



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 contactor can be combined company-specific		S0
Protection class IP		IP20
<ul style="list-style-type: none"> <li>• on the front</li> <li>• of the terminal</li> </ul>		IP20
Insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 Rated value	V	690
Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
<ul style="list-style-type: none"> <li>• during storage</li> <li>• during operation</li> </ul>	°C	-40 ... +80
	°C	-25 ... +60
Electromagnetic compatibility		IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
EMI immunity acc. to IEC 60947-1		ambience A (industrial sector)
EMC emitted interference acc. to IEC 60947-1		ambience A (industrial sector)
Shock resistance		15g / 11 ms
Vibration resistance		10 ... 55 Hz / 0.35 mm
Surge voltage resistance Rated value	kV	6
Operating apparent output Rated value	V·A	4
Operating power Rated value	W	2.5
Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		K

<b>Equipment marking acc. to DIN EN 61346-2</b>		K
Mechanical service life (switching cycles) typical		10 000 000
Electrical endurance (switching cycles) at AC-15 at 230 V typical		100 000
<b>Accuracy of digital display</b>		+/-1 digit
<b>Adjustable response delay time</b>		
• when starting	s	0 ... 99
• with lower or upper limit violation	s	0 ... 30
<b>Stand-by 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>		
• Overcurrent monitoring		Yes
• Undercurrent monitoring		Yes
• Overcurrent and undercurrent monitoring		Yes
• Apparent current monitoring		Yes
• active current monitoring		Yes
• undercurrent detection DC		No
• undercurrent detection 1 phase		No
• Overcurrent detection DC		No
• Current window recognition DC		No
• undercurrent detection 3 phases		Yes
• Overcurrent detection 1 phase		No
• Voltage window recognition 3 phase		No
• Voltage window recognition 1 phase		No
• phase sequence recognition		Yes
• can be activated or deactivated phase sequence recognition		Yes
• Auto-reset		Yes
• External reset		No
• Manual RESET		Yes
<b>Adjustable response value current</b>		
• 1	A	4 ... 40
• 2	A	4 ... 40
Factor as multiple of the current monitoring upper limit for the adjustable value of a blocking current		2 ... 5
Response value residual current detection at 50/60 Hz typical	A	4
<b>Relative metering precision</b>		
• relating to measured value	%	5
<b>Type of current for monitoring</b>		AC
<b>Measurable current with 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>Ampacity</b>		
• for permanent overcurrent maximum permissible	A	40
• for overcurrent duration < 1 s maximum permissible	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>		
• for DC	V	24 ... 240
• with AC		
— at 50 Hz	V	24 ... 240
— at 60 Hz	V	24 ... 240
<b>Buffering time in the event of power failure minimum</b>	ms	10

#### Auxiliary circuit:

<b>Circuit principle of the output relay</b>		closed-circuit current / open-circuit current
<b>Operating current at 17 V minimum</b>	mA	5
Number of outputs as contact-less semiconductor switching element for signaling function instantaneous contact		1
<b>Ampacity of the semiconductor output</b>		
• at DC-13 at 240 V	mA	20
• at AC-14 at 240 V at 50/60 Hz	mA	20
<b>Residual current of the semiconductor output maximum</b>	mA	0.035
<b>Number of CO contacts</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>Required spacing with side-by-side mounting</b>		
• forwards	mm	0
• Backwards	mm	0
• upwards	mm	0
• downwards	mm	0
• at the side	mm	0
<b>Required spacing for grounded parts</b>		
• forwards	mm	6
• Backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• at the side	mm	6
<b>Required spacing for live parts</b>		
• forwards	mm	6
• Backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• at the side	mm	6

### Connections/ Terminals:

<b>Type of 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 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 core 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		2x (20 ... 14)

- for auxiliary contacts

- solid

- finely stranded

- with core end processing

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>)

Tightening torque with screw-type terminals

N·m

0.8 ... 1.2

### Certificates/ approvals:

Certificate of suitability

CE / UL / CSA

General Product Approval

EMC

Declaration of  
Conformity



CCC



CSA



UL



C-TICK



EG-Konf.

Test Certificates

Shipping Approval

[Type Test  
Certificates/Test  
Report](#)

[Special Test  
Certificate](#)



ABS



BUREAU  
VERITAS



DNV



GL

Shipping Approval

other



LRS



RINA



RMRS

[Environmental  
Confirmations](#)

[Confirmation](#)

### UL/CSA ratings:

Contact rating of the auxiliary contacts acc. to UL

B300 / R300

### Safety related data:

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/industrymall>

Cax online generator

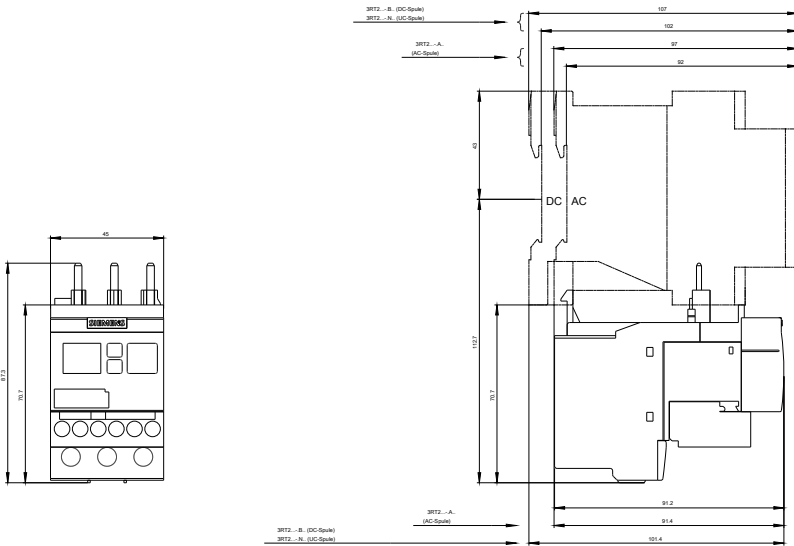
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR22421FW30>

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

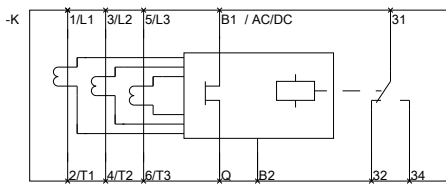
<http://support.automation.siemens.com/WW/view/en/3RR22421FW30/all>

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

<http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RR22421FW30&lang=en>



~~NON-REVERSING RELAY 3RT2~~



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last modified:

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