

Overload relay 25...100 A For motor protection Size S3, Class 20  
 Contactor mounting Main circuit: Screw terminal Auxiliary circuit:  
 Screw terminal Manual-Automatic-Reset !!! Phased-out product !!!  
 Successor is SIRIUS 3RB3 Preferred successor type is >>3RB3046-  
 2XB0<<



Figure similar

product brand name	SIRIUS
Product designation	solid-state overload relay

General technical data	
Size of contactor can be combined company-specific	S3
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	1 000 V
Surge voltage resistance rated value	8 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

<b>Ambient temperature</b>	
<ul style="list-style-type: none"> <li>during operation</li> <li>during storage</li> <li>during transport</li> </ul>	<p>-25 ... +60 °C</p> <p>-40 ... +80 °C</p> <p>-40 ... +80 °C</p>
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>	25 ... 100 A
<b>Operating voltage</b>	
<ul style="list-style-type: none"> <li>at AC-3 rated value maximum</li> </ul>	1 000 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 20E
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### 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
Mounting type	Contacteur mounting
Height	106 mm
Width	70 mm
Depth	124 mm
Required spacing	
• 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	
Product function	
• 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	screw-type terminals
Type of connectable conductor cross-sections	
• for main contacts	
— solid	2x (2.5 ... 16 mm <sup>2</sup> )
— stranded	2x (10 ... 50 mm <sup>2</sup> ), 10 ... 70 mm <sup>2</sup>
— finely stranded with core end processing	2x (2.5 ... 35 mm <sup>2</sup> ), 2.5 ... 50 mm <sup>2</sup>
• at AWG conductors for main contacts	2x (10 ... 1/0), 1x (10 ... 2/0)
Type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid	0.5 ... 4 mm <sup>2</sup> , 2x (0.5 ... 2.5 mm <sup>2</sup> )

- finely stranded with core end processing
- at AWG conductors for auxiliary contacts

0.5 ... 2.5 mm<sup>2</sup>, 2x (0.5 ... 1.5 mm<sup>2</sup>)  
2x (20 ... 14)

### Electromagnetic compatibility




- Conducted interference due to burst acc. to IEC 61000-4-4 2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3
- Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5 2 kV (line to earth) corresponds to degree of severity 3
- Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5 1 kV (line to line) corresponds to degree of severity 3



**Field-bound parasitic coupling acc. to IEC 61000-4-3** 10 V/m

**Electrostatic discharge acc. to IEC 61000-4-2** 6 kV contact discharge / 8 kV air discharge

### Certificates/ approvals

General Product Approval	EMC	For use in hazardous locations
 CCC	 EAC	 ATEX
 CSA	 RCM	
 UL		

Declaration of Conformity	Test Certificates	Marine / Shipping
 EG-Konf.	<a href="#">Miscellaneous</a> <a href="#">Special Test Certificate</a> <a href="#">Type Test Certificates/Test Report</a>	 ABS  LRS

Marine / Shipping	other
 RINA  DNV-GL DNVGL.COM/AF	<a href="#">Miscellaneous</a> <a href="#">Confirmation</a>

### 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=3RB2046-2EB0>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB2046-2EB0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RB2046-2EB0>

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

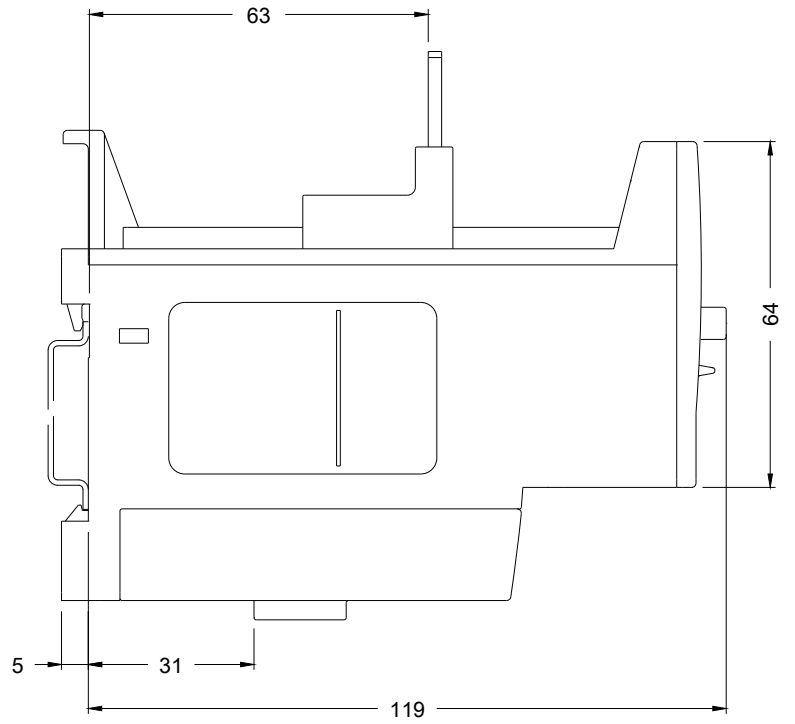
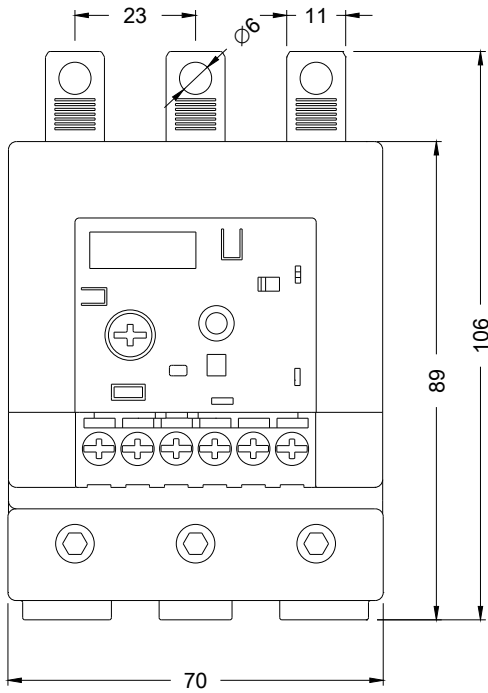
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RB2046-2EB0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB2046-2EB0&lang=en)

**Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current**

<https://support.industry.siemens.com/cs/ww/en/ps/3RB2046-2EB0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB2046-2EB0&objecttype=14&gridview=view1>



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