SIEMENS

Data sheet 3RB3113-4SB0



Overload relay 3...12 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	0.6 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	
Weight	0.223 kg	
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	

operational current at AC-3e at 400 V rated value operating power • for 3-phase motors at 400 V at 50 Hz • for AC motors at 500 V at 50 Hz • for AC motors at 690 V at 50 Hz Auxiliary circuit design of the auxiliary switch number of NC contacts for auxiliary contacts • note number of NO contacts for auxiliary contacts • note number of CO contacts for auxiliary contacts	50 60 Hz 12 A 12 A 1.5 5.5 kW 1.5 5.5 kW 2.2 7.5 kW integrated 1 for contactor disconnection
operational current rated value operational current at AC-3e at 400 V rated value operating power • for 3-phase motors at 400 V at 50 Hz • for AC motors at 500 V at 50 Hz • for AC motors at 690 V at 50 Hz Auxiliary circuit design of the auxiliary switch number of NC contacts for auxiliary contacts • note number of NO contacts for auxiliary contacts • note number of CO contacts for auxiliary contacts	12 A 1.5 5.5 kW 1.5 5.5 kW 2.2 7.5 kW integrated 1
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for AC motors at 500 V at 50 Hz for AC motors at 690 V at 50 Hz Auxiliary circuit design of the auxiliary switch number of NC contacts for auxiliary contacts note number of NO contacts for auxiliary contacts note number of CO contacts for auxiliary contacts	2.2 7.5 kW integrated 1
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Auxiliary circuit design of the auxiliary switch number of NC contacts for auxiliary contacts • note number of NO contacts for auxiliary contacts • note number of CO contacts for auxiliary contacts	integrated 1
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number of NC contacts for auxiliary contacts • note number of NO contacts for auxiliary contacts • note number of CO contacts for auxiliary contacts	1
note number of NO contacts for auxiliary contacts note number of CO contacts for auxiliary contacts	
number of NO contacts for auxiliary contacts • note number of CO contacts for auxiliary contacts	
note number of CO contacts for auxiliary contacts	1
number of CO contacts for auxiliary contacts	for message "tripped"
	0
operational current of auxiliary contacts at AC-15	<u> </u>
•	4 A
	4 A
	4 A
	4 A
	3 A
operational current of auxiliary contacts at DC-13	
· ·	2 A
***	0.55 A
	0.3 A
	0.3 A
	0.11 A
Protective and monitoring functions	V.III
trip class	CLASS 5E, 10E, 20E and 30E adjustable
•	electronic
response value current of the grounding protection minimum	0.75 x IMotor
	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	12 A
at 600 V rated value	12 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	
· · · · · · · · · · · · · · · · · · ·	gG: 50 A, RK5: 45 A
· · · · · · · · · · · · · · · · · · ·	gG: 50 A, J: 45 A
	fuse gG: 6 A
Installation/ mounting/ dimensions	
	any
	Contactor mounting
	79 mm
Ü	45 mm
**	73 mm
Connections/ Terminals	
	Yes
type of electrical connection	
**	screw-type terminals
	screw-type terminals
·	Top and bottom
circuit	

type of connectable conductor cross-sections for main contacts	4 (0 - 4 - 0) 0 (0 - 4 - 0)
• 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	
 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 	0.8 1.2 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	M3
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

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=3RB3113-4SB0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3113-4SB0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RB3113-4SB0

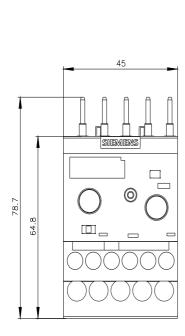
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3113-4SB0&lang=en

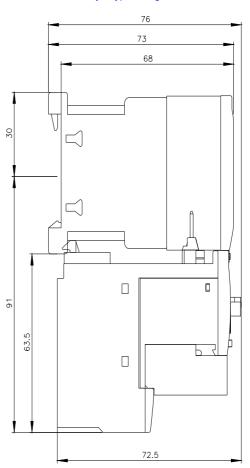
Characteristic: Tripping characteristics, I²t, Let-through current

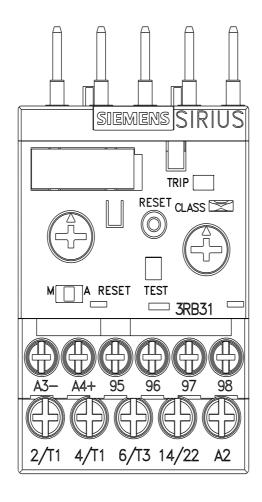
https://support.industry.siemens.com/cs/ww/en/ps/3RB3113-4SB0/char

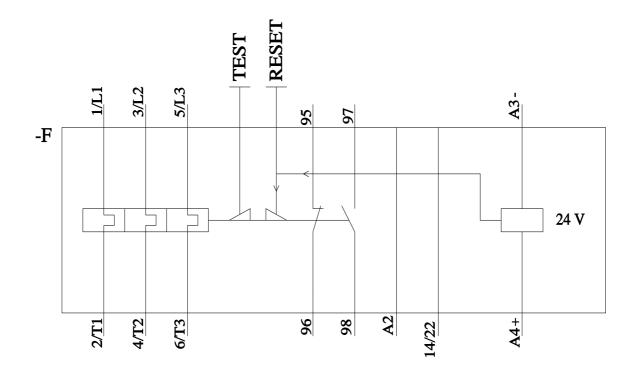
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3113-4SB0&objecttype=14&gridview=view1









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