



Monitoring relay, can be mounted to Contactor 3RT2, Size S0 basic, analog adjustment Apparent current monitoring 4...40 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% spring-type connection system

product brand name	SIRIUS
product designation	Monitoring relays
design of the product	analogically adjustable, 2-phase current monitoring
product type designation	3RR2
<b>General technical data</b>	
size of contactor can be combined company-specific	S0
operating apparent power rated value	4 VA
insulation voltage for overvoltage category III according to IEC 60664	
• with degree of pollution 3 rated value	690 V
surge voltage resistance rated value	6 kV
consumed current	
• at 24 V	90 mA
• at 240 V	12 mA
shock resistance	15g / 11 ms
vibration resistance	10 ... 55 Hz / 0.35 mm
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
reference code according to IEC 81346-2	K
relative repeat accuracy	2 %
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
Weight	303 g
<b>Supply voltage</b>	
type of voltage of the supply voltage	AC/DC
supply voltage 1 at AC	
• at 50 Hz	24 ... 240 V
• at 60 Hz	24 ... 240 V
supply voltage 1 at DC	24 ... 240 V
supply voltage frequency 1	50 ... 60 Hz
<b>Measuring circuit</b>	
type of current for monitoring	AC
adjustable current response value current	
• 1	4 ... 40 A
• 2	4 ... 40 A
adjustable response delay time	
• when starting	0 ... 60 s
• with lower or upper limit violation	0 ... 30 s
<b>Precision</b>	

<b>temperature drift per °C</b>	0.1 %/°C
<b>Short-circuit protection</b>	
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gG: 4 A
<b>Communication/ Protocol</b>	
protocol is supported IO-Link protocol	No
<b>type of voltage supply via input/output link master</b>	No
<b>Auxiliary circuit</b>	
<b>number of CO contacts</b>	
• for auxiliary contacts	1
<b>operational current of auxiliary contacts at AC-15</b>	
• at 24 V	3 A
• at 230 V	3 A
• at 400 V	3 A
<b>operational 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
<b>contact rating of auxiliary contacts according to UL</b>	B300 / R300
<b>Main circuit</b>	
operating power rated value	2.5 W
<b>ampacity of the semiconductor output in SIO mode</b>	20 mA
<b>operational current at 17 V minimum</b>	5 mA
<b>Electromagnetic compatibility</b>	
EMC emitted interference according to IEC 60947-1	ambience A (industrial sector)
EMC immunity according to IEC 60947-1	ambience A (industrial sector)
<b>Electrical Safety</b>	
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>Connections/ Terminals</b>	
<b>product component removable terminal for main circuit</b>	No
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of electrical connection</b>	
• for main current circuit	spring-loaded terminals
• for auxiliary and control circuit	spring-loaded terminals
<b>type of connectable conductor cross-sections for main contacts</b>	
• solid	1x (1 ... 10 mm <sup>2</sup> )
• finely stranded with core end processing	1x (1 ... 6 mm <sup>2</sup> )
• finely stranded without core end processing	1x (1 ... 6 mm <sup>2</sup> )
<b>connectable conductor cross-section for main contacts</b>	
• solid or stranded	1 ... 10 mm <sup>2</sup>
• finely stranded with core end processing	1 ... 6 mm <sup>2</sup>
• finely stranded without core end processing	1 ... 6 mm <sup>2</sup>
<b>type of connectable conductor cross-sections</b>	
• 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	2x (0.25 ... 1.5 mm <sup>2</sup> )
— finely stranded without core end processing	2x (0.25 ... 1.5 mm <sup>2</sup> )
• for AWG cables for auxiliary contacts	2x (24 ... 16)
AWG number as coded connectable conductor cross section for main contacts	18 ... 8
tightening torque with screw-type terminals	0.8 ... 1.2 N·m
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	direct mounting
<b>height</b>	109 mm
<b>width</b>	45 mm
<b>depth</b>	92 mm
<b>required spacing</b>	
• with side-by-side mounting	
— forwards	0 mm

— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
• for grounded parts	
— forwards	6 mm
— backwards	0 mm
— upwards	6 mm
— at the side	6 mm
— downwards	6 mm
• for live parts	
— forwards	6 mm
— backwards	0 mm
— upwards	6 mm
— downwards	6 mm
— at the side	6 mm

#### Ambient conditions

installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	-40 ... +80 °C

#### Approvals Certificates

##### General Product Approval

[Confirmation](#)



##### EMV

##### Test Certificates

##### Marine / Shipping



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



##### Marine / Shipping

##### other

##### Environment



[Confirmation](#)

[Environmental Confirmations](#)

#### Further information

##### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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

<https://www.siemens.com/ic10>

##### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RR2142-2AW30>

##### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR2142-2AW30>

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

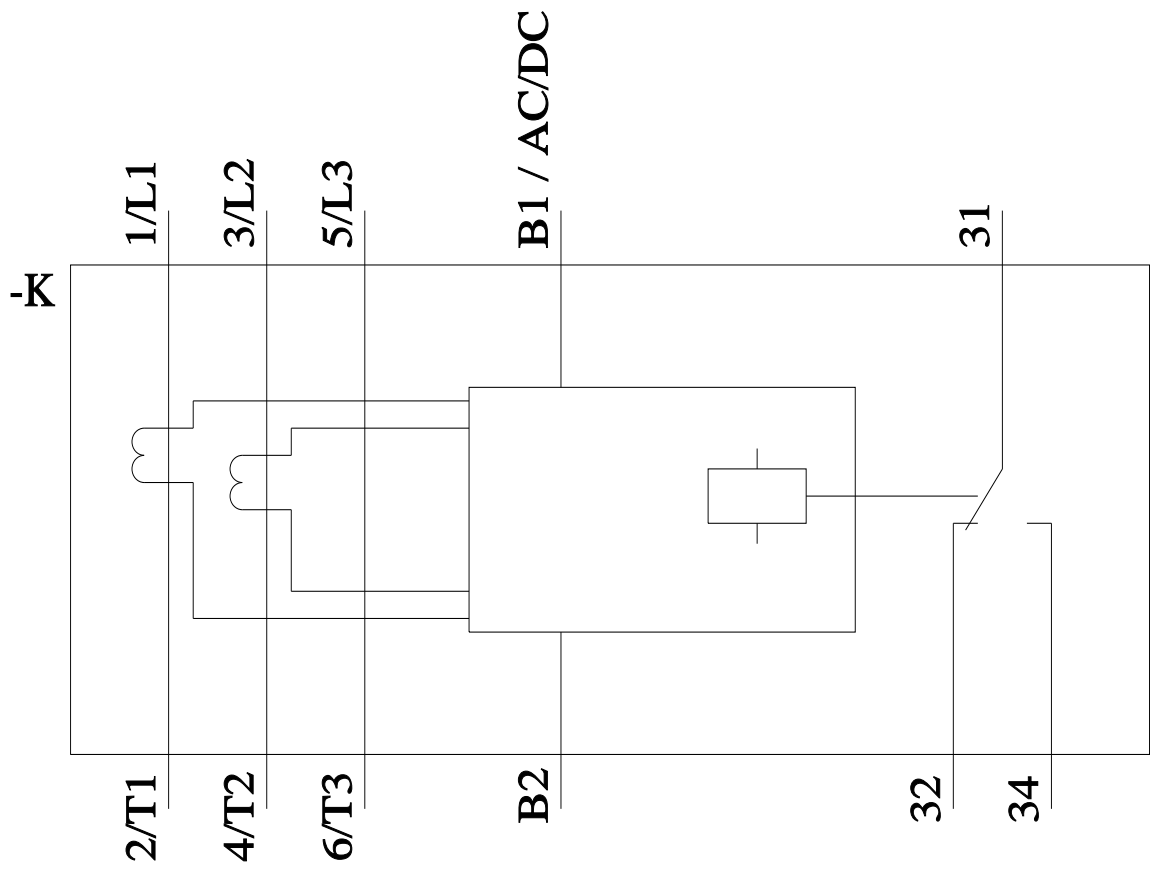
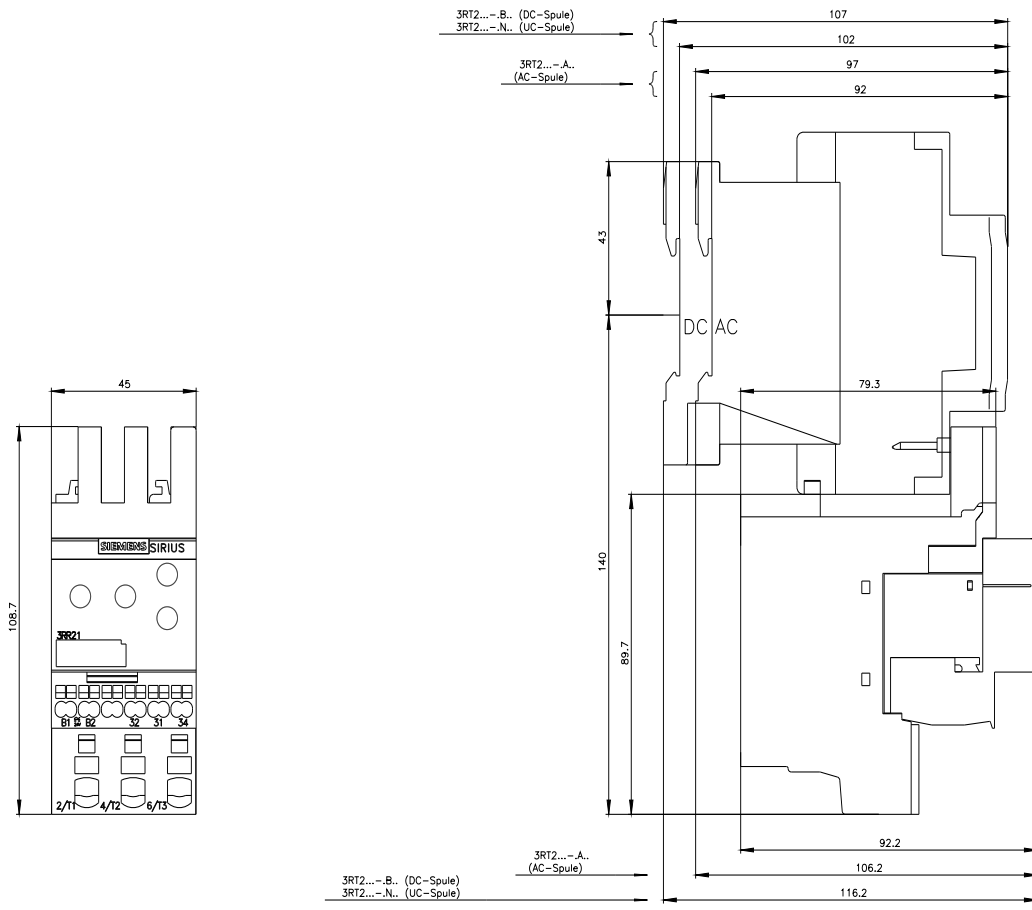
<https://support.industry.siemens.com/cs/ww/en/ps/3RR2142-2AW30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RR2142-2AW30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RR2142-2AW30&lang=en)

##### Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RR2142-2AW30/manual>



last modified:

3/11/2024

