

Coupling contactor relay, 2 NO + 2 NC, 110 V DC, 0.7 ... 1.25* US, with integrated suppressor diode, Size S00, Spring-type terminal suitable for PLC outputs



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| Product brand name | SIRIUS |
| Product designation | Coupling relay for switching auxiliary circuits |
| Product type designation | 3RH2 |
| General technical data | |
| Size of contactor | S00 |
| Product extension | No |
| <ul style="list-style-type: none"> Auxiliary switch | No |
| Insulation voltage | 690 V |
| <ul style="list-style-type: none"> with degree of pollution 3 at AC rated value | 690 V |
| Degree of pollution | 3 |
| Surge voltage resistance rated value | 6 kV |
| Protection class IP | IP20 |
| <ul style="list-style-type: none"> on the front | IP20 |
| Shock resistance at rectangular impulse | 10g / 5 ms, 5g / 10 ms |
| <ul style="list-style-type: none"> at DC | 10g / 5 ms, 5g / 10 ms |
| Shock resistance with sine pulse | 15g / 5 ms, 8g / 10 ms |
| <ul style="list-style-type: none"> at DC | 15g / 5 ms, 8g / 10 ms |
| Mechanical service life (switching cycles) | 30 000 000 |
| <ul style="list-style-type: none"> of contactor typical | 30 000 000 |

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| Reference code acc. to DIN EN 81346-2 | K |
| Ambient conditions | |
| Installation altitude at height above sea level | |
| • maximum | 2 000 m |
| Ambient temperature | |
| • during operation | -25 ... +60 °C |
| • during storage | -55 ... +80 °C |
| Main circuit | |
| No-load switching frequency | |
| • at AC | 10 000 1/h |
| • at DC | 10 000 1/h |
| Control circuit/ Control | |
| Type of voltage of the control supply voltage | DC |
| Control supply voltage at DC | |
| • rated value | 110 V |
| Operating range factor control supply voltage rated value of magnet coil at DC | |
| • initial value | 0.7 |
| • Full-scale value | 1.25 |
| Design of the surge suppressor | with suppressor diode |
| Closing power of magnet coil at DC | 2.8 W |
| Holding power of magnet coil at DC | 2.8 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 | 2 |
| • instantaneous contact | 2 |
| Number of NO contacts for auxiliary contacts | 2 |
| • instantaneous contact | 2 |
| Identification number and letter for switching elements | 22 E |
| Operating current at AC-12 maximum | 10 A |
| Operating current at AC-15 | |
| • at 230 V rated value | 10 A |
| • at 400 V rated value | 3 A |
| • at 500 V rated value | 2 A |
| • at 690 V rated value | 1 A |
| Operating current at 1 current path at DC-12 | |

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| <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 600 V rated value | 10 A 3 A 1 A 0.3 A 0.15 A |
| Operating current with 2 current paths in series at DC-12 <ul style="list-style-type: none"> • at 24 V rated value • at 60 V rated value • at 110 V rated value • at 220 V rated value • at 440 V rated value • at 600 V rated value | 10 A 10 A 4 A 2 A 1.3 A 0.65 A |
| Operating current with 3 current paths in series at DC-12 <ul style="list-style-type: none"> • at 24 V rated value • at 60 V rated value • at 110 V rated value • at 220 V rated value • at 440 V rated value • at 600 V rated value | 10 A 10 A 10 A 3.6 A 2.5 A 1.8 A |
| Operating frequency at DC-12 maximum | 1 000 1/h |
| Operating current at 1 current path at DC-13 <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 600 V rated value | 10 A 1 A 0.3 A 0.14 A 0.1 A |
| Operating current with 2 current paths in series at DC-13 <ul style="list-style-type: none"> • at 24 V rated value • at 60 V rated value • at 110 V rated value • at 220 V rated value • at 440 V rated value • at 600 V rated value | 10 A 3.5 A 1.3 A 0.9 A 0.2 A 0.1 A |
| Operating current with 3 current paths in series at DC-13 <ul style="list-style-type: none"> • at 24 V rated value • at 60 V rated value • at 110 V rated value • at 220 V rated value | 10 A 4.7 A 3 A 1.2 A |

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| <ul style="list-style-type: none"> • at 440 V rated value • at 600 V rated value | 0.5 A 0.26 A |
| Operating frequency at DC-13 maximum | 1 000 1/h |
| Design of the miniature circuit breaker <ul style="list-style-type: none"> • for short-circuit protection of the auxiliary circuit up to 230 V | C characteristic: 6 A; 0.4 kA |
| Contact reliability of auxiliary contacts | 1 faulty switching per 100 million (17 V, 1 mA) |

UL/CSA ratings

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| Contact rating of auxiliary contacts according to UL | A600 / Q600 |
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Short-circuit protection

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| Design of the fuse link <ul style="list-style-type: none"> • for short-circuit protection of the auxiliary switch required | fuse gL/gG: 10 A |
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Installation/ mounting/ dimensions

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| 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 |
| Height | 70 mm |
| Width | 45 mm |
| Depth | 73 mm |
| Required spacing <ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards 10 mm — upwards 10 mm — downwards 10 mm — at the side 0 mm • for grounded parts <ul style="list-style-type: none"> — forwards 10 mm — upwards 10 mm — at the side 6 mm — downwards 10 mm • for live parts <ul style="list-style-type: none"> — forwards 10 mm — upwards 10 mm — downwards 10 mm — at the side 6 mm | |

Connections/ Terminals

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| Type of electrical connection <ul style="list-style-type: none"> • for auxiliary and control current circuit | spring-loaded terminals |
| Type of connectable conductor cross-sections | |

- for auxiliary contacts
 - single or multi-stranded 2x (0,5 ... 4 mm²)
 - finely stranded with core end processing 2x (0.5 ... 2.5 mm²)
 - finely stranded without core end processing 2x (0.5 ... 2.5 mm²)
- at AWG conductors for auxiliary contacts 2x (20 ... 12)

Safety related data

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| B10 value | |
| • with high demand rate acc. to SN 31920 | 1 000 000; With 0.3 x I _e |
| Proportion of dangerous failures | |
| • with low demand rate acc. to SN 31920 | 40 % |
| • with high demand rate acc. to SN 31920 | 73 % |
| Failure rate [FIT] | |
| • with low demand rate acc. to SN 31920 | 100 FIT |
| Product function | |
| • positively driven operation acc. to IEC 60947-5-1 | Yes |
| T1 value for proof test interval or service life acc. to IEC 61508 | 20 y |

Certificates/ approvals

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| General Product Approval | EMC |
|--------------------------|-----|



[KC](#)



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

[Type Examination Certificate](#)



[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



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| Marine / Shipping |
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|-------|
| other |
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[Confirmation](#)



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| Further information |
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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=3RH2122-2KF40>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2122-2KF40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-2KF40>

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

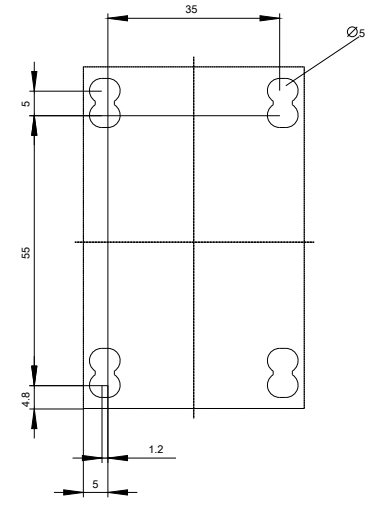
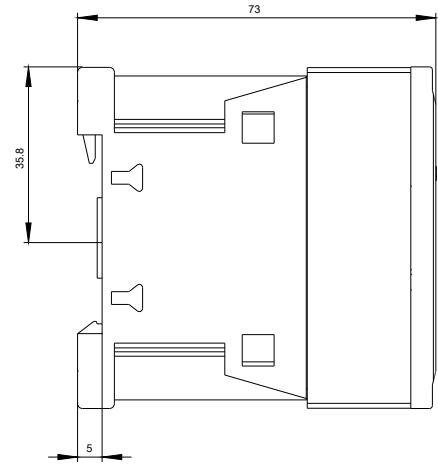
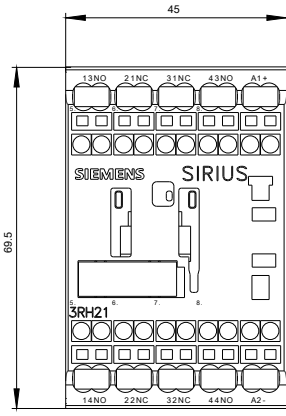
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2122-2KF40&lang=en

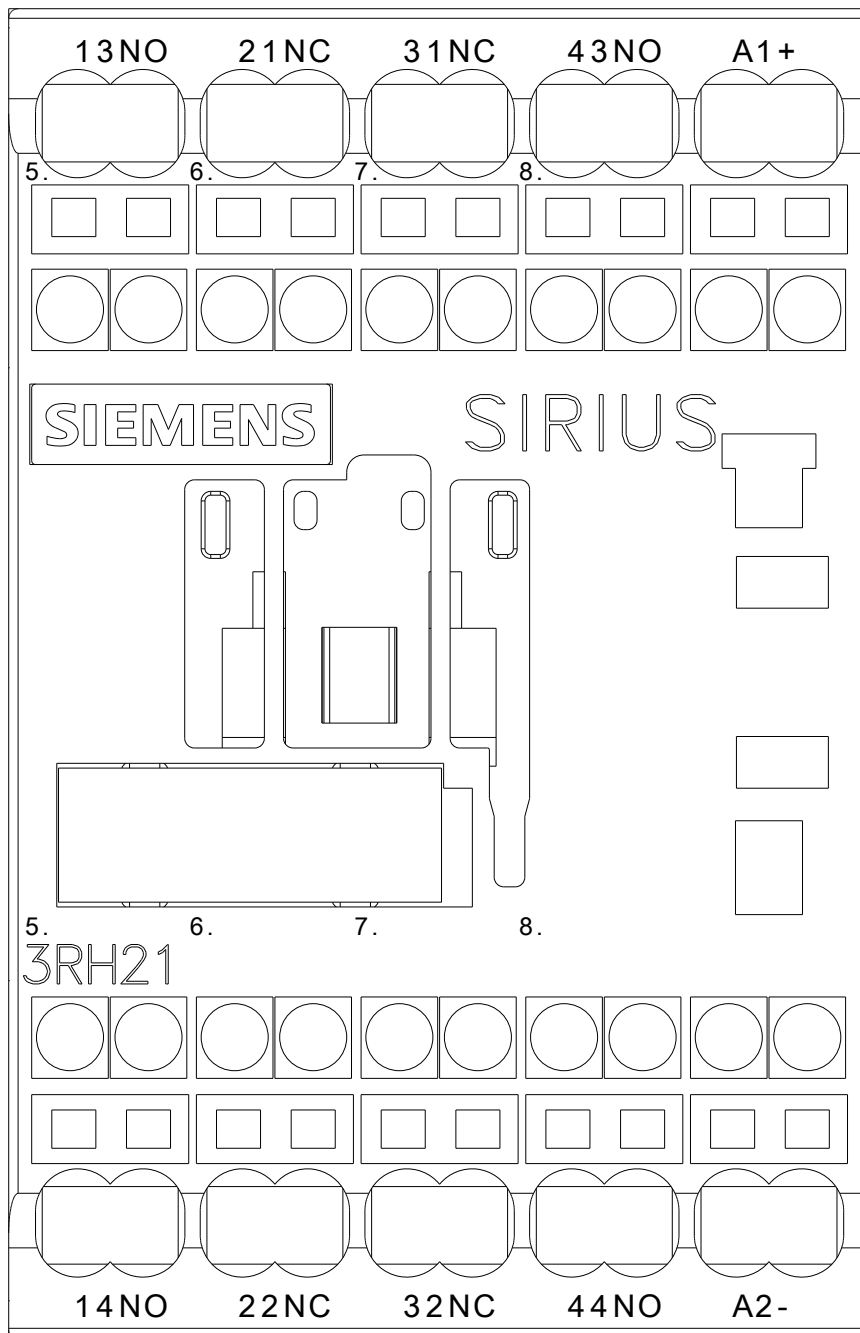
Characteristic: Tripping characteristics, I²t, Let-through current

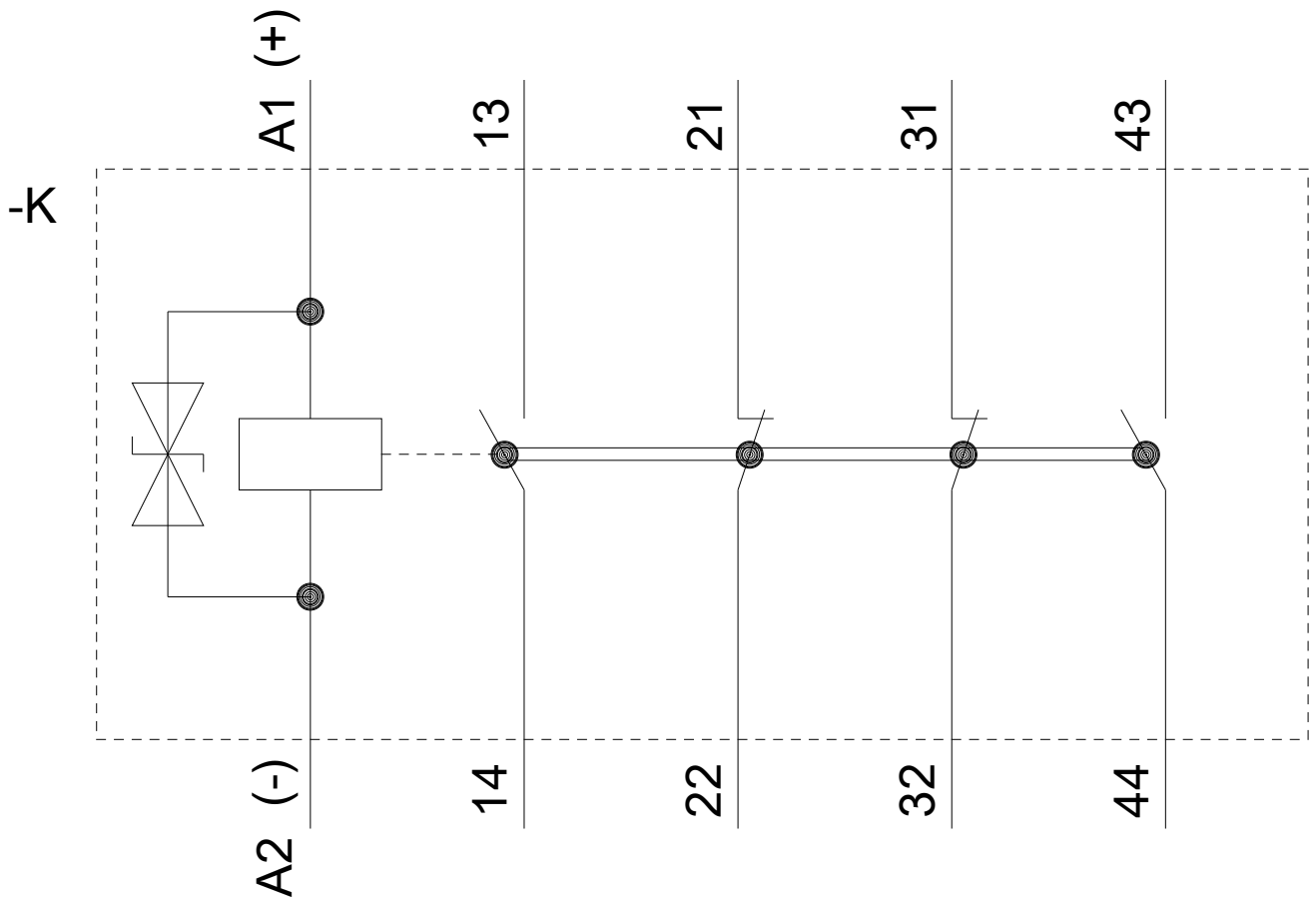
<https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-2KF40/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2122-2KF40&objecttype=14&gridview=view1>







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