



Contactor, AC-1, 110 A/400 V/40 °C, S2, 4-pole, 110 V AC/50 Hz, 120 V/60 Hz, 1 NO+1 NC, screw terminal

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| product brand name | SIRIUS |
| product designation | Contactor |
| product type designation | 3RT23 |
| General technical data | |
| size of contactor | S2 |
| product extension | |
| • function module for communication | No |
| • auxiliary switch | Yes |
| surge voltage resistance | |
| • of main circuit rated value | 6 kV |
| • of auxiliary circuit rated value | 6 kV |
| shock resistance at rectangular impulse | |
| • at AC | 11.8g / 5 ms, 7.4g / 10 ms |
| shock resistance with sine pulse | |
| • at AC | 18.5g / 5 ms, 11.6g / 10 ms |
| mechanical service life (switching cycles) | |
| • of contactor typical | 10 000 000 |
| • of the contactor with added auxiliary switch block typical | 100 000 000 |
| reference code acc. to IEC 81346-2 | Q |
| Substance Prohibance (Date) | 01.10.2014 00:00:00 |
| Ambient conditions | |
| installation altitude at height above sea level maximum | 2 000 m |
| • ambient temperature during operation | -40 ... +70 °C |
| • ambient temperature during storage | -55 ... +80 °C |
| relative humidity during operation | 95 % |
| Main circuit | |
| number of poles for main current circuit | 4 |
| number of NO contacts for main contacts | 4 |
| • operating voltage at AC | |
| — at 50 Hz rated value | 690 V |
| — at 60 Hz rated value | 690 V |
| operational current | |
| • at AC-1 at 400 V at ambient temperature 40 °C rated value | 110 A |
| • at AC-1 | |
| — up to 690 V at ambient temperature 40 °C rated value | 110 A |

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| — up to 690 V at ambient temperature 60 °C rated value | 95 A |
| • at AC-3 at 400 V rated value | 38 A |
| minimum cross-section in main circuit at maximum AC-1 rated value | 35 mm ² |
| short-time withstand current in cold operating state up to 40 °C | |
| • limited to 1 s switching at zero current maximum | Use minimum cross-section acc. to AC-1 rated value |
| • limited to 5 s switching at zero current maximum | Use minimum cross-section acc. to AC-1 rated value |
| • limited to 10 s switching at zero current maximum | Use minimum cross-section acc. to AC-1 rated value |
| • limited to 30 s switching at zero current maximum | Use minimum cross-section acc. to AC-1 rated value |
| • limited to 60 s switching at zero current maximum | Use minimum cross-section acc. to AC-1 rated value |
| no-load switching frequency | |
| • at AC | 5 000 1/h |
| operating frequency at AC-1 maximum | 700 1/h |
| Control circuit/ Control | |
| type of voltage | AC |
| type of voltage of the control supply voltage | AC |
| • control supply voltage at AC at 50 Hz rated value | 110 V |
| • control supply voltage at AC at 60 Hz rated value | 120 V |
| operating range factor control supply voltage rated value of magnet coil at AC | |
| • at 50 Hz | 0.8 ... 1.1 |
| • at 60 Hz | 0.8 ... 1.1 |
| apparent pick-up power of magnet coil at AC | |
| • at 50 Hz | 212 V·A |
| • at 60 Hz | 188 V·A |
| inductive power factor with closing power of the coil | |
| • at 50 Hz | 0.69 |
| • at 60 Hz | 0.65 |
| apparent holding power of magnet coil at AC | |
| • at 50 Hz | 18.5 V·A |
| • at 60 Hz | 16.5 V·A |
| inductive power factor with the holding power of the coil | |
| • at 50 Hz | 0.36 |
| • at 60 Hz | 0.39 |
| closing delay | |
| • at AC | 10 ... 80 ms |
| opening delay | |
| • at AC | 10 ... 18 ms |
| arcing time | 10 ... 20 ms |
| control version of the switch operating mechanism | Standard A1 - A2 |
| Auxiliary circuit | |
| number of NC contacts for auxiliary contacts | 1 |
| • attachable | 2 |
| • instantaneous contact | 1 |
| number of NO contacts for auxiliary contacts | 1 |
| • attachable | 2 |
| • instantaneous contact | 1 |
| operational current at AC-12 maximum | 10 A |
| operational current at AC-15 | |
| • at 230 V rated value | 10 A |
| • at 400 V rated value | 3 A |
| • at 500 V rated value | 2 A |
| • at 690 V rated value | 1 A |
| operational current at DC-12 | |
| • at 24 V rated value | 10 A |
| • at 48 V rated value | 6 A |

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| <ul style="list-style-type: none"> • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value | 6 A 3 A 2 A 1 A 0.15 A |
| operational current at DC-13 <ul style="list-style-type: none"> • at 24 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value | 10 A 2 A 1 A 0.9 A 0.3 A 0.1 A |
| design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required | gG: 10 A (230 V, 400 A) |
| contact reliability of auxiliary contacts | 1 faulty switching per 100 million (17 V, 1 mA) |
| UL/CSA ratings | |
| contact rating of auxiliary contacts according to UL | A600 / P600 |
| Short-circuit protection | |
| product function short circuit protection | No |
| design of the fuse link <ul style="list-style-type: none"> • for short-circuit protection of the main circuit <ul style="list-style-type: none"> — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required | gG: 160 A (690 V, 100 kA) gR: 80 A (690 V, 100 kA) gG: 10 A (690 V, 1 kA) |
| 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 standard mounting rail according to DIN EN 60715 |
| <ul style="list-style-type: none"> • side-by-side mounting | Yes |
| height | 114 mm |
| width | 75 mm |
| depth | 130 mm |
| required spacing <ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — upwards — downwards — at the side | 10 mm 10 mm 10 mm 0 mm 10 mm 10 mm 6 mm 10 mm 10 mm 10 mm 10 mm 6 mm |
| Connections/ Terminals | |
| type of electrical connection | |
| <ul style="list-style-type: none"> • for main current circuit • for auxiliary and control circuit | screw-type terminals screw-type terminals |
| type of connectable conductor cross-sections | |
| <ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts | 2x (1 ... 35 mm²), 1x (1 ... 50 mm²) 2x (1 ... 25 mm²), 1x (1 ... 35 mm²) 2x (18 ... 2), 1x (18 ... 1) |

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| connectable conductor cross-section for main contacts <ul style="list-style-type: none"> • solid or stranded • finely stranded with core end processing | 1 ... 50 mm ² 1 ... 35 mm ² |
| connectable conductor cross-section for auxiliary contacts <ul style="list-style-type: none"> • solid or stranded • finely stranded with core end processing • finely stranded without core end processing | 0.5 ... 2.5 mm ² 0.5 ... 2.5 mm ² 0.5 ... 2.5 mm ² |
| type of connectable conductor cross-sections <ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — solid — solid or stranded — finely stranded with core end processing • at AWG cables for auxiliary contacts | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14) |
| <ul style="list-style-type: none"> • AWG number as coded connectable conductor cross section for main contacts • AWG number as coded connectable conductor cross section for auxiliary contacts | 18 ... 1 20 ... 14 |
| Safety related data | |
| product function <ul style="list-style-type: none"> • mirror contact acc. to IEC 60947-4-1 • positively driven operation acc. to IEC 60947-5-1 | Yes No |
| T1 value for proof test interval or service life acc. to IEC 61508 | 20 y |
| protection class IP on the front acc. to IEC 60529 | IP20 |
| touch protection on the front acc. to IEC 60529 | finger-safe, for vertical contact from the front |
| Communication/ Protocol | |
| product function bus communication | No |
| Certificates/ approvals | |
| General Product Approval | EMC |



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| Declaration of Conformity | Test Certificates | Marine / Shipping |
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[Miscellaneous](#)



EG-Konf.

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



ABS



BUREAU
VERITAS

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| Marine / Shipping | other |
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LRS



PRS



RINA



RMRS



DNV-GL

[Confirmation](#)

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| Further information |
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Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2337-1AK60>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2337-1AK60>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2337-1AK60>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

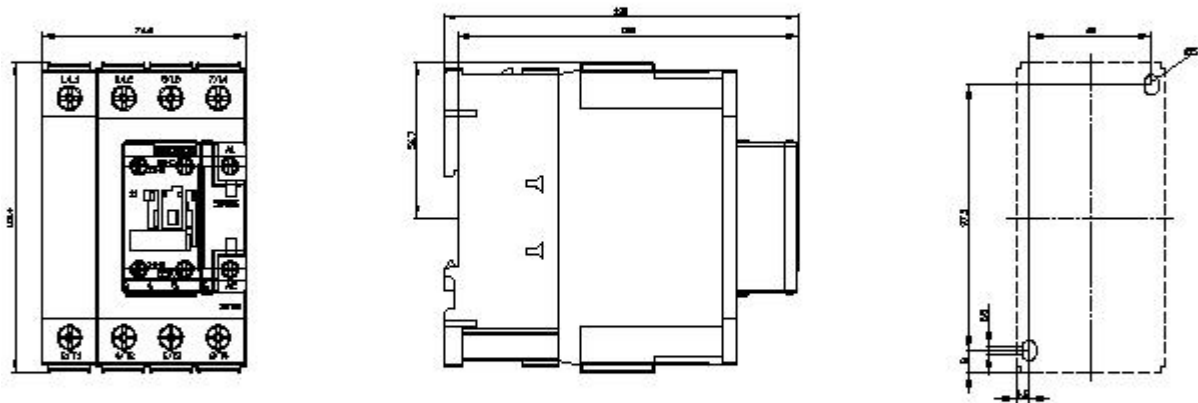
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2337-1AK60&lang=en

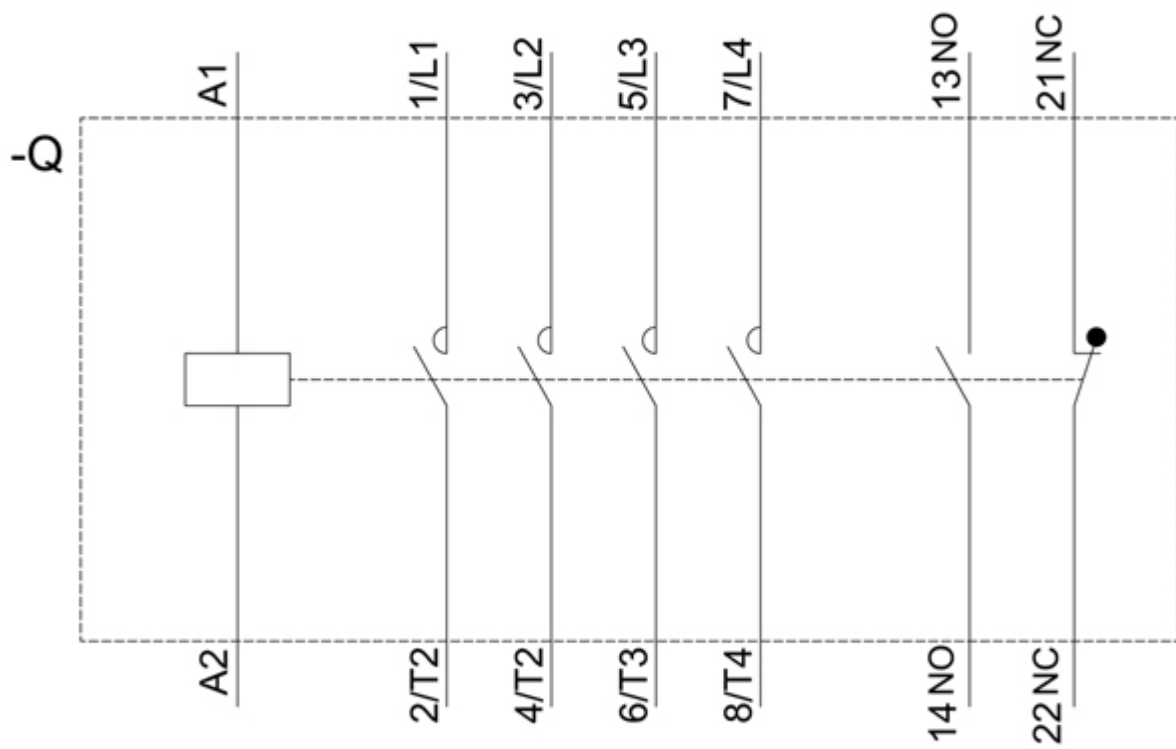
Characteristic: Tripping characteristics, I^2t , Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2337-1AK60/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2337-1AK60&objecttype=14&gridview=view1>





last modified:

12/15/2020 