SIEMENS

Data sheet 3RN2013-1GW30



Thermistor motor protection relay Standard evaluation unit 22.5 mm enclosure screw terminal 2 change-over contacts hard gold-plated US = 24 V-240 V AC/DC Manual/Auto/Remote reset with ATEX approval 2 LEDs (READY/TRIPPED) Safe galvanic isolation Test/reset button Wire break monitoring Short circuit monitoring non-volatile

product brand name	SIRIUS			
product category	SIRIUS 3RN2 thermistor motor protection			
product designation	Thermistor motor protection relay			
design of the product	Standard evaluation unit with ATEX approval, open-circuit and short-circuit detection in the sensor circuit, safe disconnection, non-volatile			
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	6 kV			
maximum permissible voltage for protective separation				
 between auxiliary and auxiliary circuit 	300 V			
between control and auxiliary circuit	300 V			
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 Dicyclohexylphthalat (DCHP) - 84-61-7			
Product Function				
product function				
• error memory	Yes			
 dynamic open-circuit detection 	Yes			
external reset	Yes			
• auto-RESET	Yes			
manual RESET	Yes			
Control circuit/ Control				
type of voltage of the control supply voltage	AC/DC			
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			

operating range factor control supply voltage rated value at DC	
• initial value	0.85
• full-scale value	1.1
operating range factor control supply voltage rated value at	1.1
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	0.05
• initial value	0.85
full-scale value inrush current peak	1.1
• at 24 V	0.7 A
• at 240 V	12 A
duration of inrush current peak	127
• at 24 V	0.25 ms
• at 240 V	0.2 ms
Measuring circuit	
buffering time in the event of power failure minimum	40 ms
Precision	
relative metering precision	2 %
Auxiliary circuit	
material of switching contacts	AgSnO2 hard gold-plated
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of CO contacts for auxiliary contacts	2
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
• at 250 V Main circuit	0.1 A
11 11	0.1 A 50 60 Hz
Main circuit	
Main circuit operating frequency rated value ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13	50 60 Hz
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category according to EN ISO 13849-1	1		
Safety Integrity Level (SIL) according to IEC 61508	1		
PFDavg with low demand rate according to IEC 61508	0.0041		
Safe failure fraction (SFF)	74 %		
hardware fault tolerance according to IEC 61508	0		
T1 value for proof test interval or service life according to IEC 61508	3 a		
Connections/ Terminals			
product component removable terminal for auxiliary and control circuit	Yes		
type of electrical connection	screw-type terminals		
for auxiliary and control circuit	screw-type terminals		
type of connectable conductor cross-sections			
• solid	1x (0.5 4.0 mm²), 2x (0.5	· ·	
 finely stranded with core end processing 	1x (0.5 4 mm²), 2x (0.5 1.	5 mm²)	
for AWG cables solid	1x (20 12), 2x (20 14)		
connectable conductor cross-section			
• solid	0.5 4 mm²		
finely stranded with core end processing	0.5 4 mm²		
AWG number as coded connectable conductor cross section			
• solid	20 12		
• stranded	20 12		
tightening torque with screw-type terminals	0.6 0.8 N·m		
Installation/ mounting/ dimensions			
mounting position	any		
fastening method	screw and snap-on mounting o	onto 35 mm DIN rail	
height	100 mm		
width	22.5 mm		
depth	90 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	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			
 during operation 	-25 +60 °C		
during storage	-40 +85 °C		
during transport	-40 +85 °C		
relative humidity during operation	70 %		
explosion protection category for dust	[Ex t] [Ex p]		
explosion protection category for gas	[Ex e] [Ex d] [Ex px]		
Approvals Certificates			
General Product Approval		EMC	For use in hazard- ous locations



Confirmation









For use in hazardous locations

Declaration of Conformity

Test Certificates

Marine / Shipping

Explosion Protection Certificate





Type Test Certificates/Test Report





Marine / Shipping

other



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=3RN2013-1GW30

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RN2013-1GW30}$

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

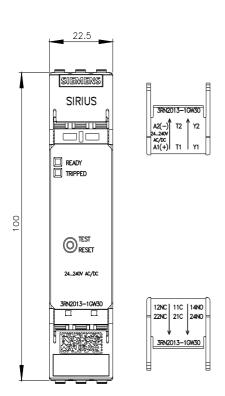
https://support.industry.siemens.com/cs/ww/en/ps/3RN2013-1GW30

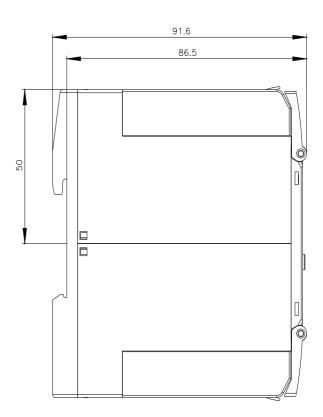
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

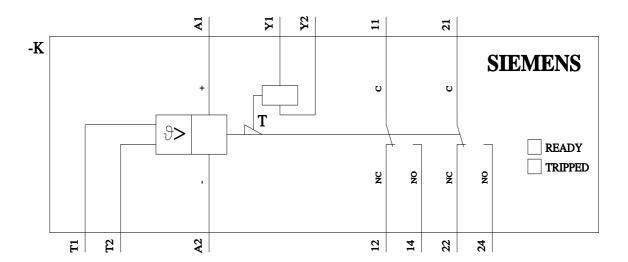
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RN2013-1GW30&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RN2013-1GW30/manual







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