

contactor relay, 2 NO + 2 NC, 125 V DC, screw terminal, frame size S00, reusable packaging, pack = 144 units

| 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      | 4 W                      |
| insulation voltage with degree of pollution 3 at AC rated value                       | 690 V                    |
| degree of pollution                                                                   | 3                        |
| 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 Prohibitance (day/month/year)                                               | 10/01/2009               |
| Net Weight                                                                            | 0.29 kg                  |
| 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           |
| 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                                              | 125 V                    |
| operating range factor control supply voltage rated value of magnet coil at DC        |                          |
| • initial value                                                                       | 0.8                      |
| • full-scale value                                                                    | 1.1                      |
| closing power of magnet coil at DC                                                    | 4 W                      |
| holding power of magnet coil at DC                                                    | 4 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                                               |
| <b>identification number and letter for switching elements</b>                                            | 22 E                                            |
| operational current at AC-12 maximum                                                                      | 10 A                                            |
| <b>operational current at AC-15</b>                                                                       |                                                 |
| • 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                                             |
| <b>operational current at 1 current path at DC-12</b>                                                     |                                                 |
| • at 24 V rated value                                                                                     | 10 A                                            |
| • at 60 V rated value                                                                                     | 6 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                                          |
| <b>operational current with 2 current paths in series at DC-12</b>                                        |                                                 |
| • 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                                          |
| <b>operational current with 3 current paths in series at DC-12</b>                                        |                                                 |
| • 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                                           |
| <b>operating frequency at DC-12 maximum</b>                                                               | 1 000 1/h                                       |
| <b>operational current at 1 current path at DC-13</b>                                                     |                                                 |
| • at 24 V rated value                                                                                     | 10 A                                            |
| • at 60 V rated value                                                                                     | 2 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                                           |
| <b>operational current with 2 current paths in series at DC-13</b>                                        |                                                 |
| • 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                                           |
| <b>operational current with 3 current paths in series at DC-13</b>                                        |                                                 |
| • 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                                          |
| <b>operating frequency at DC-13 maximum</b>                                                               | 1 000 1/h                                       |
| <b>contact reliability of auxiliary contacts</b>                                                          | 1 faulty switching per 100 million (17 V, 1 mA) |
| <b>UL/CSA ratings</b>                                                                                     |                                                 |
| <b>contact rating of auxiliary contacts according to UL</b>                                               | A600 / Q600                                     |
| <b>Short-circuit protection</b>                                                                           |                                                 |
| 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                                     | gG: 10 A (690 V, 1 kA)                          |

|                                                                        |                                                                                                                                      |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| switch required                                                        |                                                                                                                                      |
| <b>Installation/ mounting/ dimensions</b>                              |                                                                                                                                      |
| <b>mounting position</b>                                               | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| <b>fastening method</b>                                                | screw and snap-on mounting onto 35 mm DIN rail                                                                                       |
| <b>height</b>                                                          | 58 mm                                                                                                                                |
| <b>width</b>                                                           | 45 mm                                                                                                                                |
| <b>depth</b>                                                           | 73 mm                                                                                                                                |
| <b>required spacing</b>                                                |                                                                                                                                      |
| • with side-by-side mounting                                           |                                                                                                                                      |
| — forwards                                                             | 10 mm                                                                                                                                |
| — upwards                                                              | 10 mm                                                                                                                                |
| — downwards                                                            | 10 mm                                                                                                                                |
| — at the side                                                          | 0 mm                                                                                                                                 |
| • for grounded parts                                                   |                                                                                                                                      |
| — forwards                                                             | 10 mm                                                                                                                                |
| — upwards                                                              | 10 mm                                                                                                                                |
| — at the side                                                          | 6 mm                                                                                                                                 |
| — downwards                                                            | 10 mm                                                                                                                                |
| • for live parts                                                       |                                                                                                                                      |
| — forwards                                                             | 10 mm                                                                                                                                |
| — upwards                                                              | 10 mm                                                                                                                                |
| — downwards                                                            | 10 mm                                                                                                                                |
| — at the side                                                          | 6 mm                                                                                                                                 |
| <b>Connections/ Terminals</b>                                          |                                                                                                                                      |
| type of electrical connection for auxiliary and control circuit        | screw-type terminals                                                                                                                 |
| <b>type of connectable conductor cross-sections</b>                    |                                                                                                                                      |
| • for auxiliary contacts                                               |                                                                                                                                      |
| — solid or stranded                                                    | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm²                                                                                |
| — finely stranded with core end processing                             | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)                                                                                          |
| • for AWG cables for auxiliary contacts                                | 2x (20 ... 16), 2x (18 ... 14), 2x 12                                                                                                |
| <b>Safety related data</b>                                             |                                                                                                                                      |
| <b>product function</b>                                                |                                                                                                                                      |
| • positively driven operation according to IEC 60947-5-1               | Yes                                                                                                                                  |
| • suitable for safety function                                         | Yes                                                                                                                                  |
| suitability for use safety-related switching OFF                       | Yes                                                                                                                                  |
| <b>service life maximum</b>                                            | 20 a                                                                                                                                 |
| <b>proportion of dangerous failures</b>                                |                                                                                                                                      |
| • with low demand rate according to SN 31920                           | 40 %                                                                                                                                 |
| • with high demand rate according to SN 31920                          | 73 %                                                                                                                                 |
| <b>B10 value with high demand rate according to SN 31920</b>           | 1 000 000; With 0.3 x I <sub>e</sub>                                                                                                 |
| <b>failure rate [FIT] with low demand rate according to SN 31920</b>   | 100 FIT                                                                                                                              |
| ISO 13849                                                              |                                                                                                                                      |
| <b>device type according to ISO 13849-1</b>                            | 3                                                                                                                                    |
| <b>overdimensioning according to ISO 13849-2 necessary</b>             | Yes                                                                                                                                  |
| IEC 61508                                                              |                                                                                                                                      |
| <b>safety device type according to IEC 61508-2</b>                     | Type A                                                                                                                               |
| Electrical Safety                                                      |                                                                                                                                      |
| <b>protection class IP on the front according to IEC 60529</b>         | IP20                                                                                                                                 |
| <b>touch protection on the front according to IEC 60529</b>            | finger-safe, for vertical contact from the front                                                                                     |
| <b>Approvals Certificates</b>                                          |                                                                                                                                      |
| Environmental Product Declaration                                      |                                                                                                                                      |
| • global warming potential [CO <sub>2</sub> eq] / during manufacturing | 1.3 kg                                                                                                                               |
| • global warming potential [CO <sub>2</sub> eq] / during operation     | 132 kg                                                                                                                               |
| • global warming potential [CO <sub>2</sub> eq] / after end of life    | -0.227 kg                                                                                                                            |
| • global warming potential [CO <sub>2</sub> eq] / total                | 133 kg                                                                                                                               |
| <b>Environment</b>                                                     | <b>General Product Approval</b>                                                                                                      |

[Environmental Con-  
firmations](#)



| General Product Approval | EMV | Functional Safety | Test Certificates |
|--------------------------|-----|-------------------|-------------------|
|--------------------------|-----|-------------------|-------------------|



[Type Examination Cer-  
tificate](#)

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| Test Certificates | Maritime application |
|-------------------|----------------------|
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[Type Test Certific-  
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ate](#)

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| 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=3RH2122-1BG40-Z X95>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-1BG40-Z X95>

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

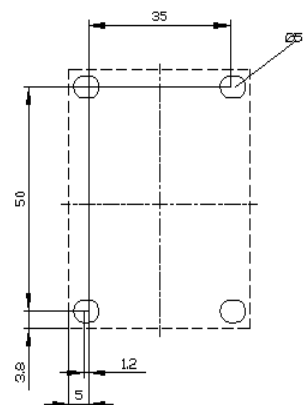
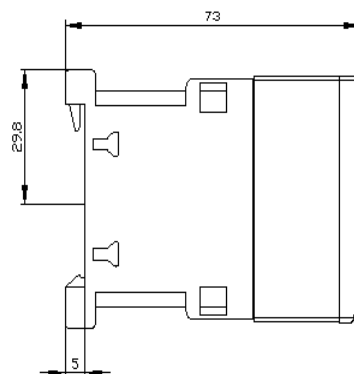
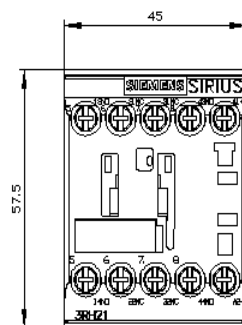
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Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2122-1BG40-Z X95>

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP='HAUPT'></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP='HAUPT'></mmp_prod_no>)







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