## **SIEMENS**

Data sheet 3RN2010-2CA30



Thermistor motor protection relay Compact evaluation unit 17.5 mm enclosure Spring-type terminal 1 NO contact, 1 NC contact US = 24 V AC/DC Auto RESET suitable for bimetallic switch 2 LEDs (Ready/Tripped) galvanic isolation

product brand name	SIRIUS		
product category	SIRIUS 3RN2 thermistor motor protection		
product designation	Thermistor motor protection relay		
design of the product	Compact evaluation unit, suitable for bimetallic switch		
product type designation	3RN2		
General technical data			
product function	thermistor motor protection		
display version LED	Yes		
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	300 V		
degree of pollution	3		
surge voltage resistance rated value	4 kV		
protection class IP	IP20		
shock resistance according to IEC 60068-2-27	11g / 15 ms		
mechanical service life (operating cycles) typical	10 000 000		
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000		
thermal current of the switching element with contacts maximum	5 A		
reference code according to IEC 81346-2	K		
Substance Prohibitance (Date)	05/28/2009		
SVHC substance name	Blei - 7439-92-1 Bleimonoxid (Bleioxid) - 1317-36-8		
Product Function			
product function			
• error memory	No		
<ul> <li>dynamic open-circuit detection</li> </ul>	No		
external reset	No		
	NO		
• auto-RESET	Yes		
<ul><li>auto-RESET</li><li>manual RESET</li></ul>			
	Yes		
manual RESET	Yes		
manual RESET  Control circuit/ Control	Yes No		
manual RESET  Control circuit/ Control  type of voltage of the control supply voltage	Yes No		
manual RESET  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at AC	Yes No AC/DC		
manual RESET  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at AC      at 50 Hz rated value	Yes No AC/DC 24 24 V		
manual RESET  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at AC      at 50 Hz rated value      at 60 Hz rated value	Yes No AC/DC 24 24 V		
manual RESET  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at AC      at 50 Hz rated value      at 60 Hz rated value  control supply voltage at DC	Yes No AC/DC 24 24 V 24 24 V		
manual RESET  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at AC      at 50 Hz rated value      at 60 Hz rated value  control supply voltage at DC      rated value  operating range factor control supply voltage rated value at	Yes No AC/DC 24 24 V 24 24 V		
manual RESET  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at AC      at 50 Hz rated value      at 60 Hz rated value  control supply voltage at DC      rated value  operating range factor control supply voltage rated value at DC	Yes No  AC/DC  24 24 V 24 24 V 24 24 V		

AC at 50 Hz			
• initial value	0.85		
• full-scale value	1.1		
operating range factor control supply voltage rated value at AC at 60 Hz			
• initial value	0.85		
• full-scale value	1.1		
inrush current peak			
• at 24 V	1.8 A		
duration of inrush current peak			
• at 24 V	2 ms		
Measuring circuit			
buffering time in the event of power failure minimum	40 ms		
Precision			
relative metering precision	9 %		
Auxiliary circuit			
material of switching contacts	AgSnO2		
number of NC contacts for auxiliary contacts	1		
number of NO contacts for auxiliary contacts	1		
number of CO contacts for auxiliary contacts	0		
Main circuit			
operating frequency rated value	50 60 Hz		
ampacity of the output relay at AC-15 at 250 V at 50/60 Hz	3 A		
ampacity of the output relay at DC-13			
• at 24 V	1 A		
• at 125 V	0.2 A		
continuous current of the DIAZED fuse link of the output relay	6 A		
Electromagnetic compatibility			
conducted interference			
due to burst according to IEC 61000-4-4	2 kV (power ports) / 1 kV (signal ports)		
<ul> <li>due to conductor-earth surge according to IEC 61000-4-5</li> </ul>	2 kV (line to ground)		
due to conductor-conductor surge according to IEC	1 kV (line to line)		
61000-4-5	(		
electrostatic discharge according to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge		
Galvanic isolation			
design of the electrical isolation	galvanic isolation		
galvanic isolation			
<ul> <li>between input and output</li> </ul>	Yes		
<ul> <li>between the outputs</li> </ul>	Yes		
<ul> <li>between the voltage supply and other circuits</li> </ul>	No		
Connections/ Terminals			
product component removable terminal for auxiliary and control circuit	Yes		
type of electrical connection	spring-loaded terminal (push-in)		
for auxiliary and control circuit	spring-loaded terminals (push-in)		
type of connectable conductor cross-sections			
• solid	0.5 4 mm²		
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm²		
<ul> <li>finely stranded without core end processing</li> </ul>	0.5 4 mm²		
<ul> <li>for AWG cables solid</li> </ul>	20 12		
• for AWG cables stranded	20 12		
connectable conductor cross-section			
• solid	0.5 4 mm²		
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm²		
• finely stranded without core end processing	0.5 4 mm²		
AWG number as coded connectable conductor cross section			
• solid	20 12		
• stranded	20 12		
Installation/ mounting/ dimensions			
mounting position	any		
<del>-</del> ·			

fastening method	screw and snap-on mounting	screw and snap-on mounting onto 35 mm DIN rail			
height	100 mm				
width	17.5 mm				
depth	90 mm	90 mm			
required spacing					
<ul> <li>with side-by-side mounting</li> </ul>					
— forwards	0 mm				
— backwards	0 mm				
— upwards	0 mm				
— downwards	0 mm				
— at the side	0 mm				
<ul> <li>for grounded parts</li> </ul>					
— forwards	0 mm				
— backwards	0 mm				
— upwards	0 mm				
— at the side	0 mm				
— downwards	0 mm				
• for live parts					
— forwards	0 mm				
— backwards	0 mm				
— upwards	0 mm				
— downwards	0 mm				
— at the side	0 mm				
Ambient conditions					
installation altitude at height above sea level maximum	2 000 m				
ambient temperature					
<ul> <li>during operation</li> </ul>	-25 +60 °C				
during storage	-40 +85 °C				
during transport	-40 +85 °C				
relative humidity during operation	70 %				
Approvals Certificates					
General Product Approval		EMC	Declaration of Con- formity		



Confirmation









Declaration of Conformity

**Test Certificates** 

Marine / Shipping

other



Type Test Certificates/Test Report







Confirmation

## Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

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

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=3RN2010-2CA30

Cax online generator

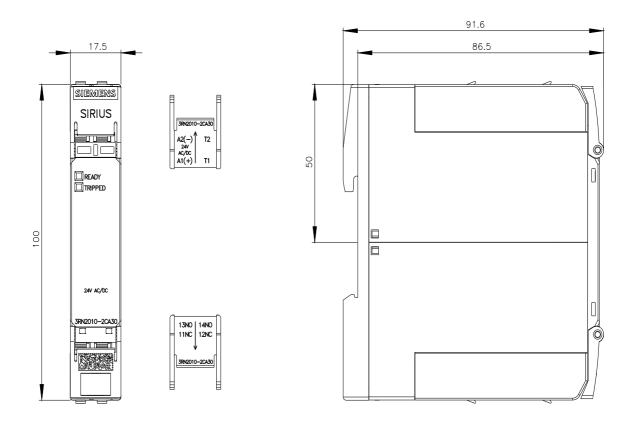
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RN2010-2CA30

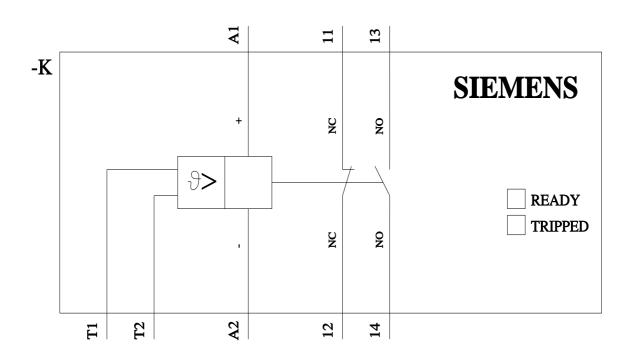
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RN2010-2CA30

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RN2010-2CA30&lang=en





last modified: 8/11/2023 🖸