



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% 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	S0
Operating apparent output rated value	4 V·A
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
Protection class IP • on the front • of the terminal	IP20 IP20
Shock resistance	15g / 11 ms
Vibration resistance	10 ... 55 Hz / 0.35 mm
Mechanical service life (switching cycles) • typical	10 000 000

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

Supply voltage

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

Measuring circuit

Type of current for monitoring	AC
Adjustable pick-up 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

Precision

Temperature drift per °C	0.1 %/°C
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Communication/ Protocol

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

Auxiliary circuit

Number of CO contacts	
• for auxiliary contacts	1
Operating current of auxiliary contacts at AC-15	
• at 24 V	3 A
• at 230 V	3 A
• at 400 V	3 A
Operating current of auxiliary contacts at DC-13	
• 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
Main circuit	
Operating power	
• rated value	2.5 W
Outputs	
Current-carrying capacity of semiconductor output in the SIO mode	200 mA
Operating current at 17 V minimum	5 mA
Electromagnetic compatibility	
EMC emitted interference	
• acc. to IEC 60947-1	ambience A (industrial sector)
EMI immunity	
• acc. to IEC 60947-1	ambience A (industrial sector)
Safety related data	
Protection against electrical shock	finger-safe
Connections/ Terminals	
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 ... 2.5 mm ²), 2x (2.5 ... 10 mm ²)
— finely stranded with core end processing	2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ²
• at AWG conductors for main contacts	2 x (16 ... 14), 2x (14 ... 8)
Connectable conductor cross-section for main contacts	
• single or multi-stranded	1 ... 10 mm ²
• finely stranded with core end processing	2.5 ... 10 mm ²
Type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid	1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²)
— finely stranded with core end processing	1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
• at AWG conductors for auxiliary contacts	2x (20 ... 14)
AWG number as coded connectable conductor cross section	
• for main contacts	16 ... 8
Tightening torque	

- with screw-type terminals

0.8 ... 1.2 N·m

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	direct mounting
Height	87 mm
Width	45 mm
Depth	91 mm
Required spacing	
• with side-by-side mounting — forwards — Backwards — upwards — downwards — at the side • for grounded parts — forwards — Backwards — upwards — at the side — downwards • for live parts — forwards — Backwards — upwards — downwards — at the side	0 mm 0 mm 0 mm 0 mm 0 mm 6 mm 0 mm 6 mm 6 mm 6 mm 6 mm 0 mm 6 mm 6 mm 6 mm

Ambient conditions

Installation altitude at height above sea level	
• maximum	2 000 m

Certificates/ approvals

General Product Approval	EMC	Declaration of Conformity
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CCC



CSA



UL



RCM



EG-Konf.

Declaration of Conformity	Test Certificates	Marine / Shipping
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[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



ABS



LRS



PRS

Marine / Shipping	other
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RINA



RMRS



DNVGL.COM/AF

[Confirmation](#)

Further information

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

www.siemens.com/ic10

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RR2142-1AW30>

Cax online generator

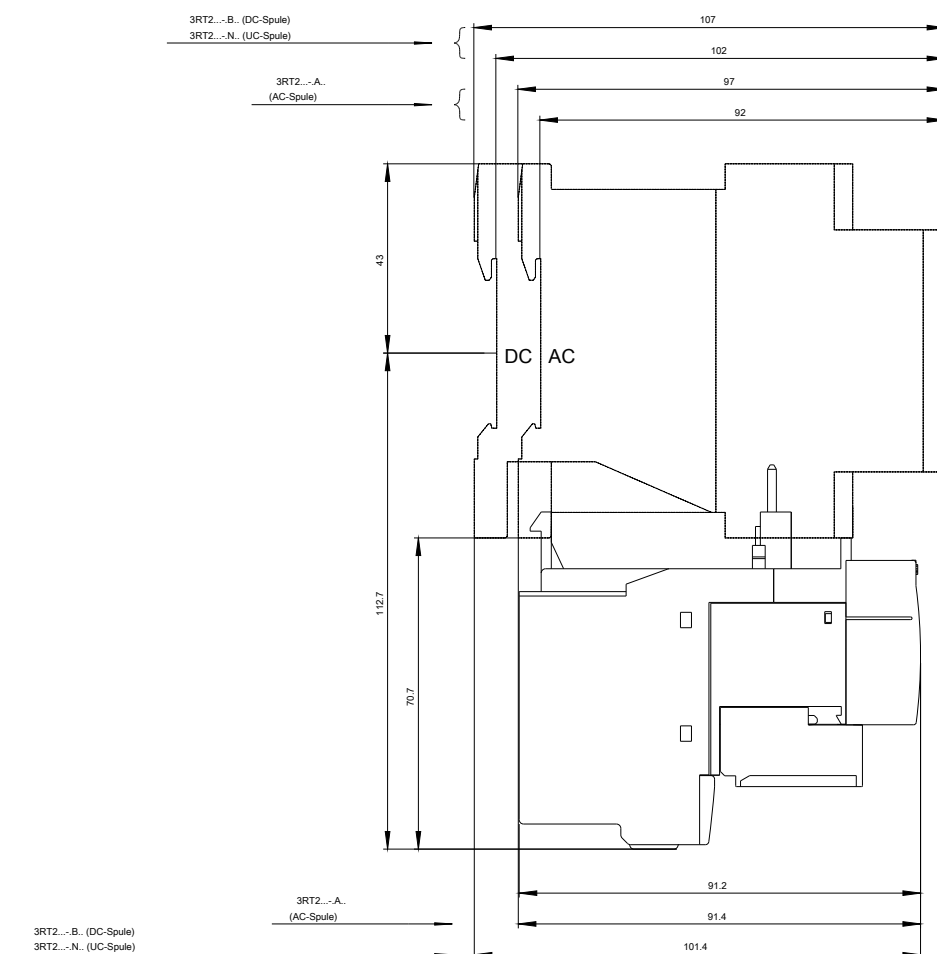
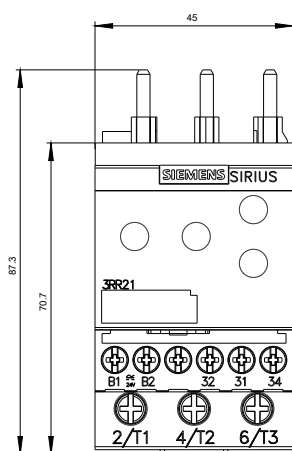
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR2142-1AW30>

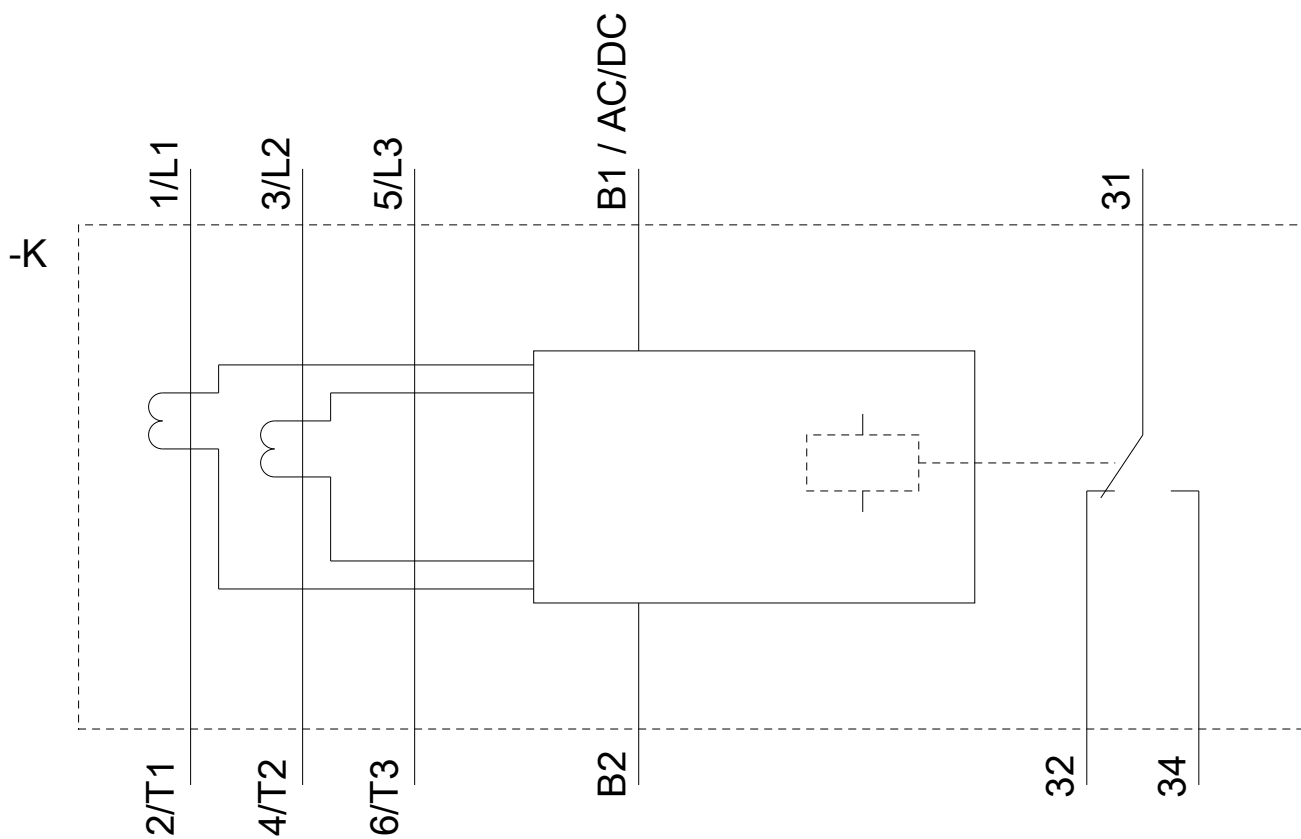
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RR2142-1AW30>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RR2142-1AW30&lang=en





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