



Figure similar

CURRENT MONITORING RELAY MOUNTABLE ON CONT. 3RT2, SZ. S2, APPARENT/ACTIVE CURR. MONIT. 8 - 80A, 20-400 HZ, 3-PH., SUPPLY 24 V DC, 1 CO CONTACT, MONITORING F. CURRENT OVER-/UNDERSHOOT, CURRENT ASYMMETRY, PHASE FAILURE / WIRE BREAK, PHASE SEQUENCE, FAULT CURRENT, BLOCKING CURRENT, SWITCHING CYCLE/OP. HOURS COUNTER, WARNING/ALARM THRESHOLDS, AUTO OR MANUAL RESET ON-DELAY 0-999.9 S OFF-DELAY 0-999.9 S RECLOSING DELAY 0-999.9MIN 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 contactor can be combined company-specific</b>		S2
<b>Protection class IP</b>		
<ul style="list-style-type: none"> <li>• on the front</li> <li>• of the terminal</li> </ul>		IP20 IP00
<b>Insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 Rated value</b>	V	690
<b>Installation altitude at height above sea level maximum</b>	m	2 000
<b>Ambient temperature</b>		
<ul style="list-style-type: none"> <li>• during storage</li> <li>• during operation</li> </ul>	°C °C	-40 ... +80 -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>		10g / 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	2.5
<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
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 ... 999.9
• with lower or upper limit violation	s	0 ... 999.9
<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		Yes
• Manual RESET		Yes
<b>Adjustable response value current</b>		
• 1	A	8 ... 80
• 2	A	8 ... 80
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	8
<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	8 ... 80

<b>Adjustable switching hysteresis for measured current value</b>	A	0.2 ... 16
<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	80
• for overcurrent duration < 1 s maximum permissible	A	1 600

#### Supply voltage:

<b>Type of voltage of the supply voltage</b>		DC
<b>Supply voltage 1</b>		
• for DC Rated value	V	24
• for DC	V	18 ... 30

#### 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
<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 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	55
<b>Height</b>	mm	99
<b>Depth</b>	mm	112
<b>Required spacing with side-by-side mounting</b>		
• forwards	mm	0
• Backwards	mm	0
• upwards	mm	0
• downwards	mm	10

• at the side	mm	0
<b>Required spacing for grounded parts</b>		
• forwards	mm	10
• Backwards	mm	0
• upwards	mm	10
• downwards	mm	10
• at the side	mm	10
<b>Required spacing for live parts</b>		
• forwards	mm	10
• Backwards	mm	0
• upwards	mm	10
• downwards	mm	10
• at the side	mm	10

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 ... 35 mm <sup>2</sup> ), 1x (1 ... 50 mm <sup>2</sup> )
— stranded		2x (1 ... 35 mm <sup>2</sup> ), 1x (1 ... 50 mm <sup>2</sup> )
— finely stranded		
— with core end processing		2x (1 ... 25 mm <sup>2</sup> ), 1x (1 ... 35 mm <sup>2</sup> )
• for AWG conductors		
— for main contacts		2x (18 ... 2), 1x (18 ... 1)
— 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:		
<b>Certificate of suitability</b>		CE / UL / CSA


[Confirmation](#)
[Environmental  
Confirmations](#)

### UL/CSA ratings:

**Contact rating of the auxiliary contacts acc. to UL**

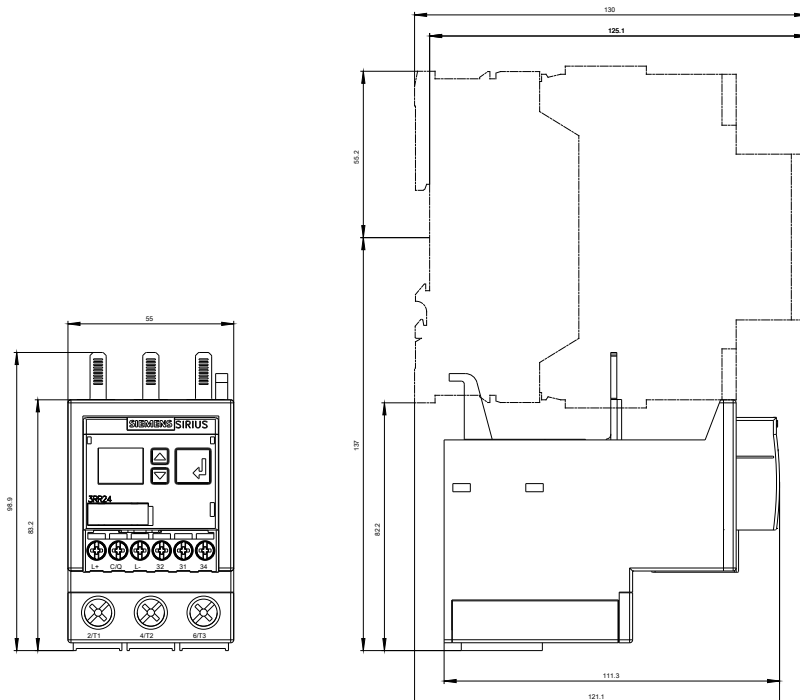
B300 / R300

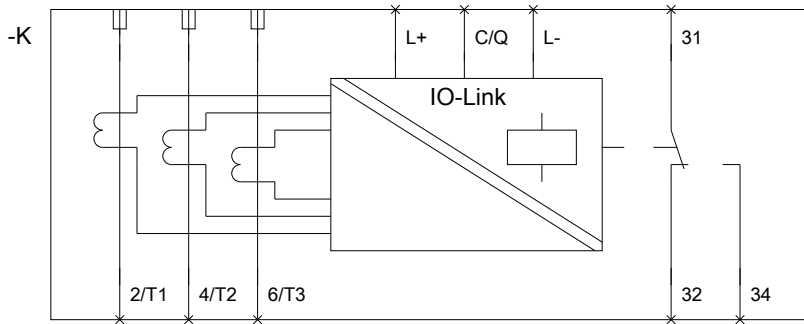
### Safety related data:

**Protection against electrical shock**

finger-safe when touched vertically from front acc. to IEC 60529

### 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=3RR24431AA40>
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
<http://support.automation.siemens.com/WW/view/en/3RR24431AA40/all>
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
<http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RR24431AA40&lang=en>




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