## **SIEMENS**

Product data sheet 3RU2116-1FB1



OVERLOAD RELAY 3.5...5.0 A FOR MOTOR
PROTECTION SZ S00,
CLASS 10,
STAND-ALONE INSTALLATION MAIN CIRCUIT: SCREW
TERMINAL AUX. CIRCUIT: SCREW TERMINAL MANUALAUTOMATIC-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	Α	5		
Service power / at AC-3				
• at 400 V / rated value	kW	1.5		
• at 500 V / rated value	kW	2.2		
at 690 V / rated value	kW	4		
Adjustable response current				
of the current-dependent overload release	Α	3.5 5		
Operating current / of the fuse link / rated value	Α	20		

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

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	2x (0.5 1.5 mm2), 2x (0.75 2.5 mm2), 2x 0.5 mm2 2x 4 mm2
• finely stranded	
<ul> <li>with conductor end processing</li> </ul>	2x (0.5 1.5 mm2), 2x (0.75 2.5 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/app	orovals:				
Verification of su	itability		CE / UI	L/CSA	
• ATEX			No		
General Produc	t Approval			For use in hazardous locations	Test Certificates
cac	(SP	ROSTEST		DEKRA EXAM, DMT	Manufacturer

## **Shipping Approval**



cqc





GL







**Shipping Approval** 

other



Manufacturer

Reliability figures:				
а	2,280			
%	50			
%	50			
FIT	50			
а	20			
	finger-safe			
	% % FIT			

## 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

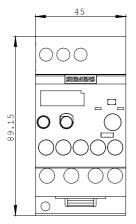
Cax online generator:

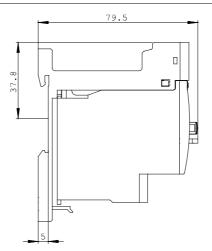
http://www.siemens.com/cax

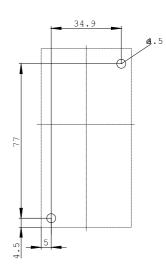
http://support.automation.siemens.com/WW/view/en/3RU2116-1FB1/all

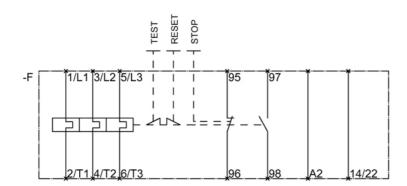
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RU2116-1FB1









last change: Oct 17, 2011