## **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	
<ul> <li>in networks with ungrounded star point between auxiliary and auxiliary circuit</li> </ul>	300 V
<ul> <li>in networks with grounded star point between auxiliary and auxiliary circuit</li> </ul>	300 V
<ul> <li>in networks with ungrounded star point between main and auxiliary circuit</li> </ul>	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
thermal current	200 A
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
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul> <li>during operation</li> </ul>	-25 +60 °C
<ul> <li>during storage</li> </ul>	-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
<ul> <li>for AC motors at 500 V at 50 Hz</li> </ul>	30 132 kW
<ul> <li>for AC motors at 690 V at 50 Hz</li> </ul>	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	
trip class	CLASS 10E
design of the overload release	electronic
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	200 A
• at 600 V rated value	200 A
contact rating of auxiliary contacts according to UL	B600 / R300
Short-circuit protection	
Short-circuit protection design of the fuse link	
design of the fuse link	
design of the fuse link  • for short-circuit protection of the main circuit	αG: 355 A. Class L: 601 A
design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required	gG: 355 A, Class L: 601 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	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	
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 Contactor mounting/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 Contactor mounting/stand-alone installation 119 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 Contactor mounting/stand-alone installation 119 mm 120 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 Contactor mounting/stand-alone installation 119 mm
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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 main current circuit • for auxiliary and control circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections • for auxiliary contacts	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  1x (0.5 4 mm²), 2x (0.5 2.5 mm²)
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<ul> <li>for main contacts</li> </ul>	M8
<ul> <li>of the auxiliary and control contacts</li> </ul>	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	
<ul> <li>due to burst according to IEC 61000-4-4</li> </ul>	2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3
<ul> <li>due to conductor-earth surge according to IEC 61000-4-5</li> </ul>	2 kV (line to earth) corresponds to degree of severity 3
<ul> <li>due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	1 kV (line to line) corresponds to degree of severity 3
<ul> <li>due to high-frequency radiation according to IEC 61000- 4-6</li> </ul>	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>



Type Test Certificates/Test Report

Special Test Certificate



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, ...)

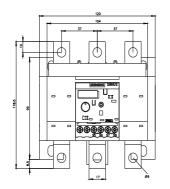
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RB2056-1FC2\&lang=en}}$ 

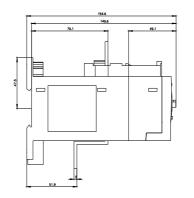
 $\label{eq:Characteristic: Tripping characteristics, I^2t, Let-through current} \label{eq:Characteristic: Tripping characteristics, I^2t, Let-through current}$ 

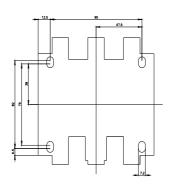
https://support.industry.siemens.com/cs/ww/en/ps/3RB2056-1FC2/chai

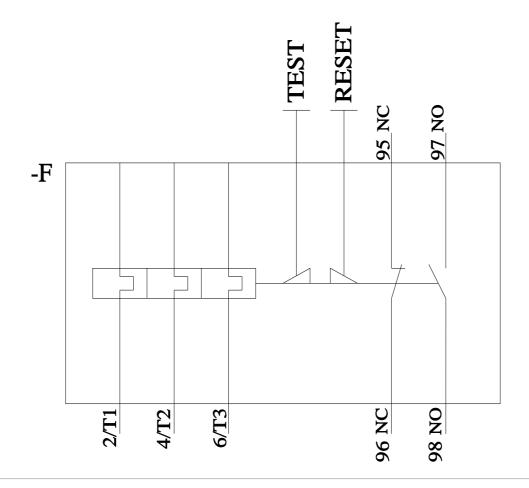
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB2056-1FC2&objecttype=14&gridview=view1









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