SIEMENS

Data sheet 3RB2056-1FC2



Overload relay 50...200 A for motor protection Size S6, Class 10E Contactor mounting/stand-alone installation Main circuit: busbar connection Auxiliary circuit: Screw terminal Manual-Automatic-Reset

product brand name	SIRIUS
product designation	solid-state overload relay
product type designation	3RB2
General technical data	
size of overload relay	S6
size of contactor can be combined company-specific	S6
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 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
vibration resistance	1-6 Hz, 15 mm; 6-500 Hz, 20 m/s²; 10 cycles
thermal current	200 A
recovery time after overload trip	
 with automatic reset typical 	3 min
 with remote-reset 	0 min
with manual reset	0 min
reference code according to IEC 81346-2	F
Substance Prohibitance (Date)	07/01/2006
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
Weight	1.055 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	50 200 A

operating voltage	
rated value	1 000 V
at AC-3e rated value maximum	1 000 V
operating frequency rated value	50 60 Hz
operational current rated value	200 A
operational current at AC-3e at 400 V rated value	200 A
operating power	
• for 3-phase motors at 400 V at 50 Hz	30 90 kW
• for AC motors at 500 V at 50 Hz	30 132 kW
• for AC motors at 690 V at 50 Hz	55 160 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	0.1171
trip class	CLASS 10E
design of the overload release	electronic
UL/CSA ratings	Ciccionic
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	200 A
at 400 V rated value at 600 V rated value	200 A
contact rating of auxiliary contacts according to UL	B600 / R300
Short-circuit protection	5000 / 1000
design of the fuse link	
-	
for short-circuit protection of the main circuit	gG: 355 A, Class L: 601 A
 — with type of coordination 1 required 	
with two of accimumant 0 na !!	
— with type of assignment 2 required	gG: 315 A
• for short-circuit protection of the auxiliary switch required	
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions	gG: 315 A fuse gG: 6 A
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position	gG: 315 A fuse gG: 6 A any
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method	gG: 315 A fuse gG: 6 A any Contactor mounting/stand-alone installation
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 Contactor mounting/stand-alone installation 119 mm
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 Contactor mounting/stand-alone installation 119 mm 120 mm
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 Contactor mounting/stand-alone installation 119 mm
for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals	gG: 315 A fuse gG: 6 A any Contactor mounting/stand-alone installation 119 mm 120 mm 155 mm
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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 Contactor mounting/stand-alone installation 119 mm 120 mm 155 mm
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 Contactor mounting/stand-alone installation 119 mm 120 mm 155 mm
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 Contactor mounting/stand-alone installation 119 mm 120 mm 155 mm
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 Contactor mounting/stand-alone installation 119 mm 120 mm 155 mm Yes
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 for auxiliary and control circuit arrangement of electrical connectors for main current	gG: 315 A fuse gG: 6 A any Contactor mounting/stand-alone installation 119 mm 120 mm 155 mm Yes busbar connection screw-type terminals
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 Contactor mounting/stand-alone installation 119 mm 120 mm 155 mm Yes busbar connection screw-type terminals
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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 Contactor mounting/stand-alone installation 119 mm 120 mm 155 mm Yes busbar connection screw-type terminals Top and bottom

 finely stranded with core end processing 	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
 for AWG cables for auxiliary contacts 	2x (20 14)
tightening torque	
 for main contacts with screw-type terminals 	10 12 N·m
 for auxiliary contacts with screw-type terminals 	0.8 1.2 N·m
design of the thread of the connection screw	
• for main contacts	M8
 of the auxiliary and control contacts 	M3
Electrical Safety	
protection class IP on the front according to IEC 60529	IP00; IP20 with box terminal/cover
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front with box terminal/cover
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





For use in hazard-**EMV Test Certificates** Marine / Shipping ous locations



<u>KC</u>



Type Test Certificates/Test Report

Special Test Certific-<u>ate</u>



Marine / Shipping other **Environment**







Confirmation

Miscellaneous

Environmental Confirmations

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=3RB2056-1FC2

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB2056-1FC2

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

https://support.industry.siemens.com/cs/ww/en/ps/3RB2056-1FC2

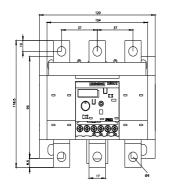
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

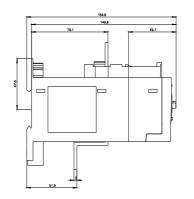
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB2056-1FC2&lang=en

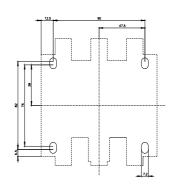
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RB2056-1FC2/char

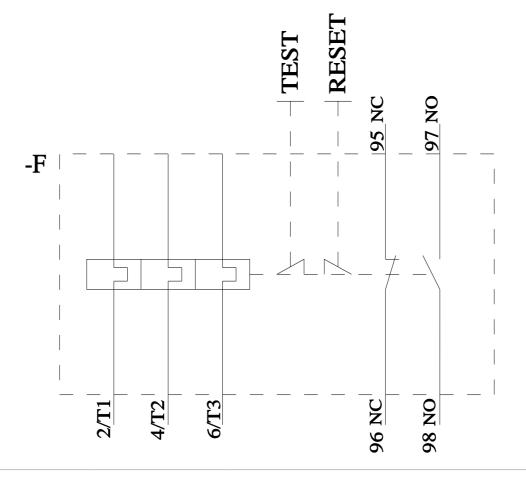
Further characteristics (e.g. electrical endurance, switching frequency)

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last modified:

3/11/2024

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