interval or service life acc. to IEC 61508 Protection against electrical shock finger-safe  Mechanical data: Size of contactor  S0  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature • during operation  1 000 000  1 000 000  40  40  40  40  40  40  40  40   | ● at 50 Hz  | V·A | 65  |
| Proportion of dangerous failures  • with low demand rate acc. to SN 31920 % 40  • with high demand rate acc. to SN 31920 % 73  Failure rate [FIT] with low demand rate acc. to SN 31920 Product function Mirror contact acc. to IEC 60947-4-1 Yes  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock finger-safe  Mechanical data:  Size of contactor S0  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature  • during operation °C -25 +60   | Safety related data:  |     |   |
| with low demand rate acc. to SN 31920  % 73  Failure rate [FIT] with low demand rate acc. to SN 31920  % 73  Failure rate [FIT] with low demand rate acc. to SN 31920  Product function Mirror contact acc. to IEC 60947-4-1  Yes  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  finger-safe  Mechanical data:  Size of contactor  S0  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature  • during operation  °C -25 +60  | <del>-</del>  |     | 1 000 000                                 |
| ● with high demand rate acc. to SN 31920 % 73  Failure rate [FIT] with low demand rate acc. to SN 31920  Product function Mirror contact acc. to IEC 60947-4-1 Yes  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock finger-safe  Mechanical data:  Size of contactor S0  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature  ● during operation °C -25 +60  | Proportion of dangerous failures                              |     |   |
| Failure rate [FIT] with low demand rate acc. to SN 31920  Product function Mirror contact acc. to IEC 60947-4-1  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  Mechanical data:  Size of contactor  S0  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature  • during operation  • C  -25 +60   | <ul> <li>with low demand rate acc. to SN 31920</li> </ul>     |     | 40  |
| Product function Mirror contact acc. to IEC 60947-4-1  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  Mechanical data:  Size of contactor  S0  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature  • during operation  • during operation  Yes  y 20  English acc. to y 20  So  So  So  So  -25 +60   |   | %   | 73  |
| T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  Mechanical data:  Size of contactor  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature  • during operation  y 20  English acc. to graph acc. to |   | FIT | 100                                       |
| Protection against electrical shock  Mechanical data:  Size of contactor  So  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature  • during operation  finger-safe   m  2 000  max 2 000  cc  -25 +60  | Product function Mirror contact acc. to IEC 60947-4-1         |     | Yes                                       |
| Mechanical data:  Size of contactor  Size of contactor  So  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature  • during operation  or color of the contactor of th | -   | у   | 20  |
| Size of contactor  Ambient conditions:  Installation altitude at height above sea level maximum  Ambient temperature  • during operation  S0  m 2 000  column 3 000  colum | Protection against electrical shock                           |     | finger-safe                               |
| Ambient conditions:  Installation altitude at height above sea level m 2 000 maximum  Ambient temperature  • during operation °C -25 +60   | Mechanical data:  |     |   |
| Installation altitude at height above sea level maximum  Ambient temperature  • during operation  m 2 000  c C -25 +60   | Size of contactor   |     | S0  |
| maximum   Ambient temperature   ● during operation   °C   -25 +60  |   |     |   |
| Ambient temperature  ● during operation  °C -25 +60  | •   | m   | 2 000                                     |
| • during operation °C -25 +60  |   |     |   |
|  | •   | °C  | 25 160                                    |
| ● during storage -55 +80   | • .   |     |   |
|  | during storage  | · C | -55 +80                                   |
| Certificates/ approvals:   | Certificates/ approvals:                                      |     |   |

#### **General Product Approval**

**EMC** 

Functional Safety/Safety of Machinery

Type Examination











| Declaration | O |
|-------------|---|
| Conformity  |   |

**Test Certificates** 

**Shipping Approval** 



EG-Konf.

Special Test Certificate Type Test
Certificates/Test
Report







#### **Shipping Approval**

other



GL



LRS







Environmental Confirmations

### other

Confirmation



#### Further information

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

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

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

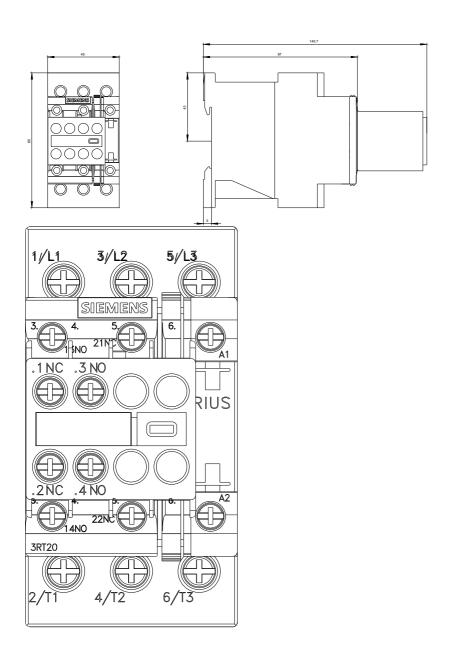
Cax online generator

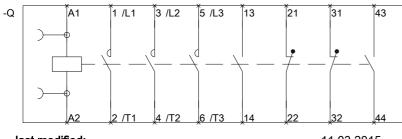
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT20231AF04

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

http://support.automation.siemens.com/WW/view/en/3RT20231AF04/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=3RT20231AF04&lang=en





last modified: 11.03.2015