# SIEMENS

### **Product data sheet**

### 3RU2116-0KC0



OVERLOAD RELAY 0.90...1.25 A FOR MOTOR PROTECTION SZ S00, CLASS 10, F. MOUNTING ONTO CONTACTOR 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   | 4.8                         |
| Item designation   |     |                             |
| <ul> <li>according to DIN 40719 extendable after IEC 204-2 / according<br/>to IEC 750</li> </ul> |     | F                           |
| according to DIN EN 61346-2  |     | F                           |
|  |     |                             |

| Trip class   |    | CLASS 10 |
|--|----|----------|
| Type of assignement                                |    | 2        |
| Size of overload relay                             |    | S00      |
| Size of the contactor / can be combined            |    |          |
| • company-specific                                 |    | S00      |
| 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  | 1.25     |
| Service power / at AC-3                            |    |          |
| • at 400 V / rated value                           | kW | 0.37     |
| • at 500 V / rated value                           | kW | 0.55     |
| • at 690 V / rated value                           | kW | 0.75     |
| Adjustable response current                        |    |          |
| • of the current-dependent overload release        | A  | 0.9 1.25 |
| Operating current / of the fuse link / rated value | А  | 4        |

| 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   | А | 3  |  |
| • at 110 V  | А | 3  |  |
| • at 120 V  | А | 3  |  |
| • at 125 V  | А | 3  |  |
| • at 230 V  | А | 2  |  |
| • at 400 V  | А | 1  |  |
| • at DC-13  |   |  |  |
| • at 24 V   | А | 1  |  |
| • at 110 V  | А | 0.22                                       |  |
| • at 125 V  | А | 0.22                                       |  |
| • at 220 V  | А | 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  |    | direct mounting |
| 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               |
| • sidewards   | mm | 6               |
| Distance, to be maintained, to earthed part   |    |                 |
| • forwards  | mm | 0               |
| backwards   | mm | 0               |
| • upwards   | mm | 6               |
| downwards   | mm | 6               |
| • sidewards   | mm | 6               |
| Distance, to be maintained, conductive elements   |    |                 |
| • forwards  | mm | 0               |
| backwards   | mm | 0               |
| • upwards   | mm | 6               |
| downwards   | mm | 6               |
| • sidewards   | mm | 6               |

# Connections:

| Design of the electrical connection                                     |                         |
|---|-------------------------|
| for main current circuit  | spring-loaded terminals |
| <ul> <li>for auxiliary and control current circuit</li> </ul>           | 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 (0.5 4 mm2)          |
| • stranded  | 2x (0.5 4 mm2)          |
| finely stranded   |                         |
| with conductor end processing   | 2 x (0.5 2.5 mm2)       |
| without conductor final cutting   | 2x (0.5 2.5 mm2)        |

| for AWG conductors / for main contacts                          | 1x (20 12)        |
|---|-------------------|
| for auxiliary contacts  |                   |
| • solid   | 2x (0.5 2.5 mm2)  |
| finely stranded   |                   |
| with conductor end processing                                   | 2x (0.5 1.5 mm2)  |
| <ul> <li>without conductor final cutting</li> </ul>             | 2 x (0.5 1.5 mm2) |
| <ul> <li>for AWG conductors / for auxiliary contacts</li> </ul> | 2x (20 14)        |

### Certificates/approvals:

| Certificates/approv    | /als:               |                |                            |                                      |                   |
|------------------------|---------------------|----------------|----------------------------|--------------------------------------|-------------------|
| Verification of suitab | ility               |                |                            | CE / UL / CSA                        |                   |
| • ATEX                 |                     |                |                            | No                                   |                   |
| General Product Ap     | proval              |                |                            | For use in<br>hazardous<br>locations | Test Certificates |
| coc                    | (SA)                | <u>ROSTEST</u> |                            | DEKRA EXAM,<br>DMT                   | Manufacturer      |
| Shipping Approval      |                     |                |                            |                                      |                   |
| ABS                    | JÅ<br>DNV<br>DNV    | G L C          | Lloyd's<br>Register<br>Lrs | PRS                                  |                   |
| Shipping Approval      | other               |                |                            |                                      |                   |
| RMRS                   | <u>Manufacturer</u> |                |                            |                                      |                   |

| Reliability figures:                                |     |             |  |
|---|-----|-------------|--|
| Mean time to failure (MTTF) / with high demand rate | а   | 2,280       |  |
| Proportion of dangerous failures                    |     |             |  |
| • with low demand rate / according to SN 31920      | %   | 50          |  |
| with high demand rate / according to SN 31920       | %   | 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                              | а   | 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)

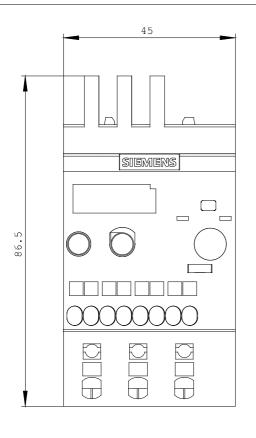
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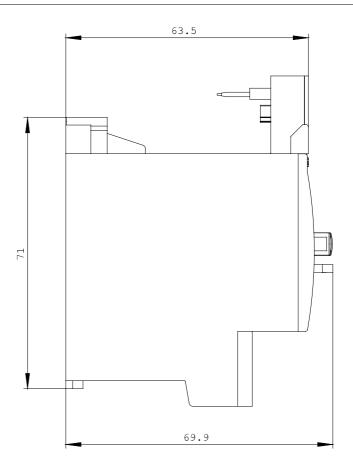
#### Cax online generator:

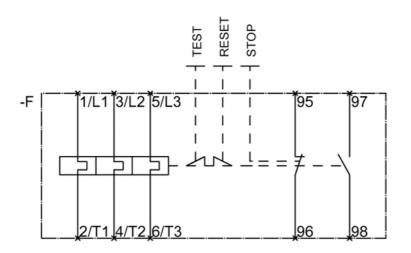
http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RU2116-0KC0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RU2116-0KC0







last change:

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