

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 OVERTHOOT/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 brandname</b>		SIRIUS
<b>Product designation</b>		Monitoring relays
<b>Design of the product</b>		analogically adjustable, 2-phase current monitoring
<b>Size of contactor can be combined company-specific</b>		S0
<b>Protection class IP</b>		
• on the front		IP20
• of the terminal		IP20
Insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	V	690
<b>Installation altitude at height above sea level maximum</b>	m	2 000
<b>Ambient temperature</b>		
• during storage	°C	-40 ... +80
• during operation	°C	-25 ... +60
<b>Electromagnetic compatibility</b>		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)

<b>Shock resistance</b>		15g / 11 ms
<b>Vibration resistance</b>		10 ... 55 Hz / 0.35 mm
<b>Surge voltage resistance rated value</b>	kV	6
<b>Operating apparent output rated value</b>	V·A	4
<b>Operating power rated value</b>	W	2.5
<b>Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b>		K
<b>Equipment marking acc. to DIN EN 61346-2</b>		K
<b>Mechanical service life (switching cycles) typical</b>		10 000 000
<b>Electrical endurance (switching cycles) at AC-15 at 230 V typical</b>		100 000
<b>Adjustable response delay time</b>		
• when starting	s	0 ... 60
• with lower or upper limit violation	s	0 ... 30
<b>Stand-by 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>		
• Overcurrent monitoring		Yes
• Undercurrent monitoring		Yes
• Overcurrent and undercurrent monitoring		Yes
• Apparent current monitoring		Yes
• active current monitoring		No
• undercurrent detection DC		No
• undercurrent detection 1 phase		No
• Overcurrent detection DC		No
• Current window recognition DC		No
• undercurrent detection 3 phases		No
• Overcurrent detection 1 phase		No
• Voltage window recognition 3 phase		No
• Voltage window recognition 1 phase		No
• phase sequence recognition		No
• can be activated or deactivated phase sequence recognition		No
• Auto-reset		Yes
• External reset		No
• Manual RESET		Yes
<b>Adjustable pick-up value current</b>		
• 1	A	4 ... 40
• 2	A	4 ... 40
<b>Relative metering precision</b>		
• relating to measuring range limit	%	10
<b>Type of current for monitoring</b>		AC

<b>Measurable current at 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>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>		
• at DC rated value	V	24
• at AC		
— at 50 Hz rated value	V	24
— at 60 Hz rated value	V	24
<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
<b>Operating current at 17 V minimum</b>	mA	5
<b>Number of CO contacts</b>		
• for auxiliary contacts		1
<b>Operating current of 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-sections</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>
• at AWG conductors		
— for main contacts		2 x (16 ... 14), 2x (14 ... 8)
— for auxiliary contacts		2x (20 ... 14)
• for auxiliary contacts		
— solid		1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )
— finely stranded		
— with core end processing		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



Test Certificates Shipping Approval

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Shipping Approval other



[Environmental Confirmations](#)

[Confirmation](#)

UL/CSA ratings:

Contact rating of auxiliary contacts according to UL B300 / R300

Safety related data:

Protection against electrical shock finger-safe

Further information

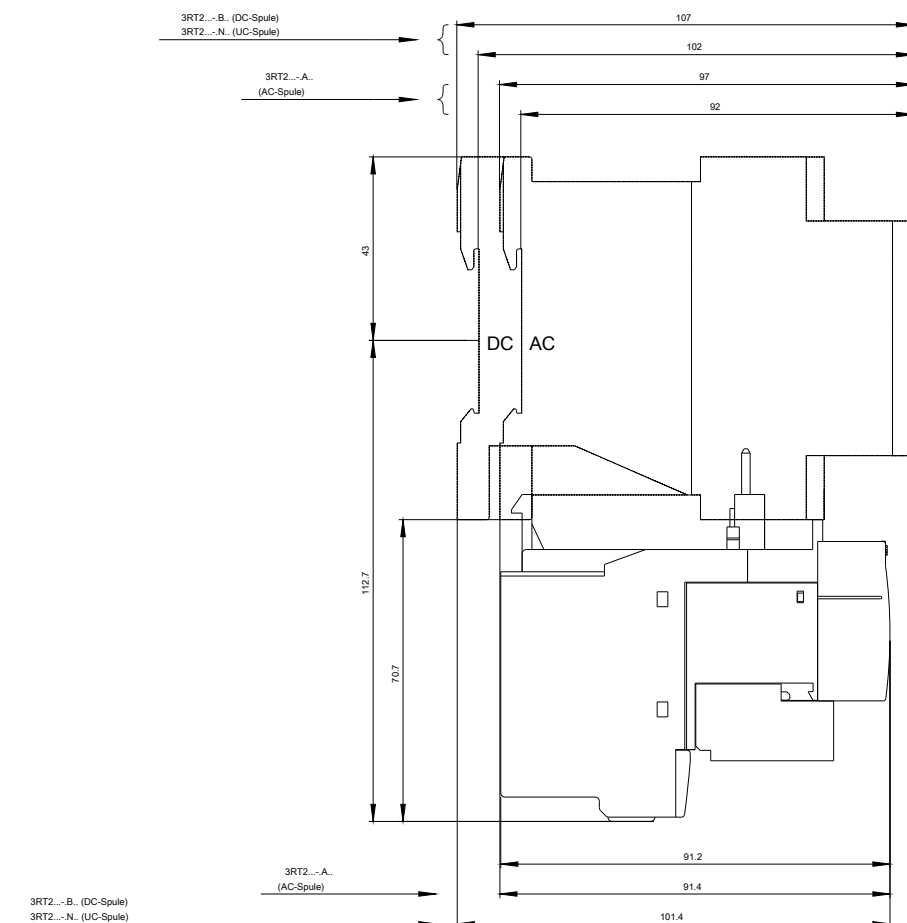
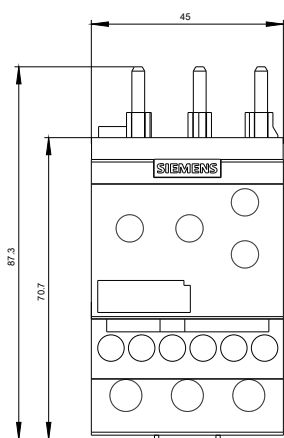
Information- and Downloadcenter (Catalogs, Brochures,...)  
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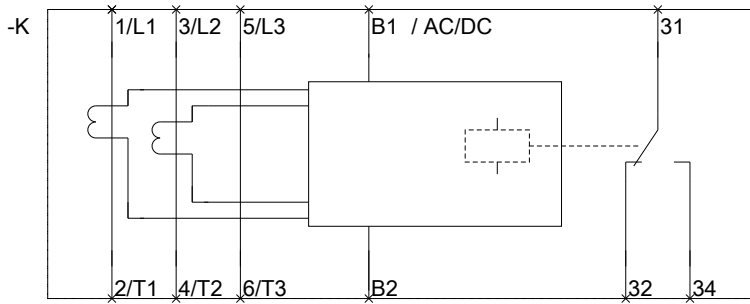
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<https://support.industry.siemens.com/cs/ww/en/ps/3RR2142-1AA30>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)  
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RR2142-1AA30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RR2142-1AA30&lang=en)





last modified:

07/01/2017