SIEMENS

## Data sheet 3RU5146-4MB0

Overload relay 80...100 A size S3, class 10 for motor protection for mounting onto contactors main circuit: screw terminal AUX. circuit: screw terminal manual automatic reset

| | |
|---|---|
| **product brand name** | SIRIUS |
| **product designation** | Thermal overload relay |
| **product type designation** | 3RU5 |
| **General technical data** | |
| **size of contactor can be combined company-specific** | S3 |
| **power loss [W] total typical** | 16.5 W |
| power loss [W] for rated value of the current at AC in hot operating state | 21 W |
| ● per pole | 7 W |
| **type of calculation of power loss depending on pole** | quadratic |
| insulation voltage with degree of pollution 3 at AC rated value | 1 000 V |
| **surge voltage resistance rated value** | 8 kV |
| **shock resistance according to IEC 60068-2-27** | 8g / 10 ms |
| **Substance Prohibitance (Date)** | 07/01/2006 |
| **Ambient conditions** | |
| installation altitude at height above sea level maximum | 2 000 m |
| **ambient temperature** | |
| ● during operation | -20 ... +70 °C |
| ● during transport | -55 ... +80 °C |
| relative humidity during operation | 0 ... 100 % |
| **Main circuit** | |
| **number of poles for main current circuit** | 3 |
| **adjustable current response value current of the current-dependent overload release** | 80 ... 100 A |
| operating voltage rated value | 1 000 V |
| **operating frequency rated value** | 50 ... 60 Hz |
| **operational current rated value** | 100 A |
| **Auxiliary circuit** | |
| **operational current of auxiliary contacts at AC-15** | |
| ● at 24 V | 3 A |
| ● at 230 V | 2 A |
| **operational current of auxiliary contacts at DC-13** | |
| ● at 24 V | 1 A |
| ● at 110 V | 0.22 A |
| **Protective and monitoring functions** | |
| **trip class** | CLASS 10 |
| **design of the overload release** | thermal |
| **Short-circuit protection** | |
| **design of the fuse link** | |
| ● for short-circuit protection of the auxiliary switch required | fuse gL/gG: 6 A, quick: 10 A |


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| Installation/ mounting/ dimensions | |
|---|---|
| **mounting position** | with vertical mounting surface +/-135° rotatable, with vertical mounting surface +/- 45° tiltable to the front and back |
| **fastening method** | Contactor mounting |
| **height** | 120 mm |
| **width** | 70 mm |
| **depth** | 140 mm |
| required spacing for grounded parts at the side | 6 mm |
| **Connections/ Terminals** | |
| **type of electrical connection** | |
| ● for main current circuit | screw-type terminals |
| ● for auxiliary and control circuit | screw-type terminals |
| **arrangement of electrical connectors for main current circuit** | Top and bottom |
| type of connectable conductor cross-sections for main contacts | |
| ● solid or stranded | 2x (2.5 ... 16 mm²), 2x (10 ... 50 mm²), 1x (10 ... 70 mm²) |
| ● finely stranded with core end processing | 2x (2.5 ... 35 mm²), 2.5 ... 50 mm² |
| **type of connectable conductor cross-sections** | |
| ● for auxiliary contacts | |
| — solid or stranded | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 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) |
| tightening torque for main contacts with screw-type terminals | 4 ... 6 N·m |
| **Safety related data** | |
| **protection class IP on the front according to IEC 60529** | IP20 |
| **touch protection on the front according to IEC 60529** | finger-safe, for vertical contact from the front |

**Certificates/ approvals**

| General Product Approval | | | | Declaration of Conformity | other |
|---|---|---|---|---|---|
| Confirmation | CCC | UL | EAC | CE EG-Konf. | Confirmation |

**Further information**

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/products?pnid=16027&lc=en-CN


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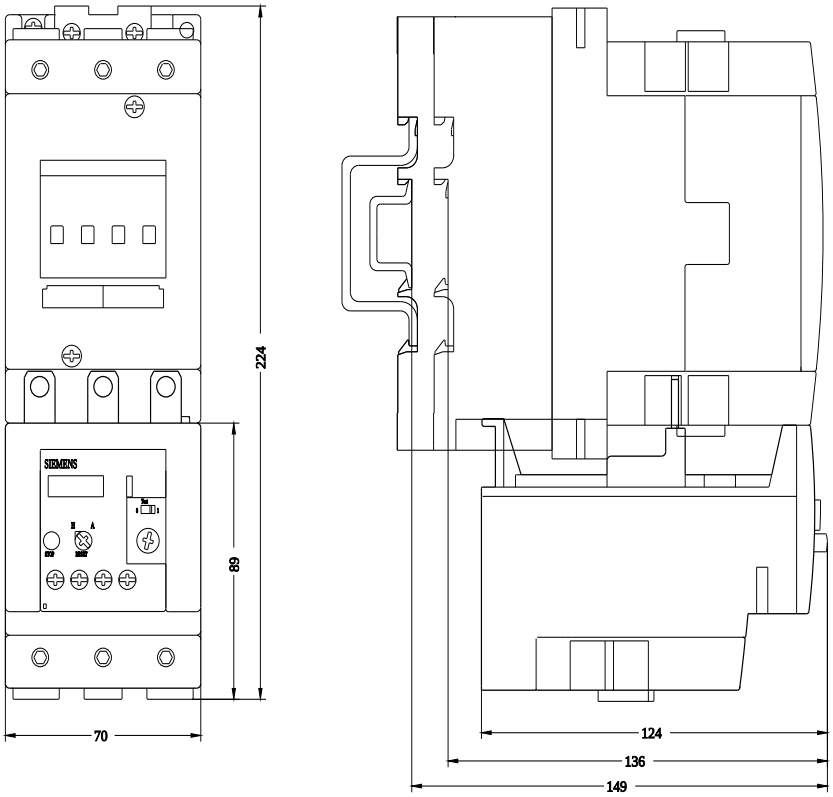


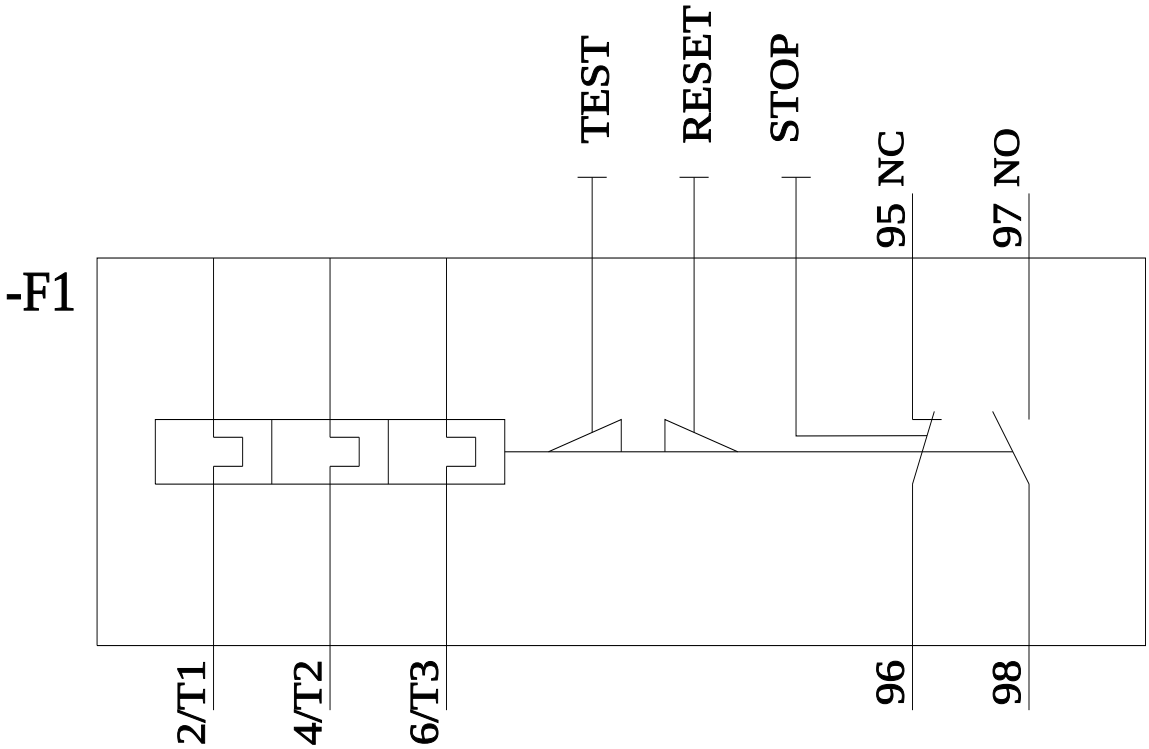


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