

CONTACTOR, AC-3 37 KW/400 V, AC 24V 50/60HZ, 3-POLE, SIZE S3, SCREW CONNECTION



Figure similar

| | |
|--|----------------------------|
| product brand name | SIRIUS |
| Product designation | power contactor |
| General technical data: | |
| Size of contactor | S3 |
| Insulation voltage | |
| • rated value | 1 000 V |
| Surge voltage resistance rated value | 6 kV |
| Protection class IP | |
| • on the front | IP00 |
| • of the terminal | IP00 |
| Degree of pollution | 3 |
| Shock resistance | |
| • at rectangular impulse | |
| — at AC | 6,8g / 5 ms, 4g / 10 ms |
| • with sine pulse | |
| — at AC | 10,6g / 5 ms, 6,2g / 10 ms |
| Mechanical service life (switching cycles) | |
| • of contactor typical | 10 000 000 |

| | |
|---|------------|
| <ul style="list-style-type: none"> • of the contactor with added electronics-compatible auxiliary switch block typical | 5 000 000 |
| <ul style="list-style-type: none"> • of the contactor with added auxiliary switch block typical | 10 000 000 |

Ambient conditions:

| | |
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| Installation altitude at height above sea level maximum | 2 000 m |
| Ambient temperature | |
| <ul style="list-style-type: none"> • during operation | -25 ... +60 °C |
| <ul style="list-style-type: none"> • during storage | -55 ... +80 °C |

Main circuit:

| | |
|---|--|
| Number of NO contacts for main contacts | 3 |
| Number of NC contacts for main contacts | 0 |
| Operating current | |
| <ul style="list-style-type: none"> • at AC-1 at 400 V <ul style="list-style-type: none"> — at ambient temperature 40 °C rated value | 120 A |
| <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 | 120 A 100 A |
| <ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value — at 690 V rated value | 80 A 58 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 | 35 mm ² 50 mm ² |
| Operating 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 | 34 A 22 A |
| Operating 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 | 100 A 9 A |
| <ul style="list-style-type: none"> • 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 | 100 A 100 A |
| <ul style="list-style-type: none"> • with 3 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value | 100 A 100 A |
| Operating current | |
| <ul style="list-style-type: none"> • at 1 current path at DC-3 at DC-5 | |

| | |
|---|-----------|
| — at 24 V rated value | 40 A |
| — at 110 V rated value | 2.5 A |
| • with 2 current paths in series at DC-3 at DC-5 | |
| — at 110 V rated value | 100 A |
| — at 24 V rated value | 100 A |
| • with 3 current paths in series at DC-3 at DC-5 | |
| — at 110 V rated value | 100 A |
| — at 24 V rated value | 100 A |
| Operating power | |
| • at AC-1 | |
| — at 230 V at 60 °C rated value | 38 kW |
| — at 400 V rated value | 66 kW |
| — at 690 V rated value | 114 kW |
| — at 690 V at 60 °C rated value | 114 kW |
| • at AC-2 at 400 V rated value | 37 kW |
| • at AC-3 | |
| — at 230 V rated value | 22 kW |
| — at 400 V rated value | 37 kW |
| — at 500 V rated value | 45 kW |
| — at 690 V rated value | 55 kW |
| Operating power for approx. 200000 operating cycles at AC-4 | |
| • at 400 V rated value | 17.9 kW |
| • at 690 V rated value | 21.1 kW |
| Thermal short-time current limited to 10 s | 760 A |
| Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor | 7.7 W |
| No-load switching frequency | |
| • at AC | 5 000 1/h |
| Operating frequency | |
| • at AC-1 maximum | 900 1/h |
| • at AC-2 maximum | 400 1/h |
| • at AC-3 maximum | 1 000 1/h |
| • at AC-4 maximum | 300 1/h |
| Control circuit/ Control: | |
| Type of voltage of the control supply voltage | AC |
| Control supply voltage at AC | |
| • at 50 Hz rated value | 24 V |
| • at 60 Hz rated value | 24 V |
| • rated value | 50 Hz |
| Control supply voltage frequency 2 rated value | 60 Hz |

| | |
|---|--------------|
| Operating range factor control supply voltage rated value of magnet coil at AC | |
| • at 50 Hz | 0.8 ... 1.1 |
| • at 60 Hz | 0.85 ... 1.1 |
| Apparent pick-up power of magnet coil at AC | 298 V·A |
| Inductive power factor with closing power of the coil | 0.7 |
| Apparent holding power of magnet coil at AC | 27 V·A |
| Inductive power factor with the holding power of the coil | 0.29 |
| Closing delay | |
| • at AC | 17 ... 90 ms |
| Opening delay | |
| • at AC | 10 ... 25 ms |
| Arcing time | 10 ... 15 ms |

Auxiliary circuit:

| | |
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| Number of NC contacts | |
| • for auxiliary contacts | |
| — instantaneous contact | 0 |
| Number of NO contacts | |
| • for auxiliary contacts | |
| — instantaneous contact | 0 |
| Operating current at AC-12 maximum | 10 A |
| Operating current at AC-15 | |
| • at 230 V rated value | 6 A |
| • at 400 V rated value | 3 A |
| Operating current at DC-12 | |
| • at 60 V rated value | 6 A |
| • at 110 V rated value | 3 A |
| • at 220 V rated value | 1 A |
| Operating current at DC-13 | |
| • at 24 V rated value | 10 A |
| • at 60 V rated value | 2 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:

| | |
|---|-------------|
| 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 assignment 1 required | fuse gL/gG: 250 A |

- with type of assignment 2 required
- for short-circuit protection of the auxiliary switch required

fuse gL/gG: 160 A

fuse gL/gG: 10 A

Installation/ mounting/ dimensions:

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|-------------------------|--|
| Mounting type | screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail |
| • Side-by-side mounting | Yes |
| Height | 146 mm |
| Width | 70 mm |
| Depth | 139 mm |
| Required spacing | |
| • for grounded parts | |
| — at the side | 6 mm |

Connections/ Terminals:

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|---|--|
| 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-sections | |
| • for main contacts | |
| — solid | 2x (2.5 ... 16 mm ²) |
| — stranded | 2x (10 ... 50 mm ²) |
| — single or multi-stranded | 2x (2,5 ... 16 mm ²) |
| — finely stranded with core end processing | 2x (2.5 ... 35 mm ²) |
| — finely stranded without core end processing | 2x (10 ... 35 mm ²) |
| • at AWG conductors for main contacts | 2x (10 ... 1/0) |
| Type of connectable conductor cross-sections | |
| • for auxiliary contacts | |
| — solid | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), max. 2x (0.75 ... 4 mm ²) |
| — finely stranded with core end processing | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) |
| • at AWG conductors for auxiliary contacts | 2x (20 ... 16), 2x (18 ... 14), 1x 12 |

Certificates/ approvals:

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|--------------------------|---------------------------------------|---------------------------|
| General Product Approval | Functional Safety/Safety of Machinery | Declaration of Conformity |
|--------------------------|---------------------------------------|---------------------------|



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| Test Certificates | Shipping Approval |
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Further information

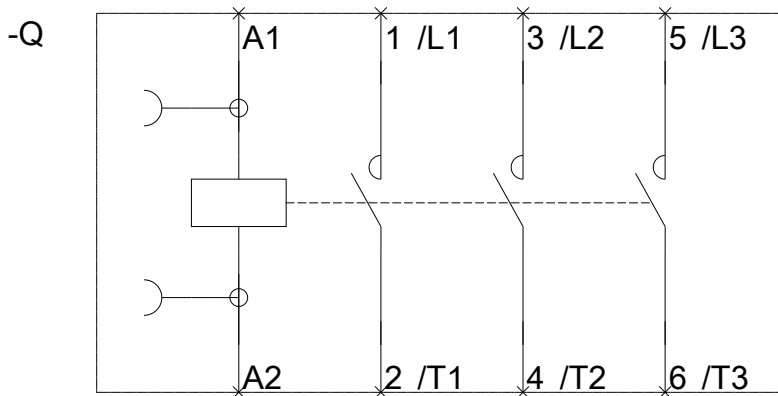
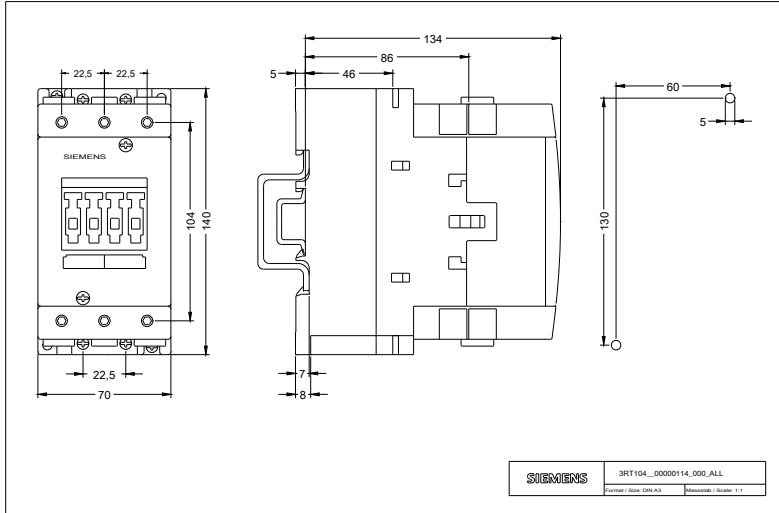
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