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 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 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1
Weight	712 g
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-	50 200 A

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dependent overload release	
operating voltage	4.000 V
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
trip class design of the overload release	CLASS 10E electronic
design of the overload release	
design of the overload release UL/CSA ratings	
design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	electronic
design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value	electronic 200 A
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— solid or stranded	1x (0,5 4 mm²), 2x (0,5 2,5 mm²)		
 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 auxiliary contacts with screw-type terminals 	0.8 1.2 N·m		
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 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		EMV	













EMV For use in hazardous locations Test Certificates Maritime application

<u>KC</u>



Type Test Certificates/Test Report Special Test Certificate

ate





Maritime application other Environment







Miscellaneous

Confirmation

Environmental Confirmations

Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information for data generation and storage

https://support.industry.siemens.com/cs/ww/en/view/109995012

 $Information-\ and\ Download center\ (Catalogs,\ Brochures, \ldots)$

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

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RB2056-1FW2}$

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

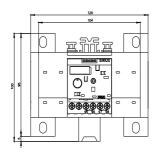
https://support.industry.siemens.com/cs/ww/en/ps/3RB2056-1FW2

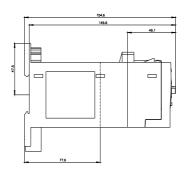
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

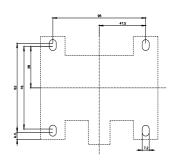
nttp://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB2056-1Fw2&lang=en

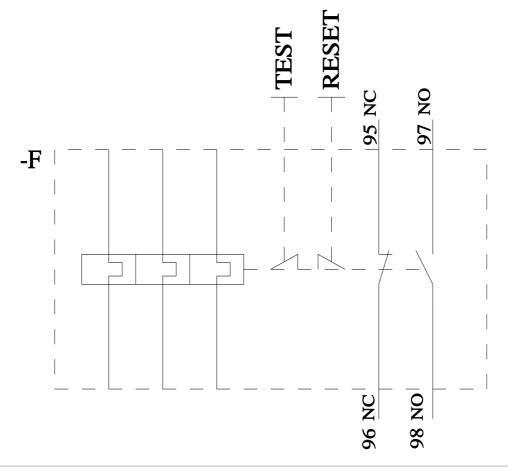
Characteristic: Tripping characteristics, I²t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RB2056-1FW2/char Further characteristics (e.g. electrical endurance, switching frequency)









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4/2/2025

