# SIEMENS

### **Product data sheet**

### 3RU2116-1BC0



OVERLOAD RELAY 1.4...2.0 A FOR MOTOR PROTECTION SZ S00, CLASS 10, F. MOUNTING ONTO CONTACTOR 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	5.1
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

	CLASS 10
	2
	S00
	S00
	3
V	690
А	2
kW	0.75
kW	0.75
kW	1.1
А	1.4 2
А	6
	A kW kW kW

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	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
Type of the connectable conductor cross-section	
for main contacts	
• solid	2x (0.5 4 mm2)
• stranded	2x (0.5 4 mm2)
finely stranded	
with conductor end processing	2 x (0.5 2.5 mm2)
without conductor final cutting	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	ais:					
Verification of suitabi	lity			CE / UL	/ CSA	
• ATEX				No		
General Product Ap	proval		For use in hazardous locations		Test Certificates	
(SA)	ROSTEST		DEKRA EXAM, DMT		<u>Manufacturer</u>	
Shipping Approval						
ABS	<b>ŮŇ</b> DNV	GL	Lloyd's Register LRS		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	
with high demand rate / according to SN 31920	%	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)

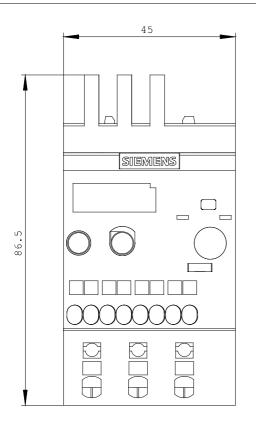
http://www.siemens.com/industrial-controls/mall

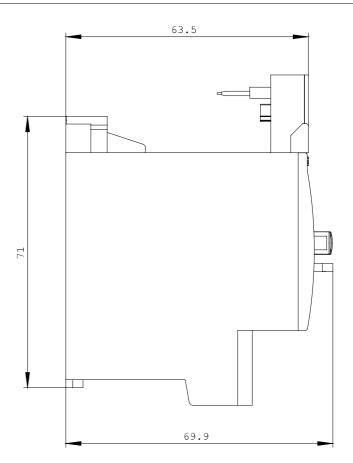
#### Cax online generator:

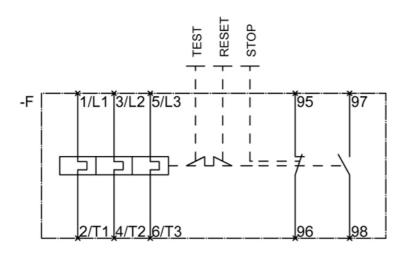
http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RU2116-1BC0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RU2116-1BC0







last change:

Oct 17, 2011