SIEMENS

## Product data sheet 3RH1122-1AF00

CONTACTOR RELAY, 2NO+2NC, AC 110 V, 50 HZ, SCREW CONNECTION, SIZE S00

| General details: | | |
|---|---|---|
| **product brand name** | | SIRIUS |
| **product designation** | | contactor relay |
| **Size of the contactor** | | S00 |
| **Protection class IP / on the front** | | IP20 |
| **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 transport | °C | -55 … +80 |
| • during storage | °C | -55 … +80 |
| • during operating | °C | -25 … +60 |
| **Contact reliability** | | one incorrect switching operation of 100 million switching operations (17 V, 1 mA) |
| **Resistance against shock** | | 10g / 5 ms and 5g / 10 ms |
| **Impulse voltage resistance / rated value** | kV | 6 |
| **Item designation** | | |
| • according to DIN EN 61346-2 | | K |
| • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 | | K |
| **Mechanical operating cycles as operating time** | | |


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| | | |
|---|---|---|
| • of the contactor / typical | | 30,000,000 |
| • 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 |

## Control circuit:

| | | |
|---|---|---|
| **Type of voltage / of the controlled supply voltage** | | AC |
| **Control supply voltage frequency** | | |
| • 1 / rated value | Hz | 50 |
| • 2 / rated value | Hz | 60 |
| **Control supply voltage / 1** | | |
| • at 50 Hz | | |
| • for AC / rated value | V | 110 |
| • at 60 Hz | | |
| • for AC / rated value | V | 110 |
| **operating range factor control supply voltage rated value / of the magnet coil** | | |
| • at 50 Hz | | |
| • for AC | | 0.8 … 1.1 |
| • at 60 Hz | | |
| • for AC | | 0.85 … 1.1 |
| **Apparent pull-in power / of the solenoid / for AC** | V·A | 27 |
| **Apparent holding power / of the solenoid / for AC** | V·A | 4.6 |
| **Inductive power factor** | | |
| • with the pull-in power of the coil | | 0.8 |
| • with the pull-in power of the coil | | 0.27 |

## Auxiliary circuit:

| | | |
|---|---|---|
| **Product extension / auxiliary switch** | | Yes |
| **Identification number and letter for switching elements** | | 22 E |
| **Contact reliability / of the auxiliary contacts** | | 1 faulty switching per 100 million (17 V, 1 mA) |
| **Number of NC contacts / for auxiliary contacts** | | 2 |
| • delayed switching | | 0 |
| • instantaneous switching | | 2 |
| • asynchronous switching | | 0 |
| • lagging switching | | 0 |
| **Number of NO contacts / for auxiliary contacts** | | 2 |
| • instantaneous switching | | 2 |
| • delayed switching | | 0 |
| • asynchronous switching | | 0 |
| • leading switching | | 0 |


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| | | |
|---|---|---|
| **Number of changeover contacts** | | |
| • for auxiliary contacts | | 0 |
| • of the auxiliary contacts / instantaneous switching | | 0 |
| **Operating current / of the auxiliary contacts** | | |
| • at AC-12 / maximum | A | 10 |
| • at AC-15 | | |
| • at 230 V | A | 6 |
| • at 400 V | A | 3 |
| • at 500 V | A | 2 |
| • at 690 V | A | 1 |
| • with 1 current path | | |
| • at DC-12 | | |
| • at 24 V | A | 10 |
| • at 110 V | A | 3 |
| • at 220 V | A | 1 |
| • at DC-13 | | |
| • at 24 V | A | 10 |
| • at 110 V | A | 1 |
| • at 220 V | A | 0.27 |

## Short-circuit:

| | | |
|---|---|---|
| **Design of the fuse link / for short-circuit protection of the auxiliary switch / required** | | fuse gL/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 |
| **Type of mounting** | | screw and snap-on mounting |
| **Width** | mm | 45 |
| **Height** | mm | 57.5 |
| **Depth** | mm | 72 |
| **Distance, to be maintained, to the ranks assembly / sidewards** | mm | 0 |

## Connections:

| | | |
|---|---|---|
| **Design of the electrical connection / for auxiliary and control current circuit** | | screw-type terminals |
| **Type of the connectable conductor cross-section** | | |
| • for auxiliary contacts | | |
| • solid | | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm² |
| • finely stranded | | |
| • with conductor end processing | | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) |


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| | | |
|---|---|---|
| • for AWG conductors / for auxiliary contacts | | 2x (20 ... 16), 2x (18 ... 14), 1x 12 |

## Certificates/approvals:

| | | |
|---|---|---|
| **Verification of suitability** | | CSA / UL / CCC / GL / LRS / BV / DNV / RMRS / RINA |

| General Product Approval | | | | Functional Safety / Safety of Machinery | Declaration of Conformity |
|---|---|---|---|---|---|
| CCC | CSA | GOST | UL | Type Examination | EG-Konf. |

**Test Certificates**

Special Test Certificate

| Shipping Approval | | | | | |
|---|---|---|---|---|---|
| ABS | BUREAU VERITAS | DNV | GL | LRS | PRS |

| Shipping Approval | other | |
|---|---|---|
| RINA | RMRS | Confirmation | other |

## Safety:

| | | |
|---|---|---|
| **Proportion of dangerous failures** | | |
| • with high demand rate / according to SN 31920 | % | 75 |
| • with low demand rate / according to SN 31920 | % | 40 |
| **T1 value / for proof test interval or service life / according to IEC 61508** | a | 20 |
| **Protection against electrical shock** | | finger-safe |
| **B10 value / with high demand rate / according to SN 31920** | | 1,000,000 |

## Further information:

**Information- and Downloadcenter (Catalogs, Brochures,…)**
http://www.siemens.com/industrial-controls/catalogs

**Industry Mall (Online ordering system)**
http://www.siemens.com/industrial-controls/mall

**CAx-Online-Generator**
http://www.siemens.com/cax

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
http://support.automation.siemens.com/WW/view/en/3RH1122-1AF00/all

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RH1122-1AF00


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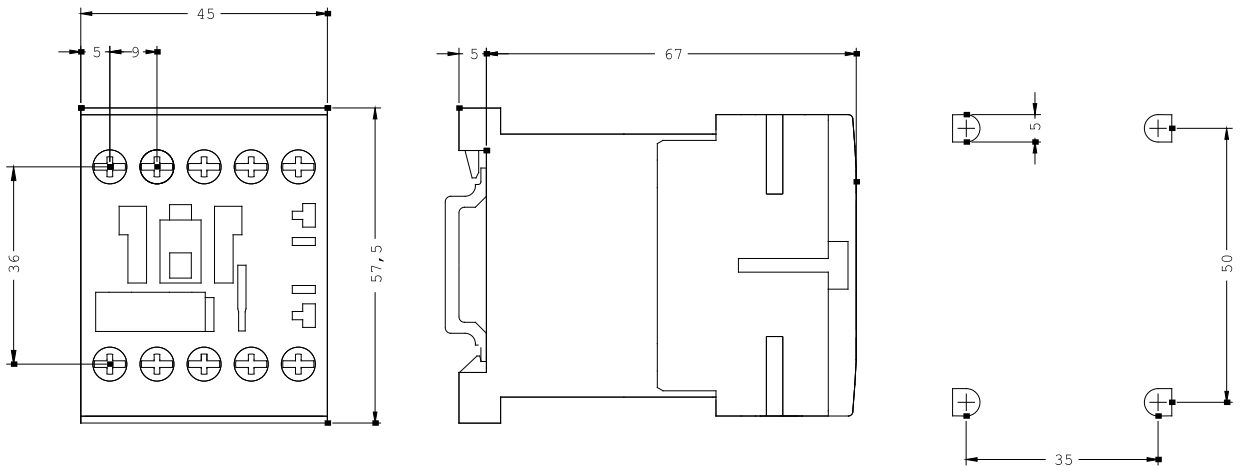


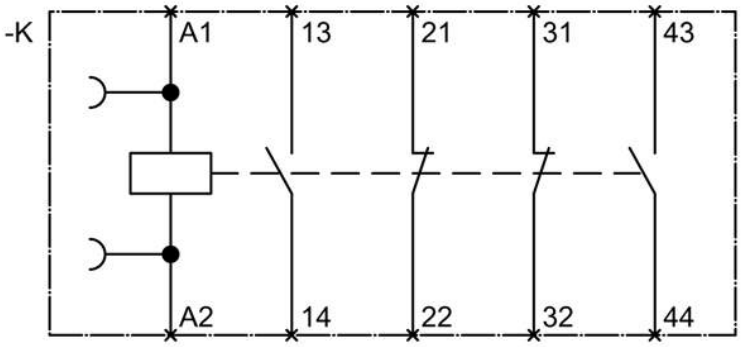


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