# SIEMENS

## **Product data sheet**

### 3RU2116-1JB0



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 / 10 ms
Impulse voltage resistance / rated value	kV	6
Active power loss / total / typical	W	6.1
Item designation		
<ul> <li>according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</li> </ul>		F
according to DIN EN 61346-2		F

Trip class		CLASS 10
Type of assignement		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	А	10
Service power / at AC-3		
• at 400 V / rated value	kW	4
• at 500 V / rated value	kW	5.5
• at 690 V / rated value	kW	7.5
Adjustable response current		
• of the current-dependent overload release	А	7 10
Operating current / of the fuse link / rated value	А	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	А	3	
• at 110 V	А	3	
• at 120 V	А	3	
• at 125 V	А	3	
• at 230 V	А	2	
• at 400 V	А	1	
• at DC-13			
• at 24 V	А	1	
• at 110 V	А	0.22	
• at 125 V	А	0.22	
• at 220 V	А	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
• sidewards	mm	6
Distance, to be maintained, to earthed part		
• forwards	mm	0
backwards	mm	0
• upwards	mm	6
downwards	mm	6
• sidewards	mm	6
Distance, to be maintained, conductive elements		
forwards	mm	0
backwards	mm	0
• upwards	mm	6
downwards	mm	6
• sidewards	mm	6

# Connections:

Design of the electrical connection	
for main current circuit	screw-type terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals
Product function / removable terminal for auxiliary and control circuit	No
Type of the connectable conductor cross-section	
for main contacts	
• solid	2 x (0.5 1.5 mm²), 2 x (0.75 2.5 mm²), 2 x (0.5 4 mm²)
• stranded	2x (0.5 1.5 mm2), 2x (0.75 2.5 mm2), 2x 0.5 mm2 2x 4 mm2
finely stranded	
with conductor end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)

<ul> <li>for AWG conductors / for main contacts</li> </ul>	2x (20 .	16), 2x (18 14)	
for auxiliary contacts			
• solid	2x (0.5	1.5 mm²), 2x (0.75	2.5 mm²)
finely stranded			
<ul> <li>with conductor end processing</li> </ul>	2x (0.5	1.5 mm²), 2x (0.75	2.5 mm²)
<ul> <li>for AWG conductors / for auxiliary contacts</li> </ul>	2x (20 .	16), 2x (18 14)	
Certificates/approvals:			
Verification of suitability	CE / UL	/ CSA	
• ATEX	No		
General Product Approval		For use in hazardous locations	Test Certificates
ROSTEST		DEKRA EXAM, DMT	Manufacturer

**Shipping Approval** 

**Shipping Approval** 



cqc



SF

Manufacturer







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	а	2,280	
Proportion of dangerous failures			
<ul> <li>with low demand rate / according to SN 31920</li> </ul>	%	50	
<ul> <li>with high demand rate / according to SN 31920</li> </ul>	%	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	а	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

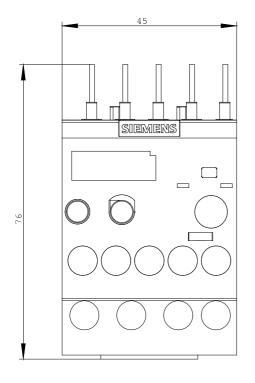
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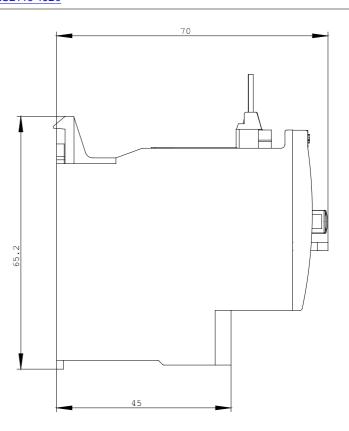
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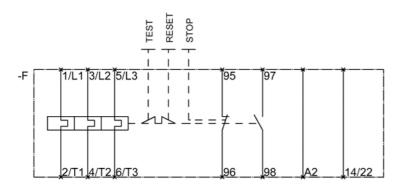
### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

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







last change:

Oct 24, 2011