SIEMENS

Product 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 the contactor / can be combined / company-specific		S0
Insulation voltage / for overvoltage category III according to IEC 60664 / with degree of pollution 3		
• rated value	V	690
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during storage	°C	-40 … 80
• during operating	°C	-25 … 60
Electromagnetic compatibility		IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
EMC immunity to interference		
• according to IEC 60947-1		ambience A (industrial sector)
EMC emitted interference		
• according to IEC 60947-1		ambience A (industrial sector)
Resistance against shock		15g / 11 ms
Resistance against vibration		10 ... 55 Hz / 0.35 mm
Impulse voltage resistance / rated value	kV	6

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Operating apparent output / rated value	V·A	3.5
Rating / Rated value	W	2.5
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		K
• according to DIN EN 61346-2		K
Mechanical operating cycles as operating time		
• typical		10,000,000
Electrical operating cycles as operating time / 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
Standby 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 recognition DC		No
• undercurrent recognition of 1 phase		No
• overcurrent recognition DC		No
• current window recognition DC		No
• undercurrent recognition of 3 phases		No
• overcurrent recognition of 1 phase		No
• tension window recognition of 3 phases		No
• tension window recognition of 1 phase		No
• phase sequence recognition		No
• can be activated or deactivated / phase sequence recognition		No
• self-reset		Yes
• reset external		No
• manual RESET		Yes
Adjustable response current		
• 1	A	4 … 40
• 2	A	4 … 40
Relative metering precision		

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• with regard to measuring range limit	%	5
Type of current / for monitoring		AC
Measurable current / for AC	A	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
Current-carrying capacity		
• for permanent overcurrent / maximum permissible	A	40
• for overcurrent duration < 1 s / maximum permissible	A	800

Supply voltage:

Type of voltage / of supply voltage		AC/DC
Supply voltage frequency / 1	Hz	50 … 60
Supply voltage / 1		
• for DC / rated value	V	24
• at 50 Hz / for AC / rated value	V	24
• at 60 Hz / for AC / rated value	V	24
Stored energy time / supply voltage failure / minimum	ms	10

Auxiliary circuit:

Design of the contact element / of the output relay		closed-circuit current
Operating current / at 17 V / minimum	mA	5
Number of change-over switches		
• for auxiliary contacts		1
Operating current / of the auxiliary contacts		
• at AC-15		
• at 24 V	A	3
• at 230 V	A	3
• at 400 V	A	3
• at DC-13		
• at 24 V	A	1
• at 125 V	A	0.2
• at 250 V	A	0.1

Inputs/ Outputs:

Short-circuit:

Installation/mounting/dimensions:

Built in orientation		any
Type of mounting		direct mounting

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Width	mm	45
Height	mm	88
Depth	mm	93
Distance, to be maintained, to the ranks assembly		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	0
• downwards	mm	0
• sidewards	mm	0
Distance, to be maintained, to earthed part		
• forwards	mm	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sidewards	mm	6
Distance, to be maintained, conductive elements		
• forwards	mm	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sidewards	mm	6

Connections:

Design of the 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 the connectable conductor cross-section		
• for main contacts		
• solid		2x (1 ... 2.5 mm²), 2x (2.5 ... 10 mm²)
• finely stranded		
• with conductor 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		
• solid		1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²)
• finely stranded		
• with conductor end processing		1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)
• for AWG conductors / for auxiliary contacts		2x (20 ... 14)

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