



MONITORING RELAY ATTACHABLE TO CONTACTOR 3RT2. SIZE S00 STANDARD, DIGITAL ADJUSTABLE APPARENT/ACTIVE CURRENT MONIT. 1.6 - 16A, 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:

<b>product brandname</b>		SIRIUS
<b>Product designation</b>		Monitoring relays
<b>Design of the product</b>		digitally adjustable, 3-phase current monitoring
<b>Size of contactor can be combined company-specific</b>		S00
<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
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 pick-up value current</b>		
• 1	A	1.6 ... 16
• 2	A	1.6 ... 16
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	1.5
<b>Relative metering precision</b>		
• relating to measured value	%	5
<b>Type of current for monitoring</b>		AC
<b>Measurable current at AC</b>	A	1.6 ... 16
<b>Adjustable switching hysteresis for measured current value</b>	A	0.1 ... 3
<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	16
• for overcurrent duration < 1 s maximum permissible	A	320

#### 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	V	24 ... 240
• at 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 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
  - at 125 V
  - at 250 V

A	1
A	0.2
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	79
<b>Depth</b>	mm	80
<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	0
• Backwards	mm	0
• upwards	mm	0
• downwards	mm	0
• at the side	mm	6
<b>Required spacing for live parts</b>		
• forwards	mm	0
• Backwards	mm	0
• upwards	mm	0
• downwards	mm	0
• 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 (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x (1 ... 4 mm <sup>2</sup> )
— finely stranded		
— with core end processing		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
• at AWG conductors		
— for main contacts		1x 12, 2x (20 ... 14)
— 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
-----------------------------------	---------------

<b>General Product Approval</b>	<b>EMC</b>	<b>Declaration of Conformity</b>
 CCC  CSA  UL  EAC  C-Tick  EG-Konf.		

<b>Test Certificates</b>	<b>Shipping Approval</b>
<a href="#">Type Test Certificates/Test Report</a> <a href="#">Special Test Certificate</a>	 ABS  BUREAU VERITAS  LRS  PRS

<b>Shipping Approval</b>	<b>other</b>
 RINA  RMRS	<a href="#">Environmental Confirmations</a> <a href="#">Confirmation</a>

#### UL/CSA ratings:

<b>Contact rating of auxiliary contacts according to UL</b>	B300 / R300
---	-------------

#### Safety related data:

<b>Protection against electrical shock</b>	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**

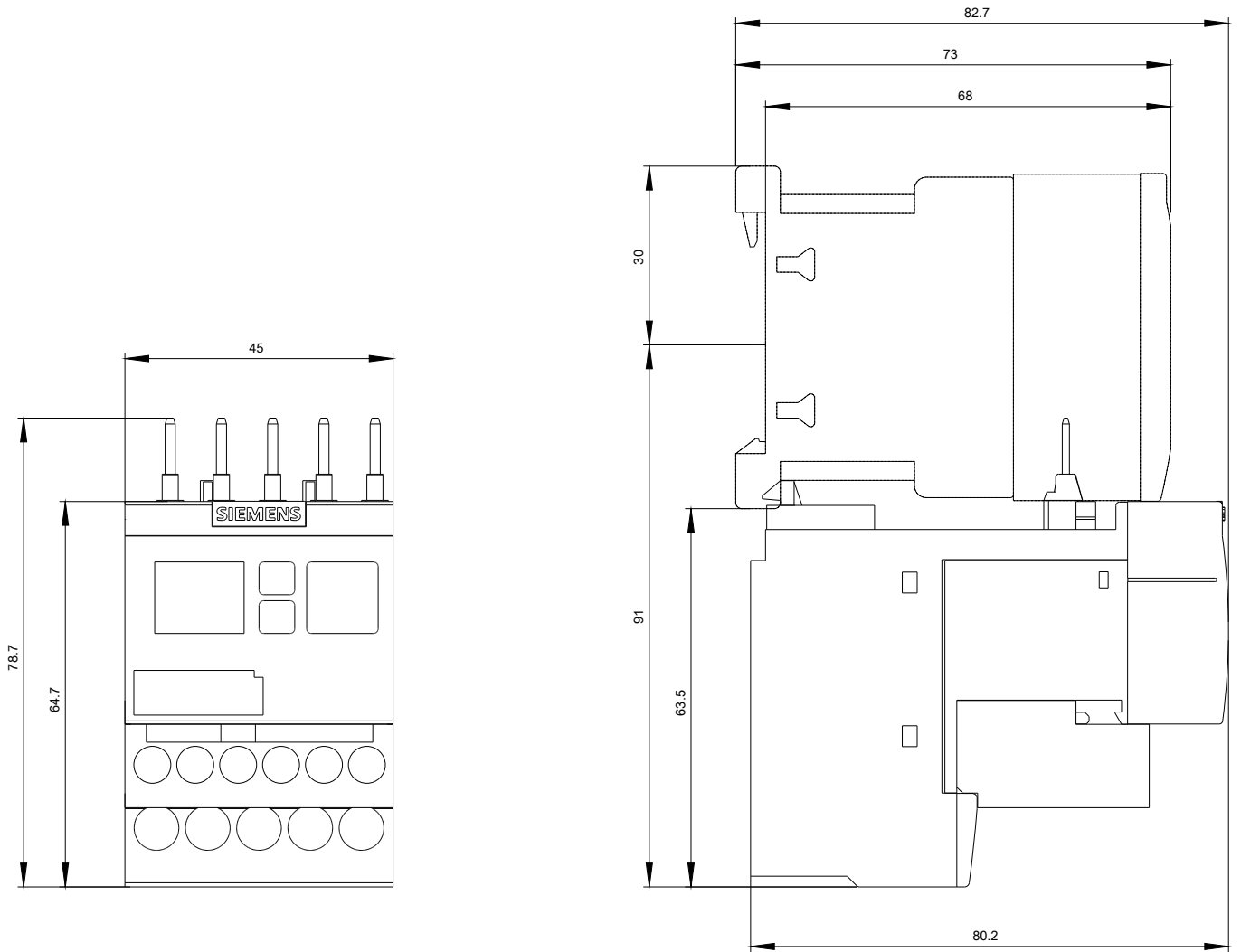
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RR2241-1FW30>

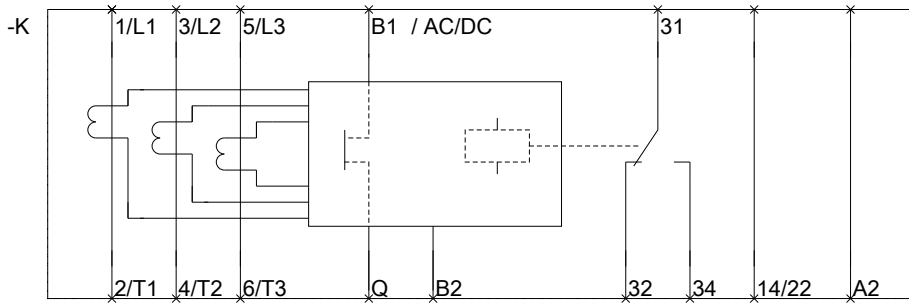
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RR2241-1FW30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3RR2241-1FW30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RR2241-1FW30&lang=en)





last modified:

05/31/2017