SIEMENS

Data sheet 3RN2000-2AW30

Thermistor motor protection relay Compact evaluation unit, 17.5 mm enclosure, spring-type terminals, 1 changeover contact, US = 24 V-240 V AC/DC, Auto RESET, suitable for bimetallic switch, supply =output voltage, 1 LED (tripped)

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 (terminal A1 jumpered with root of changeover contact)
Product type designation	3RN2

General technical data	
Display version LED	Yes
Power loss [W] for rated value of the current	
• at AC in hot operating state	0.9 W
• at DC in hot operating state	0.9 W
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	

• acc. to IEC 60068-2-27	11g / 15 ms
Vibration resistance	
• acc. to IEC 60068-2-6	10 ... 55 Hz: 0.35 mm
Mechanical service life (switching cycles)	
• typical	10 000 000
Electrical endurance (switching cycles)	
• at AC-15 at 230 V typical	100 000
Thermal current of the switching element with contacts maximum	5 A
Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750	K
Reference code acc. to DIN EN 81346-2	K
Reference code acc. to DIN EN 61346-2	K

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 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	0.3 A
• at 240 V	8 A
Duration of inrush current peak	
• at 24 V	0.15 ms
• at 240 V	0.15 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	0
Number of NO contacts for auxiliary contacts	0
Number of CO contacts	
• for auxiliary contacts	1

Main circuit	
Operating frequency rated value	50 ... 60 Hz

Outputs	
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 acc. to IEC 61000-4-4	2 kV (power ports) / 1 kV (signal ports)
• due to conductor-earth surge acc. to IEC 61000-4-5	2 kV (line to ground)
• due to conductor-conductor surge acc. to IEC 61000-4-5	1 kV (line to line)
Electrostatic discharge acc. to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge

Galvanic isolation	
Design of the electrical isolation	galvanic isolation
Galvanic isolation	
• between entrance and outlet	Yes
• between the voltage supply and other circuits	No

Connections/ Terminals	
Product function	
• removable terminal for auxiliary and control circuit	Yes
Type of electrical connection	Push-in terminal
• for auxiliary and control current circuit	spring-loaded terminals (push-in)
Type of connectable conductor cross-sections	
• solid	0.5 ... 4 mm²
• finely stranded with core end processing	0.5 ... 2.5 mm²
• finely stranded without core end processing	0.5 ... 4 mm²
• at AWG conductors solid	20 ... 12
• at AWG conductors stranded	20 ... 12

Connectable conductor cross-section	
• solid	0.5 ... 4 mm²
• finely stranded with core end processing	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
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail
Height	100 mm
Width	17.5 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
Relative humidity	
• during operation	70 %

Certificates/ approvals

General Product Approval				EMC	Declaration of Conformity
CCC	CSA	UL		RCM	EG-Konf.

Declaration of Conformity	Test Certificates	Marine / Shipping			other
Miscellaneous	Type Test Certificates/Test Report	LRS	PRS		Confirmation

Further information

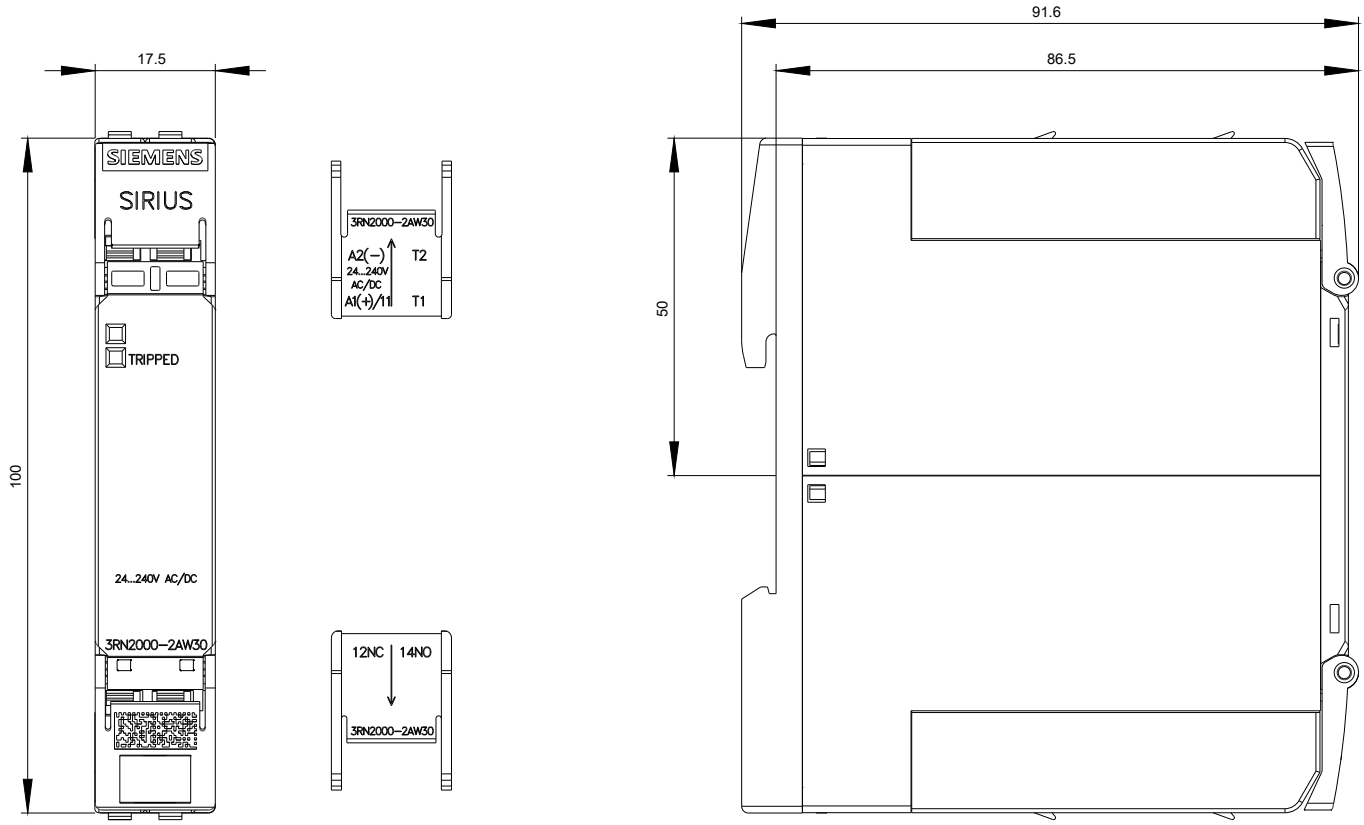
Information- and Downloadcenter (Catalogs, Brochures,…)
www.siemens.com/sirius/catalogs

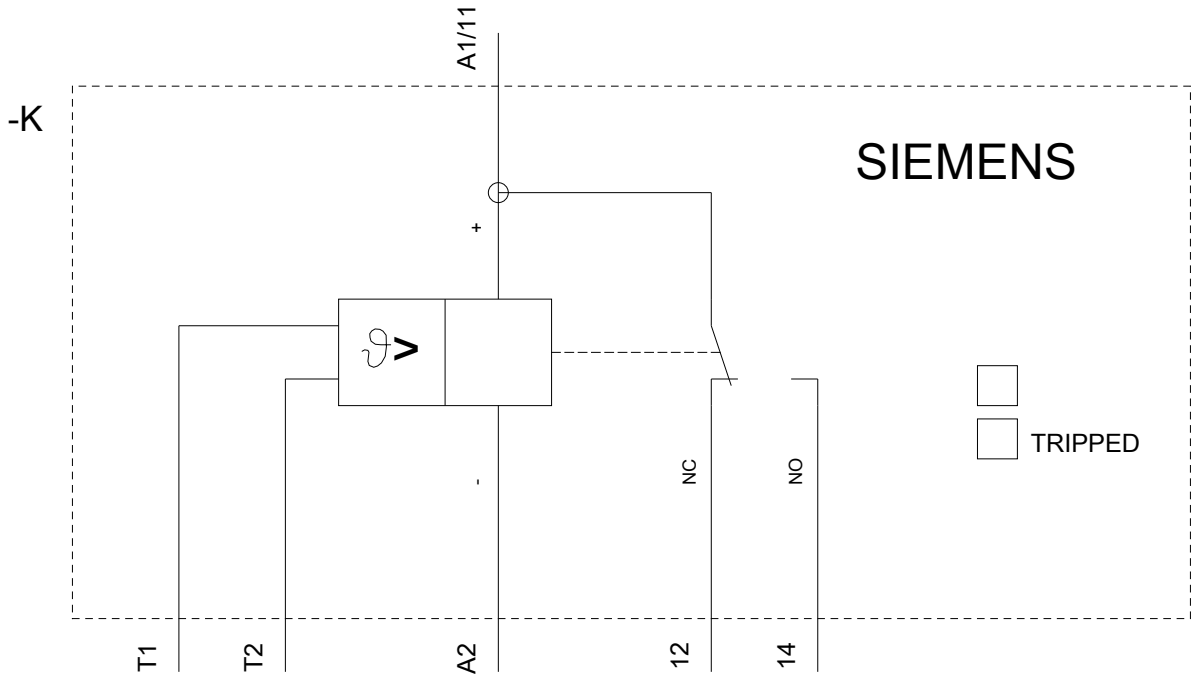
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RN2000-2AW30

Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RN2000-2AW30

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RN2000-2AW30

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RN2000-2AW30&lang=en





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