



Overload relay 0.1...0.4 A Electronic For motor protection Size S00, Class 5...30  
Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-  
Reset Internal ground fault detection

product brand name	SIRIUS
product designation	solid-state overload relay
product type designation	3RB3
General technical data	
size of overload relay	S00
size of contactor can be combined company-specific	S00
power loss [W] for rated value of the current at AC in hot operating state	0.1 W
• per pole	0.03 W
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation in networks with grounded star point	
• between auxiliary and auxiliary circuit	300 V
• between auxiliary and auxiliary circuit	300 V
• between main and auxiliary circuit	600 V
• between main and auxiliary circuit	690 V
shock resistance	15g / 11 ms
• according to IEC 60068-2-27	15g / 11 ms; Signaling contact 97 / 98 in position "Tripped": 9g / 11 ms
thermal current	0.4 A
reference code according to IEC 81346-2	F
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C
temperature compensation	-25 ... +60 °C
relative humidity during operation	10 ... 95 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	0.1 ... 0.4 A
operating voltage	
• rated value	690 V
• for remote-reset function at DC	24 V
• at AC-3e rated value maximum	690 V
operating frequency rated value	50 ... 60 Hz

<b>operational current rated value</b>	0.4 A
operational current at AC-3e at 400 V rated value	0.4 A
<b>operating power</b> <ul style="list-style-type: none"> <li>• for 3-phase motors at 400 V at 50 Hz</li> <li>• for AC motors at 500 V at 50 Hz</li> <li>• for AC motors at 690 V at 50 Hz</li> </ul>	0.04 ... 0.09 kW 0.04 ... 0.12 kW 0.06 ... 0.18 kW
<b>Auxiliary circuit</b>	
<b>design of the auxiliary switch</b>	integrated
<b>number of NC contacts for auxiliary contacts</b> <ul style="list-style-type: none"> <li>• note</li> </ul>	1 for contactor disconnection
<b>number of NO contacts for auxiliary contacts</b> <ul style="list-style-type: none"> <li>• note</li> </ul>	1 for message "tripped"
number of CO contacts for auxiliary contacts	0
<b>operational 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>operational 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
<b>Protective and monitoring functions</b>	
<b>trip class</b>	CLASS 5E, 10E, 20E and 30E adjustable
<b>design of the overload release</b>	electronic
response value current of the grounding protection minimum	0.75 x IMotor
<b>response time of the grounding protection in settled state</b>	1 000 ms
<b>operating range of the grounding protection relating to current set value</b> <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	IMotor > lower current setting value IMotor < upper current setting value x 3.5
<b>UL/CSA ratings</b>	
<b>full-load current (FLA) for 3-phase AC motor</b> <ul style="list-style-type: none"> <li>• at 480 V rated value</li> <li>• at 600 V rated value</li> </ul>	0.4 A 0.4 A
<b>contact rating of auxiliary contacts according to UL</b>	B600 / R300
<b>Short-circuit protection</b>	
<b>design of the fuse link</b> <ul style="list-style-type: none"> <li>• for short-circuit protection of the main circuit <ul style="list-style-type: none"> <li>— with type of coordination 1 required</li> <li>— with type of assignment 2 required</li> </ul> </li> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>	gG: 35 A, RK5: 3 A gG: 4 A fuse gG: 6 A
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	Contactor mounting
<b>height</b>	79 mm
<b>width</b>	45 mm
<b>depth</b>	73 mm
<b>Connections/ Terminals</b>	
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of electrical connection</b> <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control circuit</li> </ul>	screw-type terminals screw-type terminals
<b>arrangement of electrical connectors for main current circuit</b>	Top and bottom
type of connectable conductor cross-sections for main contacts <ul style="list-style-type: none"> <li>• solid</li> </ul>	1x (0.5 ... 4 mm²), 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 4 mm²)

<ul style="list-style-type: none"> <li>• solid or stranded</li> <li>• finely stranded with core end processing</li> </ul>	1x (0,5 ... 4 mm²), 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 4 mm²) 1x (0,5 ... 2,5 mm²), 2x (0,5 ... 2,5 mm²)
<b>type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG cables for auxiliary contacts</li> </ul>	1x (0,5 ... 4 mm²), 2x (0,5 ... 2,5 mm²) 1x (0,5 ... 4 mm²), 2x (0,5 ... 2,5 mm²) 1x (0,5 ... 2,5 mm²), 2x (0,5 ... 1,5 mm²) 1x (20 ... 14), 2x (20 ... 14)
<b>tightening torque</b> <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> <li>• for auxiliary contacts with screw-type terminals</li> </ul>	0,8 ... 1,2 N·m 0,8 ... 1,2 N·m
<b>design of screwdriver shaft</b>	Diameter 5 to 6 mm
<b>size of the screwdriver tip</b>	Pozidriv PZ 2
<b>design of the thread of the connection screw</b> <ul style="list-style-type: none"> <li>• for main contacts</li> <li>• of the auxiliary and control contacts</li> </ul>	M3 M3

<b>Electrical Safety</b>	
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front

#### Communication/ Protocol

<b>type of voltage supply via input/output link master</b>	No
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#### Electromagnetic compatibility

<b>conducted interference</b> <ul style="list-style-type: none"> <li>• due to burst according to IEC 61000-4-4</li> <li>• due to conductor-earth surge according to IEC 61000-4-5</li> <li>• due to conductor-conductor surge according to IEC 61000-4-5</li> <li>• due to high-frequency radiation according to IEC 61000-4-6</li> </ul>	2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3 2 kV (line to earth) corresponds to degree of severity 3 1 kV (line to line) corresponds to degree of severity 3 10 V in frequency range 0.15 to 80 MHz, modulation 80 % AM with 1 kHz
<b>field-based interference according to IEC 61000-4-3</b>	10 V/m
<b>electrostatic discharge according to IEC 61000-4-2</b>	6 kV contact discharge / 8 kV air discharge

#### Display

display version for switching status	Slide switch
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#### Approvals Certificates

##### General Product Approval



[Confirmation](#)



EMV	For use in hazardous locations	Test Certificates		Marine / Shipping
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[KC](#)



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping	other			
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[Confirmation](#)

#### Environment

[Environmental Conformations](#)

## Further information

### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

### 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=3RB3113-4RB0>

### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3113-4RB0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RB3113-4RB0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RB3113-4RB0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3113-4RB0&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RB3113-4RB0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3113-4RB0&objecttype=14&gridview=view1>



