SIEMENS

Product data sheet

CONTACTOR RELAY LATCHED, 3NO+1NC, DC 110V, SIZE S00, SCREW TERMINAL



| General technical data: | | |
|---|----|------------------------|
| product brand name | | SIRIUS |
| Size of the contactor | | S00 |
| Identification number and letter for switching elements | | 31 E |
| Product extension / auxiliary switch | | Yes |
| Protection class IP / on the front | | IP20 |
| Protection against electrical shock | | finger-safe |
| Degree of pollution | | 3 |
| Insulation voltage / with degree of pollution 3 / rated value | V | 690 |
| Installation altitude / at a height over sea level / maximum | m | 2,000 |
| Ambient temperature | | |
| during storage | °C | -55 +80 |
| during operating | °C | -25 +60 |
| Shock resistance | | |
| • at rectangular impulse | | |
| • at DC | | 10g / 5 ms, 5g / 10 ms |
| • at sine pulse | | |
| • at DC | | 15g / 5 ms, 8g / 10 ms |
| Impulse voltage resistance / rated value | kV | 6 |
| Mechanical operating cycles as operating time | | |

| of the contactor / typical | | 5,000,000 |
|--|--------------------------------------|---|
| of the contactor with added auxiliary switch block / typical | | 5,000,000 |
| of the contactor with added electronics-compatible auxiliary | | 5,000,000 |
| switch block / typical | | |
| Control circuit/ Control: | | |
| Voltage type / of control feed voltage | | DC |
| Control supply voltage | | |
| for DC / rated value | V | 110 |
| Operating range factor control supply voltage rated value / of the magnet coil | | |
| • for DC | | 0.8 1.1 |
| Holding power / of the solenoid / for DC | W | 4 |
| Pull-in power / of the solenoid / for DC | W | 4 |
| Closing delay | | |
| • at DC | ms | 30 100 |
| Opening delay | | |
| • at DC | ms | 25 90 |
| Arcing time | S | 10 15 |
| Auxiliary circuit: | | |
| Contact reliability / of the auxiliary contacts | | 1 faulty switching per 100 million (17 V, 1 mA) |
| Number of NC contacts / for auxiliary contacts / instantaneous switching | | 1 |
| Number of NO contacts / for auxiliary contacts / instantaneous | | 3 |
| switching | | |
| - | | |
| switching | A | 10 |
| switching Operating current | A | 10 |
| switching Operating current • at AC-12 / maximum | A | 10 10 |
| switching Operating current • at AC-12 / maximum • at AC-15 | | |
| switching Operating current • at AC-12 / maximum • at AC-15 • at 230 V / rated value | A | 10 |
| switching Operating current • at AC-12 / maximum • at AC-15 • at 230 V / rated value • at 400 V / rated value | A A | 10 3 |
| switching Operating current • at AC-12 / maximum • at AC-15 • at 230 V / rated value • at 400 V / rated value • at 500 V / rated value | A A A | 10 3 2 |
| switching Operating current • at AC-12 / maximum • at AC-15 • at 230 V / rated value • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value | A A A | 10 3 2 |
| switching Operating current • at AC-12 / maximum • at AC-15 • at 230 V / rated value • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value Operating current | A A A | 10 3 2 |
| switching Operating current • at AC-12 / maximum • at AC-15 • at 230 V / rated value • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value • with 1 current path / at DC-12 | A A A | 10 3 2 1 |
| switching Operating current • at AC-12 / maximum • at AC-15 • at 230 V / rated value • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value Operating current • with 1 current path / at DC-12 • at 24 V / rated value | A A A A | 10 3 2 1 |
| switching Operating current • at AC-12 / maximum • at AC-15 • at 230 V / rated value • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value • at 24 V / rated value • at 110 V / rated value | A A A A A | 10 3 2 1 10 3 |
| switching Operating current • at AC-12 / maximum • at AC-15 • at 230 V / rated value • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value • at 24 V / rated value • at 110 V / rated value • at 220 V / rated value | A A A A A A A | 10 3 2 1 10 3 1 |
| switching Operating current • at AC-12 / maximum • at AC-15 • at 230 V / rated value • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value • at 24 V / rated value • at 24 V / rated value • at 110 V / rated value • at 440 V / rated value | A A A A A A A A | 10 3 2 1 10 3 1 0.3 |

| • at 60 V / rated value | А | 10 |
|---|-----|--------|
| • at 110 V / rated value | А | 4 |
| • at 220 V / rated value | А | 2 |
| • at 440 V / rated value | А | 1.3 |
| • at 600 V / rated value | А | 0.65 |
| • with 3 current paths in series / at DC-12 | | |
| • at 24 V / rated value | А | 10 |
| • at 60 V / rated value | А | 10 |
| • at 110 V / rated value | А | 10 |
| • at 220 V / rated value | А | 3.6 |
| • at 440 V / rated value | А | 2.5 |
| • at 600 V / rated value | А | 1.8 |
| Operating current | | |
| • with 1 current path / at DC-13 | | |
| • at 24 V / rated value | А | 10 |
| • at 110 V / rated value | А | 1 |
| • at 220 V / rated value | А | 0.3 |
| • at 440 V / rated value | А | 0.14 |
| • at 600 V / rated value | А | 0.1 |
| • with 2 current paths in series / at DC-13 | | |
| • at 24 V / rated value | А | 10 |
| • at 60 V / rated value | А | 3.5 |
| • at 110 V / rated value | А | 1.3 |
| • at 220 V / rated value | А | 0.9 |
| • at 440 V / rated value | А | 0.2 |
| • at 600 V / rated value | А | 0.1 |
| • with 3 current paths in series / at DC-13 | | |
| • at 24 V / rated value | А | 10 |
| • at 60 V / rated value | А | 4.7 |
| • at 110 V / rated value | А | 3 |
| • at 220 V / rated value | А | 1.2 |
| • at 440 V / rated value | А | 0.5 |
| • at 600 V / rated value | А | 0.26 |
| Off-load operating frequency | | |
| • at AC | 1/h | 10,000 |
| • at DC | 1/h | 10,000 |
| Frequency of operation | | |
| • at AC-12 / maximum | 1/h | 1,000 |
| • at AC-14 / maximum | 1/h | 1,000 |
| | | |

| • at DC-12 / maximum | 1/h | 1,000 |
|---|-----|--|
| • at DC-13 / maximum | 1/h | 1,000 |
| Short-circuit: | | |
| Design of the fuse link / for short-circuit protection of the auxiliary switch | | |
| • required | | fuse gL/gG: 10 A |
| Design of the miniature circuit breaker / for short-circuit protection of the auxiliary circuit / up to 230 V | | C characteristic: 6 A; 0.4 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 |
| Mounting type | | screw and snap-on mounting onto 35 mm standard mounting rail |
| Width | mm | 90 |
| Height | mm | 57.5 |
| Depth | mm | 73 |
| Connections/ terminals: | | |
| Design of the electrical connection | | |
| for auxiliary and control current circuit | | screw-type terminals |
| for auxiliary contacts / finely stranded / with conductor end processing | | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) |
| for AWG conductors / for auxiliary contacts | | 2x (20 16), 2x (18 14), 2x 12 |
| | | |

Certificates/ approvals:

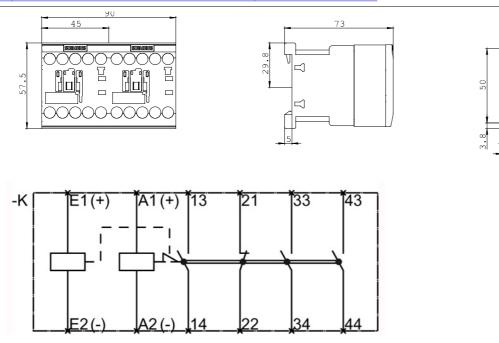
| | pproval | | | Functional Safety / Safety of Machinery | Declaration of Conformity |
|---|---|--|-----------------------------|---|------------------------------|
| | (SA) | EHC | | Type Examination | EG-Konf. |
| Test Certificates | | | | | |
| Special Test Certificate | <u>Type Test</u> Certificates/Test <u>Report</u> | | | | |
| Shipping Approval | | | | | |
| ABS | B U R E A U VE R ITAS | ĴŠ DNV DNV | GL GL | Lloyd's Register | PRS |
| Shipping Approval | | other | | | |
| RINA | RMRS | UDE VDE | Environment Confirmatior | | |
| UL/CSA ratings: | | | | | |
| Contact rating desig | nation / for auxiliar | ry contacts / according to | | A600 / Q600 | |
| | | | | | |
| Safety related data | a: | | | | |
| Safety related data B10 value / with high | | | - | | _ |
| | n demand rate | | | 1,000,000 | - |
| B10 value / with high | n demand rate | | | 1,000,000 With 0.3 x le | |
| B10 value / with high • according to SN 3 | n demand rate 31920 | ice life | | | |
| B10 value / with high • according to SN 3 • note | n demand rate 31920 est interval or serv | ice life | а | | |
| B10 value / with high • according to SN 3 • note T1 value / for proof to • according to IEC 6 | n demand rate 31920 est interval or serv 61508 | ice life | а | With 0.3 x le | |
| B10 value / with high • according to SN 3 • note T1 value / for proof to • according to IEC 6 Proportion of danged | n demand rate 31920 est interval or serv 61508 | | a % | With 0.3 x le | |
| B10 value / with high • according to SN 3 • note T1 value / for proof to • according to IEC 6 Proportion of danger • with low demand b | n demand rate 31920 est interval or serv 61508 rous failures | N 31920 | - | With 0.3 x le 20 | |
| B10 value / with high • according to SN 3 • note T1 value / for proof to • according to IEC 6 Proportion of danger • with low demand b | est interval or serv 61508 rous failures rate / according to S | N 31920 SN 31920 | % | With 0.3 x le 20 40 | |
| B10 value / with high • according to SN 3 • note T1 value / for proof to • according to IEC 6 Proportion of danger • with low demand 1 • with high demand | est interval or serv 61508 rous failures rate / according to S rate / according to S | N 31920 SN 31920 | % | With 0.3 x le 20 40 | |
| B10 value / with high • according to SN 3 • note T1 value / for proof to • according to IEC 6 Proportion of danger • with low demand 1 • with high demand Failure rate [FIT] / wi • according to SN 3 | a demand rate 31920 est interval or serv 61508 rous failures rate / according to S I rate / according to S I rate / according to S I rate / according to S | N 31920 SN 31920 | % | With 0.3 x le 20 40 73 | |
| B10 value / with high • according to SN 3 • note T1 value / for proof to • according to IEC 6 Proportion of danger • with low demand 1 • with high demand Failure rate [FIT] / wi • according to SN 3 Product function / po | a demand rate 31920 est interval or serv 61508 rous failures rate / according to S rate / according to S rate / according to S rate low demand rate 31920 ositively driven ope | N 31920 SN 31920 9 | % | With 0.3 x le 20 40 73 100 | |
| B10 value / with high • according to SN 3 • note T1 value / for proof to • according to IEC 6 Proportion of danger • with low demand 1 • with high demand Failure rate [FIT] / wi • according to SN 3 | a demand rate 31920 est interval or serv 61508 rous failures rate / according to S rate / according to S rate / according to S th low demand rate 31920 ositively driven ope in: wnloadcenter (Cata | N 31920 SN 31920 e eration to IEC 60947-5-1 alogs, Brochures,) | % | With 0.3 x le 20 40 73 100 | |

Cax online generator

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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RH2431-1BF40



last change:

Aug 4, 2014

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