

3RB3016-1PB0 OVERLOAD RELAY 1...4 A

Technical / CAx data

☒ Technical Data ☐ CAx data

As of 2012-01-30



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

General technical data:		
product brand name		SIRIUS
product designation		solid-state overload relay
Protection class IP / on the front		IP20
Insulation voltage / with degree of pollution 3 / rated value	V	690
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during storage	°C	-40...+80
• during transport	°C	-40...+80
• during operating	°C	-25...+60
Relative humidity		
• during operating phase	/ %	95
EMC immunity to interference		
• according to IEC 60947-1		corresponds to degree of severity 3
EMC emitted interference		
• according to IEC 60947-1		CISPR 11, environment B (residential area)
Conductor-bound parasitic coupling BURST		
• according to IEC 61000-4-4		2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3
Conductor-bound parasitic coupling conductor-earth SURGE		
• according to IEC 61000-4-5		2 kV (line to earth) corresponds to degree of severity 3
Conductor-bound parasitic coupling conductor-conductor SURGE		
• according to IEC 61000-4-5		1 kV (line to line) corresponds to degree of

Electrostatic discharge	severity 3	
• according to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge	
Field-bound parasitic coupling	10 V/m	
• according to IEC 61000-4-3	15g / 11 ms	
Resistance against shock	6	
Impulse voltage resistance / rated value	kV	6
Active power loss / total / typical	W	0.05
Item designation	F	
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750	F	
• according to DIN EN 61346-2	S00	
Size of overload relay	S00	
Size of the contactor / can be combined / company-specific	S00	
type of protection	PTB 09 ATEX 3001 Ex II (2) GD	
Type of assignment	2	
Trip class	CLASS 10	

Main circuit:

Number of poles / for main current circuit	3	
Operating voltage / at AC-3 / rated value	V	690
• maximum		
Operating current / at AC-3 / at 400 V	A	4
• rated value		
Adjustable response current	A	1...4
• of the current-dependent overload release		
Service power / for three-phase servomotors / at 400 V / at 50 Hz	kW	0.55...1.5
• for AC three-phase		
Operating current / of the fuse link	A	20
• rated value		

Auxiliary circuit:

Contact reliability / of the auxiliary contacts	acceptability for PLC control (17 V, 5 mA)	
Number of NC contacts / for auxiliary contacts	1	
Number of NO contacts / for auxiliary contacts	1	
Number of change-over switches / for auxiliary contacts	0	
Operating current / of the auxiliary contacts		
• at AC-15	A	4
• at 24 V		
• at 110 V		
• at 120 V		
• at 125 V		
• at 230 V		
• at DC-13	A	3
• at 24 V		
• at 60 V		
• at 110 V		
• at 125 V		
• at 220 V		

Short-circuit:

Design of the fuse link / for short-circuit protection of the auxiliary switch / required	fuse gL/gG: 6 A
--	-----------------

Installation/mounting/dimensions:

Built in orientation	any
Type of mounting	direct mounting

Width	mm	45
Height	mm	64.7
Depth	mm	72.5
Distance, to be maintained, to the ranks assembly		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	0
• downwards	mm	0
• sideways	mm	0
Distance, to be maintained, to earthed part		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	0
• downwards	mm	0
• sideways	mm	6
Distance, to be maintained, conductive elements		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	0
• downwards	mm	0
• sideways	mm	6

Connections:

Design of the electrical connection	
• for main current circuit	screw-type terminals
• for auxiliary and control current circuit	screw-type terminals
Product function / removable terminal for auxiliary and control circuit	Yes
Type of the connectable conductor cross-section	
• for main contacts	
• solid	1x (0.5 ... 4 mm²), 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 4 mm²)
• stranded	1x (0.5 ... 1.5 mm²), 2x (0.5 ... 1.5 mm²), 1x (0.75 ... 4 mm²), 2x (0.75 ... 4 mm²)
• finely stranded	
• with conductor 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	
• solid	1x (0.5 ... 4 mm²), 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
• finely stranded	
• with conductor 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)

Certificates/approvals:

Verification of suitability	UL / CSA
• ATEX	Yes
General Product Approval	
☒ CQC	☒ CSA
	ROSTEST
Shipping Approval	
☒ ABS (American Bureau of Shipping)	☒ GL (Germanischer Lloyd)
	☒ LRS (Lloyds Register of Shipping)

UL/CSA ratings:

Contact rating designation / for auxiliary contacts /
according to UL

B600 / R300

Reliability figures:

Protection against electrical shock

finger-safe

Further information:

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<http://www.siemens.com/industrial-controls/mall>

Cax online generator:

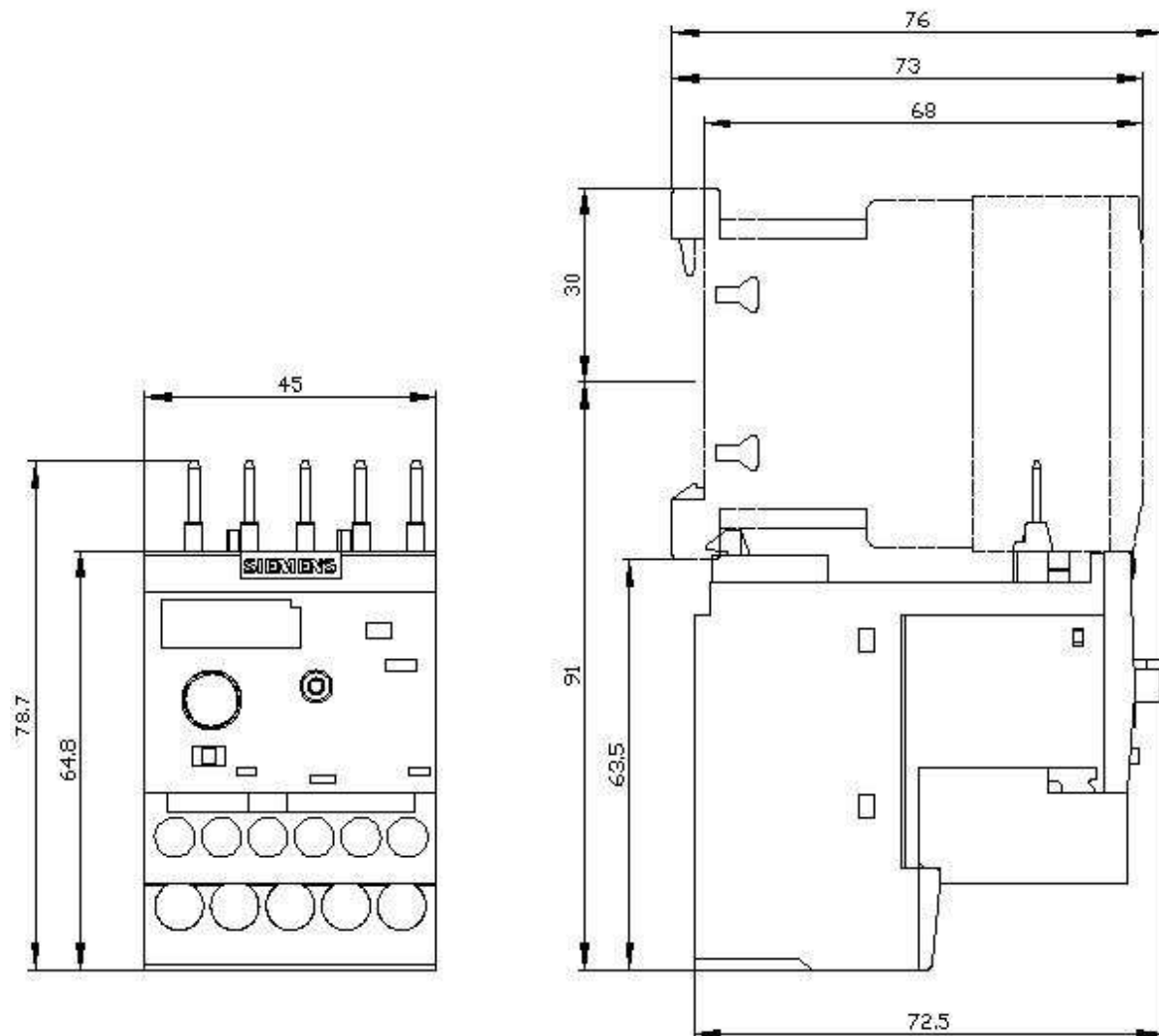
<http://www.siemens.com/cax>

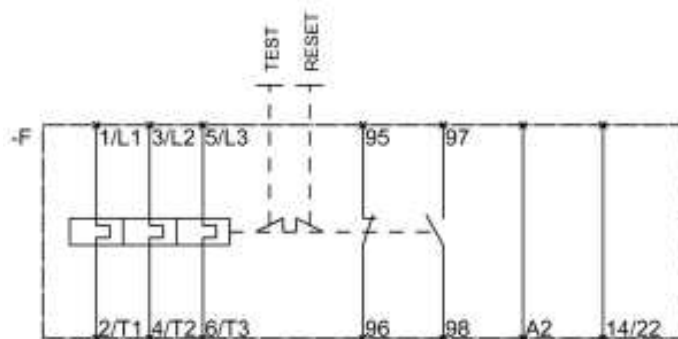
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RB3016-1PB0/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RB3016-1PB0





last change:

Jan 30, 2012