



COUPLING CONTACTOR RELAY RAIL, 3NO+1NC,  
DC 110V, 0.7..1.25\*US, VARISTOR INTEGRATED, SZ  
S00, SPRING-LOADED TERMINAL

|                     |  |   |
|---------------------|--|---|
| product brand name  |  | SIRIUS  |
| Product designation |  | Coupling relay for switching auxiliary circuits |

#### General technical data:

|   |    |            |
|---|----|------------|
| <b>Insulation voltage</b>                         |    |            |
| • with degree of pollution 3 Rated value          | V  | 690        |
| <b>Degree of pollution</b>                        |    | 3          |
| <b>Surge voltage resistance Rated value</b>       | kV | 6          |
| <b>Mechanical service life (switching cycles)</b> |    |            |
| • of the contactor typical                        |    | 30 000 000 |
| <b>Protection class IP</b>                        |    |            |
| • on the front                                    |    | IP20       |
| <b>Equipment marking</b>                          |    |            |
| • acc. to DIN EN 61346-2                          |    | K          |
| • acc. to DIN EN 81346-2                          |    | K          |

#### Control circuit/ Control:

|  |   |               |
|--|---|---------------|
| <b>Type of voltage of the control supply voltage</b>                                       |   | DC            |
| <b>Control supply voltage for DC</b>   |   |               |
| • Rated value  | V | 110           |
| <b>Operating range factor control supply voltage rated value of the magnet coil for DC</b> |   | 0.7 ... 1.25  |
| <b>Design of the surge suppressor</b>  |   | with varistor |
| <b>Closing power of the magnet coil for DC</b>   | W | 2.8           |
| <b>Holding power of the magnet coil for DC</b>   | W | 2.8           |

#### Auxiliary circuit:

|   |   |   |
|---|---|---|
| <b>Number of NC contacts</b>  |   |   |
| • for auxiliary contacts  |   | 1   |
| — instantaneous contact   |   | 1   |
| <b>Number of NO contacts</b>  |   |   |
| • for auxiliary contacts  |   | 3   |
| — instantaneous contact   |   | 3   |
| <b>Product expansion Auxiliary switch</b>                           |   | No  |
| <b>Identification number and letter for switching elements</b>      |   | 31 E  |
| <b>Operating current at AC-15</b>                                   |   |   |
| • at 230 V Rated value  | A | 10  |
| • at 400 V Rated value  | A | 3   |
| • at 690 V Rated value  | A | 1   |
| <b>Design of the miniature circuit breaker</b>                      |   |   |
| • for short-circuit protection of the auxiliary circuit up to 230 V |   | C characteristic: 6 A; 0.4 kA                   |
| <b>Contact reliability of the auxiliary contacts</b>                |   | 1 faulty switching per 100 million (17 V, 1 mA) |

#### UL/CSA ratings:

|  |  |             |
|--|--|-------------|
| <b>Contact rating of the auxiliary contacts acc. to UL</b> |  | A600 / Q600 |
|--|--|-------------|

#### Short-circuit:

|   |  |                  |
|---|--|------------------|
| <b>Design of the fuse link</b>                                  |  |                  |
| • for short-circuit protection of the auxiliary switch required |  | fuse gL/gG: 10 A |

#### Installation/ mounting/ dimensions:

|                          |    |  |
|--------------------------|----|--|
| <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>Mounting type</b>     |    | screw and snap-on mounting onto 35 mm standard mounting rail   |
| <b>Height</b>            | mm | 70   |
| <b>Width</b>             | mm | 45   |
| <b>Depth</b>             | mm | 73   |
| <b>Required spacing</b>  |    |  |
| • for grounded parts     |    |  |
| — at the side            | mm | 6  |
| • for live parts         |    |  |
| — at the side            | mm | 6  |

#### Connections/ Terminals:

|  |  |                         |
|--|--|-------------------------|
| <b>Type of electrical connection</b>               |  |                         |
| • for auxiliary and control current circuit        |  | spring-loaded terminals |
| <b>Type of connectable conductor cross-section</b> |  |                         |
| • for auxiliary contacts                           |  |                         |

|   |  |                                   |
|---|--|-----------------------------------|
| — single or multi-stranded                    |  | 2x (0,5 ... 4 mm <sup>2</sup> )   |
| — finely stranded with core end processing    |  | 2x (0.5 ... 2.5 mm <sup>2</sup> ) |
| — finely stranded without core end processing |  | 2x (0.5 ... 2.5 mm <sup>2</sup> ) |
| • for AWG conductors for auxiliary contacts   |  | 2x (20 ... 12)                    |

#### Safety related data:

|   |     |                           |
|---|-----|---------------------------|
| <b>B10 value with high demand rate acc. to SN 31920</b>                   |     | 1 000 000                 |
| • Note  |     | With 0.3 x I <sub>e</sub> |
| <b>Proportion of dangerous failures</b>                                   |     |                           |
| • with low demand rate acc. to SN 31920                                   | %   | 40                        |
| • with high demand rate acc. to SN 31920                                  | %   | 73                        |
| <b>Failure rate [FIT] with low demand rate acc. to SN 31920</b>           | FIT | 100                       |
| <b>T1 value for proof test interval or service life acc. to IEC 61508</b> | y   | 20                        |
| <b>Protection against electrical shock</b>                                |     | finger-safe               |

#### Mechanical data:

|                          |  |     |
|--------------------------|--|-----|
| <b>Size of contactor</b> |  | S00 |
|--------------------------|--|-----|

#### Ambient conditions:

|  |    |   |
|--|----|---|
| <b>Installation altitude at height above sea level maximum</b> | m  | 2 000   |
| <b>Ambient temperature</b>                                     |    |   |
| • during operation   | °C | -25 ... +70   |
| • during operation Note  |    | Railway application: -40 ... 70 °C with 10 mm clearance. See catalog for other rated conditions |
| • during storage   | °C | -55 ... +80   |

#### Certificates/ approvals:

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



[Type Examination](#)



[Special Test Certificate](#)



### Shipping Approval



GL



LRS



PRS



RINA

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



RMRS

[Environmental Confirmations](#)



VDE

### Further information

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

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

**Industry Mall (Online ordering system)**

<http://www.siemens.com/industrymall>

**Cax online generator**

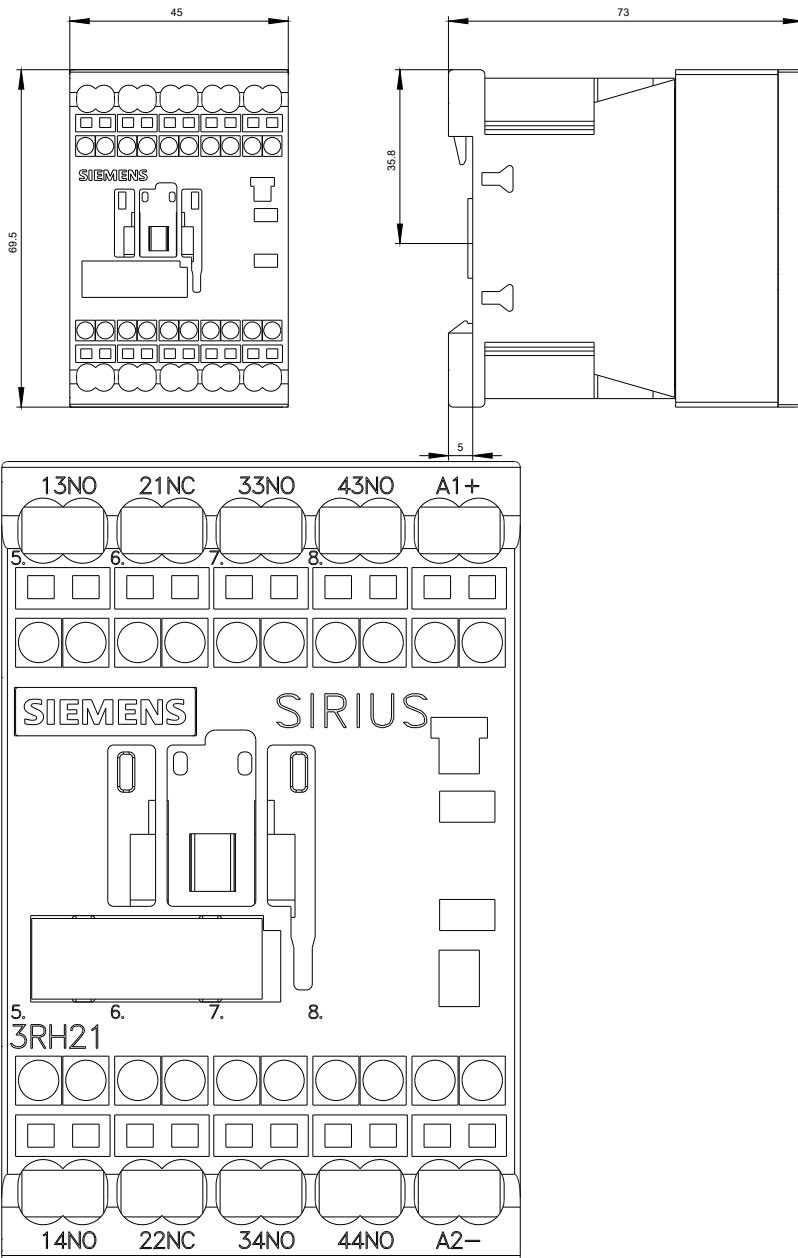
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH21312LF40>

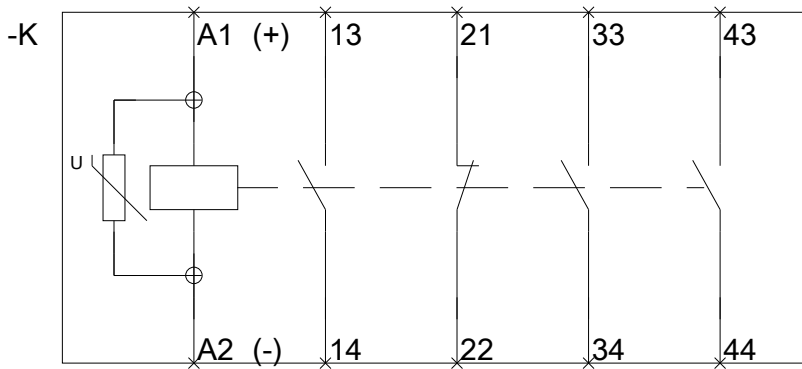
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RH21312LF40/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RH21312LF40&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH21312LF40&lang=en)





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