



CONTACTOR,AC3:18.5KW/400V,
1NO+1NC,110VAC 50HZ/120V 60HZ, 3-POLE,
SIZE S2, SCREW TERMINAL

| General technical data: | | |
|--|----|-------------|
| product brand name | | SIRIUS |
| Size of contactor | | S2 |
| Product expansion | | |
| • Auxiliary switch | | No |
| • function module for communication | | No |
| Protection class IP / on the front | | IP20 |
| Degree of pollution | | 3 |
| Installation altitude / at height above sea level / maximum | m | 2,000 |
| Ambient temperature | | |
| • during storage | °C | -55 ... +80 |
| • during operation | °C | -25 ... +60 |
| Surge voltage resistance / Rated value | kV | 6 |
| Insulation voltage / Rated value | V | 690 |
| maximum permissible voltage for safe isolation / between coil and main contacts / acc. to EN 60947-1 | V | 400 |
| Mechanical service life (switching cycles) | | |
| • of the contactor / typical | | 10,000,000 |
| • of the contactor with added auxiliary switch block / typical | | 10,000,000 |
| • of the contactor with added electronics-compatible auxiliary switch block / typical | | 5,000,000 |

| Main circuit: | | |
|--|-----------------|------|
| Number of NC contacts / for main contacts | | 0 |
| Number of NO contacts / for main contacts | | 3 |
| Connectable conductor cross-section / in main circuit | | |
| • at AC-1 | | |
| • at 40 °C / minimum permissible | mm ² | 16 |
| • at 60 °C / minimum permissible | mm ² | 25 |
| Operating current | | |
| • at AC-1 / up to 690 V | | |
| • at ambient temperature 40 °C / Rated value | A | 60 |
| • at ambient temperature 60 °C / Rated value | A | 55 |
| • at AC-2 / at 400 V / Rated value | A | 40 |
| • at AC-3 | | |
| • at 400 V / Rated value | A | 40 |
| • at 500 V / Rated value | A | 40 |
| • at 690 V / Rated value | A | 24 |
| • at AC-4 / at 400 V / Rated value | A | 35 |
| Operating current / for ≥ 200000 operating cycles / at AC-4 | | |
| • at 400 V / Rated value | A | 22 |
| • at 690 V / Rated value | A | 18.5 |
| Operating current | | |
| • with 1 current path / at DC-1 | | |
| • at 24 V / Rated value | A | 55 |
| • at 110 V / Rated value | A | 4.5 |
| • at 220 V / Rated value | A | 2 |
| • at 440 V / Rated value | A | 0.4 |
| • at 600 V / Rated value | A | 0.25 |
| • with 2 current paths in series / at DC-1 | | |
| • at 24 V / Rated value | A | 55 |
| • at 110 V / Rated value | A | 45 |
| • at 220 V / Rated value | A | 5 |
| • at 440 V / Rated value | A | 1 |
| • at 600 V / Rated value | A | 0.8 |
| • with 3 current paths in series / at DC-1 | | |
| • at 24 V / Rated value | A | 55 |
| • at 110 V / Rated value | A | 45 |
| • at 220 V / Rated value | A | 45 |
| • at 440 V / Rated value | A | 2.9 |
| • at 600 V / Rated value | A | 1.4 |

| | | |
|--|-----|-------|
| Operating current | | |
| • with 1 current path / at DC-3 / at DC-5 | | |
| • at 24 V / Rated value | A | 35 |
| • at 110 V / Rated value | A | 2.5 |
| • at 220 V / Rated value | A | 2 |
| • at 440 V / Rated value | A | 0.1 |
| • at 600 V / Rated value | A | 0.06 |
| • with 2 current paths in series / at DC-3 / at DC-5 | | |
| • at 24 V / Rated value | A | 55 |
| • at 110 V / Rated value | A | 25 |
| • at 220 V / Rated value | A | 5 |
| • at 440 V / Rated value | A | 0.27 |
| • at 600 V / Rated value | A | 0.16 |
| • with 3 current paths in series / at DC-3 / at DC-5 | | |
| • at 24 V / Rated value | A | 55 |
| • at 110 V / Rated value | A | 45 |
| • at 220 V / Rated value | A | 25 |
| • at 440 V / Rated value | A | 0.6 |
| • at 600 V / Rated value | A | 0.6 |
| Operating power | | |
| • at AC-1 / at 230 V / Rated value | kW | 23 |
| • at AC-1 / at 400 V / Rated value | kW | 39 |
| • at AC-1 / at 690 V / Rated value | kW | 68 |
| • at AC-2 | | |
| • at 400 V / Rated value | kW | 18.5 |
| • at AC-3 | | |
| • at 230 V / Rated value | kW | 11 |
| • at 400 V / Rated value | kW | 18.5 |
| • at 500 V / Rated value | kW | 22 |
| • at 690 V / Rated value | kW | 22 |
| • at AC-4 | | |
| • at 400 V / Rated value | kW | 18.5 |
| Operating power / for ≥ 200000 operating cycles / at AC-4 | | |
| • at 400 V / Rated value | kW | 11.6 |
| • at 690 V / Rated value | kW | 16.8 |
| Thermal short-time current / restricted to 10 s | | |
| | A | 400 |
| Active power loss / at AC-3 / at 400 V / for rated value of the operating current / per conductor | | |
| | W | 2.2 |
| No-load switching frequency | | |
| • with AC | 1/h | 5,000 |

| | | |
|----------------------------|-----|-------|
| Operating frequency | | |
| • at AC-1 / maximum | 1/h | 1,200 |
| • at AC-2 / maximum | 1/h | 750 |
| • at AC-3 / maximum | 1/h | 1,000 |
| • at AC-4 / maximum | 1/h | 300 |

| Control circuit/ Control: | | |
|---|-----|-------------|
| Type of voltage / of the control supply voltage | | AC |
| Control supply voltage | | |
| • with AC / at 50 Hz / Rated value | V | 110 |
| • with AC / 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 |
| • with AC / at 60 Hz | | 0.8 ... 1.1 |
| Apparent pick-up power / of the magnet coil / with AC | | |
| • at 50 Hz | V·A | 212 |
| • at 60 Hz | V·A | 188 |
| Apparent holding power / of the magnet coil / with AC | | |
| • at 50 Hz | V·A | 18.5 |
| • at 60 Hz | V·A | 16.5 |
| Closing delay | | |
| • with AC | ms | 10 ... 80 |
| Opening delay | | |
| • with AC | ms | 10 ... 18 |
| Arcing time | ms | 10 ... 20 |

| Auxiliary circuit: | | |
|---|---|----|
| Number of NC contacts / for auxiliary contacts / instantaneous contact | | 2 |
| Number of NO contacts / for auxiliary contacts / instantaneous contact | | 2 |
| Operating current | | |
| • at AC-12 / maximum | A | 10 |
| • at AC-15 | | |
| • at 230 V / Rated value | A | 6 |
| • at 400 V / Rated value | A | 3 |
| • at 500 V / Rated value | A | 2 |
| • at 690 V / Rated value | A | 1 |
| Operating current / at DC-12 | | |
| • at 24 V / Rated value | A | 10 |

| | | |
|-------------------------------------|---|------|
| • at 48 V / Rated value | A | 6 |
| • at 60 V / Rated value | A | 6 |
| • at 110 V / Rated value | A | 3 |
| • at 125 V / Rated value | A | 2 |
| • at 220 V / Rated value | A | 1 |
| • at 440 V / Rated value | A | 0.3 |
| • at 600 V / Rated value | A | 0.15 |
| Operating current / at DC-13 | | |
| • at 24 V / Rated value | A | 6 |
| • at 48 V / Rated value | A | 2 |
| • at 60 V / Rated value | A | 2 |
| • at 110 V / Rated value | A | 1 |
| • at 125 V / Rated value | A | 0.9 |
| • at 220 V / Rated value | A | 0.3 |
| • at 440 V / Rated value | A | 0.14 |
| • at 600 V / Rated value | A | 0.1 |

UL/CSA ratings:

yielded mechanical performance [hp]

| | | |
|--|----|-------------|
| • for single-phase AC motor | | |
| • at 110/120 V / Rated value | hp | 3 |
| • at 230 V / Rated value | hp | 7.5 |
| • for three-phase AC motor | | |
| • at 200/208 V / Rated value | hp | 10 |
| • at 220/230 V / Rated value | hp | 15 |
| • at 460/480 V / Rated value | hp | 30 |
| • at 575/600 V / Rated value | hp | 40 |
| Full-load current (FLA) / for three-phase AC motor | | |
| • at 480 V / Rated value | A | 40 |
| • at 600 V / Rated value | A | 41 |
| Contact rating / of the auxiliary contacts / acc. to UL | | A600 / Q600 |

Short-circuit:

Design of the fuse link

| | |
|---|---|
| • for short-circuit protection of the auxiliary switch / required | fuse gL/gG: 10 A |
| • for short-circuit protection of the main circuit | |
| • with type of assignment 1 / required | gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 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 |
| Width | mm | 55 |
| Height | mm | 113.4 |
| Depth | mm | 173.5 |
| Spacing required / with side-by-side mounting | mm | 0 |

Connections/ terminals:

| | | |
|--|--|---|
| Design of the 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 mm ²), 1x (1 ... 50 mm ²) |
| • finely stranded / with core end processing | | 2x (1 ... 25 mm ²), 1x (1 ... 35 mm ²) |
| • for AWG conductors / for main contacts | | 2x (18 ... 2), 1x (18 ... 1) |
| Type of connectable conductor cross-section | | |
| • for auxiliary contacts | | |
| • single or multi-stranded | | 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²) |
| • finely stranded / with core end processing | | 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²) |
| • for AWG conductors / for auxiliary contacts | | 2x (20 ... 16), 2x (18 ... 14) |

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 |
| • positively driven operation acc. to IEC 60947-5-1 | | No |

Certificates/ approvals:

General Product Approval

other



[Confirmation](#)

Further information:

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

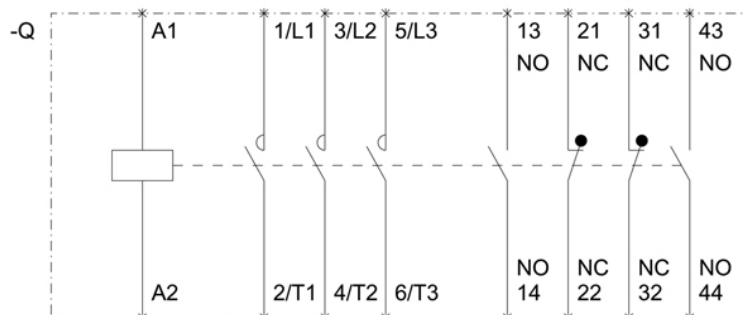
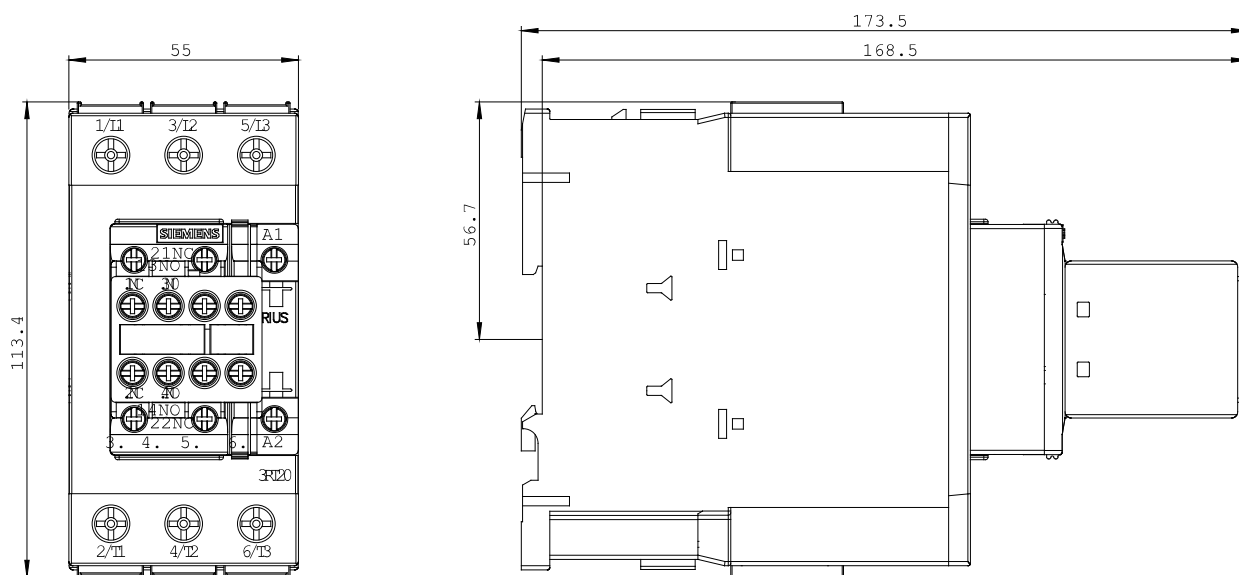
<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<http://www.siemens.com/industrymall>

Cax online generator

<http://www.siemens.com/cax>



last change:

Dec 17, 2014