

MONITORING RELAY ATTACHABLE TO CONTACTOR  
 3RT2. SIZE S0 BASIC,  
 ANALOG ADJUSTABLE APPARENT CURRENT  
 MONITORING 4 - 40A,  
 50-60 HZ,  
 2-PHASE SUPPLY 24-240 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:		
<b>product brand name</b>		SIRIUS
<b>Product designation</b>		multi-phase current monitoring
<b>Design of the product</b>		multi-phase current monitoring
<b>Size of the contactor / can be combined / company-specific</b>		S0
<b>Protection class IP</b>		
<ul style="list-style-type: none"> <li>• on the front</li> </ul>		IP20
<ul style="list-style-type: none"> <li>• of the terminal</li> </ul>		IP20
<b>Insulation voltage / for overvoltage category III according to IEC 60664 / with degree of pollution 3</b>		
<ul style="list-style-type: none"> <li>• rated value</li> </ul>	V	690
<b>Installation altitude / at a height over sea level / maximum</b>	m	2,000
<b>Ambient temperature</b>		
<ul style="list-style-type: none"> <li>• during storage</li> </ul>	°C	-40 ... +80
<ul style="list-style-type: none"> <li>• during operating</li> </ul>	°C	-25 ... +60
<b>Electromagnetic compatibility</b>		IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
<b>EMC immunity to interference</b>		
<ul style="list-style-type: none"> <li>• according to IEC 60947-1</li> </ul>		ambience A (industrial sector)
<b>EMC emitted interference</b>		
<ul style="list-style-type: none"> <li>• according to IEC 60947-1</li> </ul>		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
		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> </ul>	s	0 ... 60
<ul style="list-style-type: none"> <li>• with lower or upper limit violation</li> </ul>	s	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> </ul>		Yes
<ul style="list-style-type: none"> <li>• undercurrent monitoring</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• overcurrent and undercurrent monitoring</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• apparent current monitoring</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• active current monitoring</li> </ul>		No
<ul style="list-style-type: none"> <li>• undercurrent recognition DC</li> </ul>		No
<ul style="list-style-type: none"> <li>• undercurrent recognition of 1 phase</li> </ul>		No
<ul style="list-style-type: none"> <li>• overcurrent recognition DC</li> </ul>		No
<ul style="list-style-type: none"> <li>• current window recognition DC</li> </ul>		No
<ul style="list-style-type: none"> <li>• undercurrent recognition of 3 phases</li> </ul>		No
<ul style="list-style-type: none"> <li>• overcurrent recognition of 1 phase</li> </ul>		No
<ul style="list-style-type: none"> <li>• tension window recognition of 3 phases</li> </ul>		No
<ul style="list-style-type: none"> <li>• tension window recognition of 1 phase</li> </ul>		No
<ul style="list-style-type: none"> <li>• phase sequence recognition</li> </ul>		No
<ul style="list-style-type: none"> <li>• can be activated or deactivated / phase sequence recognition</li> </ul>		No
<ul style="list-style-type: none"> <li>• self-reset</li> </ul>		Yes
<ul style="list-style-type: none"> <li>• reset external</li> </ul>		No
<ul style="list-style-type: none"> <li>• manual RESET</li> </ul>		Yes
<b>Adjustable response current</b>		

• 1	A	4 ... 40
• 2	A	4 ... 40
<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	4 ... 40
<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	40
• for overcurrent duration < 1 s / maximum permissible	A	800

#### 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	V	24 ... 240
• at 50 Hz / for AC	V	24 ... 240
• at 60 Hz / for AC	V	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
<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	87
<b>Depth</b>	mm	91
<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>		
• for main contacts		
• solid		2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )
• finely stranded		
• with conductor end processing		2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup>
• for AWG conductors / for main contacts		2 x (16 ... 14), 2x (14 ... 8)
• for auxiliary contacts		
• solid		1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )

<ul style="list-style-type: none"> <li>finely stranded</li> <li>with conductor end processing</li> <li>for AWG conductors / for auxiliary contacts</li> </ul>		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:**

<b>Verification of suitability</b>	CE / UL / CSA	
------------------------------------	---------------	--

<b>General Product Approval</b>	<b>EMC</b>	<b>Declaration of Conformity</b>
---------------------------------	------------	----------------------------------



CCC



CSA



UL



C-TICK



EG-Konf.

**Test Certificates**

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

**Shipping Approval**



ABS



BUREAU VERITAS



DNV



GL



LRS



RINA

**Shipping Approval other**



RMRS

[Environmental Confirmations](#)

**UL/CSA ratings:**

<b>Contact rating designation / for auxiliary contacts / according to UL</b>	B300 / R300
--	-------------

**Reliability figures:**

<b>Protection against electrical shock</b>	finger-safe
--	-------------

**Further information:**

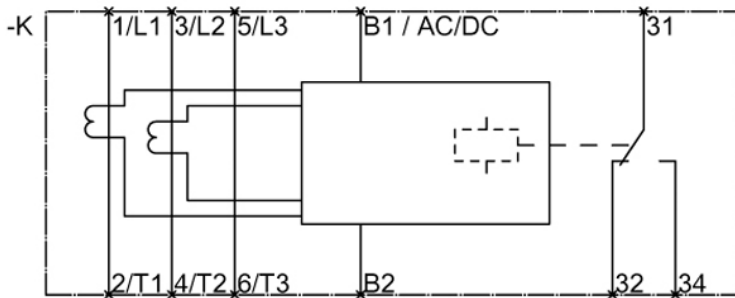
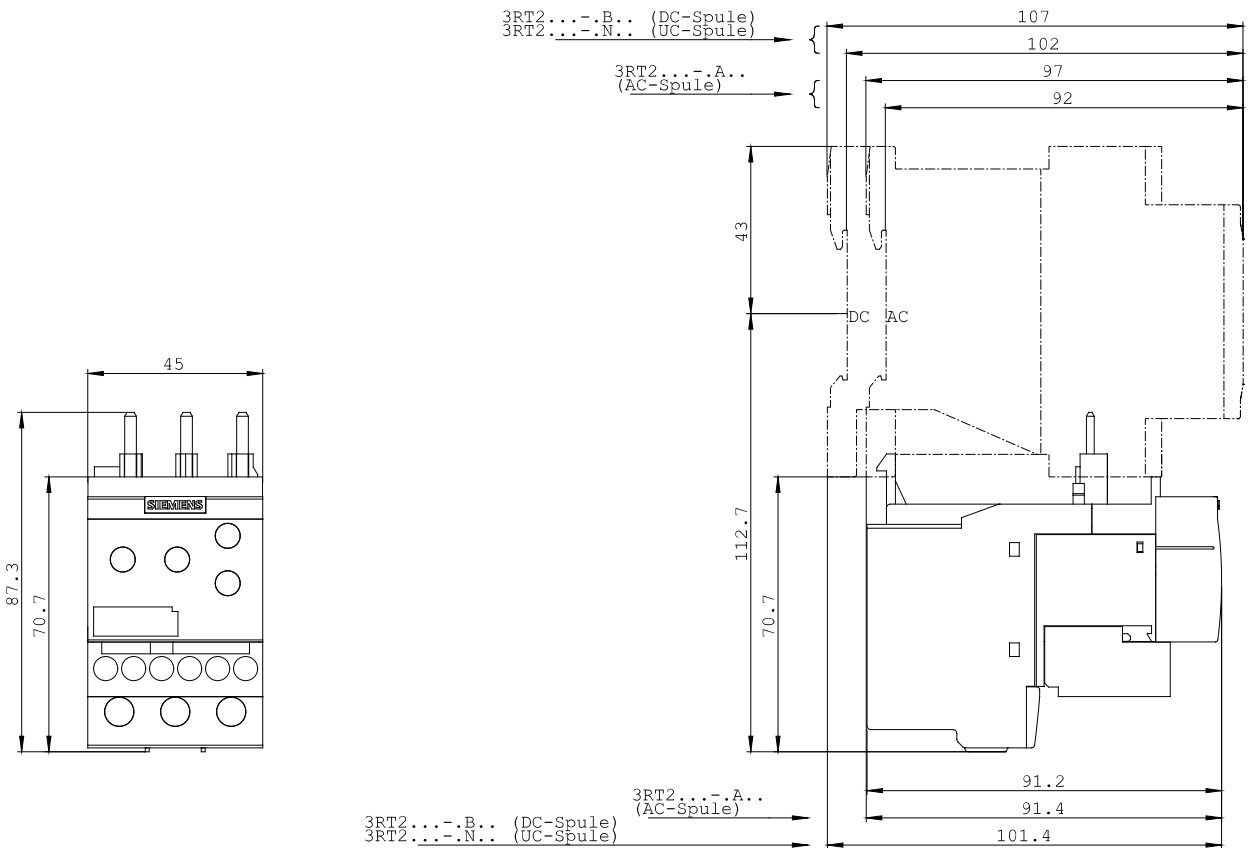
**Information- and Downloadcenter (Catalogs, Brochures,...)**  
<http://www.siemens.com/industrial-controls/catalogs>

**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/3RR2142-1AW30/all>

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**  
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RR2142-1AW30](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RR2142-1AW30)



last change:

Aug 4, 2014