SIEMENS

Data sheet 3RB3123-4SB0



Overload relay 3...12 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	0.6 W	
• per pole	0.2 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 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	15g / 11 ms	
• according to IEC 60068-2-27	15g / 11 ms; Signaling contact 97 / 98 in position "Tripped": 9g / 11 ms	
thermal current	12 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 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	3 12 A	
operating voltage		
• rated value	690 V	
 for remote-reset function at DC 	24 V	

full-load current (FLA) for 3-phase AC motor	at AC-3e rated value maximum	690 V
operational current refer value 12 A operational purent at AC-3e at 400 V rated value 12 A operating power 1.55.5 kW • for S-/haise roftons at 400 V at 50 Hz 1.55.5 kW • for AC motions at 600 V at 50 Hz 1.55.5 kW • for AC motions at 600 V at 50 Hz 1.55.5 kW design of the auxiliary switch integrated - note for contactor disconnection - number of NC contacts for auxiliary contacts 1 • note for contactor disconnection - number of NC contacts for auxiliary contacts 0 • note for all 10 V • at 12 V 4.A • at 12 V 4.A • at 12 V 2.A • at 12 V 2.A • at 12 V 3.A • at 22 V	operating frequency rated value	50 60 Hz
operating power 1/2 A operating power + for 3 phase motors at 400 V at 50 Hz 1.5 5.5 kW of or AC motors at 500 V at 50 Hz 1.5 5.5 kW of or AC motors at 500 V at 50 Hz 2.2 75 kW AUDITIARY scream Very Contacts for auxiliary contacts Integrated number of NC contacts for auxiliary contacts for contacts of auxiliary contacts 1 number of CO contacts for auxiliary contacts for message "tripped" number of CO contacts for auxiliary contacts at AC-18 4.A at 11 To V 4.A at 12 EV 2.A at 8 EV 2.A at 8 EV 2.A at 12 EV 3.A at 12 EV 3.A </td <td></td> <td>12 A</td>		12 A
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* for 2-planes motors at 400 V at 50 Hz * for AC motors at 500 V at 50 Hz * for AC motors at 500 V at 50 Hz * for AC motors at 500 V at 50 Hz * for AC motors at 500 V at 50 Hz * for AC motors at 500 V at 50 Hz * for AC motors at 500 V at 50 Hz * for AC motors at 500 V at 50 Hz * for AC motors at 500 V at 50 Hz * for AC motors at 500 V at 50 Hz * for AC motors at 500 V at 50 Hz * for Contacts for auxiliary contacts * note * n		
15		1.5 5.5 kW
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Auxiliary circuit design of the auxiliary switch note note note note note note note note		
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number of NC contacts for auxiliary contacts		integrated
• note number of NO contacts for auxiliary contacts • note number of CO contacts for auxiliary contacts • note number of CO contacts for auxiliary contacts • at 24 V • at 110 V • at 120 V • at 125 V • at 125 V • at 125 V • at 125 V • at 10 V • at 125 V • at 10 V •		·
number of NO contacts for auxiliary contacts • note • note number of CO contacts for auxiliary contacts operational current of auxiliary contacts at AC-15 • at 12 V • at 110 V • at 112 V • at 12 N • a		
note for message "tripped"		
number of CO contacts for auxiliary contacts at AC-15		
operational current of auxiliary contacts at AC-15 • at 24 V • at 120 V • at 120 V • at 230 V operational current of auxiliary contacts at DC-13 • at 24 V • at 60 V • at 100 V • at 110 V • at 125 V • at 125 V • at 125 V • at 125 V • at 126 V • at 110 V • at 125 V • at 120 V • at 110 V • at 125 V • at 120 V • at 120 V • at 125 V • at 120 V • at 100 V • at 125 V • at 120 V • at 100 V • at 125 V • at 120 V • at 110 V • at 125 V • at 120 V • at 120 V • at 110 V • at 125 V • at 120 V • at 100 V • at 120 V • at 120 V • at 100 V • at 120 V • at 100 V • at 120 V • at 120 V • at 100 V • at 120 V •		
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* alt 110 V * alt 126 V * alt 126 V * alt 230 V * approximation of auxiliary contacts at DC-13 * alt 24 V * alt 60 V * alt 110 V * alt 110 V * alt 110 V * alt 125 V * alt 60 V * alt 110 V * alt 125 V * alt 110 V * alt 125 V * alt 126 V * alt 126 V * alt 127 V * alt 127 V * alt 128 V * alt 129	•	4 A
at 125 V at 126 V at 127 V at 127 V at 128 V at 129 V at 128 V at	******	
operational current of auxillary contacts at DC-13 • at 24 V • at 80 V • at 80 V • at 110 V • at 125 V • at		
e at 24 V 2 A e at 50 V e at 110 V e at 125 V e at 126 V e at 127 V e at 128 V e at 128 V e at 128 V e at 128 V e at 220 V e at 128 V e at 220 V e a		
• at 24 V • at 60 V • at 110 V • at 1125 V • at 125 V •		
• at 60 V • at 110 V • at 125 V • at 120 V • at 1220 V • at 1220 V • at 220	•	2 A
• at 110 V • at 125 V		
• at 125 V • at 220 V		
* at 220 V 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 operating range of the grounding protection in settled state operating range of the grounding protection relating to current set value in minimum omaximum liMotor > lower current setting value iminimum omaximum liMotor < upper current setting value x 3.5 UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 12 A at 600 V rated value 12 A bort-circuit protection design of the fuse link of or short-circuit protection of the main circuit with type of coordination 1 required of short-circuit protection of the auxiliary switch required of so short-circuit protection of the auxiliary switch required of so short-circuit protection of the auxiliary switch required of so short-circuit protection of the auxiliary switch required of so short-circuit protection of the auxiliary switch required of so short-circuit protection of the auxiliary switch required of so short-circuit protection of the auxiliary switch required of so short-circuit protection of the auxiliary switch required of so short-circuit protection of the auxiliary switch required of so short-circuit protection of the auxiliary switch required of so short-circuit protection of the auxiliary switch required of or short-circuit protection of the auxiliary switch required of or manufactory switch s		
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product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom	Connections/ Terminals	
 for main current circuit for auxiliary and control circuit arrangement of electrical connectors for main current Top and bottom 	product component removable terminal for auxiliary and	Yes
• for auxiliary and control circuit screw-type terminals arrangement of electrical connectors for main current Top and bottom	type of electrical connection	
• for auxiliary and control circuit screw-type terminals arrangement of electrical connectors for main current Top and bottom		screw-type terminals
arrangement of electrical connectors for main current Top and bottom	for auxiliary and control 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
 solid or stranded 	1x (1 10 mm²), 2x (1 10 mm²)
 finely stranded with core end processing 	1x (1 6 mm²), 2 x (1 6 mm²), 1x 10 mm²
type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid	1x (0.5 4 mm²), 2x (0.5 2.5 mm²)
— solid or stranded	1x (0,5 4 mm²), 2x (0,5 2,5 mm²)
 finely stranded with core end processing 	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
 for AWG cables for auxiliary contacts 	1x (20 14), 2x (20 14)
tightening torque	
 for main contacts with screw-type terminals 	2 2.5 N·m
 for auxiliary contacts with screw-type terminals 	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	
 due to burst according to IEC 61000-4-4 	2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3
 due to conductor-earth surge according to IEC 61000-4-5 	2 kV (line to earth) corresponds to degree of severity 3
 due to conductor-conductor surge according to IEC 61000-4-5 	1 kV (line to line) corresponds to degree of severity 3
 due to high-frequency radiation according to IEC 61000- 4-6 	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

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=3RB3123-4SB0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3123-4SB0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RB3123-4SB0

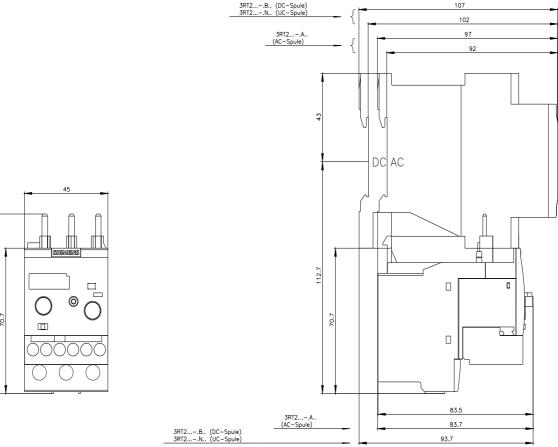
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

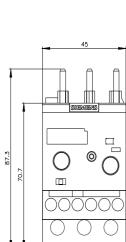
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3123-4SB0&lang=en

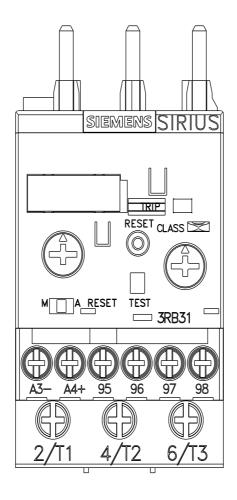
Characteristic: Tripping characteristics, I2t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RB3123-4SB0/char

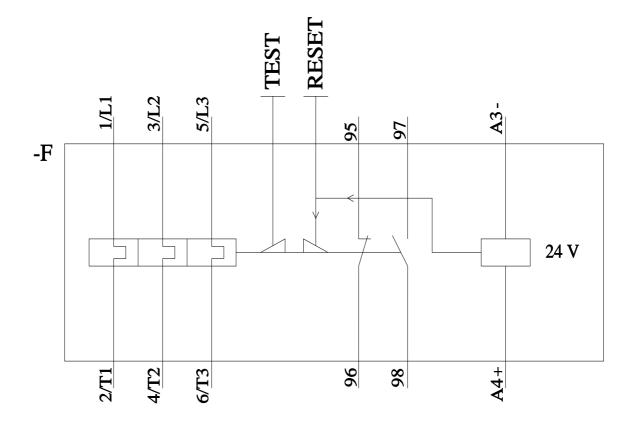
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3123-4SB0&objecttype=14&gridview=view1









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3/11/2024