



Monitoring relay, can be mounted to Contactor 3RT2, Size S2 basic, analog adjustment Apparent current monitoring 8...80 A, 50...60 Hz, 2-phase Supply 24-240 V AC/DC 1 change-over contact Monitoring for Current overshoot and undershoot Phase failure, Cable break with or without fault buffer ON delay 0-60 s Noise pulse suppression 0-30 s Switching hysteresis 6% Screw connection system

Product brand name	SIRIUS
Product designation	Monitoring relays
Design of the product	analogically adjustable, 2-phase current monitoring
Product type designation	3RR2
General technical data	
Size of contactor can be combined company-specific	S2
Operating apparent output rated value	4 V·A
Insulation voltage <ul style="list-style-type: none"><li>• for overvoltage category III according to IEC 60664</li><li>— with degree of pollution 3 rated value</li></ul>	690 V
Surge voltage resistance rated value	6 kV
Protection class IP <ul style="list-style-type: none"><li>• on the front</li><li>• of the terminal</li></ul>	IP20 IP00
Shock resistance	10g / 11 ms
Vibration resistance	10 ... 55 Hz / 0.35 mm
Mechanical service life (switching cycles) <ul style="list-style-type: none"><li>• typical</li></ul>	10 000 000

<b>Electrical endurance (switching cycles)</b>	
• at AC-15 at 230 V typical	100 000
<b>Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b>	K
<b>Reference code acc. to DIN EN 81346-2</b>	K
<b>Reference code acc. to DIN EN 61346-2</b>	K
<b>Relative repeat accuracy</b>	2 %

#### Supply voltage

<b>Type of voltage of the supply voltage</b>	AC/DC
<b>Supply voltage 1 at AC</b>	
• at 50 Hz	24 ... 240 V
• at 60 Hz	24 ... 240 V
<b>Supply voltage 1 at DC</b>	24 ... 240 V
<b>Supply voltage frequency</b>	
• 1	50 ... 60 Hz

#### Measuring circuit

<b>Type of current for monitoring</b>	AC
<b>Adjustable pick-up value current</b>	
• 1	8 ... 80 A
• 2	8 ... 80 A
<b>Adjustable response delay time</b>	
• when starting	0 ... 60 s
• with lower or upper limit violation	0 ... 30 s

#### Precision

<b>Temperature drift per °C</b>	0.1 %/°C
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#### Communication/ Protocol

<b>Protocol is supported</b>	
• IO-Link protocol	No
<b>Type of voltage supply via input/output link master</b>	No

#### Auxiliary circuit



<b>Number of CO contacts</b>	
• for auxiliary contacts	1
<b>Operating current of auxiliary contacts at AC-15</b>	
• at 24 V	3 A
• at 230 V	3 A
• at 400 V	3 A
<b>Operating current of auxiliary contacts at DC-13</b>	
• at 24 V	1 A
• at 125 V	0.2 A
• at 250 V	0.1 A

Contact rating of auxiliary contacts according to UL	B300 / R300
<b>Main circuit</b>	
Operating power	
• rated value	2.5 W
<b>Outputs</b>	
Current-carrying capacity of semiconductor output in the SIO mode	200 mA
Operating current at 17 V minimum	5 mA
<b>Electromagnetic compatibility</b>	
EMC emitted interference	
• acc. to IEC 60947-1	ambience A (industrial sector)
EMI immunity	
• acc. to IEC 60947-1	ambience A (industrial sector)
<b>Safety related data</b>	
Protection against electrical shock	finger-safe when touched vertically from front acc. to IEC 60529
<b>Connections/ Terminals</b>	
Product function	
• removable terminal for main circuit	No
• removable terminal for auxiliary and control circuit	Yes
Type of electrical connection	
• for main current circuit	screw-type terminals
• for auxiliary and control current circuit	screw-type terminals
Type of connectable conductor cross-sections	
• 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> )
• at AWG conductors for main contacts	2x (18 ... 2), 1x (18 ... 1)
Connectable conductor cross-section for main contacts	
• single or multi-stranded	1 ... 50 mm <sup>2</sup>
• finely stranded with core end processing	1 ... 35 mm <sup>2</sup>
Type of connectable conductor cross-sections	
• 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> )
• at AWG conductors for auxiliary contacts	2x (20 ... 14)
AWG number as coded connectable conductor cross section	
• for main contacts	18 ... 1

<b>Tightening torque</b>	
• with screw-type terminals	0.8 ... 1.2 N·m
<b>Installation/ mounting/ dimensions</b>	
<b>Mounting position</b>	any
<b>Mounting type</b>	direct mounting
<b>Height</b>	99 mm
<b>Width</b>	55 mm
<b>Depth</b>	112 mm
<b>Required spacing</b>	
• with side-by-side mounting	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	10 mm
— at the side	0 mm
• for grounded parts	
— forwards	10 mm
— Backwards	0 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
• for live parts	
— forwards	10 mm
— Backwards	0 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm
<b>Ambient conditions</b>	
<b>Installation altitude at height above sea level</b>	
• maximum	2 000 m
<b>Certificates/ approvals</b>	

General Product Approval			EMC	Declaration of Conformity	
 CCC	 CSA	 UL		 RCM	 EG-Konf.

Declaration of Conformity	Test Certificates	Marine / Shipping			
<a href="#">Miscellaneous</a>	<a href="#">Special Test Certificate</a>	 ABS	 LRS	 PRS	 RINA

Marine / Shipping	other				
 RMRS	 DNV-GL	<a href="#">Confirmation</a>			

#### Further information

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

[www.siemens.com/ic10](http://www.siemens.com/ic10)

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RR2143-1AW30>

**Cax online generator**

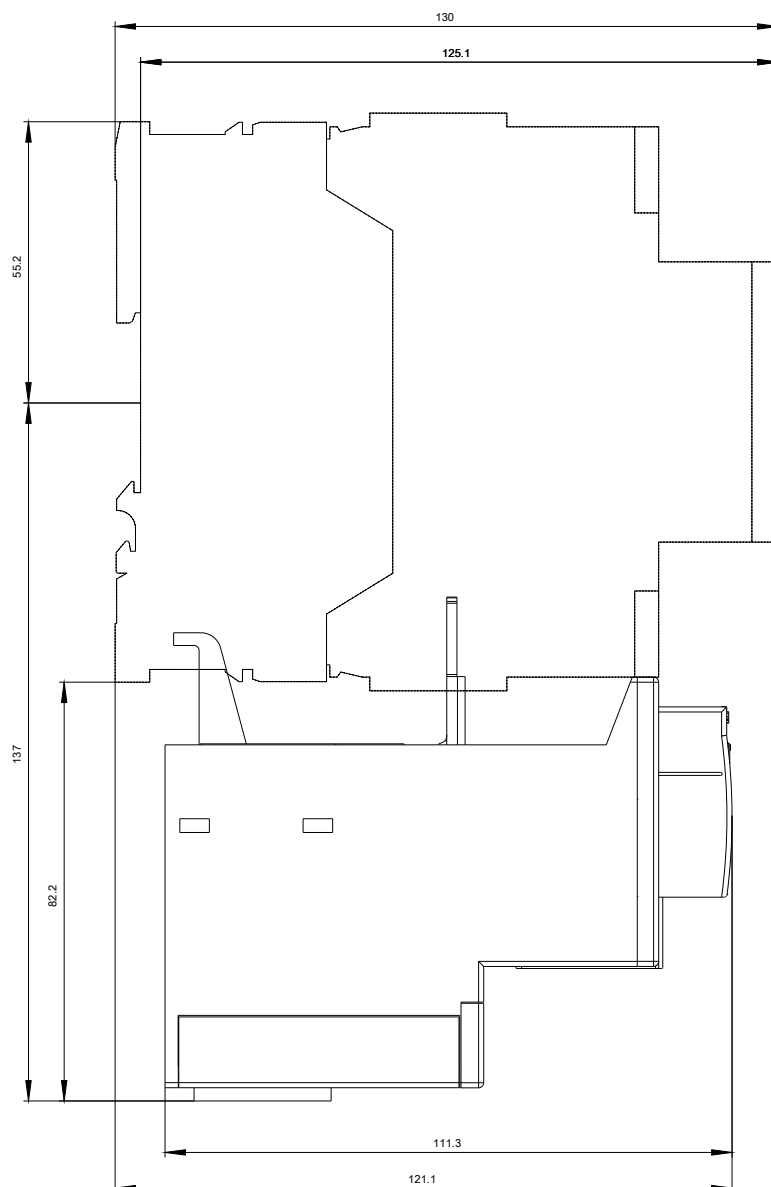
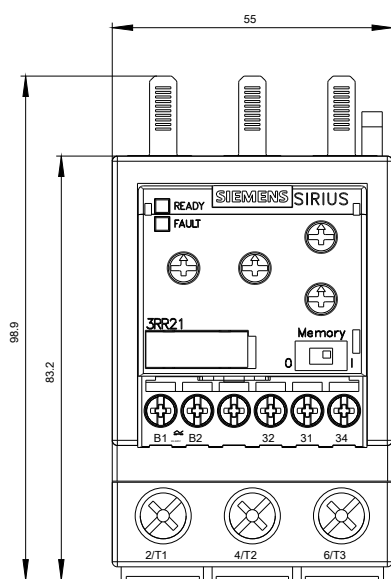
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR2143-1AW30>

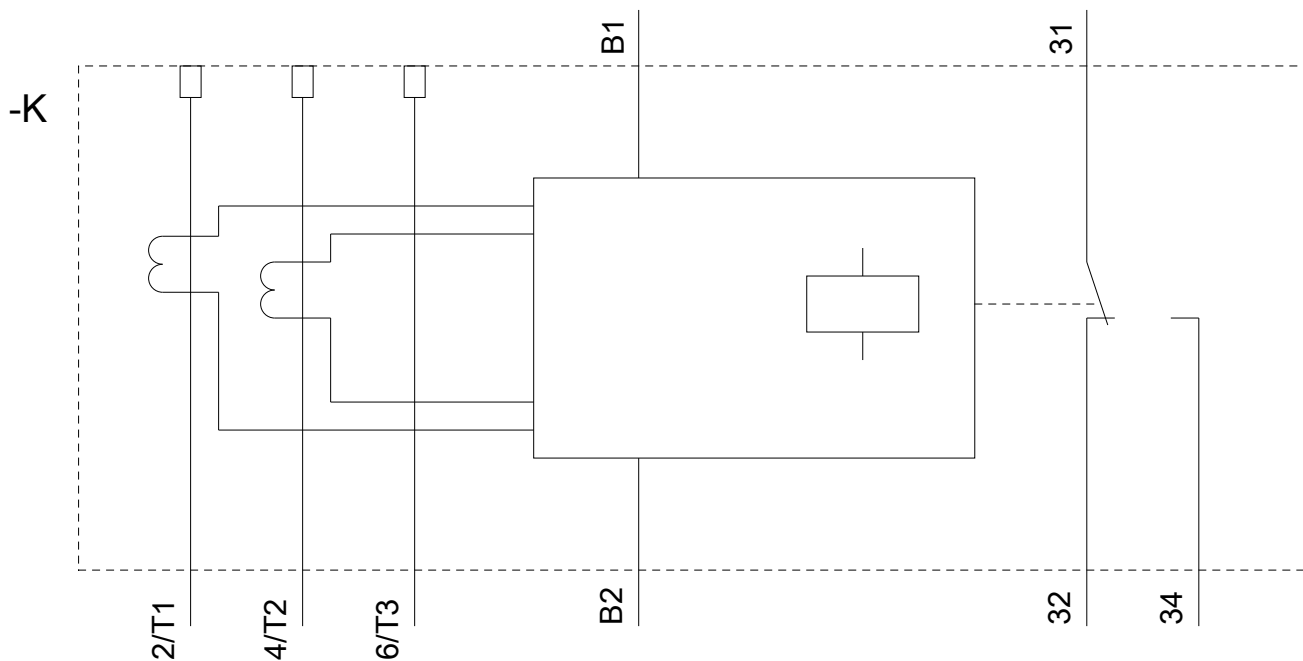
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RR2143-1AW30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RR2143-1AW30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RR2143-1AW30&lang=en)





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