



MONITORING RELAY ATTACHABLE TO CONTACTOR  
3RT2. SIZE S00 BASIC,  
ANALOG ADJUSTABLE APPARENT CURRENT  
MONITORING 1.6 - 16A,  
50-60 HZ,  
2-PHASE SUPPLY 24 V AC/DC 1 CO CONTACT  
MONITORING FOR CURRENT  
OVERSHOOT/UNDERSHOOT PHASE FAILURE,  
WIRE BREAK WITH OR W/O ERROR LOG ON-DELAY 0-60  
S SPURIOUS PEAK SUPPR.0-30 S SWITCHING  
HYSTERESIS 6% SCREW CONNECTION

### General technical data:

|                                                                                                       |    |                                             |
|-------------------------------------------------------------------------------------------------------|----|---------------------------------------------|
| product brand name                                                                                    |    | SIRIUS                                      |
| Product designation                                                                                   |    | multi-phase current monitoring              |
| Design of the product                                                                                 |    | multi-phase current monitoring              |
| Size of the contactor / can be combined / company-specific                                            |    | S00                                         |
| Protection class IP                                                                                   |    |                                             |
| • on the front                                                                                        |    | IP20                                        |
| • of the terminal                                                                                     |    | IP20                                        |
| Insulation voltage / for overvoltage category III according to IEC 60664 / with degree of pollution 3 |    |                                             |
| • rated value                                                                                         | V  | 690                                         |
| Installation altitude / at a height over sea level / maximum                                          | m  | 2,000                                       |
| Ambient temperature                                                                                   |    |                                             |
| • during storage                                                                                      | °C | -40 ... +80                                 |
| • during operating                                                                                    | °C | -25 ... +60                                 |
| Electromagnetic compatibility                                                                         |    | IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4 |
| EMC immunity to interference                                                                          |    |                                             |
| • according to IEC 60947-1                                                                            |    | ambience A (industrial sector)              |
| EMC emitted interference                                                                              |    |                                             |
| • according to IEC 60947-1                                                                            |    | ambience A (industrial sector)              |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |        |                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------------------------------------------------------------------------------------------|
| <b>Resistance against shock</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |        | 15g / 11 ms                                                                                                          |
| <b>Resistance against vibration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        | 10 ... 55 Hz / 0.35 mm                                                                                               |
| <b>Impulse voltage resistance / rated value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | kV     | 6                                                                                                                    |
| <b>Operating apparent output / rated value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | V·A    | 4                                                                                                                    |
| <b>Rating / Rated value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | W      | 2.5                                                                                                                  |
| <b>Reference code</b> <ul style="list-style-type: none"> <li>• according to DIN 40719 extended according to IEC 204-2 / according to IEC 750</li> <li>• according to DIN EN 61346-2</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        | K<br><br>K                                                                                                           |
| <b>Mechanical operating cycles as operating time</b> <ul style="list-style-type: none"> <li>• typical</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        | 10,000,000                                                                                                           |
| <b>Electrical operating cycles as operating time / at AC-15 / at 230 V</b> <ul style="list-style-type: none"> <li>• typical</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        | 100,000                                                                                                              |
| <b>Adjustable response delay time</b> <ul style="list-style-type: none"> <li>• when starting</li> <li>• with lower or upper limit violation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | s<br>s | 0 ... 60<br>0 ... 30                                                                                                 |
| <b>Standby time / for restart after fault</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | s      | 0.3                                                                                                                  |
| <b>Phase number</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        | 3                                                                                                                    |
| <b>Number of monitored phases</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        | 2                                                                                                                    |
| <b>Product function</b> <ul style="list-style-type: none"> <li>• overcurrent monitoring</li> <li>• undercurrent monitoring</li> <li>• overcurrent and undercurrent monitoring</li> <li>• apparent current monitoring</li> <li>• active current monitoring</li> <li>• undercurrent recognition DC</li> <li>• undercurrent recognition of 1 phase</li> <li>• overcurrent recognition DC</li> <li>• current window recognition DC</li> <li>• undercurrent recognition of 3 phases</li> <li>• overcurrent recognition of 1 phase</li> <li>• tension window recognition of 3 phases</li> <li>• tension window recognition of 1 phase</li> <li>• phase sequence recognition</li> <li>• can be activated or deactivated / phase sequence recognition</li> <li>• self-reset</li> <li>• reset external</li> <li>• manual RESET</li> </ul> |        | Yes<br>Yes<br>Yes<br>Yes<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>No<br>Yes<br>No<br>Yes |
| <b>Adjustable response current</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        |                                                                                                                      |

|                                                                   |      |            |
|-------------------------------------------------------------------|------|------------|
| • 1                                                               | A    | 1.6 ... 16 |
| • 2                                                               | A    | 1.6 ... 16 |
| <b>Relative metering precision</b>                                |      |            |
| • with regard to measuring range limit                            | %    | 10         |
| <b>Type of current / for monitoring</b>                           |      | AC         |
| <b>Measurable current / for AC</b>                                | A    | 1.6 ... 16 |
| <b>Relative switching hysteresis / for measured current value</b> | %    | 6.25       |
| <b>Response time / maximum</b>                                    | ms   | 300        |
| <b>Relative repeat accuracy</b>                                   | %    | 2          |
| <b>Temperature drift per °C</b>                                   | %/°C | 0.1        |
| <b>Current-carrying capacity</b>                                  |      |            |
| • for permanent overcurrent / maximum permissible                 | A    | 16         |
| • for overcurrent duration < 1 s / maximum permissible            | A    | 320        |

#### Supply voltage:

|                                                              |    |           |
|--------------------------------------------------------------|----|-----------|
| <b>Type of / supply voltage</b>                              |    | AC/DC     |
| <b>Supply voltage frequency / 1</b>                          | Hz | 50 ... 60 |
| <b>Supply voltage / 1</b>                                    |    |           |
| • for DC / rated value                                       | V  | 24        |
| • at 50 Hz / for AC / rated value                            | V  | 24        |
| • at 60 Hz / for AC / rated value                            | V  | 24        |
| <b>Stored energy time / supply voltage failure / minimum</b> | ms | 10        |

#### Auxiliary circuit:

|                                                            |    |                        |
|------------------------------------------------------------|----|------------------------|
| <b>Design of the contact element / of the output relay</b> |    | closed-circuit current |
| <b>Operating current / at 17 V / minimum</b>               | mA | 5                      |
| <b>Number of change-over switches</b>                      |    |                        |
| • for auxiliary contacts                                   |    | 1                      |
| <b>Operating current / of the auxiliary contacts</b>       |    |                        |
| • at AC-15                                                 |    |                        |
| • at 24 V                                                  | A  | 3                      |
| • at 230 V                                                 | A  | 3                      |
| • at 400 V                                                 | A  | 3                      |
| • at DC-13                                                 |    |                        |
| • at 24 V                                                  | A  | 1                      |
| • at 125 V                                                 | A  | 0.2                    |
| • at 250 V                                                 | A  | 0.1                    |

#### Inputs/ Outputs:

#### Short-circuit:

| Installation/mounting/dimensions:                        |    |                                                                                                      |
|----------------------------------------------------------|----|------------------------------------------------------------------------------------------------------|
| <b>mounting position</b>                                 |    | any                                                                                                  |
| <b>Mounting type</b>                                     |    | direct mounting                                                                                      |
| <b>Width</b>                                             | mm | 45                                                                                                   |
| <b>Height</b>                                            | mm | 79                                                                                                   |
| <b>Depth</b>                                             | mm | 80                                                                                                   |
| <b>Distance, to be maintained, to the ranks assembly</b> |    |                                                                                                      |
| • forwards                                               | mm | 0                                                                                                    |
| • backwards                                              | mm | 0                                                                                                    |
| • upwards                                                | mm | 0                                                                                                    |
| • downwards                                              | mm | 0                                                                                                    |
| • sideways                                               | mm | 0                                                                                                    |
| <b>Distance, to be maintained, to earthed part</b>       |    |                                                                                                      |
| • forwards                                               | mm | 0                                                                                                    |
| • backwards                                              | mm | 0                                                                                                    |
| • upwards                                                | mm | 0                                                                                                    |
| • downwards                                              | mm | 0                                                                                                    |
| • sideways                                               | mm | 6                                                                                                    |
| <b>Distance, to be maintained, conductive elements</b>   |    |                                                                                                      |
| • forwards                                               | mm | 0                                                                                                    |
| • backwards                                              | mm | 0                                                                                                    |
| • upwards                                                | mm | 0                                                                                                    |
| • downwards                                              | mm | 0                                                                                                    |
| • sideways                                               | mm | 6                                                                                                    |
| Connections:                                             |    |                                                                                                      |
| <b>Design of the electrical connection</b>               |    |                                                                                                      |
| • for main current circuit                               |    | screw-type terminals                                                                                 |
| • for auxiliary and control current circuit              |    | screw-type terminals                                                                                 |
| <b>Product function</b>                                  |    |                                                                                                      |
| • removable terminal for main circuit                    |    | No                                                                                                   |
| • removable terminal for auxiliary and control circuit   |    | Yes                                                                                                  |
| <b>Type of the connectable conductor cross-section</b>   |    |                                                                                                      |
| • for main contacts                                      |    |                                                                                                      |
| • solid                                                  |    | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x (1 ... 4 mm <sup>2</sup> ) |
| • finely stranded                                        |    |                                                                                                      |
| • with conductor end processing                          |    | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )                                |
| • for AWG conductors / for main contacts                 |    | 1x 12, 2x (20 ... 14)                                                                                |
| • for auxiliary contacts                                 |    |                                                                                                      |

|                                                                                                                                                                                                                                |     |                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded <ul style="list-style-type: none"> <li>• with conductor end processing</li> </ul> </li> <li>• for AWG conductors / for auxiliary contacts</li> </ul> |     | 1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )<br><br>1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )<br><br>2x (20 ... 14) |
| <b>Tightening torque</b> <ul style="list-style-type: none"> <li>• with screw-type terminals</li> </ul>                                                                                                                         | N·m | 0.8 ... 1.2                                                                                                                                                          |

#### Certificates/approvals:

##### Verification of suitability

CE / UL / CSA

##### General Product Approval

##### EMC

##### Declaration of Conformity



##### Test Certificates

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

##### Shipping Approval



##### Shipping Approval

##### other



[Environmental Confirmations](#)

#### UL/CSA ratings:

Contact rating designation / for auxiliary contacts / according to UL

B300 / R300

#### Reliability figures:

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)

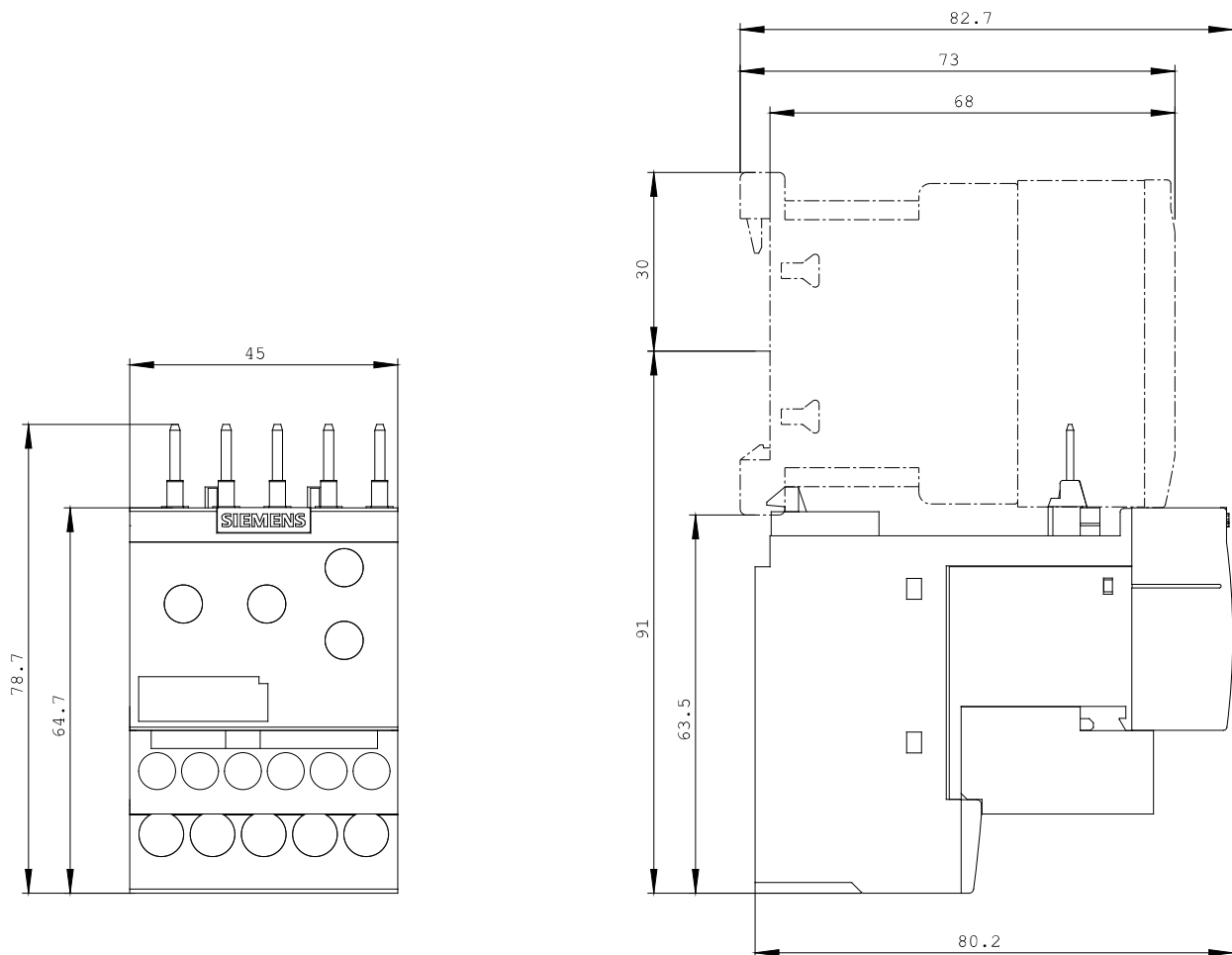
<http://www.siemens.com/industrial-controls/mall>

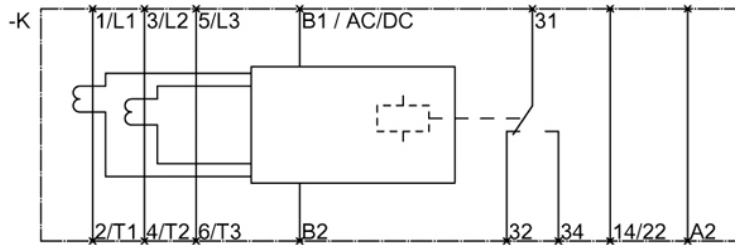
##### Cax online generator:

<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RR2141-1AA30/all>





last change:

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