



Overload relay 12.5...50 A For motor protection Size S2, Class 5...30  
 Contactor mounting Main circuit: Screw terminal Auxiliary circuit:  
 Spring-type terminal Manual-Automatic-Reset Internal ground fault  
 detection !!! Phased-out product !!! Successor is SIRIUS 3RB3  
 Preferred successor type is >>3RB3133-4UD0<<

product brand name	SIRIUS
Product designation	solid-state overload relay

### General technical data

Size of contactor can be combined company-specific	S2
Power loss [W] for rated value of the current	
• at AC in hot operating state	0.05 W
• at AC in hot operating state per pole	0.02 W
• Insulation voltage with degree of pollution 3 at AC rated value	690 V
Surge voltage resistance rated value	6 kV
• protection class IP on the front	IP00
Shock resistance	15g / 11 ms
Type of protection	PTB 06 ATEX 3001 Ex II (2) GD
Reference code acc. to DIN EN 81346-2	F

### Ambient conditions

Installation altitude at height above sea level	
• maximum	2 000 m
Ambient temperature	

<ul style="list-style-type: none"> <li>• during operation</li> </ul>	-25 ... +60 °C
<ul style="list-style-type: none"> <li>• during storage</li> </ul>	-40 ... +80 °C
<ul style="list-style-type: none"> <li>• during transport</li> </ul>	-40 ... +80 °C
Wertebereich	100 %

### Main circuit

<b>Number of poles for main current circuit</b>	3
<b>adjustable pick-up value current of the current-dependent overload release</b>	12.5 ... 50 A
<b>Operating voltage</b>	
<ul style="list-style-type: none"> <li>• at AC-3 rated value maximum</li> </ul>	690 V

### Auxiliary circuit

<b>Number of NC contacts for auxiliary contacts</b>	1
<b>Number of NO contacts for auxiliary contacts</b>	1
<b>Number of CO contacts</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> </ul>	0
<ul style="list-style-type: none"> <li>• operating current of auxiliary contacts at AC-15 at 24 V</li> </ul>	4 A
<ul style="list-style-type: none"> <li>• Operating current of auxiliary contacts at AC-15 at 110 V</li> </ul>	4 A
<ul style="list-style-type: none"> <li>• Operating current of auxiliary contacts at AC-15 at 120 V</li> </ul>	4 A
<ul style="list-style-type: none"> <li>• Operating current of auxiliary contacts at AC-15 at 125 V</li> </ul>	4 A
<ul style="list-style-type: none"> <li>• Operating current of auxiliary contacts at AC-15 at 230 V</li> </ul>	3 A
<ul style="list-style-type: none"> <li>• operating current of auxiliary contacts at DC-13 at 24 V</li> </ul>	2 A
<ul style="list-style-type: none"> <li>• Operating current of auxiliary contacts at DC-13 at 60 V</li> </ul>	0.55 A
<ul style="list-style-type: none"> <li>• Operating current of auxiliary contacts at DC-13 at 110 V</li> </ul>	0.3 A
<ul style="list-style-type: none"> <li>• operating current of auxiliary contacts at DC-13 at 125 V</li> </ul>	0.3 A
<ul style="list-style-type: none"> <li>• Operating current of auxiliary contacts at DC-13 at 220 V</li> </ul>	0.11 A

### Protective and monitoring functions

<b>Trip class</b>	CLASS 5E, 10E, 20E and 30E adjustable
-------------------	---------------------------------------

### Short-circuit protection

<b>Design of the fuse link</b>	
<ul style="list-style-type: none"> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>	fuse gL/gG: 6 A

### Installation/ mounting/ dimensions

• mounting position	any
<b>Mounting type</b>	Contactor mounting
<b>Height</b>	92 mm
<b>Width</b>	55 mm
<b>Depth</b>	109 mm
<b>Required spacing</b>	
• with side-by-side mounting	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
• for grounded parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— at the side	6 mm
— downwards	0 mm
• for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	6 mm

Connections/ Terminals	
<b>Product function</b>	
• removable terminal for auxiliary and control circuit	Yes
• Type of electrical connection for main current circuit	screw-type terminals
• Type of electrical connection for auxiliary and control current circuit	spring-loaded terminals
<b>Type of connectable conductor cross-sections</b>	
• for main contacts	
— solid	2x (1 ... 16 mm <sup>2</sup> )
— stranded	2x (max. 25 mm <sup>2</sup> ), 1 ... 35 mm <sup>2</sup>
— finely stranded with core end processing	2x (1 ... 16 mm <sup>2</sup> ), 1 ... 25 mm <sup>2</sup>
• at AWG conductors for main contacts	2 x (max. 4), 1 x (18 ... 2)
<b>Type of connectable conductor cross-sections</b>	
• for auxiliary contacts	
— solid	2x (0.25 ... 1.5 mm <sup>2</sup> )
— finely stranded with core end processing	2x (0.25 ... 1.5 mm <sup>2</sup> )

- at AWG conductors for auxiliary contacts 2x (24 ... 16)

Electromagnetic compatibility	
<ul style="list-style-type: none"> <li>• Conducted interference due to burst acc. to IEC 61000-4-4</li> </ul>	2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3
<ul style="list-style-type: none"> <li>• Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5</li> </ul>	2 kV (line to earth) corresponds to degree of severity 3
<ul style="list-style-type: none"> <li>• Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5</li> </ul>	1 kV (line to line) corresponds to degree of severity 3
<b>Field-bound parasitic coupling acc. to IEC 61000-4-3</b>	10 V/m
<b>Electrostatic discharge acc. to IEC 61000-4-2</b>	6 kV contact discharge / 8 kV air discharge

### Certificates/ approvals

General Product Approval	EMC	For use in hazardous locations
--------------------------	-----	--------------------------------



Declaration of Conformity	Test Certificates	Marine / Shipping
---------------------------	-------------------	-------------------



[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Marine / Shipping	other
-------------------	-------



[Miscellaneous](#)

[Confirmation](#)

### Further information

**Information- and Downloadcenter (Catalogs, Brochures,...)**

<https://www.siemens.com/ic10>

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RB2133-4UD0>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB2133-4UD0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RB2133-4UD0>

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

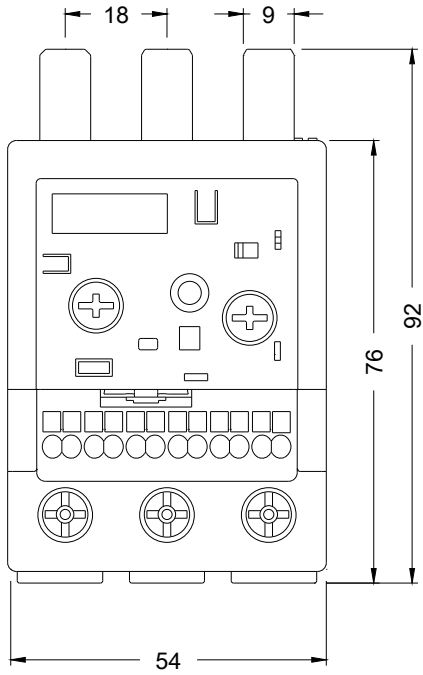
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RB2133-4UD0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB2133-4UD0&lang=en)

**Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current**

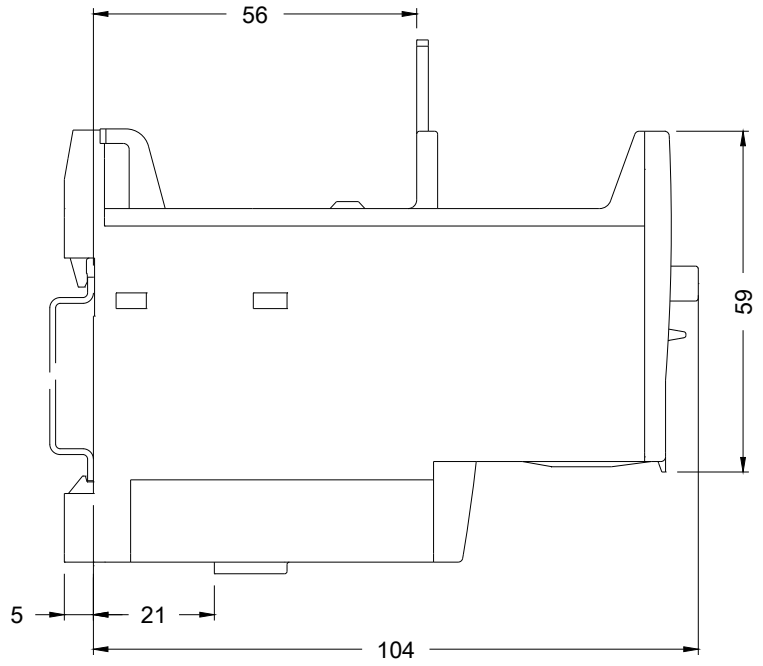
<https://support.industry.siemens.com/cs/ww/en/ps/3RB2133-4UD0/char>

**Further characteristics (e.g. electrical endurance, switching frequency)**

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB2133-4UD0&objecttype=14&gridview=view1>



last modified:



08/13/2020