## **SIEMENS**

## **Product data sheet**

## 3RU1136-4DB0



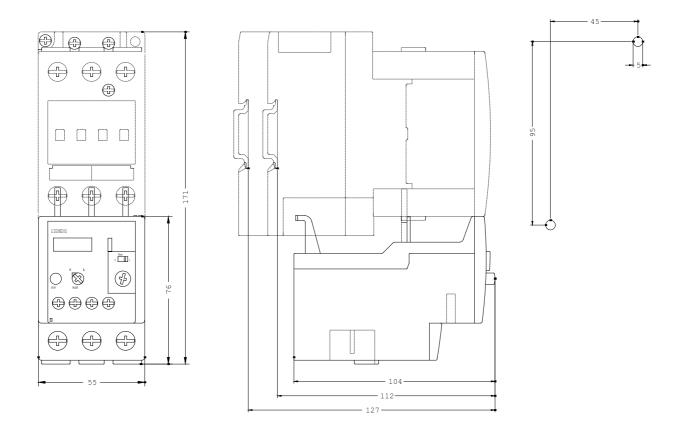
OVERLOAD RELAY, 18...25 A, 1NO+1NC, SIZE S2, CLASS 10, FOR CONTACTOR MOUNTING

General technical details:		
Product brand name		SIRIUS
Product designation		thermal overload relay
Protection class IP / frontal/front side		IP20
Insulation voltage / with degree of pollution 3 / rated value	V	690
Altitude of installation site / at a height over sea level / maximum	m	2,000
Ambient temperature		
<ul> <li>during the operating phase</li> </ul>	°C	-20 70
during storage	°C	-55 80
during transport	°C	-55 80
Relative humidity / during the operating phase / maximum	%	100
Resistance against shock		8g / 10 ms
Impulse voltage resistance / rated value	kV	6
Real loss power / total / typical	W	9
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
Operating current / of the fuse link / rated value	А	63
Trip class		CLASS 10

Type of protection2Type of protectionDMT 98 ATEX 6 001Size of overload relayS2Size of the contactor / can be combined / company-specificS2Protection against electrical shockImgersafeMain circuit:ImgersafeNumber of poles / for main current circuitImgersafeOperating voltage / at 3 AC / rated valueImgersafe• naximumV690Service power / at AC-3Imgersafe• at 400 VKW11Adjustable response currentKW18• of the current-dependent overload releaseKW18Contact reliability / of the auxiliary contactsImgersafeNumber of NC contactsImgersafe1Number of the auxiliary contacts / at AC-15Imgersafe• at 24 VAA3• at 100 VAA3• at 110 VAA3• at 125 VAA3• at 24VAA3• at 24VAA<		_	
Size of vertead relay         S2           Size of the contactor / can be combined / company-specific Protection against electrical shock         S2           Main circuit:         S2           Number of poles / for main current circuit         0           Operating voltage / at 3 AC / rated value         0           • maximum         V         680           Service power / at AC-3         0           • at 400 V         kW         11           Adjustable response current         0         0           • of the current-dependent overload release         A         18 25           Auxiliary circuit:         2         2           Number of NC contacts         1         1           Number of NC contacts         1         1           Number of Contacts         1         1           Number of Contacts         0         0           • at 24 V         A         3           • at 120 V         AA         3           • at 240 V         A         3           • at 220 V         A         3           • at 24 V         A         3           • at 24 V         A         1           • at 25 V         A         3 <tr< th=""><th>Type of assignement</th><th></th><th>2</th></tr<>	Type of assignement		2
Size of the contactor / can be combined / company-specific     S2       Protection against electrical shock     finger-safe       Main circuit:     3       Number of poles / for main current circuit     3       Operating voltage / at 3 AC / rated value     -       • maximum     V     690       Service power / at AC-3     -       • at 00 V     W     11       Adjustable response current     -       • of the current-dependent overload release     A     18 25       Auxiliary circuit:     acceptability for PLC control (17 V, 5 mA)       Number of NC contacts     1       Number of NC contacts     1       Number of Change-over switches     0       Operating current / of the auxiliary contacts / at AC-15     -       • at 24 V     A     3       • at 10 V     A     3       • at 120 V     A     1 <t< th=""><th>Type of protection</th><th>_</th><th>DMT 98 ATEX G 001</th></t<>	Type of protection	_	DMT 98 ATEX G 001
Protection against electrical shock     finger-safe       Main circuit:     3       Number of poles / for main current circuit     3       Operating voltage / at 3 AC / rated value     3       • maximum     V     690       Service power / at AC-3     -       • al 400 /     kW     11       Adjustable response current     -       • of the current-dependent overload release     A     18 26       Auxiliary circuit:     -     acceptability for PLC control (17 V, 5 mA)       Number of NC contacts     1     1       Number of NC contacts     1     1       Number of NC contacts     1     1       Number of NC contacts     0     0       Operating current / of the auxiliary contacts / at AC-15     -     -       • at 24 /     A     3     -       • at 20 /	-	_	S2
Name of poles / for main current circuit         3           Operating voltage / at 3 AC / rated value         -           • maximum         V         680           Service power / at AC-3         -           • at 400 V         KW         11           Adjustable response current         -         -           • of the current-dependent overload release         A         18 25           Contact reliability / of the auxiliary contacts         -         acceptability for PLC control (17 V, 5 mA)           Number of NC contacts         1         1           • at 24 V         A         3         -           • at 24 V         A         3         -           • at 10 V         A         3         -           • at 20 V         A         3         -           • at 240 V         A         1         - </th <th>Size of the contactor / can be combined / company-specific</th> <th></th> <th>S2</th>	Size of the contactor / can be combined / company-specific		S2
Number of poles / for main current circuit         3           Operating voltage / at 3 AC / rated value         V         690           • maximum         V         690           Service power / at AC-3         KW         11           • al 400 V         kW         11           Adjustable response current         A         18 25           • of the current-dependent overload release         A         18 25           Auxiliary circuit:         Contacts         1           Number of NC contacts         1         1           Number of NC contacts         0         0           Operating current / of the auxiliary contacts / at AC-15         1         1           • at 24V         AA         3         -           • at 110 V         AA         3         -           • at 125 V         AA         3         -           • at 24V         AA         3         -           • at 25 V         AA         3         -           • at 240 V         AA         3         -           • at 120 V         AA         3         -           • at 120 V         AA         1         -           • at 125 V         AA	Protection against electrical shock		finger-safe
Operating voltage / at 3 AC / rated value         V         690           • maximum         V         690           Service power / at AC-3         V         1           • at 400 V         kW         11           Adjustable response current         A         18 25           Auxiliary circuit:         Contact reliability / of the auxiliary contacts         A         acceptability for PLC control (17 V, 5 mA)           Number of NC contacts         1         1         1           Number of Change-over switches         0         0           Operating current / of the auxiliary contacts / at AC-15         1           • at 24 V         A         3           • at 100 V         A         3           • at 120 V         A         1           • at 120 V         A         3           • at 120 V         A         1           • at 120 V         A         1           • at 220 V         A         1           • at 24 V         A         1 </th <th>Main circuit:</th> <th></th> <th></th>	Main circuit:		
• maximumV680Service power / at AC-3 • at 400 VKW11Adjustable response current • of the current-dependent overload releaseA18• of the current-dependent overload releaseA18Autiliary circuit:acceptability for PLC control (17 V, 5 mA)Number of NC contactsA1Number of NC contactsA1Number of hange-over switches0Operating current / of the auxiliary contacts / at AC-15 • at 24 VA3• at 10 VAA3• at 120 VAA3• at 24 VAA3• at 20 VAA3• at 24 VAA3• at 25 VAA3• at 20 VAA3• at 20 VAA1• at 20 VAA1• at 20 VAA1• at 24 VAA1• at 20 VAA0.22• at 20 VAA0.11• at 20	Number of poles / for main current circuit		3
Service power / at AC-3 • at 400 VKW11Adjustable response current • of the current-dependent overload releaseA18 25Auxiliary circuit:A18 25Contact reliability / of the auxiliary contactsIANumber of NC contactsIINumber of NC contactsIINumber of hange-over switches0IOperating current / of the auxiliary contacts / at AC-15II• at 24 VA3• at 10 VA3• at 120 VA3• at 120 VA3• at 24 VA1• at 25 VA1• at 24 VA3• at 10 VA2• at 10 VA2• at 25 VA1• at 20 VA1• at 20 VA1• at 20 VA1• at 20 VA2• at 20 VA1• at 20 VA1 <td>Operating voltage / at 3 AC / rated value</td> <td></td> <td></td>	Operating voltage / at 3 AC / rated value		
At 00 VKW11Adjustable response current of the current-dependent overload releaseA18 25Auxiliary circuit:acceptability for PLC control (17 V, 5 mA)IContact reliability / of the auxiliary contactsacceptability for PLC control (17 V, 5 mA)INumber of NC contacts1INumber of NC contacts00Operating current / of the auxiliary contacts / at AC-150I• at 24 VA33• at 10 VA3I• at 20 VA3I• at 230 VA2I• at 24 VA1I• at 25 VA3I• at 20 VA2I• at 125 VA3I• at 20 VA1I• at 20 VA0.22I• at 20 VA0.21I• at 20 VA0.11• at 20 VII <t< td=""><td>• maximum</td><td>V</td><td>690</td></t<>	• maximum	V	690
Adjustable response current • of the current-dependent overload releaseAI 25Auxillary circuit:acceptability for PLC control (17 V, 5 mA)Contact reliability / of the auxillary contacts1Number of NC contacts1Number of NC contacts0Operating current / of the auxillary contacts / at AC-150• at 24 VA3• at 10 VA3• at 20 VA3• at 20 VA3• at 120 VA3• at 120 VA3• at 120 VA3• at 230 VA3• at 24 VA3• at 25 VA3• at 220 VA1• at 24 VA1• at 24 VA3• at 25 VA3• at 20 VA3• at 220 VA1• at 220 VA0.22• at 220 VA0.21• at 220 VA0.22	Service power / at AC-3		
A       1825         Auxiliary circuit:       acceptability for PLC control (17 V, 5 mA)         Number of NC contacts       1         Number of NC contacts       1         Number of NC contacts       1         Number of NG contacts       1         Number of thage-over switches       0         Operating current / of the auxiliary contacts / at AC-15       -         • at 24 V       A       3         • at 10 V       A       3         • at 20 V       A       3         • at 20 V       A       1         • at 20 V       A       1         • at 20 V       A       2         • at 20 V       A       1         • at 20 V       A       1         • at 20 V       A       2         • at 20 V       A       1         • at 20 V       A       1         • at 21 V       A       0.22         • at 24 V       A       0.22         • at 25 V       A       0.22         • at 20 V       A       0.11         Short-circuit       Image: Contact is protection of the auxiliary contacts / at DC-13       Image: Contact is protectis (DC Contact is protact is protection of the	• at 400 V	kW	11
Auxiliary circuit:       Contact reliability / of the auxiliary contacts     acceptability for PLC control (17 V, 5 mA)       Number of NC contacts     1       Number of NC contacts     1       Number of NG contacts     1       Number of change-over switches     0       Operating current / of the auxiliary contacts / at AC-15     -       • at 24 V     A     3       • at 10 V     A     3       • at 120 V     A     3       • at 20 V     A     3       • at 20 V     A     1       • at 22 V     A     0.22       • at 22 V     A     0.11       Short-circuit     Isse gL/gG: 6 A, quick: 10 A       auxiliary switch / required     Isse gL/gG: 6 A, quick: 10 A	Adjustable response current		
Contact reliability / of the auxiliary contactsacceptability for PLC control (17 V, 5 mA)Number of NC contacts1Number of NO contacts0Operating current / of the auxiliary contacts / at AC-150• at 24 VA3• at 110 VA3• at 120 VA3• at 120 VA3• at 120 VA3• at 120 VA1• at 120 VA1• at 120 VA2• at 120 VA2• at 230 VA2• at 240 VA1• at 230 VA2• at 240 VA1• at 240 VA1• at 250 VA2• at 240 VA1• at 240 VA1• at 240 VA1• at 240 VA0.22• at 240 VA0.22• at 240 VA0.22• at 250 VA0.22• at 260 VA0.11Short-circuitDesign of the fuse link / for short-circuit protection of the auxiliary switch / requiredInstallation/mounting/dimensions:Listallation/mounting/dimensions:built in orientationwith vertical mounting surface +/-135° rotatable, with vertical mounting surface +/-45° tittable to the front and back	<ul> <li>of the current-dependent overload release</li> </ul>	А	18 25
Number of NC contacts1Number of NO contacts1Number of NO contacts0Operating current / of the auxiliary contacts / at AC-150• at 24 VA3• at 24 VA3• at 10 VA3• at 120 VA3• at 125 VA3• at 230 VA2• at 400 VA1Operating current / of the auxiliary contacts / at DC-13Image: Contact of the auxiliary contacts / at DC-13• at 24 VA1• at 24 VA0.22• at 24 VA0.22• at 24 VA0.22• at 24 VA0.11• at 25 VA0.22• at 20 VA0.11Short-circuitDesign of the fuse link / for short-circuit protection of the auxiliary switch / requiredInstallation/mounting/dimensions:Listallation/mounting surface +/-135" rotatable, with vertical mounting surface +/-145" tittable to the front and back	Auxiliary circuit:		
Number of NO contacts1Number of change-over switches0Operating current / of the auxiliary contacts / at AC-15-• at 24 VA3• at 110 VA3• at 120 VA3• at 125 VA3• at 230 VA2• at 00 VA1Operating current / of the auxiliary contacts / at DC-13-• at 220 VA1• at 220 VA0.22• at 220 VA0.22• at 220 VA0.11Short-circuitPosign of the fuse link / for short-circuit protection of the auxiliary switch / requiredInstallation/mounting/dimensions:built in orientationwith vertical mounting surface +/-135° rotatable, with vertical mounting surface +/-45° tiltable to the front and back	Contact reliability / of the auxiliary contacts		acceptability for PLC control (17 V, 5 mA)
Number of change-over switches0Operating current / of the auxiliary contacts / at AC-15///////////////////////////////	Number of NC contacts		1
Operating current / of the auxiliary contacts / at AC-15A3• at 24 VA3• at 110 VA3• at 120 VA3• at 125 VA3• at 230 VA2• at 400 VA1Operating current / of the auxiliary contacts / at DC-13• at 24 VA1• at 24 VA0.22• at 110 VA0.22• at 25 VA0.22• at 24 VA0.11• at 25 VA0.11Short-circuitInstallation/mounting/dimensions:Installation/mounting/dimensions:built in orientationbuilt in orientationawith vertical mounting surface +/-135° rotatable, with vertical mounting surface +/-45° tiltable to the front and back	Number of NO contacts		1
at 24 VA3• at 110 VA3• at 120 VA3• at 125 VA3• at 230 VA2• at 400 VA1Operating current / of the auxiliary contacts / at DC-13• at 24 VA1• at 210 VA0.22• at 110 VA0.22• at 125 VA0.11• at 220 VA0.11Short-circuitDesign of the fuse link / for short-circuit protection of the auxiliary switch / requiredInstallation/mounting/dimensions:built in orientationbuilt in orientationwith vertical mounting surface +/- 135° rotatable, with vertical mounting surface +/- 45° tiltable to the front and back	Number of change-over switches		0
• at 110 VA3• at 120 VA3• at 125 VA3• at 230 VA2• at 230 VA1• at 400 VA1Operating current / of the auxiliary contacts / at DC-13• at 24 VA1• at 110 VA0.22• at 125 VA0.22• at 125 VA0.22• at 220 VA0.11Short-circuitDesign of the fuse link / for short-circuit protection of the auxiliary switch / requiredInstallation/mounting/dimensions:built in orientationwith vertical mounting surface +/-135° rotatable, with vertical mounting surface +/-45° tiltable to the front and back	Operating current / of the auxiliary contacts / at AC-15		
• at 120 VA3• at 125 VA3• at 230 VA2• at 230 VA1• at 400 VA1Operating current / of the auxiliary contacts / at DC-13• at 24 VA1• at 24 VA0.22• at 110 VA0.22• at 125 VA0.22• at 220 VA0.11Installation/mounting/dimensions:Installation/mounting/dimensions:With vertical mounting surface +/-135° rotatable, with vertical mounting surface +/-135° ritable to the front and back	• at 24 V	А	3
• at 125 VA3• at 230 VA2• at 230 VA1• at 400 VA1Operating current / of the auxiliary contacts / at DC-13• at 24 VA1• at 24 VA0.22• at 110 VA0.22• at 125 VA0.22• at 220 VA0.11Short-circuitDesign of the fuse link / for short-circuit protection of the auxiliary switch / requiredInstallation/mounting/dimensions:With vertical mounting surface +/-135° rotatable, with vertical mounting surface +/- 45° tiltable to the front and back	• at 110 V	А	3
• at 230 VA2• at 400 VA1Operating current / of the auxiliary contacts / at DC-13I• at 24 VA1• at 24 VA0.22• at 110 VA0.22• at 125 VA0.22• at 220 VA0.11Short-circuitDesign of the fuse link / for short-circuit protection of the auxiliary switch / requiredInstallation/mounting/dimensions:built in orientationwith vertical mounting surface +/-135° rotatable, with vertical mounting surface +/-45° tiltable to the front and back	• at 120 V	А	3
A at 400 VA1Operating current / of the auxiliary contacts / at DC-13A1• at 24 VA1• at 110 VA0.22• at 125 VA0.22• at 220 VA0.11Short-circuitDesign of the fuse link / for short-circuit protection of the auxiliary switch / requiredInstallation/mounting/dimensions:Installation/mounting/dimensions:built in orientationwith vertical mounting surface +/-135° rotatable, with vertical mounting surface +/-45° tiltable to the front and back	• at 125 V	А	3
Operating current / of the auxiliary contacts / at DC-13       A       1         • at 24 V       A       1         • at 24 V       A       0.22         • at 110 V       A       0.22         • at 125 V       A       0.11         • at 220 V       A       0.11         Short-circuit:         Design of the fuse link / for short-circuit protection of the auxiliary switch / required         Installation/mounting/dimensions:         With vertical mounting surface +/-135° rotatable, with vertical mounting surface +/-45° tiltable to the front and back	• at 230 V	А	2
• at 24 VA1• at 110 VA0.22• at 125 VA0.22• at 220 VA0.11Short-circuit:Thesign of the fuse link / for short-circuit protection of the auxiliary switch / requiredImage: Colspan="2">Image: Colspan="2"Image: Colspan="2" </td <td>• at 400 V</td> <td>А</td> <td>1</td>	• at 400 V	А	1
• at 110 VA0.22• at 125 VA0.22• at 220 VA0.11Short-circuit:Design of the fuse link / for short-circuit protection of the auxiliary switch / requiredIssee gL/gG: 6 A, quick: 10 AInstallation/mounting/dimensions:With vertical mounting surface +/- 135° rotatable, with vertical mounting surface +/- 135° rotatable, with vertical mounting surface +/- 45° tiltable to the front and back	Operating current / of the auxiliary contacts / at DC-13		
• at 125 V • at 220 VA 0.22 A0.22 0.11Short-circuit:VDesign of the fuse link / for short-circuit protection of the auxiliary switch / requiredIssee gL/gG: 6 A, quick: 10 AInstallation/mounting/dimensions:Vbuilt in orientationWith vertical mounting surface +/- 135° rotatable, with vertical mounting surface +/- 45° tiltable to the front and back	• at 24 V	А	1
• at 220 V       A       0.11         Short-circuit:       Image: Short-circuit protection of the auxiliary switch / required       Image: Short-circuit protection of the auxiliary switch / required         Installation/mounting/dimensions:       Image: Short-circuit protection of the short-circuit protecircuit protectin protecin protecting proteci	• at 110 V	А	0.22
Short-circuit:         Design of the fuse link / for short-circuit protection of the auxiliary switch / required       fuse gL/gG: 6 A, quick: 10 A         Installation/mounting/dimensions:       Installation/mounting surface +/- 135° rotatable, with vertical mounting surface +/- 45° tiltable to the front and back	• at 125 V	А	0.22
Design of the fuse link / for short-circuit protection of the auxiliary switch / required       fuse gL/gG: 6 A, quick: 10 A         Installation/mounting/dimensions:	• at 220 V	А	0.11
auxiliary switch / required Installation/mounting/dimensions: built in orientation built in o	Short-circuit:		
built in orientation       with vertical mounting surface +/-135° rotatable, with vertical mounting surface +/- 45° tiltable to the front and back			fuse gL/gG: 6 A, quick: 10 A
vertical mounting surface +/- 45° tiltable to the front and back	Installation/mounting/dimensions:		
Type of fixing/fixation direct mounting	built in orientation		vertical mounting surface +/- 45° tiltable to the front
	Type of fixing/fixation		direct mounting

Height	mm	105
Width	mm	55
Depth	mm	118
distance, to be maintained, to the ranks assembly		
• upwards	mm	0
downwards	mm	0
forwards	mm	0
backwards	mm	0
• sidewards	mm	0
distance, to be maintained, to earthed part		
• upwards	mm	0
downwards	mm	0
• forwards	mm	0
backwards	mm	0
• sidewards	mm	6
distance, to be maintained, conductive elements		
• upwards	mm	0
downwards	mm	0
• forwards	mm	0
backwards	mm	0
• sidewards	mm	6
Connection type:		
Product function		
<ul> <li>removable terminal for auxiliary and control circuit</li> </ul>		No
design of the electrical connection		
• for main current circuit		screw-type terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>		screw-type terminals
Type of the connectable conductor cross-section		
for main contacts		
• unifilar		2x (0.75 16 mm2)
• stranded wire		2x (0.75 25 mm2), 0.75 35 mm2
• stranded wire		
with conductor end processing		2x (0.75 16 mm2), 0.75 25 mm2
for auxiliary contacts		
• solid		2x (0.5 1.5 mm2), 2x (0.75 2.5 mm2)
• finely stranded		
with wire end processing		2x (0.5 1.5 mm2), 2x (0.75 2.5 mm2)
<ul> <li>without conductor final cutting</li> </ul>		2x (0,5 1,5 mm2), 2x (0,75 2,5 mm2)
at AWG-conductors		

• for main contacts		2x (18 3), 1x (18 1)		
<ul> <li>for auxiliary contacts</li> </ul>		2x (18 14)		
Conductor cross section that can be connected				
• for main contacts				
• unifilar	mm²	0.75 16		
• stranded wire	mm²	0.75 35		
stranded wire				
with conductor end processing	mm²	0.75 25		
for auxiliary contact				
• unifilar	mm²	0.5 2.5		
stranded wire				
with conductor end processing	mm²	0.5 2.5		
without conductor final cutting	mm²	0.5 2.5		
WG number / as coded connectable conductor cross-section				
for main contacts / minimum		18		
for auxiliary contact		18 14		
Certificates/approvals:				
rerification of suitability		CSA / UL / CC / GL / LRS / BV / DNV / RMRS / RINA / PRS / ABS		
varification of suitability / ATEX		Yes		
Further information:				
Information- and Downloadcenter (Catalogs, Brochures,)				
http://www.siemens.com/industrial-controls/catalogs				
Global Industry Mall (Online ordering system) http://www.siemens.com/industrial-controls/mall				
Service&Support (Manuals, Certificates, Characteristics, FAQs,) http://support.automation.siemens.com/WW/view/en/3RU1136-4DB0/all				
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams,) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RU1136-4DB0				



last change:

Jun 14, 2010