

COUPLING CONTACTOR RELAY, 2NO+2NC, DC 24V,
0.85..1.85*US, W/ INTEGRATED SUPPRESSOR DIODE, SIZE S00,
SCREW TERMINAL



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|--|---|
| product brandname | 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 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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| Equipment marking | |
| • acc. to DIN EN 61346-2 | K |
| • acc. to DIN EN 81346-2 | K |
| Ambient conditions | |
| 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 | 24 V |
| Design of the surge suppressor | with suppressor diode |
| Closing power of magnet coil at DC | 1.6 W |
| Holding power of magnet coil at DC | 1.6 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 | |
| • at 24 V rated value | 10 A |
| • at 110 V rated value | 3 A |

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| <ul style="list-style-type: none"> • at 220 V rated value • at 440 V rated value • at 600 V rated value | 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 • at 440 V rated value • at 600 V rated value | 10 A 4.7 A 3 A 1.2 A 0.5 A 0.26 A |

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| Operating frequency at DC-13 maximum | 1 000 1/h |
| Design of the miniature circuit breaker | C characteristic: 6 A; 0.4 kA |
| <ul style="list-style-type: none"> for short-circuit protection of the auxiliary circuit up to 230 V | |
| 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 | fuse gL/gG: 10 A |
| <ul style="list-style-type: none"> for short-circuit protection of the auxiliary switch required | |

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 | 57.5 mm |
| Width | 45 mm |
| Depth | 73 mm |
| Required spacing | 6 mm |
| <ul style="list-style-type: none"> for grounded parts <ul style="list-style-type: none"> — at the side | |
| <ul style="list-style-type: none"> for live parts <ul style="list-style-type: none"> — at the side | |
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Connections/Terminals

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| Type of electrical connection | screw-type terminals |
| <ul style="list-style-type: none"> for auxiliary and control current circuit | |
| Type of connectable conductor cross-sections | 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), 2x 4 mm ² 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14), 2x 12 |
| <ul style="list-style-type: none"> for auxiliary contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing | |
| <ul style="list-style-type: none"> at AWG conductors for auxiliary contacts | |
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Safety related data

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|---|--------------------------------------|
| B10 value | 1 000 000; With 0.3 x I _e |
| <ul style="list-style-type: none"> with high demand rate acc. to SN 31920 | |
| Proportion of dangerous failures | 40 % 73 % |
| <ul style="list-style-type: none"> with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920 | |
| Failure rate [FIT] | 100 FIT |
| <ul style="list-style-type: none"> with low demand rate acc. to SN 31920 | |
| 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

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



CCC



CSA



UL



[Baumusterbescheinigung](#)



EG-Konf.

| Test Certificates | Shipping Approval |
|-------------------|-------------------|
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[spezielle Prüfbescheinigungen](#)

[Typprüfbescheinigung/Werkszeugnis](#)



ABS



BUREAU VERITAS



GL



LRS

| Shipping Approval | other |
|-------------------|-------|
|-------------------|-------|



PRS



RINA



RMRS

[Umweltbestätigung](#)

[Bestätigungen](#)



VDE

Further information

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

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RH2122-1SB40>

Cax online generator

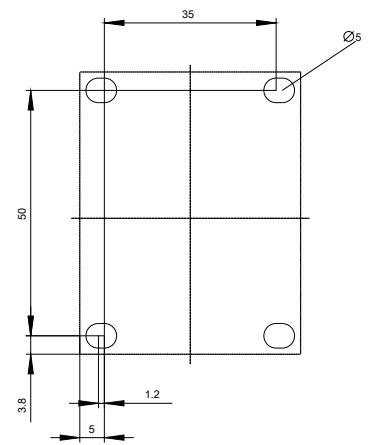
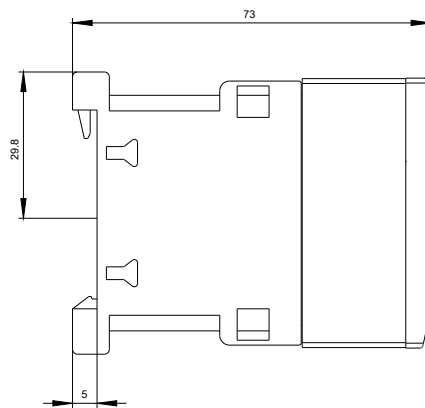
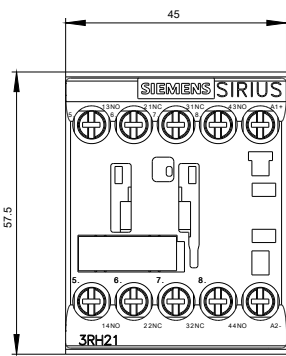
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2122-1SB40>

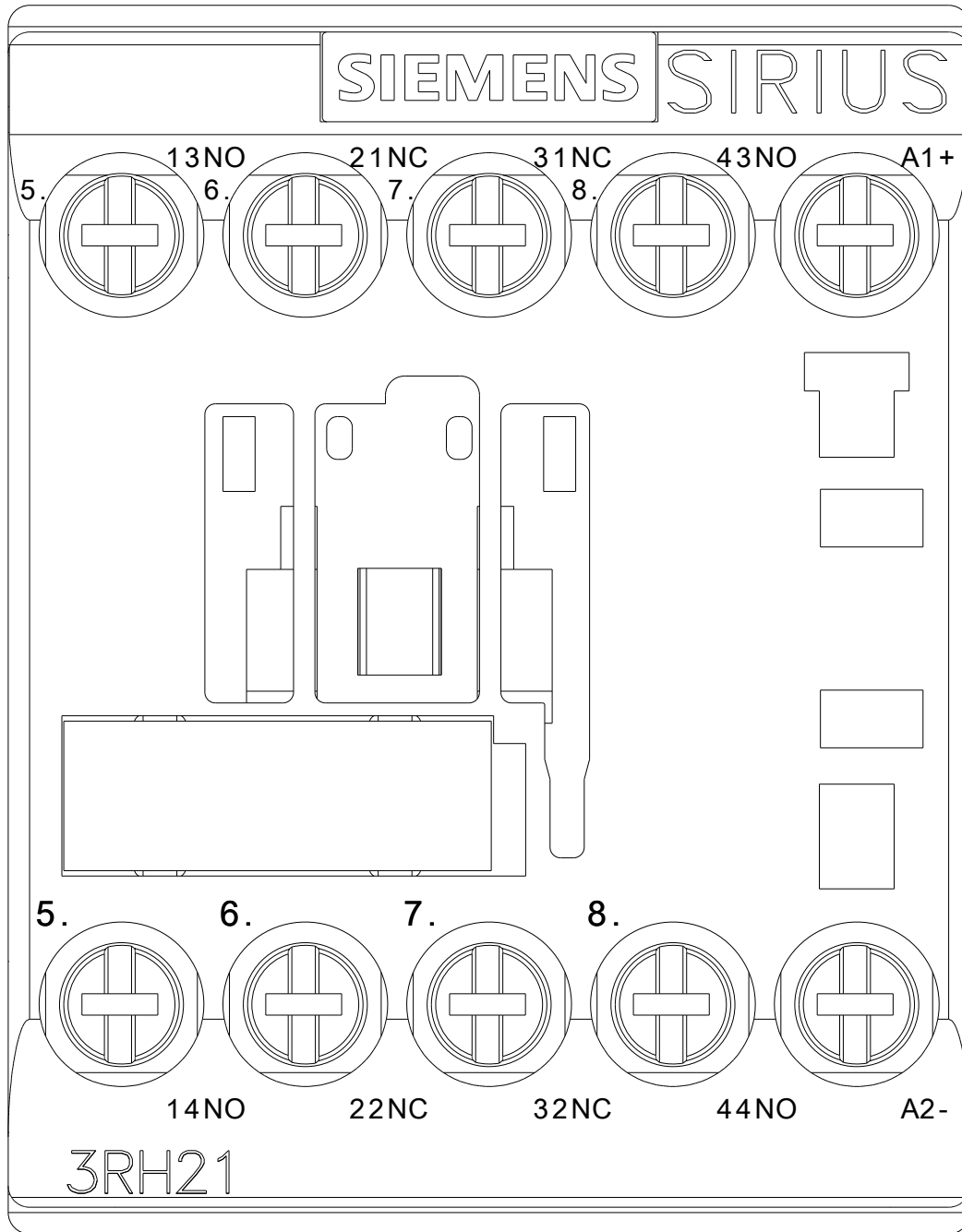
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

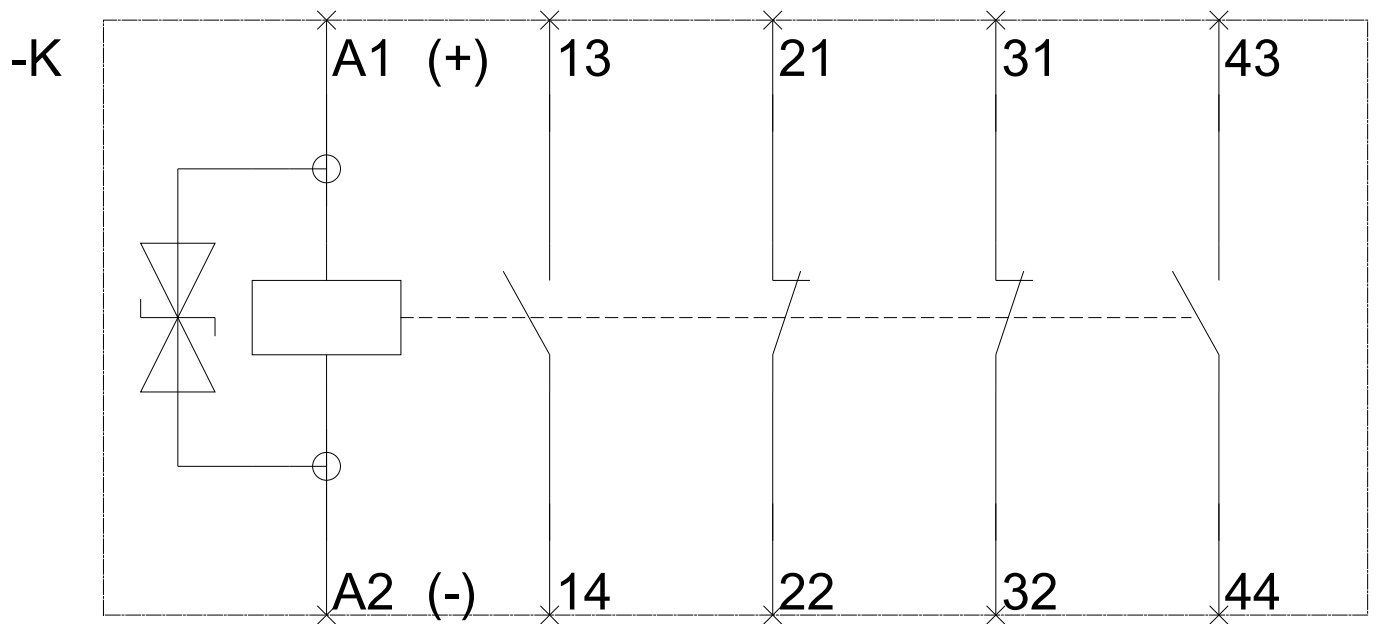
<https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-1SB40>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2122-1SB40&lang=en







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05/01/2017