

**3RU2116-1JB0 THERM. OVERLOAD RELAY 7.0 - 10 A**

Technical / CAx data

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OVERLOAD RELAY 7.0...10 A FOR MOTOR PROTECTION  
SZ S00, CLASS 10, F. MOUNTING ONTO CONTACTOR  
MAIN CIRCUIT: SCREW TERMINAL AUX. 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 / 11 ms
Impulse voltage resistance / rated value	kV	6
Active power loss / total / typical	W	6.1
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:**

<b>Number of poles / for main current circuit</b>		3
<b>Operating voltage / at AC-3 / rated value</b>		
• maximum	V	690
<b>Operating current / at AC-3 / at 400 V</b>		
• rated value	A	10
<b>Service power / at AC-3</b>		
• at 400 V / rated value	kW	4
• at 500 V / rated value	kW	5.5
• at 690 V / rated value	kW	7.5
<b>Adjustable response current</b>		
• of the current-dependent overload release	A	7...10
<b>Operating current / of the fuse link / rated value</b>	A	35

#### Auxiliary circuit:

<b>Contact reliability / of the auxiliary contacts</b>		< 1 error per 100 million operating cycles
<b>Number of NC contacts / for auxiliary contacts</b>		1
<b>Number of NO contacts / for auxiliary contacts</b>		1
<b>Number of change-over switches / for auxiliary contacts</b>		0
<b>Operating current / of the auxiliary contacts</b>		
• 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:

<b>Design of the fuse link / for short-circuit protection of the auxiliary switch / required</b>		fuse gG: 10 A
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#### Installation/mounting/dimensions:

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

- upwards
- downwards
- sideways

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

**Product function / removable terminal for auxiliary and control circuit**

No

**Type of the connectable conductor cross-section**

- for main contacts
  - solid
  - 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

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>), 2x 4 mm<sup>2</sup>

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)

2x (20 ... 16), 2x (18 ... 14), 2x 12

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)

2x (20 ... 16), 2x (18 ... 14)

**Certificates/approvals:**

**Verification of suitability**

- ATEX

CE / UL / CSA  
Yes

**General Product Approval**

**For use in hazardous locations**

<input checked="" type="checkbox"/> CCC	<input checked="" type="checkbox"/> CSA	<input checked="" type="checkbox"/> GOST	<input checked="" type="checkbox"/> UL	<input checked="" type="checkbox"/> ATEX-EC-Type
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**Test Certificates**

Special Test Certificate      Type Test Certificates/Test Report

**Shipping Approval**

<input checked="" type="checkbox"/> ABS (America)	<input checked="" type="checkbox"/> DNV / Det Nor	<input checked="" type="checkbox"/> GL / Germani	<input checked="" type="checkbox"/> LRS / Lloyds R	<input checked="" type="checkbox"/> PRS / Polski R	<input checked="" type="checkbox"/> RINA / Registr
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**Shipping Approval other**

<input checked="" type="checkbox"/> RMRS / Russ	Declaration of Conformity
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**UL/CSA ratings:**

**Contact rating designation / for auxiliary contacts / according to UL**

B600 / R300

**Reliability figures:**

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

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:**

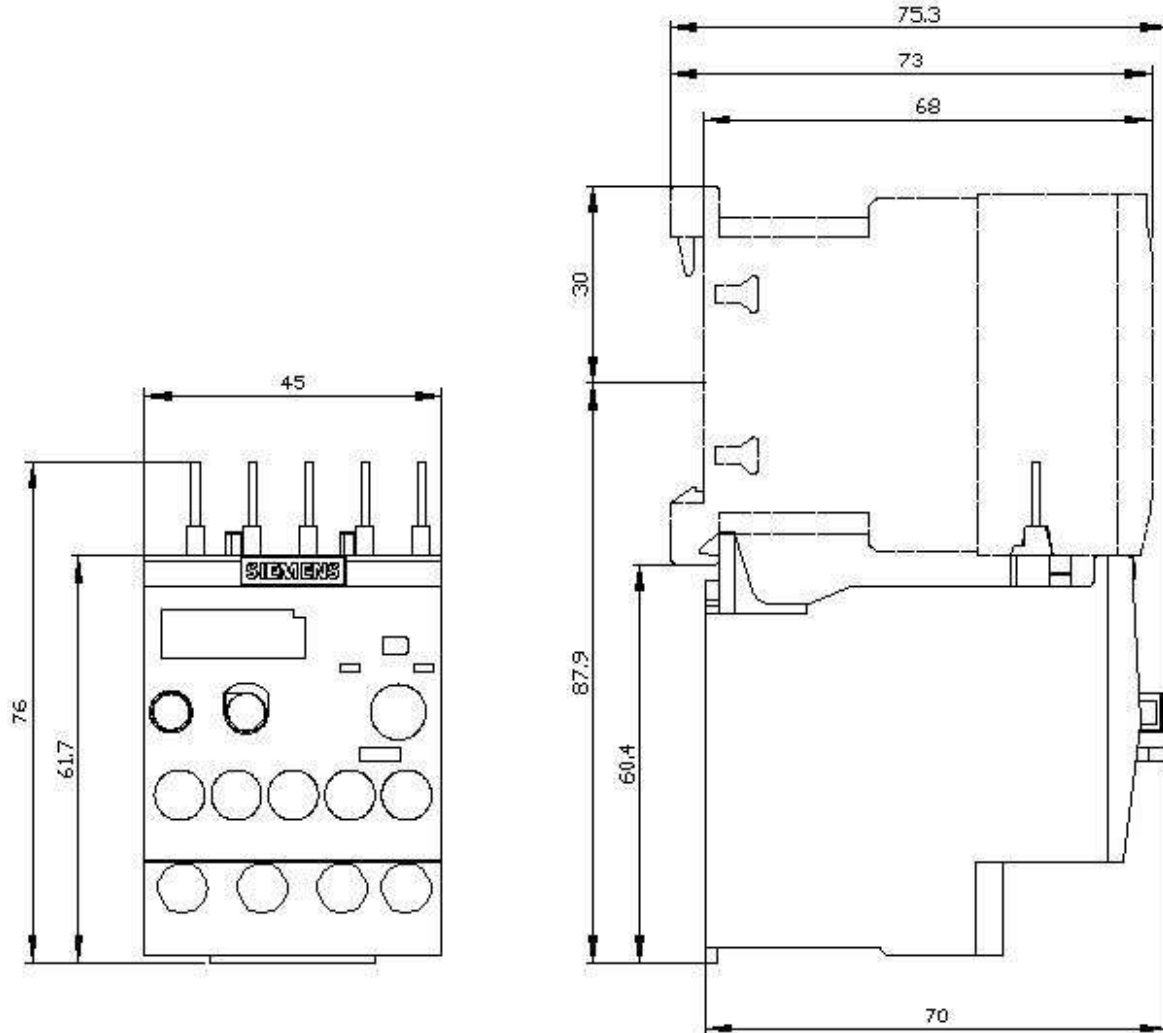
<http://www.siemens.com/cax>

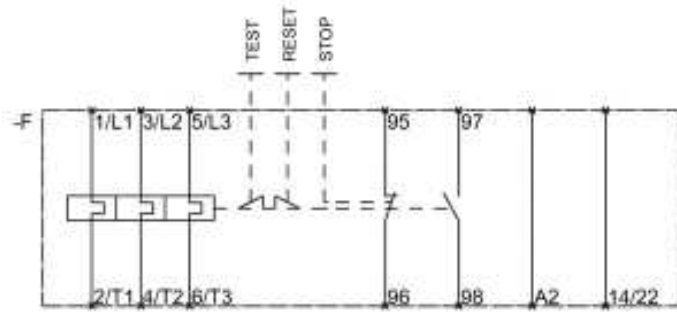
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RU2116-1JB0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RU2116-1JB0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RU2116-1JB0)





last change:

Mar 27, 2012