



Overload relay 54...65 A thermal for motor protection Size S2, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset Multi-unit packaging Pack = 18 units

### General technical data

|                                                                                  |                  |
|----------------------------------------------------------------------------------|------------------|
| <b>size of overload relay</b>                                                    | S2               |
| <b>size of contactor can be combined company-specific</b>                        | S2               |
| power loss [W] for rated value of the current at AC in hot operating state       | 15.6 W           |
| • per pole                                                                       | 5.2 W            |
| insulation voltage with degree of pollution 3 at AC rated value                  | 690 V            |
| <b>surge voltage resistance rated value</b>                                      | 6 kV             |
| <b>maximum permissible voltage for protective separation</b>                     |                  |
| • in networks with ungrounded star point between auxiliary and auxiliary circuit | 415 V            |
| • in networks with grounded star point between auxiliary and auxiliary circuit   | 415 V            |
| • in networks with ungrounded star point between main and auxiliary circuit      | 690 V            |
| • in networks with grounded star point between main and auxiliary circuit        | 690 V            |
| <b>shock resistance according to IEC 60068-2-27</b>                              | 8g / 11 ms       |
| <b>recovery time after overload trip</b>                                         |                  |
| • with automatic reset typical                                                   | 10 min           |
| • with remote-reset                                                              | 10 min           |
| • with manual reset                                                              | 10 min           |
| <b>reference code according to IEC 81346-2</b>                                   | F                |
| <b>Substance Prohibitance (Date)</b>                                             | 10/15/2014       |
| <b>SVHC substance name</b>                                                       | Lead - 7439-92-1 |
| <b>Net Weight</b>                                                                | 0.36 kg          |

### Ambient conditions

|                                                         |                |
|---------------------------------------------------------|----------------|
| installation altitude at height above sea level maximum | 2 000 m        |
| <b>ambient temperature</b>                              |                |
| • during operation                                      | -40 ... +70 °C |
| • during storage                                        | -55 ... +80 °C |
| • during transport                                      | -55 ... +80 °C |
| <b>temperature compensation</b>                         | -40 ... +60 °C |
| relative humidity during operation                      | 10 ... 95 %    |

### Main circuit

|                                                                                            |             |
|--------------------------------------------------------------------------------------------|-------------|
| <b>number of poles for main current circuit</b>                                            | 3           |
| <b>adjustable current response value current of the current-dependent overload release</b> | 54 ... 65 A |
| <b>operating voltage</b>                                                                   |             |
| • rated value                                                                              | 690 V       |
| • at AC-3e rated value maximum                                                             | 690 V       |

|                                                                                                       |                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>operating frequency rated value</b>                                                                | 50 ... 60 Hz                                                                                                                                                                                                                   |
| <b>operational current rated value</b>                                                                | 65 A                                                                                                                                                                                                                           |
| operational current at AC-3e at 400 V rated value                                                     | 65 A                                                                                                                                                                                                                           |
| <b>operating power</b>                                                                                |                                                                                                                                                                                                                                |
| • at AC-3                                                                                             |                                                                                                                                                                                                                                |
| — at 400 V rated value                                                                                | 30 kW                                                                                                                                                                                                                          |
| — at 500 V rated value                                                                                | 45 kW                                                                                                                                                                                                                          |
| — at 690 V rated value                                                                                | 55 kW                                                                                                                                                                                                                          |
| • at AC-3e                                                                                            |                                                                                                                                                                                                                                |
| — at 400 V rated value                                                                                | 30 kW                                                                                                                                                                                                                          |
| — at 500 V rated value                                                                                | 45 kW                                                                                                                                                                                                                          |
| — at 690 V rated value                                                                                | 55 kW                                                                                                                                                                                                                          |
| <b>Auxiliary circuit</b>                                                                              |                                                                                                                                                                                                                                |
| <b>design of the auxiliary switch</b>                                                                 | integrated                                                                                                                                                                                                                     |
| <b>number of NC contacts for auxiliary contacts</b>                                                   | 1                                                                                                                                                                                                                              |
| • note                                                                                                | for contactor disconnection                                                                                                                                                                                                    |
| <b>number of NO contacts for auxiliary contacts</b>                                                   | 1                                                                                                                                                                                                                              |
| • note                                                                                                | for message "Tripped"                                                                                                                                                                                                          |
| number of CO contacts for auxiliary contacts                                                          | 0                                                                                                                                                                                                                              |
| <b>operational current of auxiliary contacts at AC-15</b>                                             |                                                                                                                                                                                                                                |
| • at 24 V                                                                                             | 3 A                                                                                                                                                                                                                            |
| • at 110 V                                                                                            | 3 A                                                                                                                                                                                                                            |
| • at 120 V                                                                                            | 3 A                                                                                                                                                                                                                            |
| • at 125 V                                                                                            | 3 A                                                                                                                                                                                                                            |
| • at 230 V                                                                                            | 2 A                                                                                                                                                                                                                            |
| • at 400 V                                                                                            | 1 A                                                                                                                                                                                                                            |
| • at 690 V                                                                                            | 0.75 A                                                                                                                                                                                                                         |
| <b>operational current of auxiliary contacts at DC-13</b>                                             |                                                                                                                                                                                                                                |
| • at 24 V                                                                                             | 2 A                                                                                                                                                                                                                            |
| • at 60 V                                                                                             | 0.3 A                                                                                                                                                                                                                          |
| • at 110 V                                                                                            | 0.2 A                                                                                                                                                                                                                          |
| • at 125 V                                                                                            | 0.22 A                                                                                                                                                                                                                         |
| • at 220 V                                                                                            | 0.11 A                                                                                                                                                                                                                         |
| design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required | 6A (SCC less than equal to 0.5 kA; U less than equal to 260V)                                                                                                                                                                  |
| <b>contact rating of auxiliary contacts according to UL</b>                                           | B600 / R300                                                                                                                                                                                                                    |
| <b>Protective and monitoring functions</b>                                                            |                                                                                                                                                                                                                                |
| <b>trip class</b>                                                                                     | CLASS 10                                                                                                                                                                                                                       |
| <b>design of the overload release</b>                                                                 | thermal                                                                                                                                                                                                                        |
| <b>UL/CSA ratings</b>                                                                                 |                                                                                                                                                                                                                                |
| <b>full-load current (FLA) for 3-phase AC motor</b>                                                   |                                                                                                                                                                                                                                |
| • at 480 V rated value                                                                                | 65 A                                                                                                                                                                                                                           |
| • at 600 V rated value                                                                                | 65 A                                                                                                                                                                                                                           |
| <b>Short-circuit protection</b>                                                                       |                                                                                                                                                                                                                                |
| <b>design of the fuse link</b>                                                                        |                                                                                                                                                                                                                                |
| • for short-circuit protection of the auxiliary switch required                                       | fuse gG: 6 A, quick: 10 A                                                                                                                                                                                                      |
| <b>Installation/ mounting/ dimensions</b>                                                             |                                                                                                                                                                                                                                |
| <b>mounting position</b>                                                                              | for mounting on contactors: with a vertical mounting plane +/-135° rotatable & +/- 22.5° tiltable, stand-alone installation: with a vertical mounting plane +/-135° rotatable and +/-45° tiltable; for more details see manual |
| <b>fastening method</b>                                                                               | Contactor mounting                                                                                                                                                                                                             |
| <b>height</b>                                                                                         | 90 mm                                                                                                                                                                                                                          |
| <b>width</b>                                                                                          | 55 mm                                                                                                                                                                                                                          |
| <b>depth</b>                                                                                          | 105 mm                                                                                                                                                                                                                         |
| <b>Connections/ Terminals</b>                                                                         |                                                                                                                                                                                                                                |
| <b>product component removable terminal for auxiliary and control circuit</b>                         | No                                                                                                                                                                                                                             |
| <b>type of electrical connection</b>                                                                  |                                                                                                                                                                                                                                |
| • for main current circuit                                                                            | screw-type terminals                                                                                                                                                                                                           |
| • for auxiliary and control circuit                                                                   | screw-type terminals                                                                                                                                                                                                           |

|                                                                                                                                                                                                                                                |                                |                                                                                                                              |                      |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------|-------|
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                            |                                |                                                                                                                              |                      |       |
| <ul style="list-style-type: none"><li>• for main contacts<ul style="list-style-type: none"><li>— solid or stranded</li><li>— finely stranded with core end processing</li></ul></li><li>• for AWG cables for main contacts</li></ul>           |                                | 2x (1 ... 35 mm²), 1x (1 ... 50 mm²)<br>2x (1 ... 25 mm²), 1x (1 ... 35 mm²)<br>2x (18 ... 2), 1x (18 ... 1)                 |                      |       |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                            |                                |                                                                                                                              |                      |       |
| <ul style="list-style-type: none"><li>• for auxiliary contacts<ul style="list-style-type: none"><li>— solid or stranded</li><li>— finely stranded with core end processing</li></ul></li><li>• for AWG cables for auxiliary contacts</li></ul> |                                | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)<br>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)<br>2x (20 ... 16), 2x (18 ... 14) |                      |       |
| <b>design of screwdriver shaft</b>                                                                                                                                                                                                             |                                | Diameter 5 ... 6 mm                                                                                                          |                      |       |
| <b>size of the screwdriver tip</b>                                                                                                                                                                                                             |                                | Pozidriv PZ 2                                                                                                                |                      |       |
| IEC 61508                                                                                                                                                                                                                                      |                                |                                                                                                                              |                      |       |
| <b>T1 value</b> <ul style="list-style-type: none"><li>• for proof test interval or service life according to IEC 61508</li></ul>                                                                                                               |                                | 20 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                                                                             |                      |       |
| Display                                                                                                                                                                                                                                        |                                |                                                                                                                              |                      |       |
| display version for switching status                                                                                                                                                                                                           |                                | Slide switch                                                                                                                 |                      |       |
| Approvals Certificates                                                                                                                                                                                                                         |                                |                                                                                                                              |                      |       |
| General Product Approval                                                                                                                                                                                                                       | For use in hazardous locations | Test Certificates                                                                                                            | Maritime application | other |



[Special Test Certificate](#)



[Confirmation](#)



## Environment

[Environmental Confirmations](#)

## 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=3RU2136-4JB0-Z W96>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2136-4JB0-Z W96>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RU2136-4JB0-Z W96&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2136-4JB0-Z W96&lang=en)

### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2136-4JB0-Z W96>

### Characteristic curves

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



