



MONITORING RELAY ATTACHABLE TO CONTACTOR  
3RT2. SIZE S0 BASIC,  
ANALOG ADJUSTABLE APPARENT CURRENT  
MONITORING 4 - 40A,  
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% SPRING-LOADED 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>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 ... 60 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 Yes Yes Yes No No No No No No No No No No No No 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>Relative metering precision</b>		

• with regard to measuring range limit	%	5
<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

<b>Supply voltage:</b>		
<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 / 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

<b>Auxiliary circuit:</b>		
<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>Built in orientation</b>		any
<b>Type of mounting</b>		direct mounting

<b>Width</b>	mm	45
<b>Height</b>	mm	109
<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		spring-loaded terminals
• for auxiliary and control current circuit		spring-loaded 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		1x (1 ... 10 mm <sup>2</sup> )
• finely stranded		
• with conductor end processing		1x (1 ... 6 mm <sup>2</sup> )
• without conductor final cutting		1x (1 ... 6 mm <sup>2</sup> )
• for AWG conductors / for main contacts		1x (18 ... 8)
• for auxiliary contacts		
• solid		1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )
• finely stranded		
• with conductor end processing		2x (0.25 ... 1.5 mm <sup>2</sup> )

<ul style="list-style-type: none"> <li>• without conductor final cutting</li> <li>• for AWG conductors / for auxiliary contacts</li> </ul>		2x (0.25 ... 1.5 mm <sup>2</sup> ) 2x (24 ... 16)
<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



CQC



CSA

[ROSTEST](#)



UL

[Manufacturer](#)

[other](#)

##### Shipping Approval

**other**



ABS



DNV



GL



LRS



RMRS

[Manufacturer](#)

#### 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:**

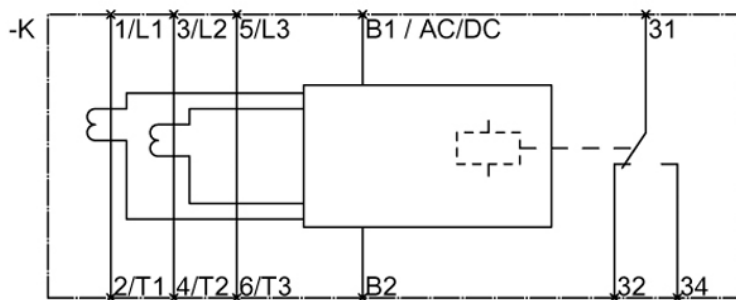
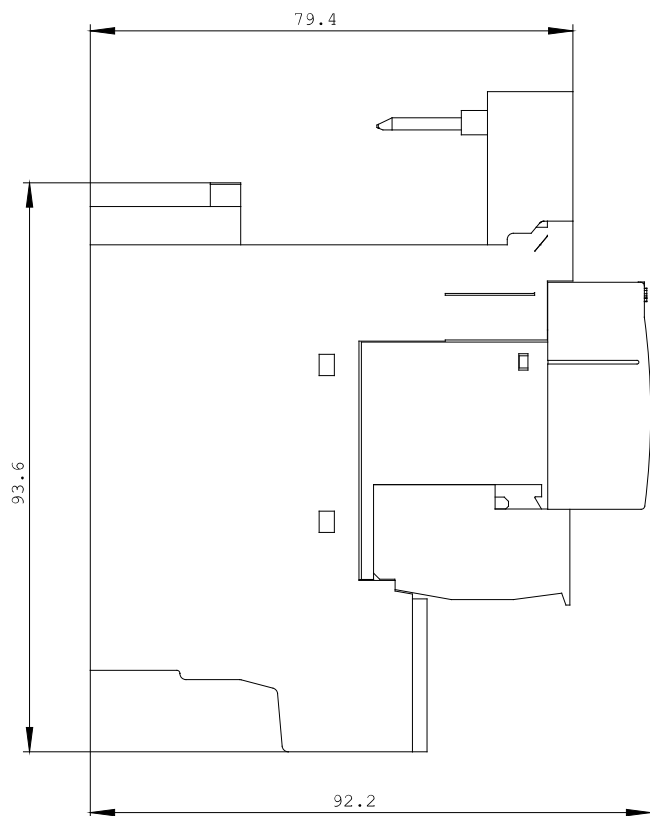
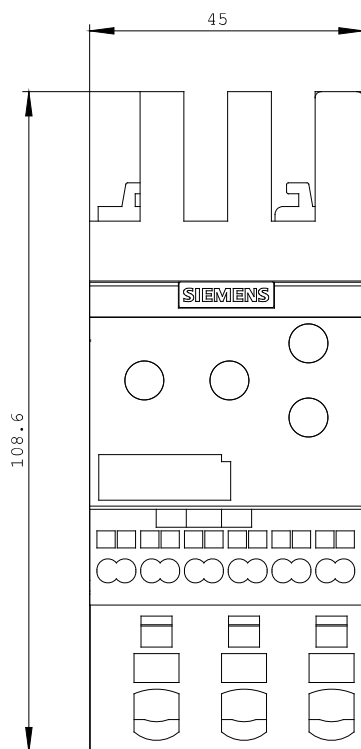
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RR2142-2AA30/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RR2142-2AA30](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RR2142-2AA30)



last change:

Oct 24, 2011