SIEMENS

Data sheet 3RB3123-4NB0



Overload relay 0.32...1.25 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 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	1.25 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	0.32 1.25 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	

	405.4
operational current rated value	1.25 A
operational current at AC-3e at 400 V rated value	1.25 A
operating power	
• for 3-phase motors at 400 V at 50 Hz	0.12 0.37 kW
 for AC motors at 500 V at 50 Hz 	0.12 0.55 kW
for AC motors at 690 V at 50 Hz	0.18 0.75 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	
• at 480 V rated value	1.25 A
at 600 V rated value	1.25 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 	
 — with type of coordination 1 required 	gG: 35 A, RK5: 6 A
 — with type of assignment 2 required 	gG: 6 A
for short-circuit protection of the auxiliary switch required	fuse gG: 6 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	Contactor mounting
height	87 mm
width	45 mm
depth	84 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
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



General Product Approval

For use in hazardous locations

Test Certificates





<u>KC</u>



Type Test Certificates/Test Report

Special Test Certificate

Marine / Shipping













other Environment

Confirmation

Environmental Confirmations

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=3RB3123-4NB0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3123-4NB0

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

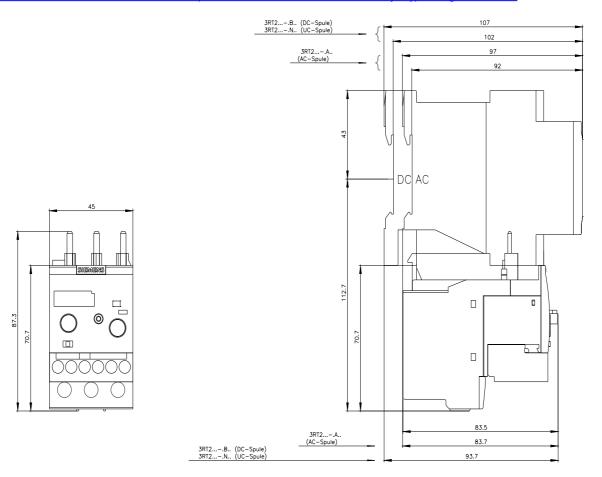
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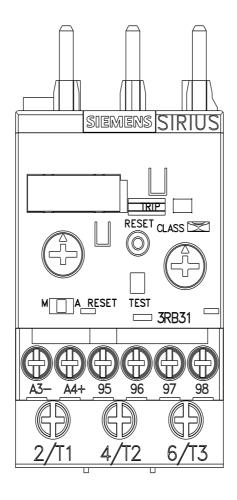
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ EPLAN\ macros,\ ...)$

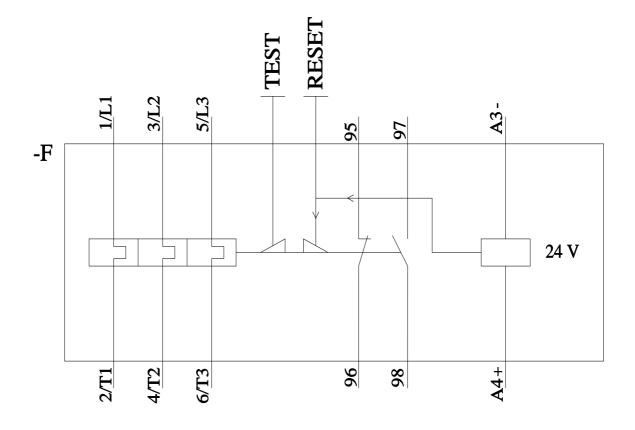
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3123-4NB0&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RB3123-4NB0/char







last modified:

3/11/2024