## **SIEMENS**

Industry Automation and Drive Technologies Service & Support

## **3RU1116-1DB0** OVERLOAD RELAY, 2.2...3.2 A,

Technical / CAx data

Technical Data ○ CAx data



OVERLOAD RELAY, 2.2...3.2 A, 1NO+1NC, SIZE S00, CLASS 10, FOR CONTACTOR MOUNTING

General technical details:		
product brand name		SIRIUS
product designation		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		
<ul><li>during operating</li></ul>	${\mathcal C}$	-20+70
<ul><li>during storage</li></ul>	C	-55+80
<ul> <li>during transport</li> </ul>	.€	-55+80
Relative humidity / during operating phase / maximum	%	100
Resistance against shock		8g / 10 ms
Impulse voltage resistance / rated value	kV	6
Active power loss / total / typical	W	6.6
Item designation		
<ul> <li>according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</li> </ul>		F
<ul> <li>according to DIN EN 61346-2</li> </ul>		F
Operating current / of the fuse link / rated value	Α	10
Trip class		CLASS 10
Type of assignement		2
type of protection		DMT 98 ATEX G 001
Size of overload relay		S00
Size of the contactor / can be combined / company- specific		S00
Protection against electrical shock		finger-safe

Main circuit:

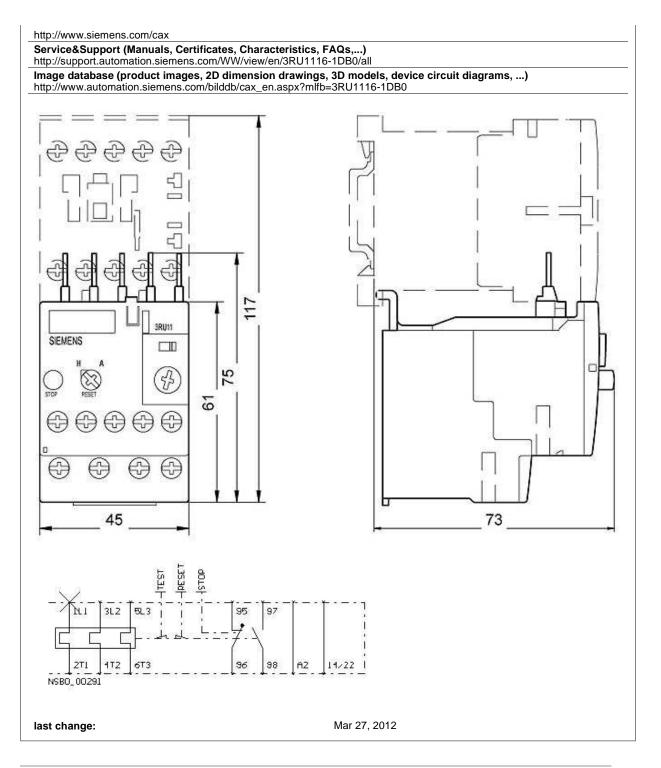
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Number of poles / for main current circuit		3
Operating voltage / at AC-3 / rated value		
<ul><li>maximum</li></ul>	V	690
Service power / at AC-3		
• at 400 V	kW	1.1
Adjustable response current		
<ul> <li>of the current-dependent overload release</li> </ul>	Α	2.23.2
Auxiliary circuit:		
Contact reliability / of the auxiliary contacts		acceptability for PLC control (17 V, 5 mA)
Number of NC contacts		1
Number of NO contacts		1
Number of change-over switches		0
Operating current / of the auxiliary contacts / at AC-15	Α	3
• at 24 V		
• at 110 V	A	3
• at 120 V	A	3
• at 125 V	A	3
• at 230 V	Α	2
• at 400 V	Α	1
Operating current / of the auxiliary contacts / at DC-13	٨	
• at 24 V	A	1
• at 110 V	A	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		fuse gL/gG: 6 A, quick: 10 A
auxiliary switch / required		
Installation/mounting/dimensions:		
Installation/mounting/dimensions: Built in orientation		with vertical mounting surface +/-135° rotatable,
		with vertical mounting surface +/- 45° tiltable to
Built in orientation		with vertical mounting surface +/- 45° tiltable to the front and back
	. mm	with vertical mounting surface +/- 45° tiltable to
Built in orientation  Type of mounting	mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting
Built in orientation  Type of mounting Height Width Depth	-	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87
Built in orientation  Type of mounting Height Width Depth Distance, to be maintained, to the ranks assembly	mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78
Built in orientation  Type of mounting  Height  Width  Depth  Distance, to be maintained, to the ranks assembly  • upwards	mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78
Built in orientation  Type of mounting  Height  Width  Depth  Distance, to be maintained, to the ranks assembly  • upwards  • downwards	mm mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78
Type of mounting Height Width Depth Distance, to be maintained, to the ranks assembly  • upwards • downwards • forwards	mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78 0 0 0
Built in orientation  Type of mounting  Height  Width  Depth  Distance, to be maintained, to the ranks assembly  • upwards • downwards • forwards • backwards	mm mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78 0 0 0 0 0
Type of mounting Height Width Depth Distance, to be maintained, to the ranks assembly  • upwards • downwards • forwards	mm mm mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78 0 0 0
Built in orientation  Type of mounting  Height  Width  Depth  Distance, to be maintained, to the ranks assembly  • upwards • downwards • forwards • forwards • backwards • sidewards  Distance, to be maintained, to earthed part	mm mm mm mm mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Built in orientation  Type of mounting  Height  Width  Depth  Distance, to be maintained, to the ranks assembly  • upwards • downwards • forwards • backwards • backwards • sidewards  Distance, to be maintained, to earthed part • upwards	mm mm mm mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78 0 0 0 0 0
Built in orientation  Type of mounting  Height  Width  Depth  Distance, to be maintained, to the ranks assembly  • upwards • downwards • forwards • backwards • sidewards  Distance, to be maintained, to earthed part  • upwards • downwards	mm mm mm mm mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Built in orientation  Type of mounting  Height  Width  Depth  Distance, to be maintained, to the ranks assembly  • upwards • downwards • forwards • backwards • backwards • sidewards  Distance, to be maintained, to earthed part • upwards	mm mm mm mm mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78 0 0 0 0 0
Built in orientation  Type of mounting  Height  Width  Depth  Distance, to be maintained, to the ranks assembly  • upwards • downwards • forwards • backwards • sidewards  Distance, to be maintained, to earthed part  • upwards • downwards	mm mm mm mm mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Built in orientation  Type of mounting  Height  Width  Depth  Distance, to be maintained, to the ranks assembly  • upwards • downwards • forwards • backwards • backwards • sidewards  Distance, to be maintained, to earthed part  • upwards • downwards • forwards • forwards	mm mm mm mm mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Built in orientation  Type of mounting  Height  Width  Depth  Distance, to be maintained, to the ranks assembly  • upwards • downwards • forwards • backwards • sidewards  Distance, to be maintained, to earthed part  • upwards • downwards • forwards • backwards • backwards • backwards	mm mm mm mm mm mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78  0 0 0 0 0 0 0 0
Built in orientation  Type of mounting  Height  Width  Depth  Distance, to be maintained, to the ranks assembly  • upwards • downwards • forwards • backwards • sidewards  Distance, to be maintained, to earthed part  • upwards • downwards • forwards • downwards • downwards • downwards • forwards • sidewards • sidewards	mm mm mm mm mm mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78  0 0 0 0 0 0 0 0
Built in orientation  Type of mounting  Height  Width  Depth  Distance, to be maintained, to the ranks assembly  • upwards • downwards • forwards • backwards • sidewards  Distance, to be maintained, to earthed part • upwards • downwards • downwards • downwards • downwards • sidewards  Distance, to be maintained, conductive elements	mm mm mm mm mm mm mm mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78 0 0 0 0 0 0 0 0 6
Built in orientation  Type of mounting  Height  Width  Depth  Distance, to be maintained, to the ranks assembly  • upwards • downwards • forwards • backwards • sidewards  Distance, to be maintained, to earthed part  • upwards • downwards • forwards • downwards • sidewards • sidewards • forwards • backwards • sidewards  Distance, to be maintained, conductive elements • upwards	mm mm mm mm mm mm mm mm mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Built in orientation  Type of mounting  Height  Width  Depth  Distance, to be maintained, to the ranks assembly  • upwards • downwards • forwards • backwards • sidewards  Distance, to be maintained, to earthed part  • upwards • downwards • forwards • downwards • sidewards  Distance, to be maintained, conductive elements • upwards • sidewards  Distance, to be maintained, conductive elements • upwards • downwards	mm mm mm mm mm mm mm mm mm mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Built in orientation  Type of mounting  Height  Width  Depth  Distance, to be maintained, to the ranks assembly  • upwards • downwards • forwards • backwards • sidewards  Distance, to be maintained, to earthed part  • upwards • downwards • forwards • downwards • sidewards  Distance, to be maintained, conductive elements • upwards • sidewards  Distance, to be maintained, conductive elements • upwards • downwards • forwards	mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Built in orientation  Type of mounting  Height  Width  Depth  Distance, to be maintained, to the ranks assembly  • upwards • downwards • forwards • backwards • sidewards  Distance, to be maintained, to earthed part  • upwards • downwards • forwards • downwards • sidewards  Distance, to be maintained, conductive elements • upwards • sidewards  Distance, to be maintained, conductive elements • upwards • downwards • downwards • downwards • downwards • downwards • downwards	mm	with vertical mounting surface +/- 45° tiltable to the front and back direct mounting 87 45 78  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

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Product function		No		
<ul> <li>removable terminal for auxiliary and control circuit</li> </ul>		No		
Design of the electrical connection				
<ul> <li>for main current circuit</li> </ul>		screw-type terminals		
<ul> <li>for auxiliary and control current circuit</li> </ul>		screw-type terminals		
Type of the connectable conductor cross-section				
<ul> <li>for main contacts</li> </ul>				
<ul><li>solid</li></ul>		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4		
final categoria d		mm² max.		
finely stranded		0 (0.5		
with conductor end processing		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
<ul> <li>for auxiliary contacts</li> </ul>				
<ul><li>solid</li></ul>		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
<ul><li>finely stranded</li></ul>				
<ul> <li>with conductor end processing</li> </ul>		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
<ul> <li>for AWG conductors</li> </ul>				
<ul> <li>for main contacts</li> </ul>		2x (20 16), 2x (18 14), 2x 12		
for auxiliary contacts		2x (20 16), 2x (18 14)		
Conductor cross section that can be connected	-			
for main contacts				
solid	mm²	0.54		
		0.04		
stranded wire	mm2	0.5. 0.5		
with conductor end processing	mm²	0.52.5		
<ul> <li>for auxiliary contact</li> </ul>				
• solid	mm²	0.52.5		
<ul><li>stranded wire</li></ul>				
<ul> <li>with conductor end processing</li> </ul>	mm²	0.52.5		
AWG number / as coded connectable conductor cross-				
section		20		
for main contacts / minimum		20		
<ul> <li>for auxiliary contact</li> </ul>		2014		
Certificates/approvals:				
Verification of suitability		CSA / UL / CC / GL / LRS / BV / DNV / RMRS /		
To mound or canadanty		RINA / PRS / ABS		
Varification of suitability / ATEX	-	Yes		
General Product Approval		For use in hazardous locations		
x CCC x CSA x GOST	× UL	x ATEX-EC-Typ₁		
Test Certificates				
Special Test Type Test				
Certificate Certificates/Test Report				
Shipping Approval				
■ ABS (America	x GL/G	Sermanis 🗶 LRS / Lloyds R 🗶 PRS / Polski R		
Shipping Approval other				
Confirmation	Declaration of	of other		
DINIA / Dogiet    DMDS / Duccir	Conformity	× Environmental		
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				

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