## **SIEMENS**

Data sheet 3RB2056-1FW2



Overload relay 50...200 A for motor protection Size S6, Class 10E Contactor mounting/stand-alone installation Main circuit: straight-through transformer 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	
<ul> <li>in networks with grounded star point between main and auxiliary circuit</li> </ul>	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	
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
<ul> <li>for AC motors at 500 V at 50 Hz</li> </ul>	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	
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	
design of the fuse link	
<ul> <li>for short-circuit protection of the main circuit</li> </ul>	
<ul> <li>— with type of coordination 1 required</li> </ul>	gG: 355 A, Class L: 601 A
<ul> <li>— with type of assignment 2 required</li> </ul>	CC: 24F A
	gG: 315 A
for short-circuit protection of the auxiliary switch required	fuse gG: 6 A
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions	
Installation/ mounting/ dimensions	fuse gG: 6 A
Installation/ mounting/ dimensions mounting position	fuse gG: 6 A any
Installation/ mounting/ dimensions mounting position fastening method	fuse gG: 6 A  any  Contactor mounting/stand-alone installation
Installation/ mounting/ dimensions mounting position fastening method height	fuse gG: 6 A  any  Contactor mounting/stand-alone installation  119 mm
Installation/ mounting/ dimensions mounting position fastening method height width	fuse gG: 6 A  any  Contactor mounting/stand-alone installation  119 mm  120 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth	fuse gG: 6 A  any  Contactor mounting/stand-alone installation  119 mm  120 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and	fuse gG: 6 A  any  Contactor mounting/stand-alone installation  119 mm  120 mm  155 mm
Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit	fuse gG: 6 A  any  Contactor mounting/stand-alone installation  119 mm  120 mm  155 mm
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	fuse gG: 6 A  any  Contactor mounting/stand-alone installation  119 mm  120 mm  155 mm
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	fuse gG: 6 A  any Contactor mounting/stand-alone installation 119 mm 120 mm 155 mm  Yes  straight-through transformers
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	fuse gG: 6 A  any Contactor mounting/stand-alone installation 119 mm 120 mm 155 mm  Yes  straight-through transformers screw-type terminals
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	fuse gG: 6 A  any Contactor mounting/stand-alone installation 119 mm 120 mm 155 mm  Yes  straight-through transformers screw-type terminals
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	fuse gG: 6 A  any Contactor mounting/stand-alone installation 119 mm 120 mm 155 mm  Yes  straight-through transformers screw-type terminals
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	fuse gG: 6 A  any Contactor mounting/stand-alone installation 119 mm 120 mm 155 mm  Yes  straight-through transformers screw-type terminals Top and bottom
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 — solid	fuse gG: 6 A  any Contactor mounting/stand-alone installation 119 mm 120 mm 155 mm  Yes  straight-through transformers screw-type terminals Top and bottom  1x (0.5 4 mm²), 2x (0.5 2.5 mm²)
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	fuse gG: 6 A  any Contactor mounting/stand-alone installation 119 mm 120 mm 155 mm  Yes  straight-through transformers screw-type terminals Top and bottom  1x (0.5 4 mm²), 2x (0.5 2.5 mm²) 1x (0,5 4 mm²), 2x (0,5 2,5 mm²)
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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	fuse gG: 6 A  any  Contactor mounting/stand-alone installation  119 mm  120 mm  155 mm   Yes  straight-through transformers screw-type terminals  Top and bottom  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)
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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	
<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





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** 







**Miscellaneous** 

Confirmation

**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=3RB2056-1FW2

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB2056-1FW2

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

https://support.industry.siemens.com/cs/ww/en/ps/3RB2056-1FW2

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

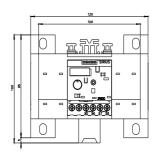
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RB2056-1FW2&lang=en

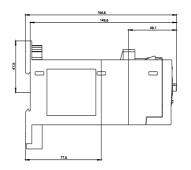
Characteristic: Tripping characteristics, I2t, Let-through current

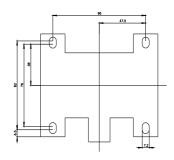
https://support.industry.siemens.com/cs/ww/en/ps/3RB2056-1FW2/char

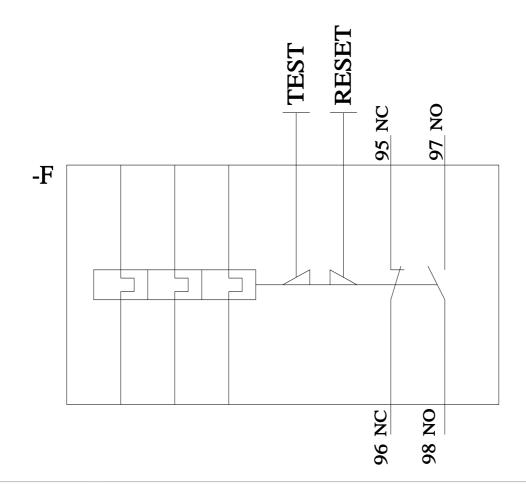
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB2056-1FW2&objecttype=14&gridview=view1









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