SIEMENS

Data sheet

3RR2142-1AA30



MONITORING RELAY ATTACHABLE TO CONTACTOR 3RT2. SIZE S0 BASIC, ANALOG ADJUSTABLE APPARENT CURRENT MONITORING 4 - 40A, 50-60 HZ, 2-PHASE SUPPLY 24 V AC/DC 1 CO CONTACT MONITORING FOR CURRENT OVERSHOOT/UNDERSHOOT PHASE FAILURE, WIRE BREAK WITH OR W/O ERROR LOG ON-DELAY 0-60 S SPURIOUS PEAK SUPPR.0-30 S SWITCHING HYSTERESIS 6% SCREW CONNECTION

General technical data:		
product brand name		SIRIUS
Product designation	-	multi-phase current monitoring
Design of the product	-	multi-phase current monitoring
Size of contactor can be combined company-specific		SO
Protection class IP		
• 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
Installation altitude at height above sea level maximum	m	2 000
Ambient temperature	-	
 during storage 	°C	-40 +80
 during operation 	°C	-25 +60
Electromagnetic compatibility	-	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)
Shock resistance	-	15g / 11 ms
Vibration resistance		10 55 Hz / 0.35 mm
Surge voltage resistance Rated value	kV	6
Operating apparent output Rated value	V·A	4
Operating power Rated value	W	2.5
Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		к

Equipment marking acc. to DIN EN 61346-2	_	К
Mechanical service life (switching cycles) typical		10 000 000
Electrical endurance (switching cycles) at AC-15 at 230 V typical	_	100 000
Adjustable response delay time	_	
• when starting	s	0 60
 with lower or upper limit violation 	s	0 30
Stand-by time for restart after fault	S	0.3
Phase number	_	3
Number of monitored phases		2
Product function	_	
 Overcurrent monitoring 		Yes
 Undercurrent monitoring 		Yes
 Overcurrent and undercurrent monitoring 		Yes
 Apparent current monitoring 		Yes
 active current monitoring 		No
 undercurrent detection DC 		No
 undercurrent detection 1 phase 		No
Overcurrent detection DC		No
 Current window recognition DC 		No
 undercurrent detection 3 phases 		No
 Overcurrent detection 1 phase 		No
 Voltage window recognition 3 phase 		No
 Voltage window recognition 1 phase 		No
 phase sequence recognition 		No
 can be activated or deactivated phase sequence recognition 		No
• Auto-reset		Yes
• External reset		No
Manual RESET		Yes
Adjustable response value current	-	
• 1	А	4 40
• 2	А	4 40
Relative metering precision		
 relating to measuring range limit 	%	10
Type of current for monitoring		AC
Measurable current with AC	А	4 40
Relative switching hysteresis for measured current value	%	6.25
Response time maximum	ms	300
Relative repeat accuracy	%	2
Temperature drift per °C	%/°C	0.1

 for permanent overcurrent maximum permissible 	A	40
 for overcurrent duration < 1 s maximum permissible 	A	800
Supply voltage:		
Type of voltage of the supply voltage		AC/DC
Supply voltage frequency 1	Hz	50 60
Supply voltage 1		
 for DC Rated value 	V	24
• with AC		
— at 50 Hz Rated value	V	24
— at 60 Hz Rated value	V	24
Buffering time in the event of power failure minimum	ms	10

Auxiliary circuit:		
Circuit principle of the output relay		closed-circuit current
Operating current at 17 V minimum	mA	5
Number of CO contacts		
 for auxiliary contacts 		1
Operating current of the auxiliary contacts		
• at AC-15		
— at 24 V	А	3
— at 230 V	А	3
— at 400 V	А	3
• at DC-13		
— at 24 V	А	1
— at 125 V	А	0.2
— at 250 V	А	0.1

Inputs/ Outputs:

Short-circuit:

Installation/ mounting/ dimensions:			
mounting position		any	
Mounting type		direct mounting	
Width	mm	45	
Height	mm	87	
Depth	mm	91	
Required spacing with side-by-side mounting			
 forwards 	mm	0	
Backwards	mm	0	
• upwards	mm	0	
downwards	mm	0	

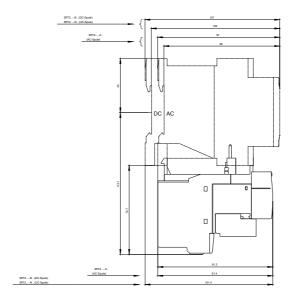
• at the side	mm	0
Required spacing for grounded parts		
• forwards	mm	6
Backwards	mm	0
• upwards	mm	6
downwards	mm	6
• at the side	mm	6
Required spacing for live parts		
• forwards	mm	6
Backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• at the side	mm	6

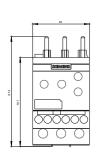
Connections/ Terminals:		
Type of electrical connection		
 for main current circuit 		screw-type terminals
 for auxiliary and control current circuit 		screw-type terminals
Product function		
 removable terminal for main circuit 		No
 removable terminal for auxiliary and control circuit 		Yes
Type of connectable conductor cross-section	_	
• 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
 for AWG conductors 		
— for main contacts		2 x (16 14), 2x (14 8)
— for auxiliary contacts		2x (20 14)
 for auxiliary contacts 		
— 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)
Tightening torque with screw-type terminals	N∙m	0.8 1.2
Certificates/ approvals:		

Certificate of suitability

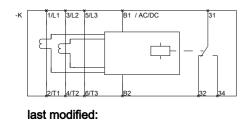
CE / UL / CSA

General Product A	pproval			EMC	Declaration of Conformity
	(SA)	EHC		С-тіск	EG-Konf.
Test Certificates		Shipping App	proval		
<u>Type Test</u> Certificates/Test <u>Report</u>	Special Test Certificate	ABS	B U R E A U VERITAS	DNV DNV	GL
Shipping Approval			other		
Lloyd's Register	RINA	RMRS	Environmental Confirmations	<u>Confirmation</u>	
JL/CSA ratings:					
Contact rating of the au	ixiliary contacts	acc. to UL	B300 / R30	00	
Safety related data:					
Protection against elec	trical shock		finger-safe		
Further information Information- and Down http://www.siemens.com/ii Industry Mall (Online or http://www.siemens.com/ii Cax online generator http://support.automation. Service&Support (Man http://support.automation.	ndustrial-controls rdering system) ndustrymall siemens.com/WV uals, Certificate	/catalogs V/CAXorder/default.asp s, Characteristics, F	x?lang=en&mlfb=3RR214 AQs,)	4 <u>21AA30</u>	
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