SIEMENS

Product data sheet

3RU2116-1CC1



OVERLOAD RELAY 1.8...2.5 A FOR MOTOR PROTECTION SZ S00, CLASS 10, STAND-ALONE INSTALLATION MAIN CIRCUIT: SPRING TERMINAL AUX. CIRCUIT: SPRING TERMINAL MANUAL-AUTOMATIC-RESET

Product brand nameSIRIUSproduct designation3RU2 thermal overload relayProtection class IP / on the frontIP20Insulation voltage / with degree of pollution 3IP20• rated valueV690Installation altitude / at a height over sea level / maximumm2,000Ambient temperatureIPIP20• during transport°C-55 80• during operating°C-55 80• during operating phase/C-40 70• during operating phase/%90Relative humidityIP208g / 10 ms• during operating phase/W5.1Active power loss / total / typicalW5.1• according to DIN 40719 extendable after IEC 204-2 / according to DIN NEN 61346-2F	General technical data:		
Protection class IP / on the frontIP20Insulation voltage / with degree of pollution 3I• rated valueV690Installation altitude / at a height over sea level / maximumm2,000Ambient temperature°C-55 80• during transport°C-55 80• during operating°C-55 80• during operating phase°C-40 70Relative humidityImage: Stance against shock8g / 10 msImpulse voltage resistance / rated valuekV6Active power loss / total / typicalW5.1Item designationImage: Stance against shockF	Product brand name		SIRIUS
Insulation voltage / with degree of pollution 3Insulation voltage / with degree of pollution 3Insulation 3• rated valueV690Installation altitude / at a height over sea level / maximumm2,000Ambient temperaturem2,000• during transport°C-55 80• during storage°C-55 80• during operating operating phase°C-40 70Relative humidityrr• during operating phase7/%90Resistance against shock8g / 10 msImpulse voltage resistance / rated valueKV6Active power loss / total / typicalW5.1• according to DIN 40719 extendable after IEC 204-2 / according to DIN 40719 extendab	product designation		3RU2 thermal overload relay
• rated valueV690Installation altitude / at a height over sea level / maximumm2,000Ambient temperaturem-• during transport°C-55 80• during storage°C-55 80• during operating°C-60 70Relative humidity°C-40 70• during operating phase1 %90Resistance against shock18g/10 msImpulse voltage resistance / rated valuekV6Active power loss / total / typicalW5.1tem designation to IEC 750FF	Protection class IP / on the front		IP20
Installation altitude / at a height over sea level / maximumm2,000Ambient temperaturem2,000• during transport°C-55 80• during storage°C-55 80• during operating°C-40 70Relative humidity-40 70• during operating phase7 %90Resistance against shock108g / 10 msImpulse voltage resistance / rated valuekV6Active power loss / total / typicalW5.1Item designationW5.1• according to DIN 40719 extendable after IEC 204-2 / according t	Insulation voltage / with degree of pollution 3		
Ambient temperatureImage: Constraint of the second sec	rated value	V	690
• during transport°C-55 80• during storage°C-55 80• during operating°C-40 70Relative humidity-40 70• during operating phase1/%90Resistance against shock8g / 10 msImpulse voltage resistance / rated valueKV6Active power loss / total / typicalW5.1Item designationS.1• according to DIN 40719 extendable after IEC 204-2 / according to DIN 4071	Installation altitude / at a height over sea level / maximum	m	2,000
Adding data periodCCC- during storage°C-55 80- during operating°C-40 70Relative humidity- during operating phase1/%90Resistance against shock8g / 10 msImpulse voltage resistance / rated valueKV6Active power loss / total / typicalW5.1Item designationF- according to DIN 40719 extendable after IEC 204-2 / according to DIN 40719 extendable	Ambient temperature		
• during operating• C• C· C <th< td=""><td>during transport</td><td>°C</td><td>-55 80</td></th<>	during transport	°C	-55 80
Relative humidityImage: Point of the second sec	during storage	°C	-55 80
• during operating phase/ %90Resistance against shock8g / 10 msImpulse voltage resistance / rated valueKV6Active power loss / total / typicalW5.1Item designation to IEC 750FF	during operating	°C	-40 70
Resistance against shock8g / 10 msImpulse voltage resistance / rated valuekV6Active power loss / total / typicalW5.1Item designation to IEC 750FF	Relative humidity		
Impulse voltage resistance / rated value kV 6 Active power loss / total / typical W 5.1 Item designation KV F	during operating phase	/ %	90
Active power loss / total / typical W 5.1 Item designation F • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 F	Resistance against shock		8g / 10 ms
Item designation • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750	Impulse voltage resistance / rated value	kV	6
according to DIN 40719 extendable after IEC 204-2 / according to IEC 750	Active power loss / total / typical	W	5.1
to IEC 750	Item designation		
according to DIN EN 61346-2 F			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	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	А	1.8 2.5
Operating current / of the fuse link / rated value	А	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	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		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		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 		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)
 without conductor final cutting 	2 x (0.5 1.5 mm2)
 for AWG conductors / for auxiliary contacts 	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	
 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

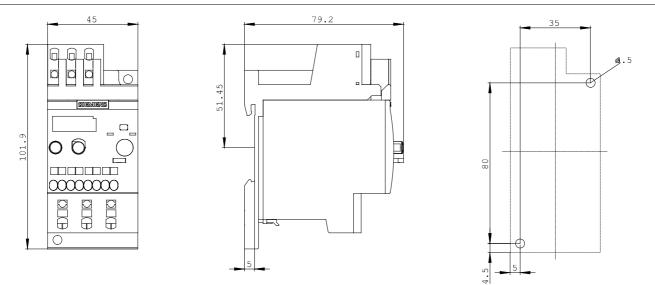
Industry Mall (Online ordering system)

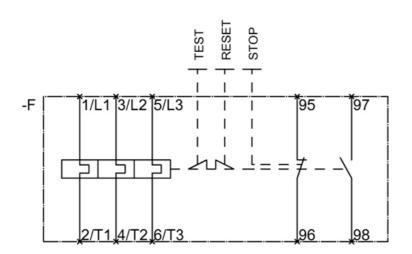
http://www.siemens.com/industrial-controls/mall

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Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RU2116-1CC1/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RU2116-1CC1





last change:

Oct 17, 2011