



OVERLOAD RELAY 17...22 A FOR MOTOR PROTECTION
SZ S0,
CLASS 10,
STAND-ALONE INSTALLATION MAIN CIRCUIT: SPRING
TERMINAL AUX. CIRCUIT: SPRING TERMINAL MANUAL-
AUTOMATIC-RESET

General technical data:

| | | |
|--|-----|-----------------------------|
| Product brand name | | SIRIUS |
| product designation | | 3RU2 thermal overload relay |
| Protection class IP / on the front | | IP20 |
| Insulation voltage / with degree of pollution 3 | | |
| • rated value | V | 690 |
| Installation altitude / at a height over sea level / maximum | m | 2,000 |
| Ambient temperature | | |
| • during transport | °C | -55 ... 80 |
| • during storage | °C | -55 ... 80 |
| • during operating | °C | -40 ... 70 |
| Relative humidity | | |
| • during operating phase | / % | 90 |
| Resistance against shock | | 8g / 10 ms |
| Impulse voltage resistance / rated value | kV | 6 |
| Active power loss / total / typical | W | 6.2 |
| Item designation | | |
| • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 | | F |
| • according to DIN EN 61346-2 | | F |

| | | |
|--|--|----------|
| Trip class | | CLASS 10 |
| Type of assignment | | 2 |
| Size of overload relay | | S0 |
| Size of the contactor / can be combined • company-specific | | S0 |

| | | |
|--|----------------|------------------|
| Main circuit: | | |
| Number of poles / for main current circuit | | 3 |
| Operating voltage / at AC-3 / rated value • maximum | V | 690 |
| Operating current / at AC-3 / at 400 V • rated value | A | 22 |
| Service power / at AC-3 • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value | kW kW kW | 11 11 18.5 |
| Adjustable response current • of the current-dependent overload release | A | 17 ... 22 |
| Operating current / of the fuse link / rated value | A | 63 |

| | | |
|--|---|---|
| Auxiliary circuit: | | |
| Contact reliability / of the auxiliary contacts | | < 1 error per 100 million operating cycles |
| Number of NC contacts / for auxiliary contacts | | 1 |
| Number of NO contacts / for auxiliary contacts | | 1 |
| Number of change-over switches / for auxiliary contacts | | 0 |
| Operating current / of the auxiliary contacts • at AC-15 • at 24 V • at 110 V • at 120 V • at 125 V • at 230 V • at 400 V • at DC-13 • at 24 V • at 110 V • at 125 V • at 220 V | A A A A A A A A A A A A A | 3 3 3 3 2 1 1 0.22 0.22 0.11 |

| | | |
|-----------------------|--|--|
| Short-circuit: | | |
|-----------------------|--|--|

| | | |
|--|----|----------------------------------|
| Design of the fuse link / for short-circuit protection of the auxiliary switch / required | | fuse gG: 10 A |
| Installation/mounting/dimensions: | | |
| Built in orientation | | vertical |
| Type of mounting | | stand-alone installation |
| Width | mm | 45 |
| Height | mm | 87 |
| Depth | mm | 73 |
| Distance, to be maintained, to the ranks assembly | | |
| • forwards | mm | 0 |
| • backwards | mm | 0 |
| • upwards | mm | 6 |
| • downwards | mm | 6 |
| • sideways | mm | 6 |
| Distance, to be maintained, to earthed part | | |
| • forwards | mm | 0 |
| • backwards | mm | 0 |
| • upwards | mm | 6 |
| • downwards | mm | 6 |
| • sideways | mm | 6 |
| Distance, to be maintained, conductive elements | | |
| • forwards | mm | 0 |
| • backwards | mm | 0 |
| • upwards | mm | 6 |
| • downwards | mm | 6 |
| • sideways | mm | 6 |
| Connections: | | |
| Design of the electrical connection | | |
| • for main current circuit | | spring-loaded terminals |
| • for auxiliary and control current circuit | | spring-loaded terminals |
| Product function / removable terminal for auxiliary and control circuit | | No |
| Type of the connectable conductor cross-section | | |
| • for main contacts | | |
| • solid | | 2x (1 ... 10 mm ²) |
| • stranded | | 2x (1.0 ... 10 mm ²) |
| • finely stranded | | |
| • with conductor end processing | | 2x (1 ... 6 mm ²) |
| • without conductor final cutting | | 2x (1 ... 6 mm ²) |

- for AWG conductors / for main contacts
- for auxiliary contacts
 - solid
 - finely stranded
 - with conductor end processing
 - without conductor final cutting
- for AWG conductors / for auxiliary contacts

1x (18 ... 8)

2x (0.5 ... 2.5 mm²)

2x (0.5 ... 1.5 mm²)

2 x (0.5 ... 1.5 mm²)

2x (20 ... 14)

Certificates/approvals:

Verification of suitability

- ATEX

CE / UL / CSA

No

General Product Approval

For use in
hazardous
locations

Test Certificates



CQC



CSA

[ROSTEST](#)



UL

[DEKRA EXAM,](#)
[DMT](#)

[Manufacturer](#)

Shipping Approval



ABS



DNV



GL



LRS



PRS



RINA

Shipping Approval

other



RMRS

[Manufacturer](#)

Reliability figures:

Mean time to failure (MTTF) / with high demand rate

a

2,280

Proportion of dangerous failures

- with low demand rate / according to SN 31920
- with high demand rate / according to SN 31920

%

50

%

50

Failure rate (FIT value) / with low demand rate

- according to SN 31920

FIT

50

T1 value / for proof test interval or service life

- according to IEC 61508

a

20

Protection against electrical shock

finger-safe

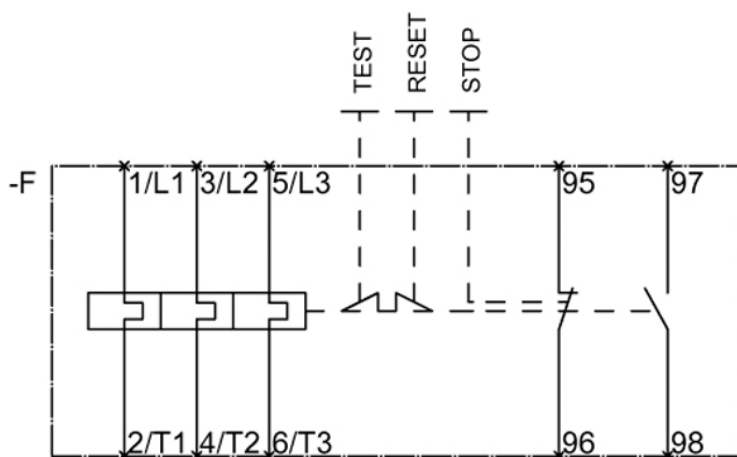
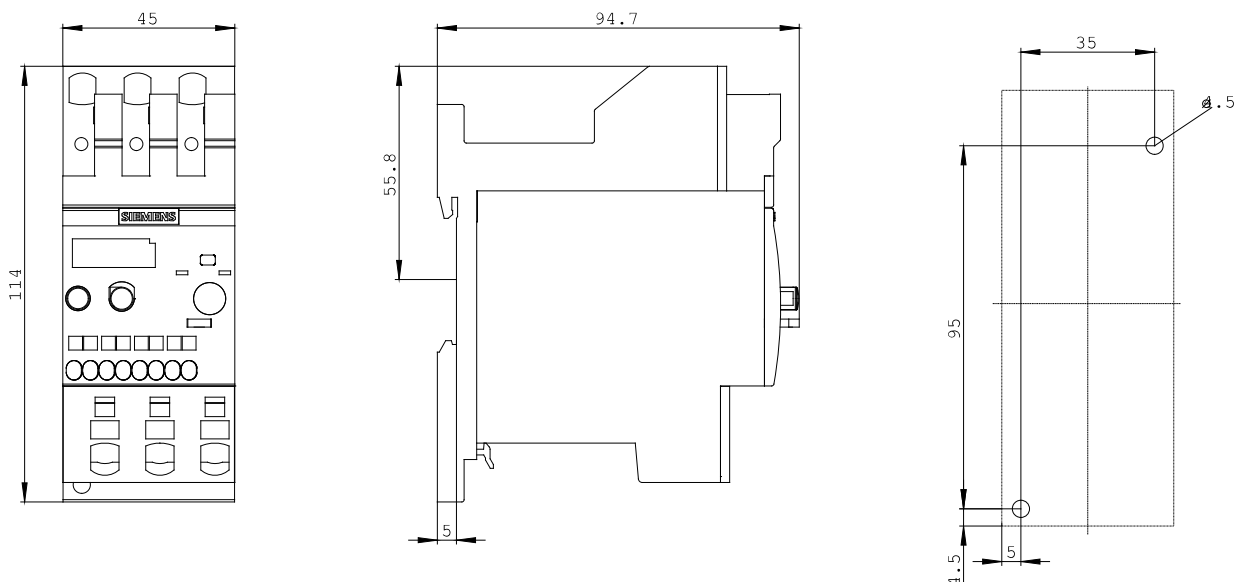
Further information:

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

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

Industry Mall (Online ordering system)

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



last change:

Oct 17, 2011