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 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	12 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	3 12 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

operational current rated value	12 A
operational current at AC-3e at 400 V rated value	12 A
operating power	
 for 3-phase motors at 400 V at 50 Hz 	1.5 5.5 kW
 for AC motors at 500 V at 50 Hz 	1.5 5.5 kW
 for AC motors at 690 V at 50 Hz 	2.2 7.5 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
• at 220 v Protective and monitoring functions	
	CLASS EF 10F 20F and 20F adjustable
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	
operating range of the grounding protection relating to current set value	IMotor > lower current setting value
operating range of the grounding protection relating to current set value • minimum	IMotor > lower current setting value IMotor < upper current setting value x 3.5
operating range of the grounding protection relating to current set value • minimum • maximum	IMotor > lower current setting value IMotor < upper current setting value x 3.5
operating range of the grounding protection relating to current set value • minimum • maximum UL/CSA ratings	-
operating range of the grounding protection relating to current set value • minimum • maximum UL/CSA ratings full-load current (FLA) for 3-phase AC motor	IMotor < upper current setting value x 3.5
operating range of the grounding protection relating to current set value • minimum • maximum UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value	IMotor < upper current setting value x 3.5
operating range of the grounding protection relating to current set value • minimum • maximum UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value	IMotor < upper current setting value x 3.5 12 A 12 A
operating range of the grounding protection relating to current set value • minimum • maximum UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value contact rating of auxiliary contacts according to UL	IMotor < upper current setting value x 3.5
operating range of the grounding protection relating to current set value • minimum • maximum UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Contact rating of auxiliary contacts according to UL Short-circuit protection	IMotor < upper current setting value x 3.5 12 A 12 A
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 stranded 		2	x 10 mm²		
 solid or stranded 				2)	
finely stranded with core end processing			1x (1 10 mm²), 2x (1 10 mm²) 1x (1 6 mm²), 2 x (1 6 mm²), 1x 10 mm²		
	onductor cross-sections		x (1 0 mm), 2 x (1 0 mm	, ix io iiiii	
 for auxiliary cont 					
• for adxillary cont	acts	1,	$x (0 = 4 mm^2) 2x (0 = 2)$	E mm ²)	
— solid or stranded			$1x (0.5 \dots 4 \text{ mm}^2), 2x (0.5 \dots 2.5 \text{ mm}^2)$		
 — finely stranded with core end processing 			1x (0,5 4 mm ²), 2x (0,5 2,5 mm ²)		
-	 Intelly stranded with core and processing for AWG cables for auxiliary contacts 		1x (0.5 2.5 mm ²), 2x (0.5 1.5 mm ²)		
			1x (20 14), 2x (20 14)		
tightening torque					
	s with screw-type terminals		2 2.5 N·m		
	acts with screw-type terminals		0.8 1.2 N·m		
design of screwdriver shaft			Diameter 5 to 6 mm		
size of the screwdriver tip		P	ozidriv PZ 2		
design of the thread of	of the connection screw				
for main contacts		M	14		
 of the auxiliary a 	 of the auxiliary and control contacts 		13		
Electrical Safety					
protection class IP or	the front according to IEC 60529	IF	P20		
touch protection on t	he front according to IEC 60529	fir	nger-safe, for vertical contact	from the front	
Communication/ Proto	col				
type of voltage supply	y via input/output link master	N	lo		
Electromagnetic compa	atibility				
conducted interferen	ce	_			
 due to burst according 	ording to IEC 61000-4-4	2	kV (power ports), 1 kV (signa	al ports) corresponds to de	aree of severity 3
	r-earth surge according to IEC 6100		kV (line to earth) corresponde		, ,
	r-conductor surge according to IEC		kV (line to line) corresponds		
61000-4-5					
 due to high-frequ 4-6 	uency radiation according to IEC 610	000- 10	0 V in frequency range 0.15 to	o 80 MHz, modulation 80 %	6 AM with 1 kHz
	ce according to IEC 61000-4-3	1(0 V/m		
field-based interference according to IEC 61000-4-3					
electrostatic dischard	e according to IEC 61000-4-2	6	kV contact discharge / 8 kV a	air discharge	
-	e according to IEC 61000-4-2	6	kV contact discharge / 8 kV a	air discharge	
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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

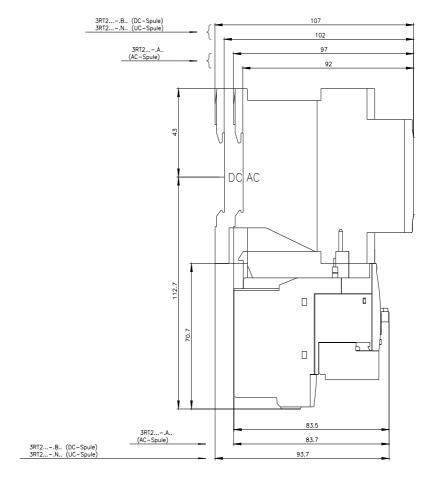
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

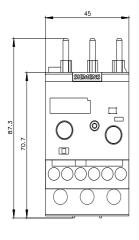
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3123-4SB0&lang=en

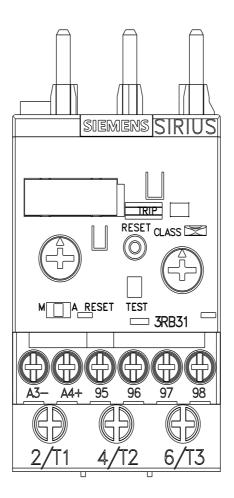
Characteristic: Tripping characteristics, I2t, Let-through current

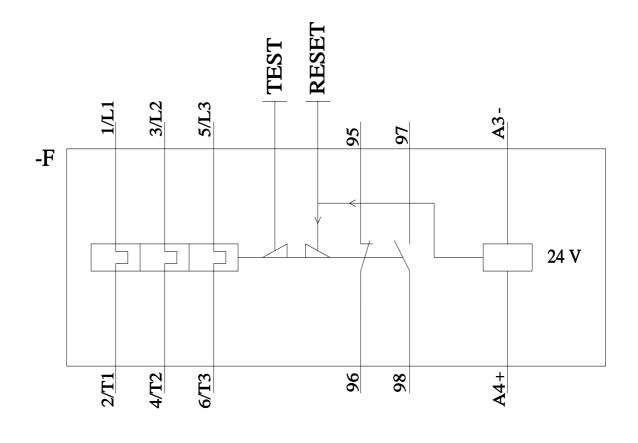
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https://support.industry.siemens.com/ostern/ospectrum Further characteristics (e.g. electrical endurance, switching frequency) http://support.industry.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3123-4SB0&objecttype=14&gridview=view1









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