## SIEMENS

## Data sheet

## 3RB2056-2FW2



Overload relay 50...200 A for motor protection Size S6, Class 20E Contactor mounting/stand-alone installation Main circuit: straight-through transformer Auxiliary circuit: Screw terminal Manual-Automatic-Reset

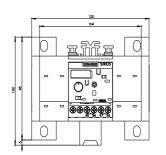
product brand name	SIRIUS
product designation	solid-state overload relay
product type designation	3RB2
General technical data	
size of overload relay	S6
size of contactor can be combined company-specific	S6
insulation voltage with degree of pollution 3 at AC rated value	1 000 V
surge voltage resistance rated value	8 kV
maximum permissible voltage for safe isolation in networks with grounded star point	
<ul> <li>between auxiliary and auxiliary circuit</li> </ul>	300 V
<ul> <li>between auxiliary and auxiliary circuit</li> </ul>	300 V
<ul> <li>between main and auxiliary circuit</li> </ul>	600 V
<ul> <li>between main and auxiliary circuit</li> </ul>	690 V
shock resistance	15g / 11 ms
<ul> <li>according to IEC 60068-2-27</li> </ul>	15g / 11 ms
vibration resistance	1-6 Hz, 15 mm; 6-500 Hz, 20 m/s²; 10 cycles
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
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
<ul> <li>during transport</li> </ul>	-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	
<ul> <li>rated value</li> </ul>	1 000 V
<ul> <li>at AC-3e rated value maximum</li> </ul>	1 000 V
operating frequency rated value	50 60 Hz
operational current rated value	200 A

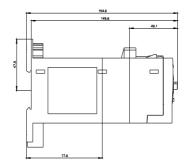
operational current at AC-3e at 400 V rated value	200 A
operating power	
<ul> <li>for 3-phase motors at 400 V at 50 Hz</li> </ul>	30 90 kW
<ul> <li>for AC motors at 500 V at 50 Hz</li> </ul>	30 132 kW
<ul> <li>for AC motors at 690 V at 50 Hz</li> </ul>	55 160 kW
Auxiliary circuit	
design of the auxiliary 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 ● at 125 V	0.3 A
• at 220 V	0.3 A 0.11 A
	0.11 A
Protective and monitoring functions	
trip class	CLASS 20E
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>design of the fuse link</li><li>for short-circuit protection of the main circuit</li></ul>	
<ul> <li>design of the fuse link</li> <li>for short-circuit protection of the main circuit</li> <li>— with type of coordination 1 required</li> </ul>	gG: 355 A, Class L: 601 A
<ul> <li>design of the fuse link</li> <li>for short-circuit protection of the main circuit</li> <li>— with type of coordination 1 required</li> <li>— with type of assignment 2 required</li> </ul>	gG: 315 A
<ul> <li>design of the fuse link</li> <li>for short-circuit protection of the main circuit         <ul> <li>with type of coordination 1 required</li> <li>with type of assignment 2 required</li> <li>for short-circuit protection of the auxiliary switch</li> </ul> </li> </ul>	<b>.</b>
<ul> <li>design of the fuse link</li> <li>for short-circuit protection of the main circuit         <ul> <li>with type of coordination 1 required</li> <li>with type of assignment 2 required</li> </ul> </li> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	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         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
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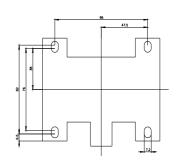
Safety related data		
protection class IP on the front according to IEC 60529	IP20	
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front	
Communication/ Protocol		
type of voltage supply via input/output link master	No	
Electromagnetic compatibility		
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	
• 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		
<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 electrostatic discharge according to IEC 61000-4-2	10 V/m 6 kV contact discharge / 8 kV air discharge	
Display		
display version for switching status	Slide switch	
Certificates/ approvals		
General Product Approval	EMC	
Constant rouder, approval	2	
For use in hazard- ous locations Declaration of Conformity	Test Certificates Marine / Shipping	
Ex CE EG-Konf.	Image: Special Test Certific- ates/Test Report     Special Test Certific- ate       ABS	
Marine / Shipping	other	
LIRS RINA	Confirmation Miscellaneous	
Further information		
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=3RB2056-2FW2 Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB2056-2FW2 Service&Support (Manuals, Certificates, Characteristics, FAQs,)		
https://support.industry.siemens.com/cs/ww/en/ps/3RB2056-2FW2 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB2056-2FW2⟨=en Characteristic: Tripping characteristics I <sup>2</sup> t Let.through current		

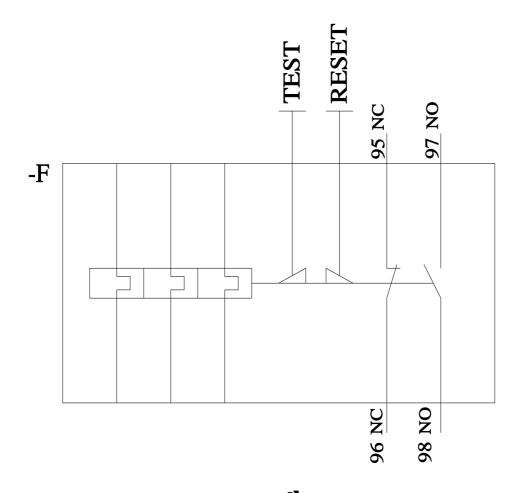
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RB2056-2FW2/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB2056-2FW2&objecttype=14&gridview=view1









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