## **SIEMENS**

## Data sheet

## 3RB3016-1SB0



OVERLOAD RELAY 3...12 A FOR MOTOR PROTECTION SIZE S00, CLASS 10 CONTACTOR ASS. MAIN CIRCUIT: SCREW CONN. AUX.CIRCUIT: SCREW CONN. MANUAL-AUTOM.-RESET

	-			
product brand name		SIRIUS		
Product designation		solid-state overload relay		
General technical data:				
Active power loss total typical	W	0.6		
Insulation voltage				
<ul> <li>with degree of pollution 3 Rated value</li> </ul>	V	690		
Shock resistance				
• acc. to IEC 60068-2-27		15g / 11 ms		
Vibration resistance		1-6 Hz, 15 mm; 6-500 Hz, 20 m/s²; 10 cycles		
Surge voltage resistance Rated value	kV	6		
Size of contactor can be combined company-specific		S00		
Type of assignment		2		
Protection class IP				
• on the front		IP20		
• of the terminal		IP20		
Type of protection		II (2) G [Ex e] [Ex d] [Ex px] II (2) D [Ex t] [Ex p]		
Equipment marking				
• acc. to DIN EN 61346-2		F		
• acc. to DIN EN 81346-2		F		
Main circuit:				
Number of poles for main current circuit		3		
Adjustable response value current of the current-	А	3 12		
dependent overload release				
Operating voltage				
<ul> <li>at AC-3 Rated value maximum</li> </ul>	V	690		

Operating frequency Rated value	Hz	50 60		
Operating current				
• at AC-3				
— at 400 V Rated value	А	12		
Auxiliary circuit:				
Number of NC contacts				
for auxiliary contacts		1		
— Note		for contactor disconnection		
Number of NO contacts				
<ul> <li>for auxiliary contacts</li> </ul>		1		
— Note		for message "tripped"		
Number of CO contacts				
<ul> <li>for auxiliary contacts</li> </ul>		0		
Design of the auxiliary switch		integrated		
Operating current of the auxiliary contacts at AC-15				
• at 24 V	A	4		
• at 110 V	A	4		
● at 120 V	A	4		
● at 125 V	А	4		
● at 230 V	А	3		
Operating current of the auxiliary contacts at DC-13				
● at 24 V	А	2		
● at 60 V	А	0.55		
● at 110 V	А	0.3		
• at 125 V	А	0.3		
• at 220 V	А	0.11		
Protective and monitoring functions:				
Trip class		CLASS 10		
Design of the overload circuit breaker		electronic		
UL/CSA ratings:				
Contact rating of the auxiliary contacts acc. to UL		B600 / R300		
Short-circuit: Design of the fuse link				
for short-circuit protection of the main circuit				
		Fuse gG: 50 A		
- required		fuse gG: 6 A		
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>				
Installation/ mounting/ dimensions:				
mounting position		any		
Mounting type		direct mounting		

Height	mm	79	
Width	mm	45	
Depth	mm	73	
Required spacing	_		
<ul> <li>with side-by-side mounting</li> </ul>			
— forwards	mm	0	
— Backwards	mm	0	
— upwards	mm	0	
— downwards	mm	0	
— at the side	mm	0	
<ul> <li>for grounded parts</li> </ul>			
— forwards	mm	0	
— Backwards	mm	0	
— upwards	mm	0	
— at the side	mm	6	
— downwards	mm	0	
• for live parts			
— forwards	mm	0	
— Backwards	mm	0	
— upwards	mm	0	
— downwards	mm	0	
— at the side	mm	6	
Connections/ Terminals:			
Type of electrical connection			
<ul> <li>for main current circuit</li> </ul>		screw-type terminals	
<ul> <li>for auxiliary and control current circuit</li> </ul>		screw-type terminals	
Arrangement of electrical connectors for main current circuit		Top and bottom	
Product function			
<ul> <li>removable terminal for auxiliary and control circuit</li> </ul>		Yes	
Type of connectable conductor cross-section			
• for main contacts			
— single or multi-stranded		1x (0,5 4 mm²), 2x (0,5 1,5 mm²), 2x (0,75 4	

- finely stranded with core end processing

- for AWG conductors for main contacts
- for auxiliary contacts
  - single or multi-stranded
  - finely stranded with core end processing

mm²)

mm²)

2.5 mm<sup>2</sup>)

1x (0.5 ... 2.5 mm<sup>2</sup>), 2x (0.5 ... 2.5 mm<sup>2</sup>)

1x (0,5 ... 4 mm²), 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5

1x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.5 ... 1.5 mm<sup>2</sup>), 1x (0.5 ...

1x (20 ... 12), 2x (20 ... 12)

• for AWG conductors for auxiliary contacts
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1x (20 ... 14), 2x (20 ... 14)

Safety related data:				
Protection against electrical shock		finger-safe		
Mechanical data:				
Size of overload relay		S00		
Communication/ Protocol:	_			
Protocol is supported	_			
IO-Link protocol		No		
Type of voltage supply via input/output link master		No		
	_			
Ambient conditions:		2.000		
Installation altitude at height above sea level maximum	m	2 000		
Ambient temperature				
• during operation	°C	-25 +60		
• during storage	°C	-40 +80		
during transport	°C	-40 +80		
Relative humidity during operation	%	95		
Electromagnetic compatibility:	_			
EMC emitted interference	_			
• acc. to IEC 60947-1		CISPR 11, environment B (residential area)		
EMI immunity acc. to IEC 60947-1		corresponds to degree of severity 3		
Conducted interference due to burst acc. to IEC	-	2 kV (power ports), 1 kV (signal ports) corresponds to		
61000-4-4		degree of severity 3		
Conducted interference due to conductor-earth surge	_	2 kV (line to earth) corresponds to degree of severity		
acc. to IEC 61000-4-5		3		
Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5		1 kV (line to line) corresponds to degree of severity 3		
Field-bound parasitic coupling acc. to IEC 61000-4-3		10 V/m		
Electrostatic discharge acc. to IEC 61000-4-2		6 kV contact discharge / 8 kV air discharge		
Display:				
Display. Display version				
• for switching status		Slide switch		
-				
Certificates/ approvals:				

General Product	t Approval			EMC	For use in hazardous locations
	(SA)	EHC		С-ТІСК	K ATEX
Declaration of Conformity	Test Certificate	S	Shipping Appro	oval	
EG-Konf.	Special Test Certificate	<u>Type Test</u> <u>Certificates/Test</u> <u>Report</u>	ABS	BUREAU VERITAS	GL
Shipping Approv	/al	other			
Lloyd's Register Lrs	RINA	Environmental Confirmations	Confirmation		

## Further information

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system) http://www.siemens.com/industrymall

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB30161SB0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RB30161SB0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RB30161SB0&lang=en



