SIEMENS

Data sheet

3RB3143-4XW1



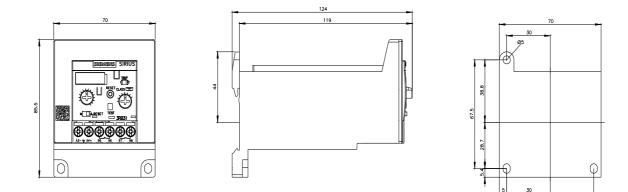
Overload relay 32...115 A Electronic For motor protection Size S3, Class 5E...30E Stand-alone installation Main circuit: Straight-through transformer Auxiliary circuit: Screw Manual-Automatic-Reset

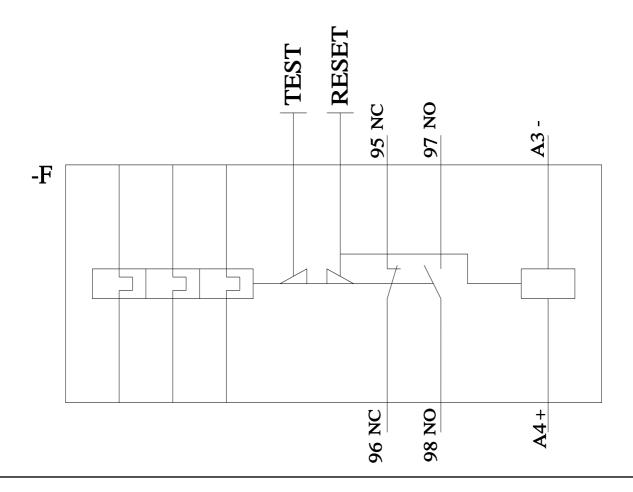
product brand name	SIRIUS
product designation	solid-state overload relay
product type designation	3RB3
General technical data	
size of overload relay	S3
size of contactor can be combined company-specific	S3
power loss [W] for rated value of the current at AC in hot operating state	0.6 W
• per pole	0.2 W
insulation voltage with degree of pollution 3 at AC rated value	1 000 V
surge voltage resistance rated value	8 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	8g / 11 ms
 according to IEC 60068-2-27 	15g / 11 ms; Signaling contact 97 / 98 in position "Tripped": 8g / 11 ms
thermal current	115 A
reference code according to IEC 81346-2	F
Substance Prohibitance (Date)	03/01/2017
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	32 115 A
operating voltage	
rated value	1 000 V
 for remote-reset function at DC 	24 V
• at AC-3e rated value maximum	1 000 V
operating frequency rated value	50 60 Hz

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operational current rated value	115 A
operational current at AC-3e at 400 V rated value	115 A
operating power	
 for 3-phase motors at 400 V at 50 Hz 	18.5 55 kW
• for AC motors at 500 V at 50 Hz	22 75 kW
• for AC motors at 690 V at 50 Hz	30 90 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	
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 in settled state	
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	115 A
• at 600 V rated value	115 A
contact rating of auxiliary contacts according to UL	B600 / R300
Short-circuit protection	
design of the fuse link	
design of the fuse link	gG: 315 A
design of the fuse link • for short-circuit protection of the main circuit	gG: 315 A gG: 315 A
 design of the fuse link for short-circuit protection of the main circuit — with type of coordination 1 required 	•
 design of the fuse link for short-circuit protection of the main circuit with type of coordination 1 required with type of assignment 2 required 	gG: 315 A
 design of the fuse link for short-circuit protection of the main circuit with type of coordination 1 required with type of assignment 2 required for short-circuit protection of the auxiliary switch required 	gG: 315 A
design of the fuse link for short-circuit protection of the main circuit with type of coordination 1 required with type of assignment 2 required for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions	gG: 315 A fuse gG: 6 A
design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position	gG: 315 A fuse gG: 6 A any
design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method	gG: 315 A fuse gG: 6 A any stand-alone installation
design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height	gG: 315 A fuse gG: 6 A any stand-alone installation 106 mm
design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width	gG: 315 A fuse gG: 6 A any stand-alone installation 106 mm 70 mm
design of the fuse link • for short-circuit protection of the main circuit with type of coordination 1 required with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth	gG: 315 A fuse gG: 6 A any stand-alone installation 106 mm 70 mm
design of the fuse link • for short-circuit protection of the main circuit with type of coordination 1 required with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and	gG: 315 A fuse gG: 6 A any stand-alone installation 106 mm 70 mm 124 mm
design of the fuse link • for short-circuit protection of the main circuit with type of coordination 1 required with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit	gG: 315 A fuse gG: 6 A any stand-alone installation 106 mm 70 mm 124 mm
design of the fuse link • for short-circuit protection of the main circuit with type of coordination 1 required with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit	gG: 315 A fuse gG: 6 A any stand-alone installation 106 mm 70 mm 124 mm Yes Yes
design of the fuse link • for short-circuit protection of the main circuit with type of coordination 1 required with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection	gG: 315 A fuse gG: 6 A any stand-alone installation 106 mm 70 mm 124 mm Yes
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design of the fuse link • for short-circuit protection of the main circuit with type of coordination 1 required with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for auxiliary and control circuit arrangement of electrical connectors for main current circuit	gG: 315 A fuse gG: 6 A any stand-alone installation 106 mm 70 mm 124 mm Yes straight-through transformers screw-type terminals

 — solid — solid or stranded — finely stranded with core end processing 	1x (0.5 4 mm²), 2x (0.5 2.5 mm²) 1x (0,5 4 mm²), 2x (0,5 2,5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)	
for AWG cables for auxiliary contacts	2x (20 14)	
tightening torque		
 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		
 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 sever	tity 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 k	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		
	<u>Confirmation</u>	
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