## **SIEMENS**

Product data sheet 3RU2116-1AC1



OVERLOAD RELAY 1.1...1.6 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		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	1.6		
Service power / at AC-3				
• at 400 V / rated value	kW	0.55		
at 500 V / rated value	kW	0.75		
at 690 V / rated value	kW	1.1		
Adjustable response current				
of the current-dependent overload release	Α	1.1 1.6		
Operating current / of the fuse link / rated value	Α	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	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		6
• sidewards	mm	6
Connections:		
Design of the electrical connection		
for main current circuit		spring-loaded terminals
for auxiliary and control current circuit		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

• without conductor final cutting

2 x (0.5 ... 2.5 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)
without conductor final cutting	2 x (0.5 1.5 mm2)
• for AWG conductors / for auxiliary contacts	2x (20 14)

To AVG conductor	15 / IOI auxillally Co	Dillacis		ZX (ZU .	14)	
Certificates/approvals:						
Verification of suitabi	lity			CE / UL	_/ CSA	
• ATEX				No		
General Product App	proval				For use in hazardous locations	Test Certificates
coc	(SA)	ROSTEST			DEKRA EXAM, DMT	Manufacturer
Shipping Approval						
ABS	DNV DNV	G L @	Lloyd's Register LRS		PRS	RINA
Shipping Approval	other					

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

## Cax online generator:

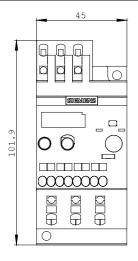
http://www.siemens.com/cax

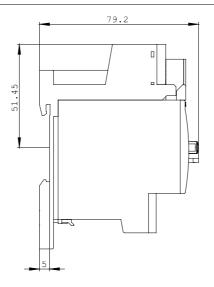
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

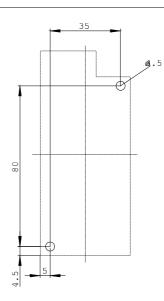
http://support.automation.siemens.com/WW/view/en/3RU2116-1AC1/all

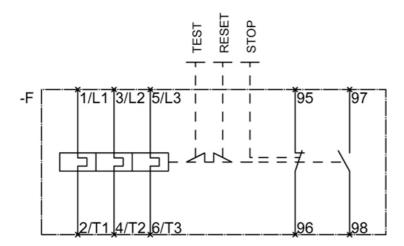
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RU2116-1AC1









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