SIEMENS

Data sheet 3RB3016-1PB0



OVERLOAD RELAY 1...4 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	0.1
Insulation voltage		
 with degree of pollution 3 Rated value 	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 ² ; 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- dependent overload release	Α	1 4
Operating voltage		
 at AC-3 Rated value maximum 	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		
 for auxiliary contacts 		1
— Note		for message "tripped"
Number of CO contacts		
 for auxiliary contacts 		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	Α	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	79
Width	mm	45
Depth	mm	73
Required spacing		
with side-by-side mounting		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	0
— downwards	mm	0
— at the side	mm	0
for grounded parts		
— 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	
• for main current circuit	screw-type terminals
 for auxiliary and control current circuit 	screw-type terminals
Arrangement of electrical connectors for main current circuit	Top and bottom
Product function	
 removable terminal for auxiliary and control circuit 	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 mm²)
 finely stranded with core end processing 	1x (0.5 2.5 mm²), 2x (0.5 2.5 mm²)
 for AWG conductors for main contacts 	1x (20 12), 2x (20 12)
 for auxiliary contacts 	
— single or multi-stranded	1x (0,5 4 mm²), 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)
— finely stranded with core end processing	1x (0.5 1.5 mm²), 2x (0.5 1.5 mm²), 1x (0.5 2.5 mm²)

• for AWG conductors for auxiliary contacts		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:		
Installation altitude at height above sea level	m	2 000
maximum		
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 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	0
Conformity	

Test Certificates

Shipping Approval



EG-Konf.

Special Test Certificate Type Test
Certificates/Test
Report







GL

Shipping Approval

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

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RB30161PB0}\\$

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

http://support.automation.siemens.com/WW/view/en/3RB30161PB0/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=3RB30161PB0&lang=en



