

MONITORING RELAY ATTACHABLE TO CONTACTOR  
3RT2. SIZE S0 BASIC,  
ANALOG ADJUSTABLE APPARENT CURRENT  
MONITORING 4 - 40A,  
50-60 HZ, 2-PHASE

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>		IP20
<ul style="list-style-type: none"> <li>• frontal/front side</li> <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>Altitude of installation site / 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> <li>• during the operating phase</li> </ul>	°C	-40 ... 80
	°C	-25 ... 60
<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	3.5
<b>Service power / 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>		100,000
• typical		
<b>Adjustable ON delay time</b>		
• when starting	s	0 ... 60
• with lower or upper limit violation	s	0 ... 30
<b>Standby time / for restart after fault</b>	s	0.3
<b>Phase number</b>		2
<b>Number of monitored phases</b>		2
<b>Product function</b>		
• overcurrent monitoring		Yes
• undercurrent monitoring		Yes
• overcurrent and undercurrent monitoring		Yes
• apparent current monitoring		Yes
• active current monitoring		No
• Undercurrent recognition DC		No
• Undercurrent recognition of 1 phase		No
• Overcurrent recognition DC		No
• Current window recognition DC		No
• Undercurrent recognition of 3 phases		No
• Overcurrent recognition of 1 phase		No
• Tension window recognition of 3 phases		No
• Tension window recognition of 1 phase		No
• Phase sequence recognition		No
• can be activated or deactivated / phase sequence recognition		No
• Self-reset		Yes
• Reset external		No
• Manual RESET		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 / max. permissible
- for overcurrent duration < 1 a / max. permissible

A	40
A	800

### Supply voltage:

<b>Type of voltage / of the supply voltage</b>		AC/DC
<b>Supply voltage frequency / 1</b>	Hz	50 ... 60
<b>Supply voltage / 1</b>		
• at 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 contact		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 fixing/fixation</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		
• unifilar		1x (1 ... 10 mm <sup>2</sup> )
• stranded wire		
• with conductor end processing		1x (1 ... 6 mm <sup>2</sup> )
• without conductor final cutting		1x (1 ... 6 mm <sup>2</sup> )
• at AWG-conductors / for main contacts		1x (18 ... 8)
• for auxiliary contact		
• solid		0.5 ... 4 mm <sup>2</sup> , 2x (0.5 ... 2.5 mm <sup>2</sup> )
• stranded wire		
• with wire end processing		2x (0.25 ... 1.5 mm <sup>2</sup> )
• without conductor final cutting		2x (0.25 ... 1.5 mm <sup>2</sup> )
• for AWG conductors / for auxiliary contacts		2x (24 ... 16)
<b>Tightening torque</b>		
• at screw-type terminals	N-m	0.8 ... 1.2

### Certificates/approvals:

<b>verification of suitability</b>		CE / UL / CSA
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### Further information:

**Information- and Downloadcenter (Catalogs, Brochures,...)**

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

**Global Industry Mall (Online ordering system)**

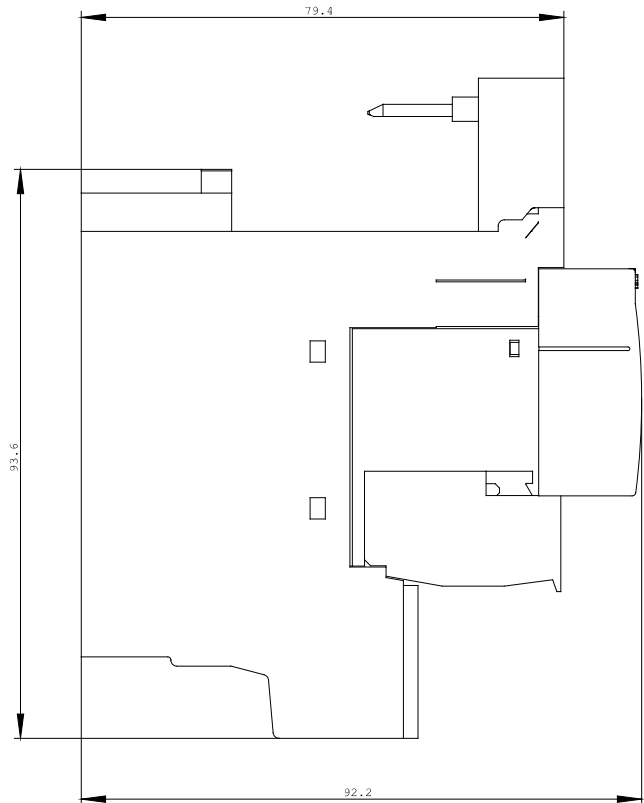
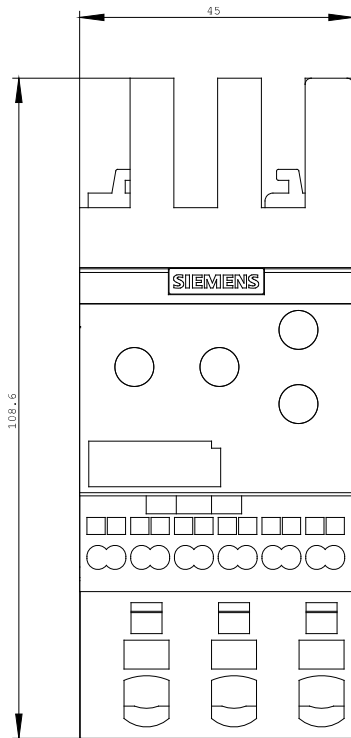
<http://www.siemens.com/industrial-controls/mall>

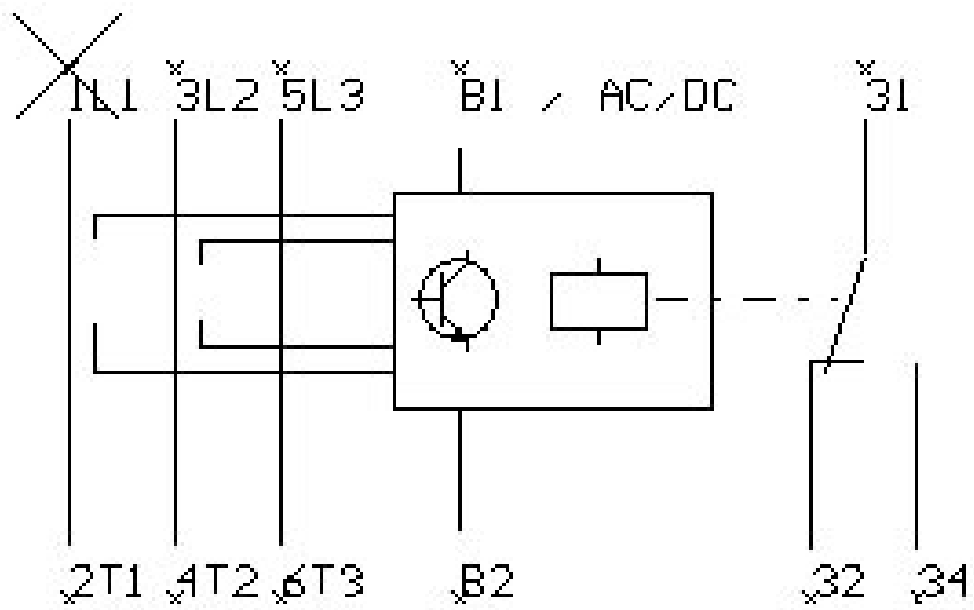
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<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:

May 10, 2010