# **SIEMENS**

Product data sheet 3RR2141-1AA30



MONITORING RELAY ATTACHABLE TO CONTACTOR
3RT2. SIZE S00 BASIC,
ANALOG ADJUSTABLE APPARENT CURRENT
MONITORING 1.6 - 16A,
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		S00
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

Operating apparent output / rated value	V·A	3.5
Rating / Rated value	W	2.5
Item designation		
<ul> <li>according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</li> </ul>		К
according to DIN EN 61346-2		κ
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
<ul> <li>overcurrent and undercurrent monitoring</li> </ul>		Yes
apparent current monitoring		Yes
active current monitoring		No
• undercurrent recognition DC		No
<ul> <li>undercurrent recognition of 1 phase</li> </ul>		No
overcurrent recognition DC		No
• current window recognition DC		No
<ul> <li>undercurrent recognition of 3 phases</li> </ul>		No
<ul> <li>overcurrent recognition of 1 phase</li> </ul>		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	Α	1.6 16
• 2	Α	1.6 16

<ul> <li>with regard to measuring range limit</li> </ul>	%	5
Type of current / for monitoring		AC
Measurable current / for AC	Α	1.6 16
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	Α	16
• for overcurrent duration < 1 s / maximum permissible	А	320

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	Α	3
• at 230 V	Α	3
• at 400 V	Α	3
• at DC-13		
• at 24 V	Α	1
• at 125 V	Α	0.2
• at 250 V	Α	0.1

## Inputs/ Outputs:

# Short-circuit:

Installation/mounting/dimensions:		
Built in orientation		any
Type of mounting		direct mounting

Width	mm	45
Height	mm	79
Depth	mm	81
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	0
backwards	mm	0
• upwards	mm	0
• downwards	mm	0
• sidewards	mm	6
Distance, to be maintained, conductive elements		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	0
• downwards	mm	0
• sidewards	mm	6
Connections:		

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 (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x (1 4 mm²)
• finely stranded	
<ul> <li>with conductor end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• for AWG conductors / for main contacts	1x 12, 2x (20 14)
for auxiliary contacts	
• solid	1x (0.5 4 mm²), 2x (0.5 2.5 mm²)
• finely stranded	
<ul> <li>with conductor end processing</li> </ul>	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)

• for AWG conductors / for auxiliary contacts
 2x (20 ... 14)

Tightening torque

• with screw-type terminals

N-m

0.8 ... 1.2

### Certificates/approvals:

Verification of suitability CE / UL / CSA

#### General Product Approval Test Certificates





**ROSTEST** 



Manufacturer

other

other

## **Shipping Approval**











Manufacturer

## **UL/CSA** ratings:

Contact rating designation / for auxiliary contacts / according to UL

B300 / R300

### Further information:

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

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrial-controls/mall

Cax online generator:

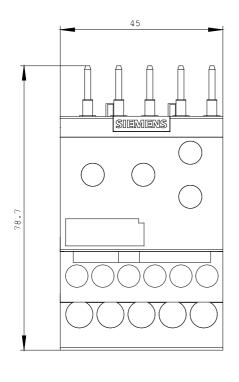
http://www.siemens.com/cax

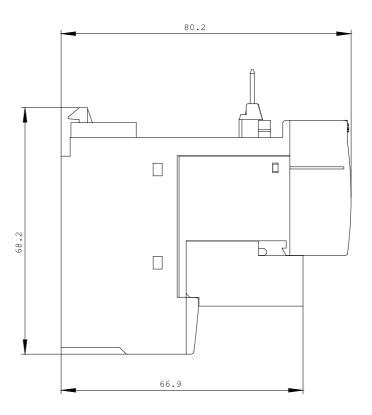
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

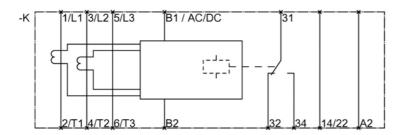
http://support.automation.siemens.com/WW/view/en/3RR2141-1AA30/all

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

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RR2141-1AA30}$ 







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