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 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
thermal current	200 A
type of protection according to ATEX directive 2014/34/EU	Ex II (2) G [Ex e] [Ex d] [Ex px] ; Ex II (2) D [Ex t] [Ex p]
certificate of suitability according to ATEX directive 2014/34/EU	PTB 06 ATEX 3001
reference code according to IEC 81346-2	F
Substance Prohibitance (Date)	07/01/2006
SVHC substance name	Blei - 7439-92-1 Bleimonoxid (Bleioxid) - 1317-36-8
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	
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	
 for short-circuit protection of the main circuit 	
 — with type of coordination 1 required 	gG: 355 A, Class L: 601 A
 — with type of assignment 2 required 	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
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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 • 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
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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 • 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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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 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



General Product Approval

EMV

For use in hazardous locations

Test Certificates

Marine / Shipping







Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping







Miscellaneous

other

Confirmation

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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

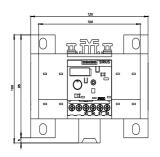
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

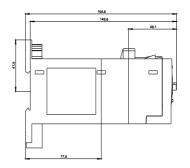
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB2056-1FW2&lang=en

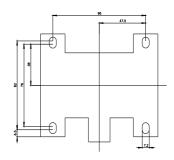
Characteristic: Tripping characteristics, I²t, Let-through current

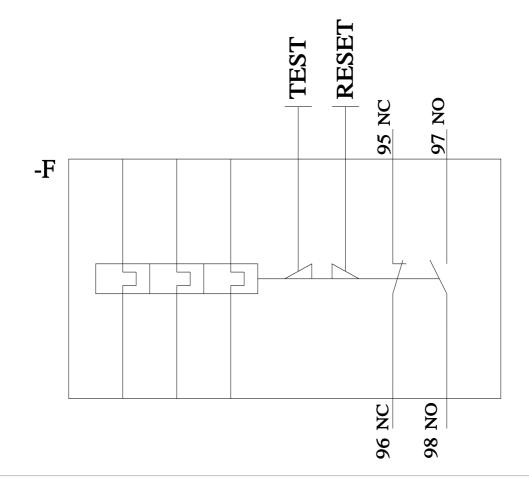
https://support.industry.siemens.com/cs/ww/en/ps/3RB2056-1FW2/char

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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