

MONITORING RELAY ATTACHABLE TO CONTACTOR 3RT2. SIZE S0 STANDARD,  
DIGITAL ADJUSTABLE APPARENT/ACTIVE CURRENT MONIT. 4 - 40A,  
20-400 HZ,  
3-PHASE SUPPLY 24-240 V AC/DC 1 CO CONTACT,  
1 SEMICOND. FOR ALARM AND WARNING MONITORING FOR CURRENT OVERSHOOT/UNDERSHOOT PHASE FAILURE,  
WIRE BREAK PHASE SEQUENCE FAULT CURRENT BLOCKING CURRENT WARNING AND ALARM THRESHOLDS WITH OR W/O ERROR LOG ON-DELAY 0-99 S SPURIOUS PEAK SUPPR.0-30 S BREAK AFTER FAULT 0-300 MIN 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		S0
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)
Resistance against shock		15g / 11 ms
Resistance against vibration		10 ... 55 Hz / 0.35 mm
Impulse voltage resistance / rated value	kV	6

<b>Operating apparent output / rated value</b>	V·A	3.5
<b>Rating / Rated value</b>	W	2.5
<b>Item designation</b> <ul style="list-style-type: none"> <li>• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</li> <li>• according to DIN EN 61346-2</li> </ul>		K  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>Precision of digital display</b>		+/-1 digit
<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 s	0 ... 99 0 ... 30
<b>Standby time / for restart after fault</b>	s	0.2
<b>Phase number</b>		3
<b>Number of monitored phases</b>		3
<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 Yes Yes Yes Yes No No No No Yes No No No Yes Yes Yes No Yes
<b>Adjustable response current</b> <ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> </ul>	A A	4 ... 40 4 ... 40

<b>Factor / as multiple of the current monitoring upper limit</b> • for the adjustable value of a blocking current		2 ... 5
<b>Response value residual current detection / at 50/60 Hz</b> • typical	A	4
<b>Relative metering precision</b> • with regard to measured value	%	5
<b>Type of current / for monitoring</b>		AC
<b>Measurable current / for AC</b>	A	4 ... 40
<b>Adjustable switching hysteresis for measured current value</b>	A	0.1 ... 8
<b>Response time / maximum</b>	ms	200
<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 • for overcurrent duration < 1 s / maximum permissible	A A	40 800

#### Supply voltage:

<b>Type of voltage / of supply voltage</b>		AC/DC
<b>Supply voltage frequency / 1</b>	Hz	50 ... 60
<b>Supply voltage / 1</b> • for DC • at 50 Hz / for AC • at 60 Hz / for AC	V V V	24 ... 240 24 ... 240 24 ... 240
<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 / open-circuit current
<b>Operating current / at 17 V / minimum</b>	mA	5
<b>Number of outputs / as contact-less semiconductor switching element / for reporting function</b> • non-delayed		1
<b>Current-carrying capacity / of the semiconductor output</b> • at DC-13 / at 240 V • at AC-14 / at 240 V / at 50/60 Hz	mA mA	20 20
<b>Residual current / of the semiconductor output / maximum</b>	mA	0.035
<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 • at 230 V	A A	3 3

- at 400 V
- at DC-13
- at 24 V
- at 125 V
- at 250 V

A	3
A	1
A	0.2
A	0.1

#### Inputs/ Outputs:

#### Short-circuit:

#### Installation/mounting/dimensions:

<b>mounting position</b>		any
<b>Type of mounting</b>		direct mounting
<b>Width</b>	mm	45
<b>Height</b>	mm	88
<b>Depth</b>	mm	93
<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	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	mm	6
<b>Distance, to be maintained, conductive elements</b>		
• forwards	mm	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• 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> <ul style="list-style-type: none"> <li>for main 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> </ul> </li> <li>for AWG conductors / for main contacts</li> <li>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> </ul> </li> <li>for AWG conductors / for auxiliary contacts</li> </ul>		2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )  2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup> 2 x (16 ... 14), 2x (14 ... 8)  1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )  1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> ) 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

##### Test Certificates



CCC



CSA



GOST



UL

[other](#)

[Type Test  
Certificates/Test  
Report](#)

##### Shipping Approval

[other](#)



ABS



DNV



GL



LRS



RMRS

[Declaration of  
Conformity](#)

#### UL/CSA ratings:

Contact rating designation / for auxiliary contacts / according to UL

B300 / R300

#### 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:

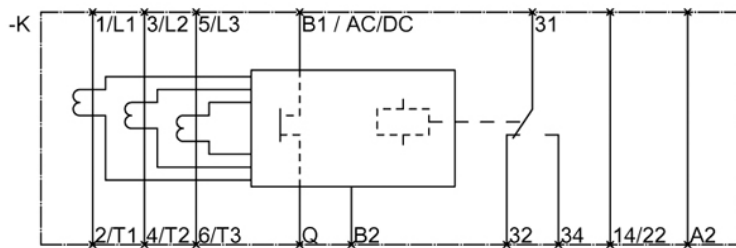
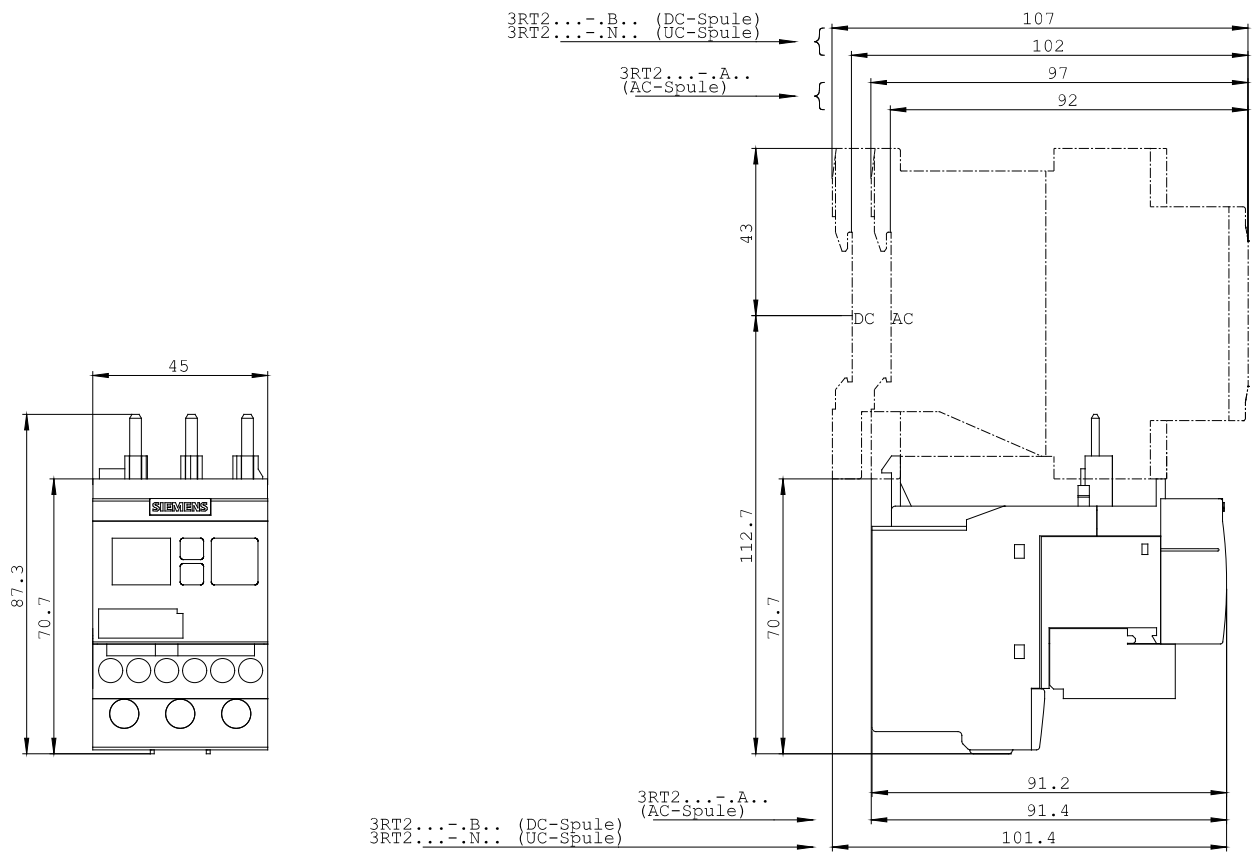
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RR2242-1FW30/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RR2242-1FW30](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RR2242-1FW30)



last change:

Jun 4, 2012