



contactor relay railway, 2 NO + 1 NC, 24 V DC, 0.7-1.25* Us, with integrated varistor, ring cable lug connection, frame size S00

| General technical data | |
|---------------------------------------------------------------------------------------|--------------------------|
| size of contactor | S00 |
| product extension auxiliary switch | Yes |
| power loss [W] for rated value of the current without load current share typical | 2.8 W |
| insulation voltage with degree of pollution 3 at AC rated value | 690 V |
| surge voltage resistance rated value | 6 kV |
| shock resistance at rectangular impulse | |
| • at DC | 10 g / 5 ms, 5 g / 10 ms |
| shock resistance with sine pulse | |
| • at DC | 15 g / 5 ms, 8 g / 10 ms |
| mechanical service life (operating cycles) | |
| • of contactor typical | 30 000 000 |
| • of the contactor with added electronically optimized auxiliary switch block typical | 5 000 000 |
| • of the contactor with added auxiliary switch block typical | 10 000 000 |
| reference code according to IEC 81346-2 | K |
| Substance Prohibition (day/month/year) | 10/01/2009 |
| Net Weight | 0.308 g |
| Ambient conditions | |
| installation altitude at height above sea level maximum | 2 000 m |
| ambient temperature | |
| • during operation | -40 ... +70 °C |
| • during storage | -55 ... +80 °C |
| relative humidity minimum | 10 % |
| relative humidity at 55 °C according to IEC 60068-2-30 maximum | 95 % |
| 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 |
| 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 | Varistor |
| closing power of magnet coil at DC | 13 W |

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| holding power of magnet coil at DC | 4 W |
| closing delay | |
| • at DC | 25 ... 130 ms |
| opening delay | |
| • at DC | 7 ... 20 ms |
| arcing time | 10 ... 15 ms |
| Auxiliary circuit | |
| number of NC contacts for auxiliary contacts | 1 |
| • instantaneous contact | 1 |
| number of NO contacts for auxiliary contacts | 2 |
| • instantaneous contact | 2 |
| identification number and letter for switching elements | 21 |
| operational current at AC-12 maximum | 10 A |
| operational 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 |
| operational current at 1 current path at DC-12 | |
| • at 24 V rated value | 10 A |
| • at 110 V rated value | 3 A |
| • at 220 V rated value | 1 A |
| • at 440 V rated value | 0.3 A |
| • at 600 V rated value | 0.15 A |
| operational current with 2 current paths in series at DC-12 | |
| • at 24 V rated value | 10 A |
| • at 60 V rated value | 10 A |
| • at 110 V rated value | 4 A |
| • at 220 V rated value | 2 A |
| • at 440 V rated value | 1.3 A |
| • at 600 V rated value | 0.65 A |
| operational current with 3 current paths in series at DC-12 | |
| • at 24 V rated value | 10 A |
| • at 60 V rated value | 10 A |
| • at 110 V rated value | 10 A |
| • at 220 V rated value | 3.6 A |
| • at 440 V rated value | 2.5 A |
| • at 600 V rated value | 1.8 A |
| operating frequency at DC-12 maximum | 1 000 1/h |
| operational current at 1 current path at DC-13 | |
| • at 24 V rated value | 10 A |
| • at 110 V rated value | 1 A |
| • at 220 V rated value | 0.3 A |
| • at 440 V rated value | 0.14 A |
| • at 600 V rated value | 0.1 A |
| operational current with 2 current paths in series at DC-13 | |
| • at 24 V rated value | 10 A |
| • at 60 V rated value | 3.5 A |
| • at 110 V rated value | 1.3 A |
| • at 220 V rated value | 0.9 A |
| • at 440 V rated value | 0.2 A |
| • at 600 V rated value | 0.1 A |
| operational current with 3 current paths in series at DC-13 | |
| • at 24 V rated value | 10 A |
| • at 60 V rated value | 4.7 A |
| • at 110 V rated value | 3 A |
| • at 220 V rated value | 1.2 A |
| • at 440 V rated value | 0.5 A |
| • at 600 V rated value | 0.26 A |

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| operating frequency at DC-13 maximum | 1 000 1/h |
| contact reliability of auxiliary contacts | 1 faulty switching per 100 million (17 V, 1 mA) |
| UL/CSA ratings | |
| contact rating of auxiliary contacts according to UL | A600 / Q600 |
| Short-circuit protection | |
| design of the miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V | C characteristic: 10 A; 0.4 kA |
| design of the fuse link for short-circuit protection of the auxiliary switch required | gG: 10 A (690 V, 1 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 |
| fastening method side-by-side mounting | Yes |
| fastening method | screw and snap-on mounting onto 35 mm DIN rail |
| height | 57.5 mm |
| width | 45 mm |
| depth | 117 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 | |
| type of electrical connection for auxiliary and control circuit | ring terminal lug connection |
| Safety related data | |
| product function positively driven operation according to IEC 60947-5-1 | Yes |
| proportion of dangerous failures | |
| <ul style="list-style-type: none"> ● with low demand rate according to SN 31920 40 % ● with high demand rate according to SN 31920 73 % | |
| B10 value with high demand rate according to SN 31920 | 1 000 000; With 0.3 x I _e |
| failure rate [FIT] with low demand rate according to SN 31920 | 100 FIT |
| IEC 61508 | |
| T1 value | |
| <ul style="list-style-type: none"> ● for proof test interval or service life according to IEC 61508 20 a | |
| Electrical Safety | |
| protection class IP on the front according to IEC 60529 | IP00 |
| Approvals Certificates | |
| Environmental Product Declaration | |
| <ul style="list-style-type: none"> ● global warming potential [CO2 eq] / during manufacturing 1.3 kg ● global warming potential [CO2 eq] / during operation 132 kg ● global warming potential [CO2 eq] / after end of life -0.227 kg ● global warming potential [CO2 eq] / total 133 kg | |
| Environment | General Product Approval |

[Environmental Con-
firmations](#)



General Product Approval

EMV

Functional Safety



[Type Examination Cer-
tificate](#)

Test Certificates

Maritime application

[Type Test Certifi-
cates/Test Report](#)

[Special Test Certifi-
cate](#)



Maritime application

other



[Confirmation](#)

[Miscellaneous](#)



Railway

Dangerous goods

[Special Test Certifi-
cate](#)

[Transport Information](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3RH2122-4LB40-0LA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-4LB40-0LA0>

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

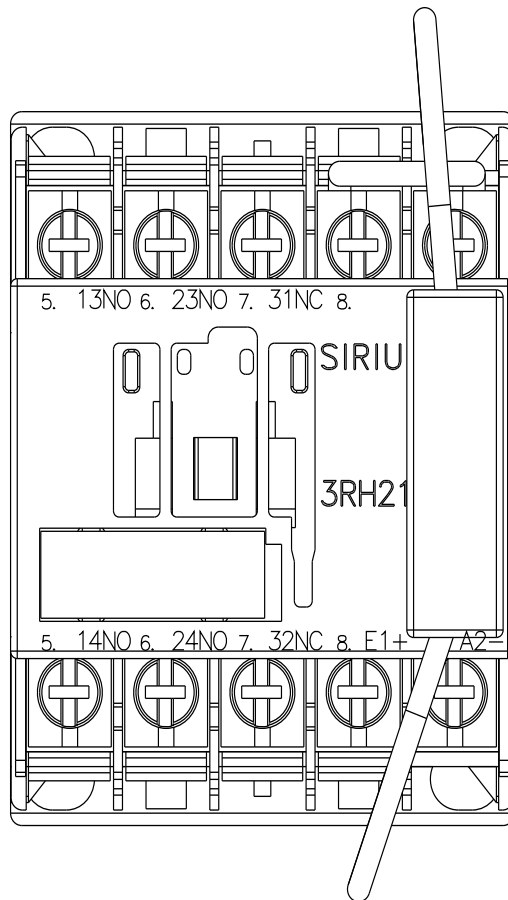
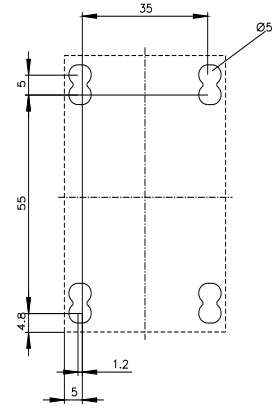
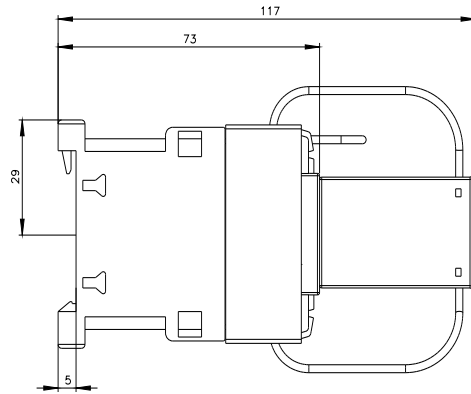
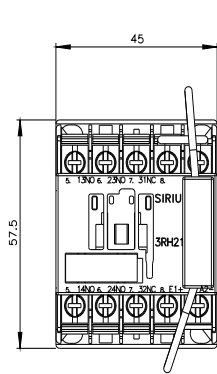
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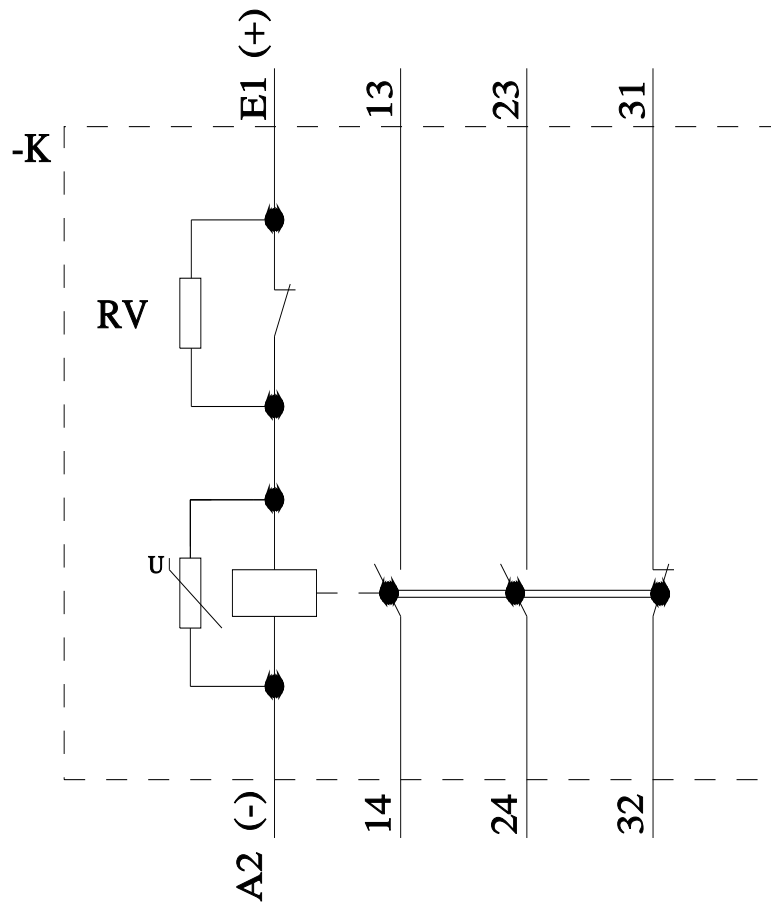
Cax online generator

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Characteristic curves

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