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Data sheet 3RR2142-1AW30



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	3RR21
General technical data	
size of contactor can be combined company-specific	S0
product function	current monitoring
operating apparent power rated value	4 V·A
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-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	245.58 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	

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● 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	screw terminal
● for main current circuit	screw-type terminals
● for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections for main contacts	
● solid	2x (1 ... 2.5 mm²), 2x (2.5 ... 10 mm²)
● finely stranded with core end processing	2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm²
connectable conductor cross-section for main contacts	
● solid or stranded	1 ... 10 mm²
● finely stranded with core end processing	2.5 ... 10 mm²
type of connectable conductor cross-sections	
● for auxiliary contacts	

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— solid	1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²)
— finely stranded with core end processing	1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)
• for AWG cables 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
fastening method	direct mounting
height	87 mm
width	45 mm
depth	91 mm
required spacing	
• 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
ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-40 ... +80 °C

Approvals Certificates

Environment	General Product Approval				
Environmental Confirmations	CCC	cULus	EAC	CE EG-Konf.	UKCA

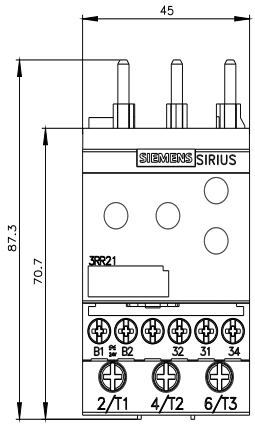
EMV	Test Certificates		Maritime application		
RCM	Special Test Certificate	Type Test Certificates/Test Report	ABS	BUREAU VERITAS	DNV

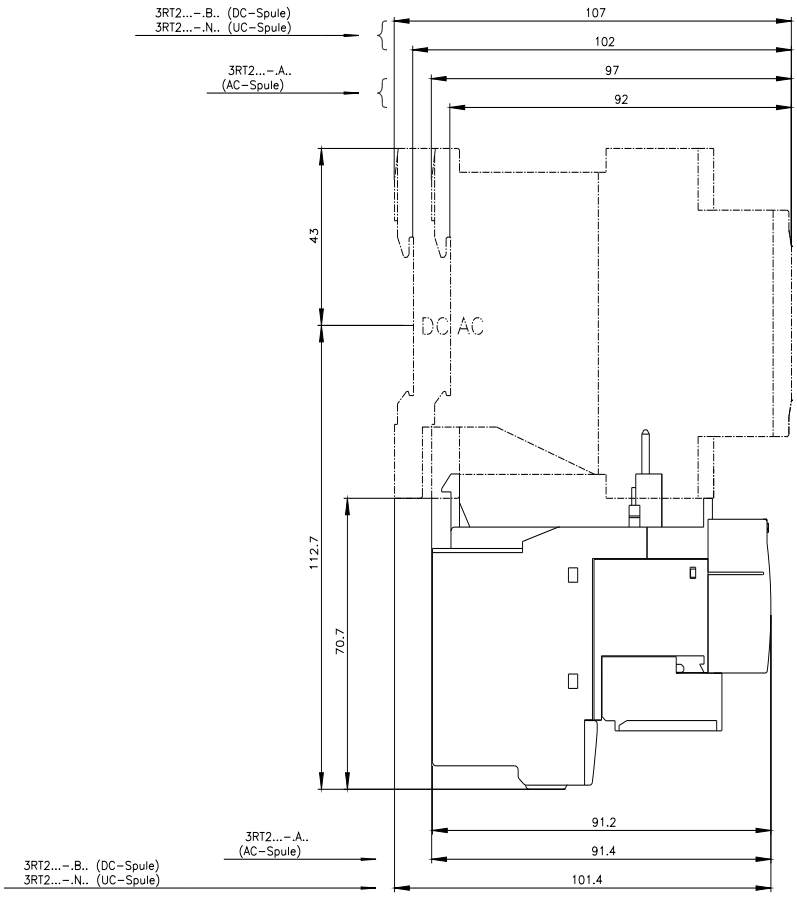
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Further information

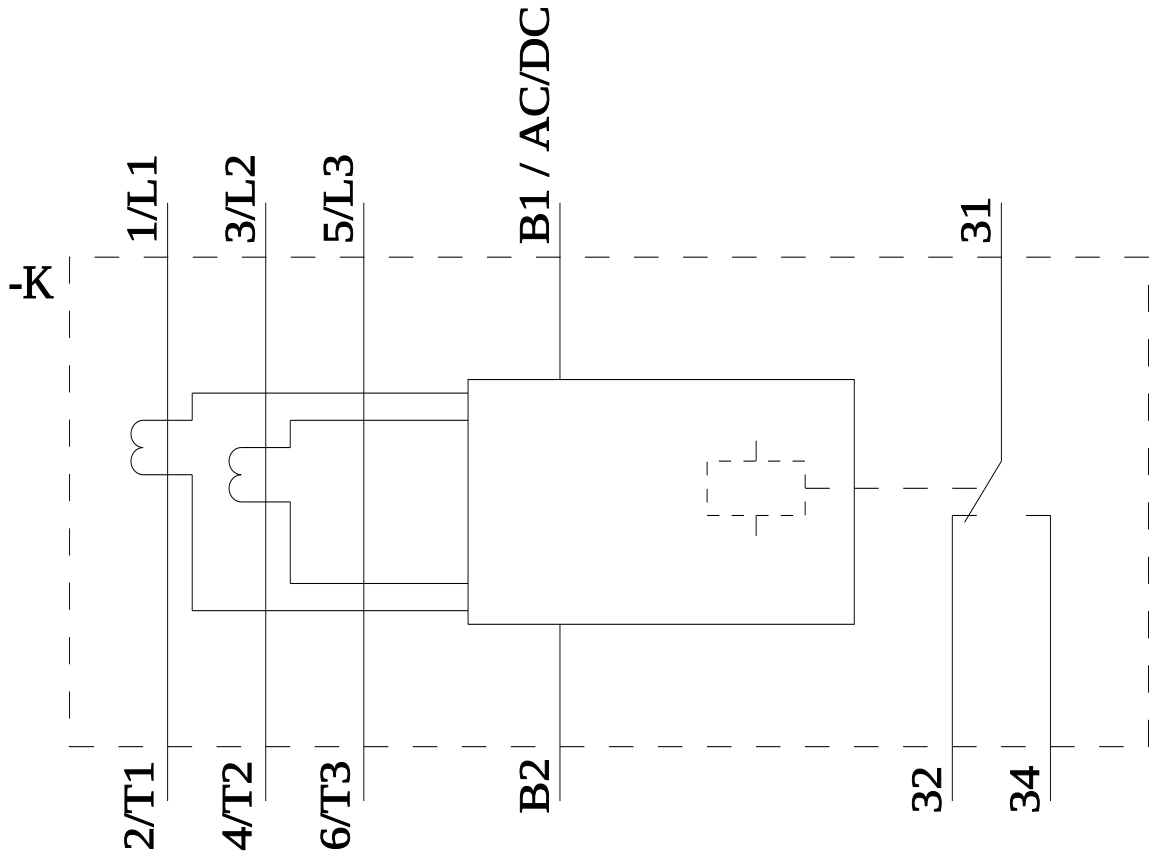
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