SIEMENS

Data sheet

3RT2037-1AK64



CONTACTOR,AC3:30KW/400V, 2NO+2NC,110VAC 50HZ/120V 60HZ, 3-POLE, SIZE S2, SCREW TERMINAL

| product brand name | | SIRIUS |
|--|----|----------------|
| 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) | | |
| of the contactor typical | | 10 000 000 |
| of the contactor with added electronics- | | 5 000 000 |
| compatible auxiliary switch block typical | | |
| of the contactor with added auxiliary switch | | 10 000 000 |
| block typical | | |
| Thermal short-time current restricted to 10 s | А | 520 |
| Protection class IP | | |
| • on the front | | IP20 |
| • of the terminal | | IP00 |
| Equipment marking | _ | |
| • acc. to DIN EN 61346-2 | | Q |
| • acc. to DIN EN 81346-2 | | Q |
| 1ain 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 |

| at AC-3 Rated value maximum | V | 690 |
|---|---|------|
| Operating current | | |
| • at AC-1 | | |
| — at 400 V at ambient temperature 40 °C Rated value | A | 80 |
| — up to 690 V at ambient temperature 40 °C Rated value | А | 80 |
| — up to 690 V at ambient temperature 60 °C Rated value | А | 70 |
| at AC-2 at 400 V Rated value | А | 65 |
| ● at AC-3 | | |
| — at 400 V Rated value | А | 65 |
| — at 500 V Rated value | А | 65 |
| — at 690 V Rated value | А | 47 |
| at AC-4 at 400 V Rated value | А | 55 |
| Operating current with 1 current path | | |
| ● at DC-1 | | |
| — at 24 V Rated value | А | 70 |
| — at 110 V Rated value | А | 4.5 |
| — at 220 V Rated value | А | 2 |
| — at 440 V Rated value | А | 0.4 |
| — at 600 V Rated value | А | 0.25 |
| ● at DC-3 at DC-5 | | |
| — at 24 V Rated value | А | 35 |
| — at 110 V Rated value | А | 2.5 |
| — at 220 V Rated value | А | 2 |
| — at 440 V Rated value | А | 0.1 |
| — at 600 V Rated value | А | 0.06 |
| Operating current with 2 current paths in series | | |
| • at DC-1 | | |
| — at 24 V Rated value | А | 70 |
| — at 110 V Rated value | А | 45 |
| — at 220 V Rated value | А | 5 |
| — at 440 V Rated value | А | 1 |
| — at 600 V Rated value | А | 0.8 |
| • at DC-3 at DC-5 | | |
| — at 110 V Rated value | А | 25 |
| — at 220 V Rated value | А | 5 |
| — at 24 V Rated value | А | 55 |
| — at 440 V Rated value | А | 0.27 |
| — at 600 V Rated value | А | 0.16 |
| Operating current with 3 current paths in series | | |

| • at DC-1 | | |
|---|-----|------|
| — at 24 V Rated value | А | 55 |
| — at 110 V Rated value | А | 45 |
| — at 220 V Rated value | А | 45 |
| — at 440 V Rated value | А | 2.9 |
| — at 600 V Rated value | А | 1.4 |
| • at DC-3 at DC-5 | | |
| — at 110 V Rated value | А | 45 |
| — at 220 V Rated value | А | 25 |
| — at 24 V Rated value | А | 55 |
| — at 440 V Rated value | А | 0.6 |
| — at 600 V Rated value | А | 0.6 |
| Operating power | - | |
| • at AC-1 at 400 V Rated value | kW | 53 |
| ● at AC-2 at 400 V Rated value | kW | 30 |
| at AC-4 at 400 V Rated value | kW | 30 |
| Operating power | _ | |
| • at AC-1 | | |
| — at 230 V at 60 °C Rated value | kW | 26 |
| — at 230 V Rated value | kW | 30 |
| — at 400 V at 60 °C Rated value | kW | 46 |
| — at 690 V at 60 °C Rated value | kW | 79 |
| — at 690 V Rated value | kW | 91 |
| • at AC-3 | | |
| — at 230 V Rated value | kW | 18.5 |
| — at 400 V Rated value | kW | 30 |
| — at 500 V Rated value | kW | 37 |
| — at 690 V Rated value | kW | 37 |
| Operating power for ≥ 200000 operating cycles at AC-4 | | |
| • at 400 V Rated value | kW | 14.7 |
| • at 690 V Rated value | kW | 20 |
| Operating frequency | | |
| • at AC-3 maximum | 1/h | 700 |
| Control circuit/ Control: | | |
| Type of voltage of the control supply voltage | | AC |
| Control supply voltage with AC | | 440 |
| • at 50 Hz Rated value | V | 110 |
| at 60 Hz Rated value | V | 120 |
| 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 |
| | | 0.0 1.1 |
| Auxiliary circuit: | | |
| 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 | А | 6 |
| • at 400 V Rated value | А | 3 |
| • at 690 V Rated value | А | 1 |
| Operating current | | |
| • at DC-12 at 125 V Rated value | А | 2 |
| • at DC-12 at 220 V Rated value | А | 1 |
| • at DC-12 at 600 V Rated value | А | 0.15 |
| • at DC-13 at 125 V Rated value | А | 0.9 |
| • at DC-13 at 220 V Rated value | А | 0.3 |
| • at DC-13 at 600 V Rated value | А | 0.1 |
| Operating current | _ | |
| • at DC-12 | | |
| — at 60 V Rated value | А | 6 |
| — at 110 V Rated value | А | 3 |
| • at DC-13 | | |
| — at 24 V Rated value | А | 6 |
| — at 60 V Rated value | А | 2 |
| — at 110 V Rated value | А | 1 |
| Contact reliability of the auxiliary contacts | - | 1 faulty switching per 100 million (17 V, 1 mA) |
| UL/CSA ratings: | | |
| Full-load current (FLA) for three-phase AC motor | | |
| • at 480 V Rated value | А | 65 |
| • at 600 V Rated value | А | 52 |
| yielded mechanical performance [hp] | | |
| • for single-phase AC motor at 110/120 V Rated | metric | 5 |
| value | hp | |
| for single-phase AC motor at 230 V Rated value | metric hp | 10 |
| • for three-phase AC motor at 200/208 V Rated | metric | 20 |

• for three-phase AC motor at 200/208 V Rated value

hp

| for three-phase AC motor at 220/230 V Rated value | metric hp | 20 |
|---|--------------|--|
| for three-phase AC motor at 460/480 V Rated value | metric hp | 50 |
| ● for three-phase AC motor at 575/600 V Rated | metric | 50 |
| value | hp | |
| 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 NH 3NA, DIAZED 5SB, NEOZED 5SE: 250 A |
| — with type of assignment 2 required | | gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 125 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 according to DIN EN 50022 |
| Side-by-side mounting | | Yes |
| Height | mm | 113.4 |
| Width | mm | 55 |
| Depth | mm | 173.5 |
| Required spacing | _ | |
| with side-by-side mounting | | |
| — 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 | 50 |
| — at the side | mm | 6 |
| — downwards | mm | 50 |
| • for live parts | | |
| — forwards | mm | 0 |
| — Backwards | mm | 0 |
| | mm | 50 |
| — upwards | | 50 |
| — downwards | mm | 50 |

| — 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 (1 35 mm²), 1x (1 50 mm²) |
| — finely stranded with core end processing | | 2x (1 25 mm²), 1x (1 35 mm²) |
| for AWG conductors for main contacts | | 2x (18 2), 1x (18 1) |
| 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) |
| Apparent pick-up power of the magnet coil with AC | _ | |
| • at 50 Hz | V·A | 212 |
| • at 60 Hz | V·A | 188 |
| Safety related data: | | |
| Proportion of dangerous failures | | |
| • with low demand rate acc. to SN 31920 | % | 40 |
| with high demand rate acc. to SN 31920 | % | 73 |
| Product function Mirror contact acc. to IEC 60947-4-1 | | Yes |
| Protection against electrical shock | | finger-safe when touched vertically from front acc. to IEC 60529 |
| Mechanical data: | | |
| Size of contactor | | S2 |
| Ambient conditions: | | |
| Installation altitude at height above sea level maximum | m | 2 000 |
| Ambient temperature | _ | |
| during operation | °C | -25 +60 |
| during operation | °C | -55 +80 |
| | • | |
| Certificates/ approvals: | | |
| General Product Approval | oth | |
| | <u>C</u> | Confirmation Environmental Confirmations |

Further information

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

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

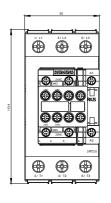
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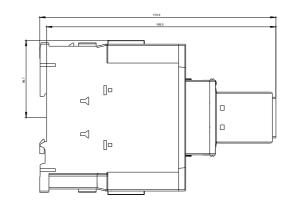
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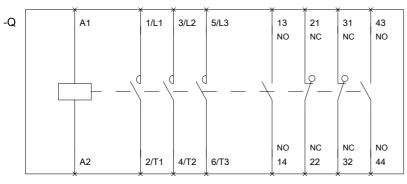
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT20371AK64&lang=en







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