









Overload relay 32...115 A Electronic For motor protection Size S3, Class 5E...30E  
 Contactor mounting Main circuit: Screw Auxiliary circuit: Spring-type terminal  
 Manual-Automatic-Reset

product brand name	SIRIUS
product designation	solid-state overload relay
product type designation	3RB3
<b>General technical data</b>	
size of overload relay	S3
size of contactor can be combined company-specific	S3
power loss [W] for rated value of the current at AC in hot operating state	4.6 W
• per pole	1.53 W
insulation voltage with degree of pollution 3 at AC rated value	1 000 V
surge voltage resistance rated value	8 kV
maximum permissible voltage for protective separation	
• in networks with ungrounded star point between auxiliary and auxiliary circuit	300 V
• in networks with grounded star point between auxiliary and auxiliary circuit	300 V
• in networks with ungrounded star point between main and auxiliary circuit	600 V
• in networks with grounded star point between main and auxiliary circuit	690 V
shock resistance	8g / 11 ms
• according to IEC 60068-2-27	15g / 11 ms; Signaling contact 97 / 98 in position "Tripped": 8g / 11 ms
vibration resistance	1-6 Hz, 15 mm; 6-500 Hz, 20 m/s <sup>2</sup> ; 10 cycles
thermal current	115 A
recovery time after overload trip	
• with automatic reset typical	3 min
• with remote-reset	0 min
• with manual reset	0 min
reference code according to IEC 81346-2	F
Substance Prohibitance (Date)	03/01/2017
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 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1
Net Weight	560 g
<b>Ambient conditions</b>	
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 %
<b>Main circuit</b>	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	32 ... 115 A
operating voltage <ul style="list-style-type: none"> <li>rated value</li> <li>for remote-reset function at DC</li> <li>at AC-3e rated value maximum</li> </ul>	1 000 V 24 V 1 000 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	115 A
operational current at AC-3e at 400 V rated value	115 A
operating power <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>	18.5 ... 55 kW 22 ... 75 kW 30 ... 90 kW
<b>Auxiliary circuit</b>	
design of the auxiliary switch	integrated
number of NC contacts for auxiliary contacts <ul style="list-style-type: none"> <li>note</li> </ul>	1 for contactor disconnection
number of NO contacts for auxiliary contacts <ul style="list-style-type: none"> <li>note</li> </ul>	1 for message "tripped"
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15 <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
operational current of auxiliary contacts at DC-13 <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>	
trip class	CLASS 5E, 10E, 20E and 30E adjustable
design of the overload release	electronic
response value current of the grounding protection minimum	0.75 x IMotor
response time of the grounding protection in settled state	1 000 ms
operating range of the grounding protection relating to current set value <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>	
full-load current (FLA) for 3-phase AC motor <ul style="list-style-type: none"> <li>at 480 V rated value</li> <li>at 600 V rated value</li> </ul>	115 A 115 A
contact rating of auxiliary contacts according to UL	B600 / R300
<b>Short-circuit protection</b>	
design of the fuse link <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 coordination 2 required</li> </ul> </li> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	gG: 315 A gG: 315 A fuse gG: 6 A
<b>Installation/ mounting/ dimensions</b>	
mounting position	any
fastening method	Contactor mounting

height	106 mm
width	70 mm
depth	124 mm
<b>Connections/ Terminals</b>	
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control circuit</li> </ul>	screw-type terminals spring-loaded terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections for main contacts <ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> <li>• solid or stranded</li> <li>• finely stranded with core end processing</li> </ul>	2x (2.5 ... 16 mm <sup>2</sup> ) 2x 16 mm <sup>2</sup> 1x (2,5 ... 70 mm <sup>2</sup> ), 2x (2,5 ... 50 mm <sup>2</sup> ) 1x (2,5 ... 50 mm <sup>2</sup> ), 2x (2,5 ... 35 mm <sup>2</sup> )
type of connectable conductor cross-sections <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> <li>— finely stranded without core end processing</li> </ul> </li> <li>• for AWG cables for auxiliary contacts</li> </ul>	2x (0.25 ... 1.5 mm <sup>2</sup> ) 2x (0,25 ... 1,5 mm <sup>2</sup> ) 2x (0.25 ... 1.5 mm <sup>2</sup> ) 2x (0.25 ... 1.5 mm <sup>2</sup> ) 2x (24 ... 16)
tightening torque <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> </ul>	4.5 ... 6 N·m
design of screwdriver shaft	Diameter 5 to 6 mm
size of the screwdriver tip	Pozidriv PZ 2
design of the thread of the connection screw <ul style="list-style-type: none"> <li>• for main contacts</li> </ul>	M6
<b>Electrical Safety</b>	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
<b>Communication/ Protocol</b>	
type of voltage supply via input/output link master	No
<b>Electromagnetic compatibility</b>	
conducted interference <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
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
<b>Display</b>	
display version for switching status	Slide switch
<b>Approvals Certificates</b>	
General Product Approval	
EMV	
     	
For use in hazardous locations	Test Certificates
Maritime application	



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Maritime application

other

Environment



[Confirmation](#)

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#### Further information

Information on the packaging

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

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3RB3143-4XD0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RB3143-4XD0>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RB3143-4XD0&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3143-4XD0&lang=en)

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3143-4XD0>

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP='HAUPT'></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP='HAUPT'></mmp_prod_no>)

