# SIEMENS

## **Product data sheet**

#### 3RU2116-0DC1



OVERLOAD RELAY 0.22...0.32 A FOR MOTOR PROTECTION SZ S00, CLASS 10, STAND-ALONE INSTALLATION MAIN CIRCUIT: SPRING TERMINAL AUX. CIRCUIT: SPRING 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	4.5
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	0.32
Service power / at AC-3		
• at 400 V / rated value	kW	0.09
• at 500 V / rated value	kW	0.12
• at 690 V / rated value	kW	0.12
Adjustable response current		
• of the current-dependent overload release	A	0.22 0.32
Operating current / of the fuse link / rated value	А	1.6

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

Built in orientation       Type of mounting         Width       Image: Provide the system of th	mm mm mm mm mm mm mm	vertical           stand-alone installation           45           87           73           0           0           6           6           6           0           0
Width         Height         Depth         Distance, to be maintained, to the ranks assembly         • forwards         • backwards         • upwards         • downwards         • sidewards         Distance, to be maintained, to earthed part	mm mm mm mm mm mm	45 87 73 0 0 6 6 6
Height Depth Distance, to be maintained, to the ranks assembly    forwards  backwards  upwards  downwards  sidewards Distance, to be maintained, to earthed part	mm mm mm mm mm mm	87 73 0 0 6 6 6
Depth Distance, to be maintained, to the ranks assembly • forwards • backwards • upwards • downwards • sidewards Distance, to be maintained, to earthed part	mm mm mm mm mm	73 0 0 6 6 6 6
Distance, to be maintained, to the ranks assembly   • forwards  • backwards  • upwards  • downwards  • sidewards  Distance, to be maintained, to earthed part	mm mm mm mm	0 0 6 6 6
<ul> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>sidewards</li> </ul> Distance, to be maintained, to earthed part	mm mm mm mm	0 6 6 6
backwards     upwards     downwards     sidewards  Distance, to be maintained, to earthed part	mm mm mm mm	0 6 6 6
upwards     downwards     sidewards Distance, to be maintained, to earthed part	mm mm mm	6 6 6 0
• downwards     • sidewards Distance, to be maintained, to earthed part	mm mm	6 6 0
• sidewards Distance, to be maintained, to earthed part	mm	6 0
Distance, to be maintained, to earthed part	mm	0
(an and a		
forwards		
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		spring-loaded terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>		spring-loaded terminals
Product function / removable terminal for auxiliary and control circuit		No

- for main contacts
  - solid
  - stranded
  - finely stranded
    - with conductor end processing 2 x (0.5 ... 2.5 mm2)
    - without conductor final cutting

2x (0.5 ... 4 mm2)

2x (0.5 ... 4 mm2)

2x (0.5 ... 2.5 mm2)

for AWG conductors / for main contacts	1x (20 12)
for auxiliary contacts	
• solid	2x (0.5 2.5 mm2)
finely stranded	
with conductor end processing	2x (0.5 1.5 mm2)
<ul> <li>without conductor final cutting</li> </ul>	2 x (0.5 1.5 mm2)
<ul> <li>for AWG conductors / for auxiliary contacts</li> </ul>	2x (20 14)

#### Certificates/approvals:

Certificates/approv	/als:				
Verification of suitab	ility			CE / UL / CSA	
• ATEX				No	
General Product Ap	proval			For use in hazardous locations	Test Certificates
coc	(SA)	ROSTEST		<u>DEKRA EXAM,</u> <u>DMT</u>	Manufacturer
Shipping Approval					
ABS	JÅ DNV DNV	GL	Lloyd's Register	PRS	RINA
Shipping Approval	other				
RMRS	Manufacturer				

Reliability figures:			
Mean time to failure (MTTF) / with high demand rate	а	2,280	
Proportion of dangerous failures			
with low demand rate / according to SN 31920	%	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

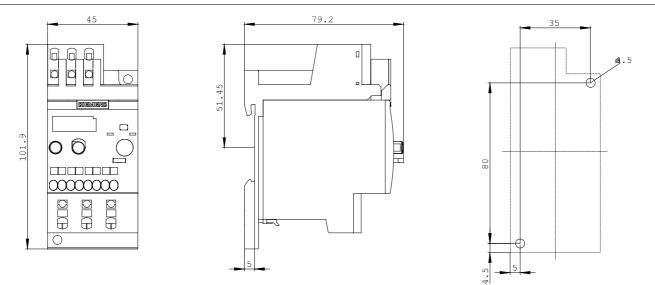
#### Industry Mall (Online ordering system)

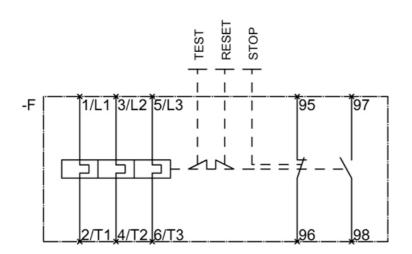
http://www.siemens.com/industrial-controls/mall

http://www.siemens.com/cax

#### Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RU2116-0DC1/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RU2116-0DC1





last change:

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