



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	3RR21
General technical data	
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
type of voltage of the operating voltage for actuation	AC/DC
surge voltage resistance rated value	6 kV
consumed current	
• at 24 V	90 mA
• at 240 V	12 mA
protection class IP	
• on the front	IP20
• of the terminal	IP20
shock resistance	15 g / 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 (day/month/year)	10/01/2009
SVHC substance name	Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol CAS-No. 79-94-7 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1
Net Weight	303 g
Control circuit/ Control	
control supply voltage at AC	
• at 50 Hz rated value	24 ... 240 V
• at 60 Hz rated value	24 ... 240 V
control supply voltage at DC rated value	24 ... 240 V
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 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
Precision	
temperature drift per °C	0.1 %/°C
Short-circuit protection	
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gG: 4 A
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
• delayed switching	1
operational current of auxiliary contacts at AC-15	
• at 24 V	3 A
• at 230 V	3 A
• at 400 V	3 A
operational 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
ampacity of the semiconductor output in SIO mode	20 mA
operational current at 17 V minimum	5 mA
Electromagnetic compatibility	
EMC emitted interference according to IEC 60947-1	ambience A (industrial sector)
EMC immunity according to IEC 60947-1	ambience A (industrial sector)
Safety related data	
product function suitable for safety function	No
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
Connections/ Terminals	
product component removable terminal for main circuit	No
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	
• for main current circuit	spring-loaded terminals
• for auxiliary and control circuit	spring-loaded terminals
type of connectable conductor cross-sections for main contacts	
• solid	1x (1 ... 10 mm²)
• finely stranded with core end processing	1x (1 ... 6 mm²)
• finely stranded without core end processing	1x (1 ... 6 mm²)
connectable conductor cross-section for main contacts	
• solid or stranded	1 ... 10 mm²
• finely stranded with core end processing	1 ... 6 mm²
• finely stranded without core end processing	1 ... 6 mm²

type of connectable conductor cross-sections		
• for auxiliary contacts — solid — finely stranded with core end processing — finely stranded without core end processing • for AWG cables for auxiliary contacts	1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²) 2x (0.25 ... 1.5 mm²) 2x (0.25 ... 1.5 mm²) 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	
Installation/ mounting/ dimensions		
mounting position	any	
fastening method	direct mounting	
height	109 mm	
width	45 mm	
depth	92 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	
ambient temperature		
• during operation • during storage	-25 ... +60 °C -40 ... +80 °C	
Approvals Certificates		
Environment	General Product Approval	
Environmental Conformations	    	
EMV	Test Certificates	Maritime application
 RCM	Special Test Certificate Type Test Certificates/Test Report	 ABS  BUREAU VERITAS  DNV
Maritime application		other

Further information

Information on the packaging

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

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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

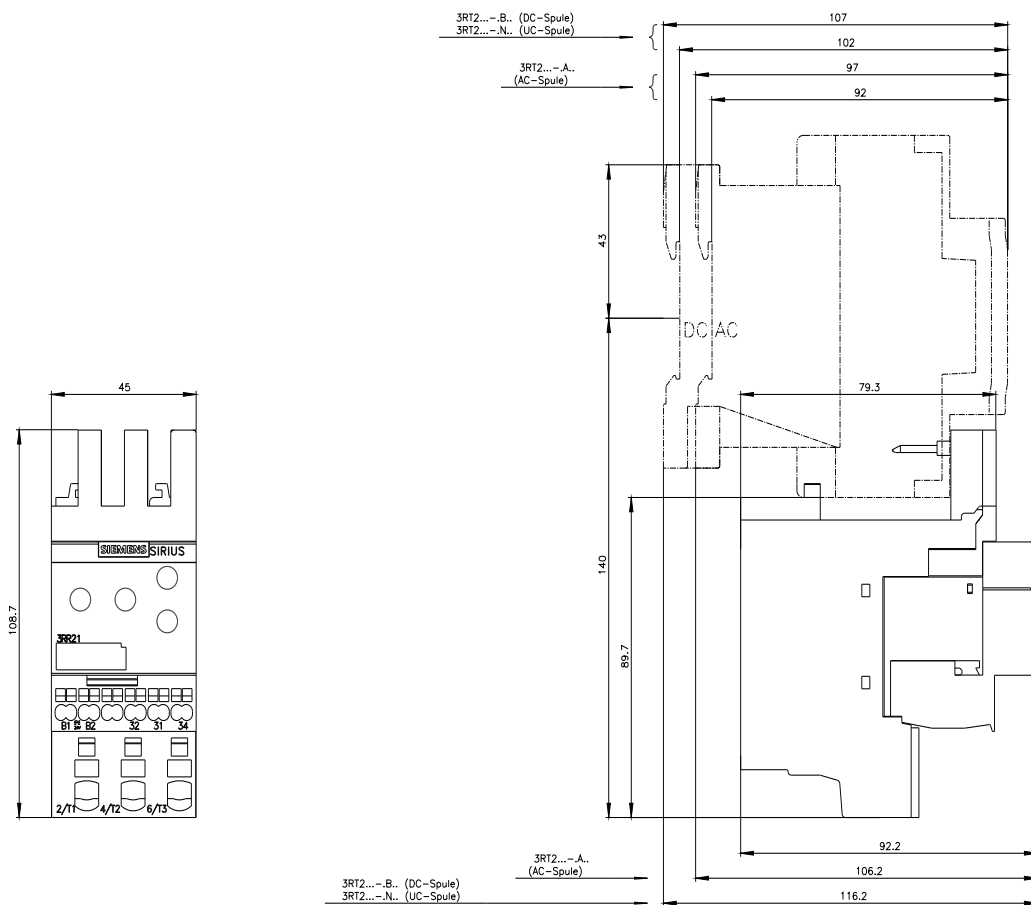
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR2142-2AW30>

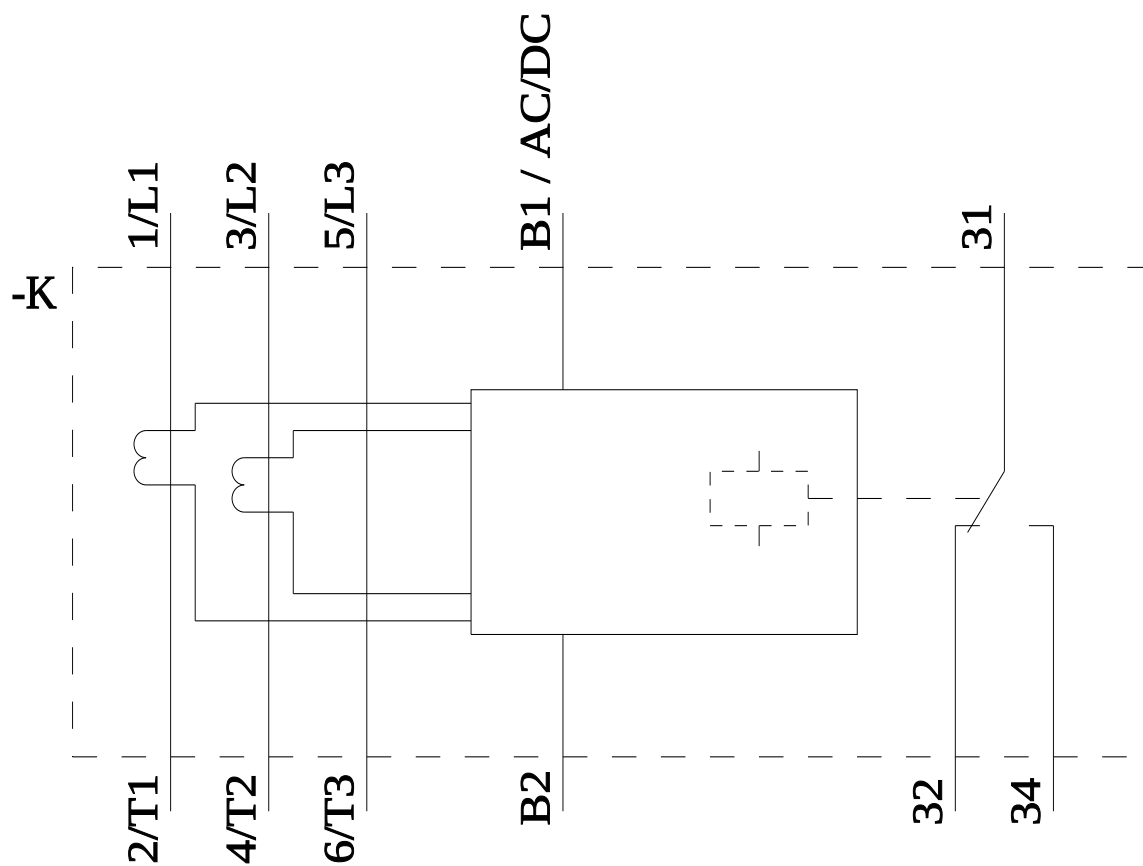
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<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, ...)

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RR2142-2AW30&lang=en





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