## **SIEMENS**

Data sheet 3RB3113-4RB0



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	
<ul> <li>between auxiliary and auxiliary circuit</li> </ul>	300 V
<ul> <li>between auxiliary and auxiliary circuit</li> </ul>	300 V
<ul> <li>between main and auxiliary circuit</li> </ul>	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	
<ul><li>during operation</li></ul>	-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
<ul> <li>for remote-reset function at DC</li> </ul>	24 V
at AC-3e rated value maximum	690 V
operating frequency rated value	50 60 Hz

	0.4.0
operational current rated value	0.4 A
operational current at AC-3e at 400 V rated value	0.4 A
operating power	0.04 0.00 I/W
• for 3-phase motors at 400 V at 50 Hz	0.04 0.09 kW
• for AC motors at 500 V at 50 Hz	0.04 0.12 kW
for AC motors at 690 V at 50 Hz     Auxiliary circuit	0.06 0.18 kW
design of the auxiliary switch	integrated
number of NC contacts for auxiliary contacts	1
• note	for contactor disconnection
number of NO contacts for auxiliary contacts	1
• note	for message "tripped"
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15	
• at 24 V	4 A
• at 110 V	4 A
• at 120 V	4 A
• at 125 V	4 A
• at 230 V	3 A
operational current of auxiliary contacts at DC-13	
• at 24 V	2 A
● at 60 V	0.55 A
• at 110 V	0.3 A
● at 125 V	0.3 A
• at 220 V	0.11 A
Protective and monitoring functions	
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	
• minimum	IMotor > lower current setting value
• maximum	IMotor < upper current setting value x 3.5
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	0.4 A
at 600 V rated value	0.4 A
contact rating of auxiliary contacts according to UL	B600 / R300
Short-circuit protection	
design of the fuse link	
for short-circuit protection of the main circuit	0.05 4.00/5.04
— with type of coordination 1 required	gG: 35 A, RK5: 3 A
— with type of assignment 2 required	gG: 4 A
for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions	fuse gG: 6 A
mounting position	any
fastening method	any Contactor mounting
height	79 mm
width	45 mm
depth	73 mm
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	
• for main current circuit	screw-type terminals
for auxiliary and control circuit	screw-type terminals
arrangement of electrical connectors for main current circuit	Top and bottom
turn of compactable conductor areas costions for main contacts	
type of connectable conductor cross-sections for main contacts  • solid	1x (0.5 4 mm²), 2x (0.5 1.5 mm²), 2x (0.75 4 mm²)

solid or stranded	1x (0,5 4 mm²), 2x (0,5 1,5 mm²), 2x (0,75 4 mm²)
finely stranded with core end processing	1x (0.5 2.5 mm²), 2x (0.5 2.5 mm²)
type of connectable conductor cross-sections	
<ul> <li>for auxiliary contacts</li> </ul>	
— solid	1x (0.5 4 mm²), 2x (0.5 2.5 mm²)
<ul><li>— solid or stranded</li></ul>	1x (0,5 4 mm²), 2x (0,5 2,5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
<ul> <li>for AWG cables for auxiliary contacts</li> </ul>	1x (20 14), 2x (20 14)
tightening torque	
<ul> <li>for main contacts with screw-type terminals</li> </ul>	0.8 1.2 N·m
<ul> <li>for auxiliary contacts with screw-type terminals</li> </ul>	0.8 1.2 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	
for main contacts	M3
<ul> <li>of the auxiliary and control contacts</li> </ul>	M3
Electrical Safety	
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
Communication/ Protocol	
type of voltage supply via input/output link master	No
Electromagnetic compatibility	
conducted interference	
<ul> <li>due to burst according to IEC 61000-4-4</li> </ul>	2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3
<ul> <li>due to conductor-earth surge according to IEC 61000-4-5</li> </ul>	2 kV (line to earth) corresponds to degree of severity 3
<ul> <li>due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	1 kV (line to line) corresponds to degree of severity 3
<ul> <li>due to high-frequency radiation according to IEC 61000- 4-6</li> </ul>	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
Display	
display version for switching status	Slide switch
Approvals Certificates	

## **General Product Approval**







Confirmation





EMV For use in hazardous locations Test Certificates Marine / Shipping



<u>KC</u>



Special Test Certificate

Type Test Certificates/Test Report



Marine / Shipping other











Confirmation

Environment

Environmental Confirmations

## 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,...)

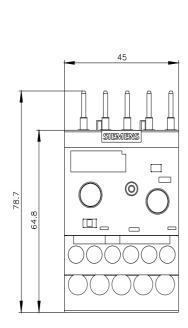
https://support.industry.siemens.com/cs/ww/en/ps/3RB3113-4RB0

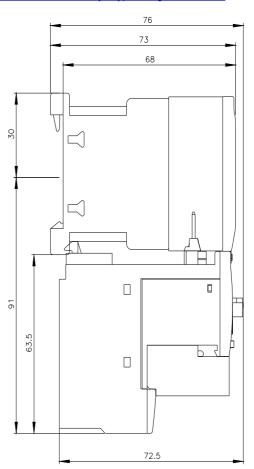
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

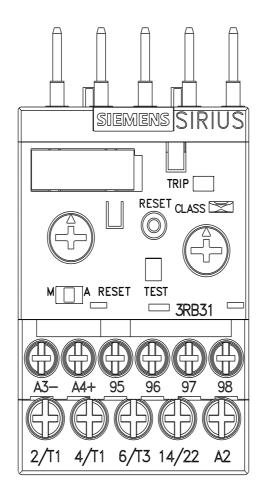
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RB3113-4RB0&lang=en

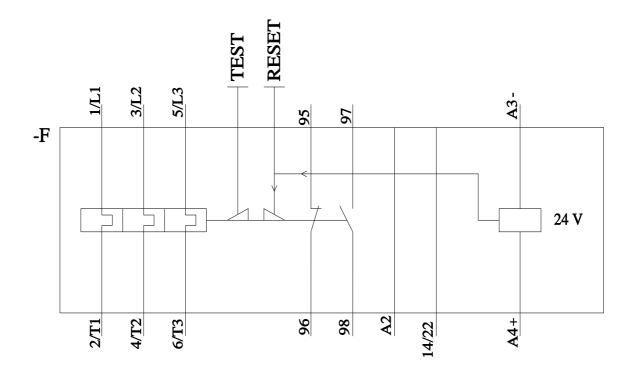
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RB3113-4RB0/char

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









last modified:

3/11/2024