

3RU2116-1KB0 THERM. OVERLOAD RELAY 9.0 - 12.5 A

Technical / CAx data

☒ Technical Data ☐ CAx data

As of 2011-11-18



OVERLOAD RELAY 9.0...12.5 A FOR MOTOR
PROTECTION BGR S00, CLASS 10 FOR MOUNTING
ONTO CONTACTORS MAIN CIRCUIT: SCREW TERMINAL
AUXILIARY CIRCUIT: SCREW TERMINAL MANUAL-
AUTOMATIC-RESET

General technical data:		
Product brand name		SIRIUS
product designation		3RU2 thermal overload relay
Protection class IP / on the front		IP20
Insulation voltage / with degree of pollution 3		
• rated value	V	690
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during transport	°C	-55...80
• during storage	°C	-55...80
• during operating	°C	-40...70
Relative humidity		
• during operating phase	/ %	90
Resistance against shock		8g / 10 ms
Impulse voltage resistance / rated value	kV	6
Active power loss / total / typical	W	5.1
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		F
• according to DIN EN 61346-2		F
Trip class		CLASS 10
Type of assignment		2
Size of overload relay		S00
Size of the contactor / can be combined		
• company-specific		S00

Main circuit:		
Number of poles / for main current circuit		3
Operating voltage / at AC-3 / rated value		
• maximum	V	690
Operating current / at AC-3 / at 400 V		
• rated value	A	12.5
Service power / at AC-3		
• at 400 V / rated value	kW	5.5
• at 500 V / rated value	kW	7.5
• at 690 V / rated value	kW	7.5
Adjustable response current		
• of the current-dependent overload release	A	9...12.5
Operating current / of the fuse link / rated value	A	35

Auxiliary circuit:		
Contact reliability / of the auxiliary contacts		< 1 error per 100 million operating cycles
Number of NC contacts / for auxiliary contacts		1
Number of NO contacts / for auxiliary contacts		1
Number of change-over switches / for auxiliary contacts		0
Operating current / of the auxiliary contacts		
• at AC-15		
• at 24 V	A	3
• at 110 V	A	3
• at 120 V	A	3
• at 125 V	A	3
• at 230 V	A	2
• at 400 V	A	1
• at DC-13		
• at 24 V	A	1
• at 110 V	A	0.22
• at 125 V	A	0.22
• at 220 V	A	0.11

Short-circuit:		
Design of the fuse link / for short-circuit protection of the auxiliary switch / required		fuse gG: 10 A

Installation/mounting/dimensions:		
Built in orientation		vertical
Type of mounting		direct mounting
Width	mm	45
Height	mm	87
Depth	mm	73
Distance, to be maintained, to the ranks assembly		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	mm	6
Distance, to be maintained, to earthed part		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	mm	6
Distance, to be maintained, conductive elements		
	mm	0

- forwards
- backwards
- upwards
- downwards
- sideways

mm	0
mm	6
mm	6
mm	6

Connections:

Design of the electrical connection

- for main current circuit
- for auxiliary and control current circuit

screw-type terminals
screw-type terminals
No

Product function / removable terminal for auxiliary and control circuit

Type of the connectable conductor cross-section

- for main contacts
 - solid
 - stranded
- finely stranded
 - with conductor end processing
- for AWG conductors / for main contacts
- for auxiliary contacts
 - solid
 - finely stranded
 - with conductor end processing
- for AWG conductors / for auxiliary contacts

2 x (0.5 ... 1.5 mm²), 2 x (0.75 ... 2.5 mm²), 2 x (0.5 ... 4 mm²)
2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 0.5 mm² ... 2x 4 mm²

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
2x (20 ... 16), 2x (18 ... 14)

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
2x (20 ... 16), 2x (18 ... 14)

Certificates/approvals:

Verification of suitability

- ATEX

CE / UL / CSA
No

General Product Approval

CQC

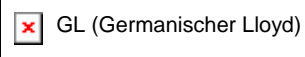


ROSTEST



Shipping Approval

ABS



Shipping Approval

other



Manufacturer

Safety:

Mean time to failure (MTTF) / with high demand rate

- according to SN 31920

a 2,280

Proportion of dangerous failures

- with low demand rate / according to SN 31920
- with high demand rate / according to SN 31920

% 50

% 50

Failure rate (FIT value) / with low demand rate

- according to SN 31920

FIT 50

T1 value / for proof test interval or service life

- according to IEC 61508

a 20

Protection against electrical shock

finger-safe

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

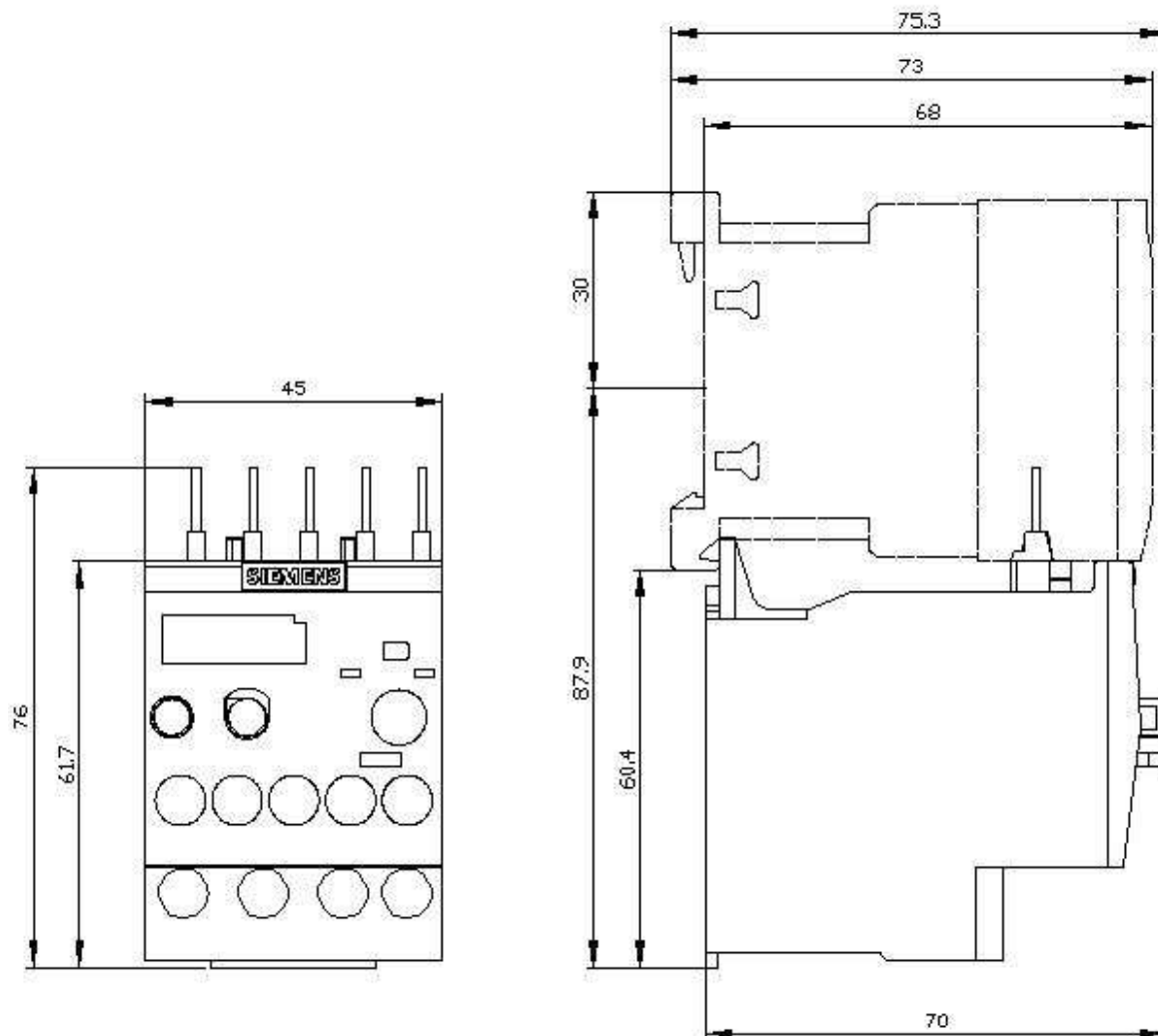
<http://www.siemens.com/cax>

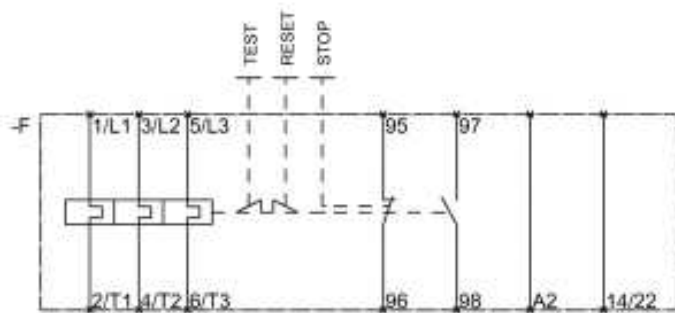
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RU2116-1KB0/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RU2116-1KB0





last change:

Aug 22, 2011