## **SIEMENS**

Data sheet 3RB3016-1PE0



OVERLOAD RELAY 1...4 A FOR MOTOR
PROTECTION SIZE S00, CLASS 10 CONTACTOR
ASS. MAIN CIRCUIT: SPR.-LOAD.TERM.
AUX.CIRCUIT: SPR.-LOAD.TERM. MANUAL-AUTOM.RESET

product brand name	SIRIUS
Product designation	solid-state overload relay

General technical data:		
Active power loss total typical	W	0.1
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/s <sup>2</sup> ; 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-	Α	1 4
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	Α	4
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	Α	4
• at 110 V	Α	4
• at 120 V	Α	4
● at 125 V	Α	4
● at 230 V	Α	3
Operating current of the auxiliary contacts at DC-13		
● at 24 V	Α	2
● at 60 V	Α	0.55
● at 110 V	Α	0.3
● at 125 V	Α	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		
— required		Fuse gG: 20 A
• for short-circuit protection of the auxiliary switch		fuse gG: 6 A
required		
Installation/ mounting/ dimensions:		
mounting position		any
Mounting type		direct mounting

Height	mm	72
Width	mm	45
Depth	mm	90
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	6
— Backwards	mm	0
— upwards	mm	0
— at the side	mm	6
— downwards	mm	0
• for live parts		
— forwards	mm	6
— Backwards	mm	0
— upwards	mm	0
— downwards	mm	0
— at the side	mm	6

Connections/ Terminals:	
Type of electrical connection	
• for main current circuit	spring-loaded terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>	spring-loaded 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	
<ul> <li>single or multi-stranded</li> </ul>	1x (0,5 4 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	1x (0.5 2.5 mm²)
<ul> <li>finely stranded without core end processing</li> </ul>	1x (0.5 2.5 mm²)
<ul> <li>for AWG conductors for main contacts</li> </ul>	1x (20 12)
<ul> <li>for auxiliary contacts</li> </ul>	
<ul> <li>single or multi-stranded</li> </ul>	1x (0,5 1,5 mm²), 2x (0,5 1,5 mm²)
— finely stranded with core end processing	1x (0.25 1.5 mm²), 2x (0.25 1.5 mm²)

— finely stranded without core end		1x (0.25 1.5 mm²), 2x (0.25 1.5 mm²)
<ul><li>processing</li><li>for AWG conductors for auxiliary contacts</li></ul>		1x (24 16), 2x (24 16)
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:		
Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
<ul><li>during operation</li></ul>	°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 61000-4-4		2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3
Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5		2 kV (line to earth) corresponds to degree of severity 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 version		
• for switching status		Slide switch
Certificates/ approvals:		

## General Product Approval EMC

For use in hazardous locations













Declaration of	Test Certificates	Shipping Approval
Conformity		



Special Test Certificate Type Test
Certificates/Test
Report







GL

Shipping Approval	Shipping Approval
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other





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=3RB30161PE0

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

http://support.automation.siemens.com/WW/view/en/3RB30161PE0/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=3RB30161PE0&lang=en



