



Contactora AC 110 V 50/60 HZ AC3 22 kW 400 V 3-pole, size S2 screw terminal

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| product brand name | SIRIUS |
| product designation | Power contactor |
| product type designation | 3RT5 |
| General technical data | |
| size of contactor | S2 |
| product extension auxiliary switch | Yes |
| power loss [W] for rated value of the current | |
| • at AC in hot operating state per pole | 5 W |
| • without load current share typical | 5.25 W |
| type of calculation of power loss depending on pole | quadratic |
| insulation voltage rated value | 690 V |
| degree of pollution | 3 |
| surge voltage resistance rated value | 6 kV |
| maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 | 400 V |
| shock resistance at rectangular impulse | |
| • at AC | 10g / 5 ms, 5g / 10 ms |
| shock resistance with sine pulse | |
| • at AC | 15g / 5 ms, 8g / 10 ms |
| mechanical service life (operating cycles) | |
| • of contactor typical | 10 000 000 |
| • of the contactor with added auxiliary switch block typical | 10 000 000 |
| Substance Prohibition (Date) | 03/01/2017 |
| SVHC substance name | Lead - 7439-92-1 |
| Ambient conditions | |
| installation altitude at height above sea level maximum | 2 000 m |
| ambient temperature | |
| • during operation | -25 ... +60 °C |
| • during storage | -55 ... +80 °C |
| Main circuit | |
| number of poles for main current circuit | 3 |
| number of NO contacts for main contacts | 3 |
| number of NC contacts for main contacts | 0 |
| operating voltage | |
| • at AC-3e rated value maximum | 690 V |
| operational current | |
| • at AC-1 up to 690 V | |
| — at ambient temperature 40 °C rated value | 60 A |
| — at ambient temperature 60 °C rated value | 55 A |
| • at AC-3 | |

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| <ul style="list-style-type: none"> — at 400 V rated value — at 690 V rated value ● at AC-3e <ul style="list-style-type: none"> — at 400 V rated value — at 690 V rated value | 50 A 24 A 50 A 24 A |
| connectable conductor cross-section in main circuit at AC-1 <ul style="list-style-type: none"> ● at 60 °C minimum permissible ● at 40 °C minimum permissible | 16 mm ² 16 mm ² |
| operational current for approx. 200000 operating cycles at AC-4 <ul style="list-style-type: none"> ● at 400 V rated value ● at 690 V rated value | 24 A 12.6 A |
| operating power <ul style="list-style-type: none"> ● at AC-1 <ul style="list-style-type: none"> — at 230 V at 60 °C rated value — at 400 V at 60 °C rated value — at 690 V at 60 °C rated value ● at AC-3 <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 690 V rated value ● at AC-3e <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 690 V rated value | 22 kW 38 kW 66 kW 15 kW 22 kW 22 kW 15 kW 22 kW 22 kW |
| operating power for approx. 200000 operating cycles at AC-4 <ul style="list-style-type: none"> ● at 400 V rated value ● at 690 V rated value | 12.6 kW 11.4 kW |
| no-load switching frequency <ul style="list-style-type: none"> ● at AC | 5 000 1/h |
| operating frequency <ul style="list-style-type: none"> ● at AC-1 maximum ● at AC-3 maximum ● at AC-3e maximum ● at AC-4 maximum | 1 000 1/h 800 1/h 800 1/h 300 1/h |
| Control circuit/ Control | |
| type of voltage of the control supply voltage | AC |
| control supply voltage at AC <ul style="list-style-type: none"> ● at 50 Hz rated value ● at 60 Hz rated value | 110 V 110 V |
| operating range factor control supply voltage rated value of magnet coil at AC <ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz | 0.8 ... 1.1 0.85 ... 1.1 |
| apparent pick-up power of magnet coil at AC <ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz | 170 VA 170 VA |
| inductive power factor with closing power of the coil <ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz | 0.76 0.76 |
| apparent holding power of magnet coil at AC <ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz | 15 VA 15 VA |
| inductive power factor with the holding power of the coil <ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz | 0.35 0.35 |
| Auxiliary circuit | |
| number of NC contacts for auxiliary contacts instantaneous contact | 0 |
| number of NO contacts for auxiliary contacts instantaneous | 0 |

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| contact | |
| operational current at AC-12 maximum | 10 A |
| operational current at AC-15 | |
| • at 230 V rated value | 6 A |
| • at 400 V rated value | 3 A |
| operational current at DC-12 | |
| • at 110 V rated value | 3 A |
| • at 220 V rated value | 1 A |
| operational current at DC-13 | |
| • at 24 V rated value | 6 A |
| • at 110 V rated value | 1 A |
| • at 220 V rated value | 0.3 A |
| contact reliability of auxiliary contacts | 1 faulty switching per 100 million (17 V, 1 mA) |
| UL/CSA ratings | |
| yielded mechanical performance [hp] for 3-phase AC motor at 460/480 V rated value | 40 hp |
| Short-circuit protection | |
| design of the fuse link | |
| • for short-circuit protection of the main circuit | |
| — with type of coordination 1 required | fuse gL/gG: 160 A |
| — with type of assignment 2 required | fuse gL/gG: 80 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 |
| fastening method | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022 |
| • side-by-side mounting | Yes |
| height | 112 mm |
| width | 55 mm |
| depth | 115 mm |
| Connections/ Terminals | |
| type of electrical connection | |
| • for main current circuit | screw-type terminals |
| • for auxiliary and control circuit | screw-type terminals |
| type of connectable conductor cross-sections for main contacts | |
| • solid or stranded | 2x (0.75 ... 16 mm ²) |
| • finely stranded with core end processing | 2x (0.75 ... 16 mm ²) |
| • finely stranded without core end processing | 2x (0.75 ... 16 mm ²) |
| type of connectable conductor cross-sections | |
| • for auxiliary contacts | |
| — finely stranded with core end processing | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) |
| • for AWG cables for auxiliary contacts | 2x (20 ... 16), 2x (18 ... 14), 1x 12 |
| Electrical Safety | |
| protection class IP on the front according to IEC 60529 | IP20 |
| touch protection on the front according to IEC 60529 | finger-safe, for vertical contact from the front |
| Approvals Certificates | |
| General Product Approval | EMV |

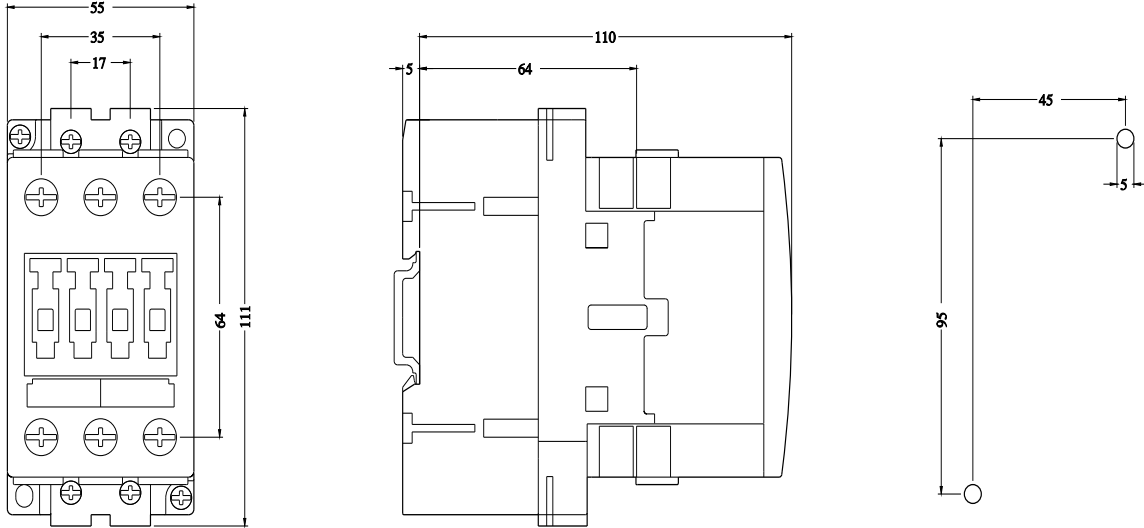
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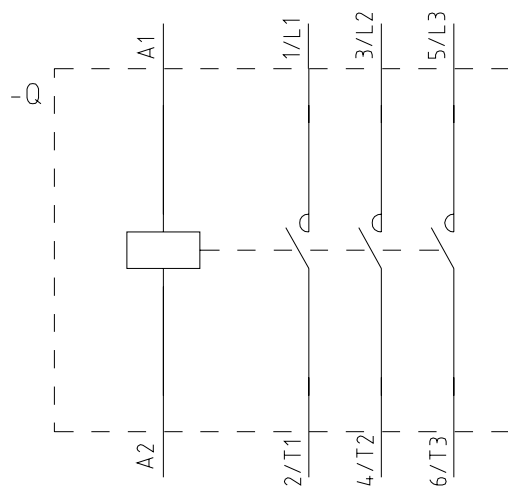


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| Marine / Shipping | other | Environment |
| CCS (China Classification Society) | Confirmation | Confirmation |
| | | Environmental Confirmations |

Further information

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/products?pnid=16027&lc=en-CN>





last modified:

8/1/2024 