

OVERLOAD RELAY 36...50 A FOR MOTOR PROTECTION  
 SIZE S3,  
 CLASS 10 FOR CONTACTOR MOUNTING MAIN CIRCUIT:  
 SCREW CONN. AUX. CIRCUIT: SCREW CONN. MANUAL-  
 AUTOMATIC-RESET

| General technical details:   |    |                        |
|--|----|------------------------|
| Product brand name   |    | SIRIUS                 |
| Product designation  |    | thermal overload relay |
| Protection class IP / frontal/front side                                   |    | IP20                   |
| Insulation voltage / with degree of pollution 3 / rated value              | V  | 1,000                  |
| Altitude of installation site / at a height over sea level / maximum       | m  | 2,000                  |
| Ambient temperature  |    |                        |
| • during the operating phase   | °C | -20 ... 70             |
| • during storage   | °C | -55 ... 80             |
| • during transport   | °C | -55 ... 80             |
| Relative humidity / during the operating phase / maximum                   | %  | 100                    |
| Resistance against shock   |    | 8g / 10 ms             |
| Impulse voltage resistance / rated value                                   | kV | 8                      |
| Real loss power / total / typical  | W  | 16.5                   |
| Item designation   |    |                        |
| • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 |    | F                      |
| • according to DIN EN 61346-2  |    | F                      |
| Operating current / of the fuse link / rated value                         | A  | 125                    |
| Trip class   |    | CLASS 10               |
| Type of assignment   |    | 2                      |
| Type of protection   |    | DMT 98 ATEX G 001      |
| Size of overload relay   |    | S3                     |
| Size of the contactor / can be combined / company-specific                 |    | S3                     |
| Protection against electrical shock  |    | finger-safe            |

| Main circuit:                              |   |       |
|--|---|-------|
| Number of poles / for main current circuit |   | 3     |
| Operating voltage / at 3 AC / rated value  |   |       |
| • maximum                                  | V | 1,000 |

|   |    |           |
|---|----|-----------|
| <b>Service power / at AC-3</b><br>• at 400 V                                      | kW | 22        |
| <b>Adjustable response current</b><br>• of the current-dependent overload release | A  | 36 ... 50 |

#### Auxiliary circuit:

|  |                            |  |
|--|----------------------------|--|
| <b>Contact reliability / of the auxiliary contacts</b>   |                            | acceptability for PLC control (17 V, 5 mA) |
| <b>Number of NC contacts</b>   |                            | 1  |
| <b>Number of NO contacts</b>   |                            | 1  |
| <b>Number of change-over switches</b>  |                            | 0  |
| <b>Operating current / of the auxiliary contacts / at AC-15</b><br>• at 24 V<br>• at 110 V<br>• at 120 V<br>• at 125 V<br>• at 230 V<br>• at 400 V | A<br>A<br>A<br>A<br>A<br>A | 3<br>3<br>3<br>3<br>2<br>1                 |
| <b>Operating current / of the auxiliary contacts / at DC-13</b><br>• at 24 V<br>• at 110 V<br>• at 125 V<br>• at 220 V                             | A<br>A<br>A<br>A           | 1<br>0.22<br>0.22<br>0.11                  |

#### Short-circuit:

|  |  |                              |
|--|--|------------------------------|
| <b>Design of the fuse link / for short-circuit protection of the auxiliary switch / required</b> |  | fuse gL/gG: 6 A, quick: 10 A |
|--|--|------------------------------|

#### Installation/mounting/dimensions:

|   |                            |   |
|---|----------------------------|---|
| <b>built in orientation</b>   |                            | with vertical mounting surface +/-135° rotatable, with vertical mounting surface +/- 45° tiltable to the front and back |
| <b>Type of fixing/fixation</b>  |                            | direct mounting   |
| <b>Height</b>   | mm                         | 120   |
| <b>Width</b>  | mm                         | 70  |
| <b>Depth</b>  | mm                         | 140   |
| <b>distance, to be maintained, to the ranks assembly</b><br>• upwards<br>• downwards<br>• forwards<br>• backwards<br>• sideways | mm<br>mm<br>mm<br>mm<br>mm | 0<br>0<br>0<br>0<br>0   |
| <b>distance, to be maintained, to earthed part</b>  |                            |   |

|  |    |   |
|--|----|---|
| • upwards  | mm | 0 |
| • downwards  | mm | 0 |
| • forwards   | mm | 0 |
| • backwards  | mm | 0 |
| • sideways   | mm | 6 |
| <b>distance, to be maintained, conductive elements</b> |    |   |
| • upwards  | mm | 0 |
| • downwards  | mm | 0 |
| • forwards   | mm | 0 |
| • backwards  | mm | 0 |
| • sideways   | mm | 6 |

| Connection type:                                       |                 |   |
|--|-----------------|---|
| <b>Product function</b>                                |                 |   |
| • removable terminal for auxiliary and control circuit |                 | No  |
| <b>design of the electrical connection</b>             |                 |   |
| • for main current circuit                             |                 | screw-type terminals  |
| • for auxiliary and control current circuit            |                 | screw-type terminals  |
| <b>Type of the connectable conductor cross-section</b> |                 |   |
| • for main contacts                                    |                 |   |
| • unifilar   |                 | 2x (2.5 ... 16 mm <sup>2</sup> )                                      |
| • stranded wire  |                 | 2x (10 ... 50 mm <sup>2</sup> ), 10 ... 70 mm <sup>2</sup>            |
| • stranded wire  |                 |   |
| • with conductor end processing                        |                 | 2x (2.5 ... 35 mm <sup>2</sup> ), 2.5 ... 50 mm <sup>2</sup>          |
| • for auxiliary contacts                               |                 |   |
| • solid  |                 | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) |
| • finely stranded                                      |                 |   |
| • with wire end processing                             |                 | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) |
| • without conductor final cutting                      |                 | 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> ) |
| • at AWG-conductors                                    |                 |   |
| • for main contacts                                    |                 | 2x (10 ... 1/0), 1x (10 ... 2/0)                                      |
| • for auxiliary contacts                               |                 | 2x (18 ... 14)  |
| <b>Conductor cross section that can be connected</b>   |                 |   |
| • for main contacts                                    |                 |   |
| • unifilar   | mm <sup>2</sup> | 2.5 ... 6   |
| • stranded wire  | mm <sup>2</sup> | 10 ... 70   |
| • stranded wire  |                 |   |
| • with conductor end processing                        | mm <sup>2</sup> | 2.5 ... 50  |
| • for auxiliary contact                                |                 |   |
| • unifilar   | mm <sup>2</sup> | 0.5 ... 2.5   |

- stranded wire
- with conductor end processing
- without conductor final cutting

|                 |             |
|-----------------|-------------|
| mm <sup>2</sup> | 0.5 ... 2.5 |
| mm <sup>2</sup> | 0.5 ... 2.5 |

**AWG number / as coded connectable conductor cross-section**

- for main contacts / minimum
- for auxiliary contact

|           |
|-----------|
| 10        |
| 18 ... 14 |

**Certificates/approvals:**

**verification of suitability**

CSA / UL / CC / GL / LRS / BV / DNV / RMRS / RINA / PRS / ABS

**verification of suitability / ATEX**

Yes

**Further information:**

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

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

**Global Industry Mall (Online ordering system)**

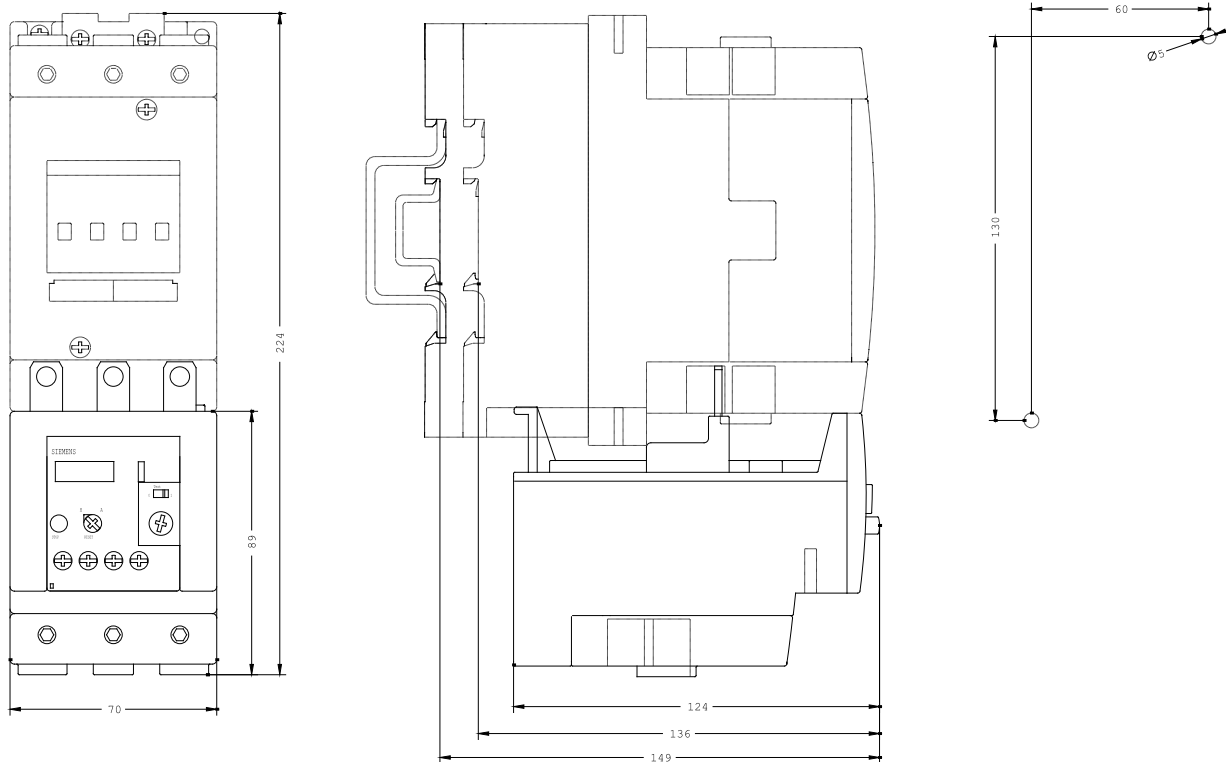
<http://www.siemens.com/industrial-controls/mall>

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

<http://support.automation.siemens.com/WW/view/en/3RU1146-4HB0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RU1146-4HB0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RU1146-4HB0)



last change:

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