## **SIEMENS**

Product data sheet 3RU2116-1CB1



OVERLOAD RELAY 1.8...2.5 A FOR MOTOR PROTECTION SZ S00, CLASS 10, STAND-ALONE INSTALLATION 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		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		6	
Active power loss / total / typical		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	

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	Α	2.5	
Service power / at AC-3			
• at 400 V / rated value	kW	0.75	
• at 500 V / rated value	kW	1.1	
at 690 V / rated value	kW	1.5	
Adjustable response current			
of the current-dependent overload release	Α	1.8 2.5	
Operating current / of the fuse link / rated value	Α	10	

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	Α	3		
• at 110 V	Α	3		
• at 120 V	Α	3		
• at 125 V	Α	3		
• at 230 V	Α	2		
• at 400 V	Α	1		
• at DC-13				
• at 24 V	Α	1		
• at 110 V	Α	0.22		
• at 125 V	Α	0.22		
• at 220 V	Α	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		stand-alone installation	
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	
for auxiliary and control current circuit		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

• finely stranded

• with conductor end processing

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

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

mm2 ... 2x 4 mm2

• for AWG conductors / for main contacts	2x (20 16), 2x (18 14)
• for auxiliary contacts	
• solid	2x (0.5 1.5 mm2), 2x (0.75 2.5 mm2)
• finely stranded	
• with conductor end processing	2x (0.5 1.5 mm2), 2x (0.75 2.5 mm2)
for AWG conductors / for auxiliary contacts	2x (20 16), 2x (18 14)

Certificates/approvals:						
Verification of su	ıitability			CE / U	L/CSA	
• ATEX				No		
General Produc	et Approval				For use in hazardous locations	Test Certificates
Cac	(SP.	ROSTEST	(U <sub>L</sub> )		DEKRA EXAM, DMT	Manufacturer

## **Shipping Approval**



cqc



CSA



GL







**Shipping Approval** 

other



Manufacturer

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

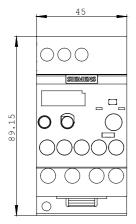
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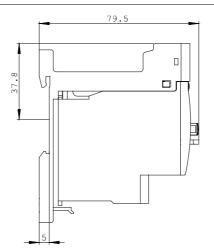
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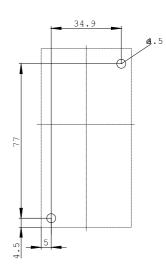
http://support.automation.siemens.com/WW/view/en/3RU2116-1CB1/all

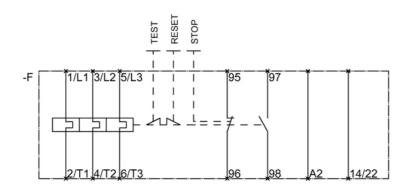
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ ...)$ 

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RU2116-1CB1









last change: Oct 17, 2011