



Power contactor, AC-3 16 A, 7.5 kW, 400 V 2 NO + 2 NC 110 V DC 4-pole
Size S00 screw terminals

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| product brand name | SIRIUS |
| product designation | contactor |
| product type designation | 3RT25 |
| General technical data | |
| size of contactor | S00 |
| product extension | |
| <ul style="list-style-type: none"> function module for communication auxiliary switch | <p>No</p> <p>Yes</p> |
| insulation voltage | |
| <ul style="list-style-type: none"> of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value | <p>690 V</p> <p>690 V</p> |
| surge voltage resistance | |
| <ul style="list-style-type: none"> of main circuit rated value of auxiliary circuit rated value | <p>6 kV</p> <p>6 kV</p> |
| maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1 | 400 V |
| shock resistance at rectangular impulse | |
| <ul style="list-style-type: none"> at DC | 7.3g / 5 ms, 4.7g / 10 ms |
| shock resistance with sine pulse | |
| <ul style="list-style-type: none"> at DC | 11,4g / 5 ms, 7,3g / 10 ms |
| mechanical service life (switching cycles) | |
| <ul style="list-style-type: none"> of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical | <p>30 000 000</p> <p>5 000 000</p> <p>10 000 000</p> |
| reference code according to IEC 81346-2 | Q |
| Substance Prohibitance (Date) | 10/01/2009 |
| Ambient conditions | |
| installation altitude at height above sea level maximum | 2 000 m |
| ambient temperature | |
| <ul style="list-style-type: none"> during operation during storage | <p>-25 ... +60 °C</p> <p>-55 ... +80 °C</p> |
| relative humidity minimum | 10 % |
| relative humidity at 55 °C according to IEC 60068-2-30 maximum | 95 % |
| Main circuit | |
| number of poles for main current circuit | 4 |
| number of NO contacts for main contacts | 2 |

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| number of NC contacts for main contacts | 2 |
| operational current | |
| <ul style="list-style-type: none"> ● at AC-1 up to 690 V <ul style="list-style-type: none"> — at ambient temperature 40 °C rated value — at ambient temperature 60 °C rated value ● at AC-2 at AC-3 at 400 V <ul style="list-style-type: none"> — per NO contact rated value — per NC contact rated value | 22 A 20 A 16 A 9 A |
| minimum cross-section in main circuit at maximum AC-1 rated value | 4 mm ² |
| operational current | |
| <ul style="list-style-type: none"> ● at 1 current path at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value ● with 2 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value ● at 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V per NC contact rated value — at 24 V per NO contact rated value — at 110 V per NC contact rated value — at 110 V per NO contact rated value — at 220 V per NC contact rated value — at 220 V per NO contact rated value ● with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V per NC contact rated value — at 24 V per NO contact rated value — at 110 V per NC contact rated value — at 110 V per NO contact rated value | 20 A 2.1 A 0.8 A 0.6 A 20 A 12 A 1.6 A 0.8 A 20 A 20 A 0.075 A 0.15 A 0.375 A 0.75 A 20 A 20 A 0.175 A 0.35 A |
| operating power at AC-2 at AC-3 | |
| <ul style="list-style-type: none"> ● at 230 V per NC contact rated value ● at 230 V per NO contact rated value ● at 400 V per NC contact rated value ● at 400 V per NO contact rated value | 2.2 kW 4 kW 4 kW 7.5 kW |
| short-time withstand current in cold operating state up to 40 °C | |
| <ul style="list-style-type: none"> ● limited to 1 s switching at zero current maximum ● limited to 5 s switching at zero current maximum ● limited to 10 s switching at zero current maximum ● limited to 30 s switching at zero current maximum ● limited to 60 s switching at zero current maximum | 165 A; Use minimum cross-section acc. to AC-1 rated value 165 A; Use minimum cross-section acc. to AC-1 rated value 128 A; Use minimum cross-section acc. to AC-1 rated value 92 A; Use minimum cross-section acc. to AC-1 rated value 74 A; Use minimum cross-section acc. to AC-1 rated value |
| power loss [W] at AC-3 at 400 V for rated value of the operational current per conductor | 2.2 W |
| no-load switching frequency | |
| <ul style="list-style-type: none"> ● at AC ● at DC | 10 000 1/h 10 000 1/h |
| operating frequency | |
| <ul style="list-style-type: none"> ● at AC-1 maximum | 1 000 1/h |
| Control circuit/ Control | |
| type of voltage of the control supply voltage | DC |
| control supply voltage at DC | |
| <ul style="list-style-type: none"> ● rated value | 110 V |
| operating range factor control supply voltage rated value of magnet coil at DC | |
| <ul style="list-style-type: none"> ● initial value ● full-scale value | 0.8 1.1 |
| inductive power factor with closing power of the coil | 0.8 |

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| closing power of magnet coil at DC | 4 W |
| holding power of magnet coil at DC | 4 W |
| closing delay | |
| • at DC | 30 ... 100 ms |
| opening delay | |
| • at DC | 7 ... 13 ms |
| arcing time | 10 ... 15 ms |
| Auxiliary circuit | |
| number of NC contacts for auxiliary contacts instantaneous contact | 0 |
| number of NO contacts for auxiliary contacts instantaneous contact | 0 |
| 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 |
| operational current at DC-12 | |
| • at 48 V rated value | 6 A |
| • at 60 V rated value | 6 A |
| • at 110 V rated value | 3 A |
| • at 125 V rated value | 2 A |
| • at 220 V rated value | 1 A |
| • at 600 V rated value | 0.15 A |
| operational current at DC-13 | |
| • at 24 V rated value | 10 A |
| • at 48 V rated value | 2 A |
| • at 60 V rated value | 2 A |
| • at 110 V rated value | 1 A |
| • at 220 V rated value | 0.3 A |
| • at 600 V rated value | 0.1 A |
| contact reliability of auxiliary contacts | 1 faulty switching per 100 million (17 V, 1 mA) |
| UL/CSA ratings | |
| yielded mechanical performance [hp] | |
| • for single-phase AC motor at 230 V rated value | 2 hp |
| • for 3-phase AC motor at 460/480 V rated value | 5 hp |
| contact rating of auxiliary contacts according to UL | A600 / Q600 |
| Short-circuit protection | |
| design of the fuse link | |
| • for short-circuit protection of the main circuit | |
| — with type of coordination 1 required | gG: 35 A (690 V, 100 kA) |
| — with type of assignment 2 required | gG: 20A (690V, 100kA) |
| • for short-circuit protection of the auxiliary switch required | fuse 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 standard mounting rail according to DIN EN 50022 |
| • side-by-side mounting | Yes |
| height | 57.5 mm |
| width | 45 mm |
| depth | 73 mm |
| required spacing | |
| • with side-by-side mounting | |
| — forwards | 0 mm |
| — backwards | 0 mm |
| — upwards | 0 mm |
| — downwards | 0 mm |
| — at the side | 0 mm |
| • for grounded parts | |
| — forwards | 0 mm |

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| — backwards | 0 mm |
| — upwards | 0 mm |
| — at the side | 6 mm |
| — downwards | 0 mm |
| • for live parts | |
| — forwards | 0 mm |
| — backwards | 0 mm |
| — upwards | 0 mm |
| — downwards | 0 mm |
| — at the side | 6 mm |

Connections/ Terminals

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| type of electrical connection <ul style="list-style-type: none"> • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil | screw-type terminals screw-type terminals 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 — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), 2x 4 mm ² 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), 2x 4 mm ² 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14), 2x 12 |
| 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 4 mm ² 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), 2x 4 mm ² 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14), 2x 12 |
| AWG number as coded connectable conductor cross section for main contacts | 20 ... 12 |

Safety related data

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| product function <ul style="list-style-type: none"> • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 | Yes; with 3RH29 No |
| T1 value for proof test interval or service life according to IEC 61508 | 20 y |
| 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 |

Certificates/ approvals

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| General Product Approval | EMC |
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[Confirmation](#)



| | | | |
|---------------------------------------|---------------------------|-------------------|-------------------|
| Functional Safety/Safety of Machinery | Declaration of Conformity | Test Certificates | Marine / Shipping |
|---------------------------------------|---------------------------|-------------------|-------------------|

[Type Examination Certificate](#)



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping



other

Dangerous Good

[Confirmation](#)



[Transport Information](#)

Further information

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=3RT2518-1BF40>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2518-1BF40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2518-1BF40>

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

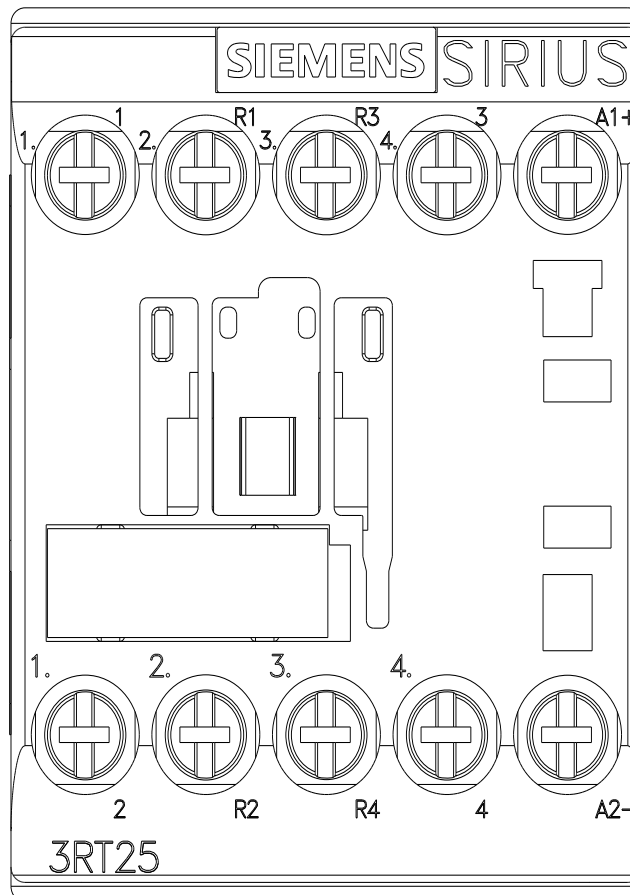
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2518-1BF40&lang=en

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2518-1BF40/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2518-1BF40&objecttype=14&gridview=view1>



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