## **SIEMENS**

Data sheet 3RB3123-4RB0



Overload relay 0.1...0.4 A Electronic For motor protection Size S0, 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	S0
size of contactor can be combined company-specific	S0
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	
<ul> <li>in networks with ungrounded star point between auxiliary and auxiliary circuit</li> </ul>	300 V
<ul> <li>in networks with grounded star point between auxiliary and auxiliary circuit</li> </ul>	300 V
<ul> <li>in networks with ungrounded star point between main and auxiliary circuit</li> </ul>	600 V
<ul> <li>in networks with grounded star point between main and auxiliary circuit</li> </ul>	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 monoxide (lead oxide) - 1317-36-8
Weight	0.247 kg
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
operational current rated value	0.4 A
operational current at AC-3e at 400 V rated value	0.4 A
operating power	
• 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	0.06 0.18 kW
Auxiliary circuit	
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	244
• 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	~C. 25 A DIVE: 2 A
— 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
Installation/ mounting/ dimensions	227
mounting position	any Contactor mounting
fastening method	Contactor mounting 87 mm
height	87 mm 45 mm
depth	45 mm 84 mm
Connections/ Terminals	OT 111111
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	Top and bottom
circuit	

type of connectable conductor cross-sections for main contacts	
• solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)
• stranded	2x 10 mm²
<ul> <li>solid or stranded</li> </ul>	1x (1 10 mm²), 2x (1 10 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	1x (1 6 mm²), 2 x (1 6 mm²), 1x 10 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>	2 2.5 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	M4
of the auxiliary and control contacts	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>



Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping other











Confirmation

**Environment** 

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=3RB3123-4RB0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3123-4RB0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RB3123-4RB0

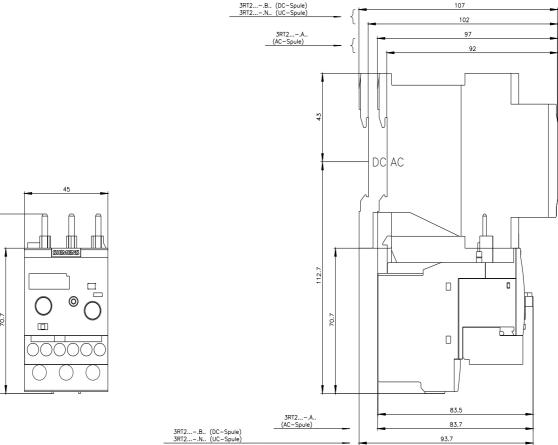
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

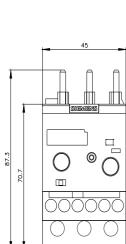
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RB3123-4RB0&lang=en Characteristic: Tripping characteristics, I2t, Let-through current

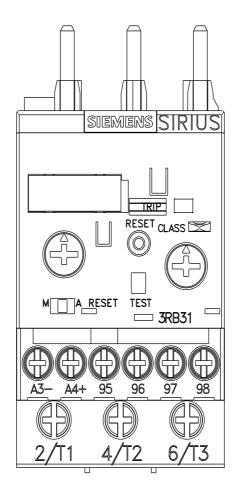
https://support.industry.siemens.com/cs/ww/en/ps/3RB3123-4RB0/char

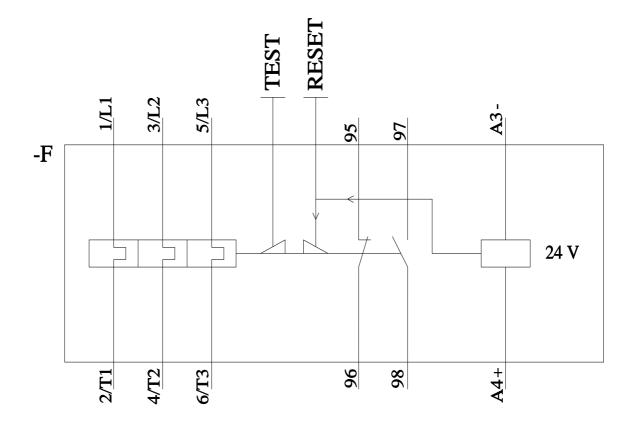
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3123-4RB0&objecttype=14&gridview=view1









last modified:

3/11/2024