

Overload relay 25...100 A For motor protection Size S3, Class 20  
 Stand-alone installation Main circuit: straight-through transformer  
 Auxiliary circuit: Screw terminal Manual-Automatic-Reset !!! Phased-  
 out product !!! Successor is SIRIUS 3RB3 Preferred successor type  
 is >>3RB3046-2XW1<<



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] total typical	0.05 W
Insulation voltage	1 000 V
• with degree of pollution 3 rated value	
Surge voltage resistance rated value	8 kV
Protection class IP	IP20
• on the front	
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	2 000 m
• maximum	
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
Relative humidity during operation	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
<b>Operating current of auxiliary contacts at AC-15</b>	
<ul style="list-style-type: none"> <li>at 24 V</li> <li>at 110 V</li> <li>at 120 V</li> <li>at 125 V</li> <li>at 230 V</li> </ul>	4 A 4 A 4 A 4 A 3 A
<b>Operating current of auxiliary contacts at DC-13</b>	
<ul style="list-style-type: none"> <li>at 24 V</li> <li>at 60 V</li> <li>at 110 V</li> <li>at 125 V</li> <li>at 220 V</li> </ul>	2 A 0.55 A 0.3 A 0.3 A 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

<b>Mounting position</b>	any
<b>Mounting type</b>	stand-alone installation
<b>Height</b>	106 mm
<b>Width</b>	70 mm
<b>Depth</b>	124 mm
<b>Required spacing</b>	
<ul style="list-style-type: none"> <li>with side-by-side mounting</li> </ul>	

— 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
<b>Type of electrical connection</b>	
• for main current circuit	straight-through transformers
• for auxiliary and control current circuit	screw-type terminals
<b>Type of connectable conductor cross-sections</b>	
• 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	0.5 ... 2.5 mm <sup>2</sup> , 2x (0.5 ... 1.5 mm <sup>2</sup> )
• at AWG conductors for auxiliary contacts	2x (20 ... 14)

### Electromagnetic compatibility

<b>Conducted interference</b>	
• due to burst acc. to IEC 61000-4-4	2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3
• due to conductor-earth surge acc. to IEC 61000-4-5	2 kV (line to earth) corresponds to degree of severity 3
• due to conductor-conductor surge acc. to IEC 61000-4-5	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
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Declaration of Conformity	Test Certificates	Marine / Shipping
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping	other
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[Miscellaneous](#)

[Confirmation](#)

## Further information

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

<http://www.siemens.com/industrial-controls/catalogs>

### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RB2046-2EW1>

### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB2046-2EW1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RB2046-2EW1>

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

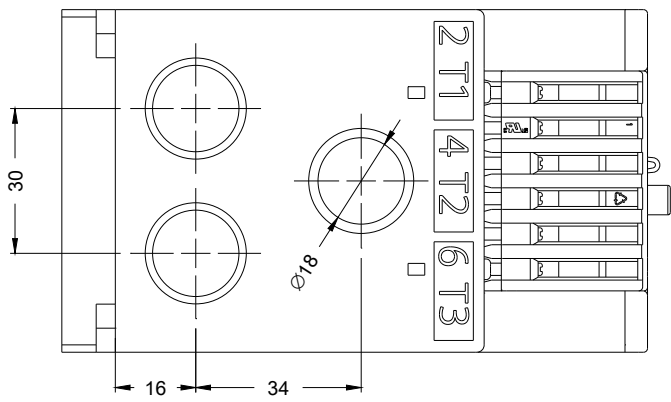
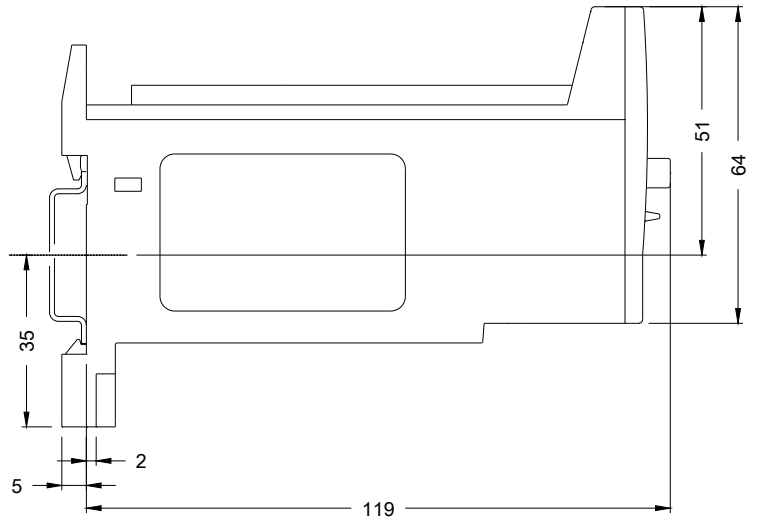
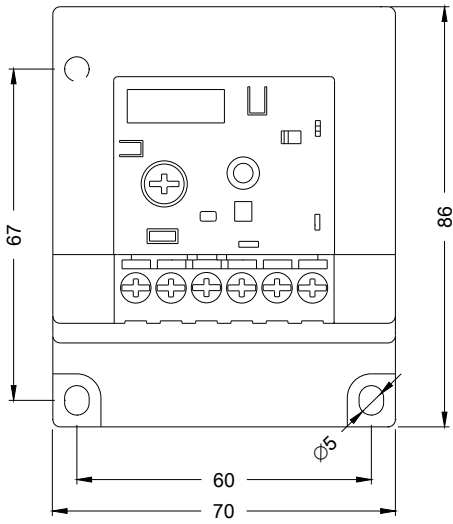
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RB2046-2EW1&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB2046-2EW1&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RB2046-2EW1/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB2046-2EW1&objecttype=14&gridview=view1>



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