SIEMENS

Product data sheet 3RU2116-1DB1



OVERLOAD RELAY 2.2...3.2 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	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	5.2		
Item designation				
 according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 		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	3.2		
Service power / at AC-3				
• at 400 V / rated value	kW	1.1		
at 500 V / rated value	kW	1.5		
at 690 V / rated value	kW	2.2		
Adjustable response current				
of the current-dependent overload release	Α	2.2 3.2		
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	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 orientationverticalType of mountingstand-alone installationWidthmm45Heightmm87Depthmm73Distance, to be maintained, to the ranks assemblymm0• forwardsmm0• backwardsmm0• upwardsmm6• downwardsmm6• sidewardsmm6	Installation/mounting/dimensions:				
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					
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					
Depth mm 73 Distance, to be maintained, to the ranks assembly • forwards mm 0 • backwards mm 0 • upwards mm 6 • downwards mm 6					
Distance, to be maintained, to the ranks assembly • forwards					
 forwards backwards upwards downwards mm mm mm mm 6 					
 backwards upwards downwards mm mm mm 6 downwards mm 6 					
• upwards mm 6 • downwards 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				
with conductor end processing	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	provals:					
Verification of su	iitability			CE / U	L/CSA	
• ATEX				No		
General Produc	ct Approval				For use in hazardous locations	Test Certificates
Cec	(A)	ROSTEST	(II)		DEKRA EXAM,	Manufacturer

Shipping Approval



CQC





GL







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		
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

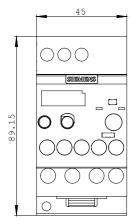
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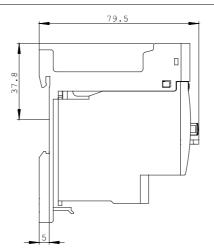
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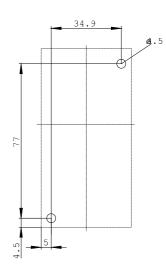
http://support.automation.siemens.com/WW/view/en/3RU2116-1DB1/all

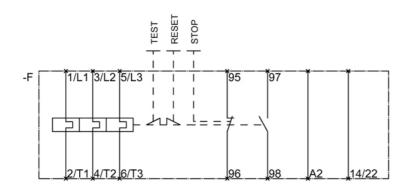
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ ...)$

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RU2116-1DB1









last change: Oct 17, 2011