SIEMENS

Product data sheet 3RB3016-1SB0

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

General technical data:		
Product brand name		SIRIUS
Product designation		solid-state overload relay
Protection class IP / frontal/front side		IP20
Insulation voltage / with degree of pollution 3 / rated value	V	690
Altitude of installation site / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during storage	°C	-40 … 80
• during transport	°C	-40 … 80
• during the operating phase	°C	-25 … 60
Relative humidity		
• during the 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 severity 3
Electrostatic discharge		
• according to IEC 61000-4-2		6 kV contact discharge / 8 kV air discharge
Field-bound parasitic coupling		
• according to IEC 61000-4-3		10 V/m
Resistance against shock		15g / 11 ms
Impulse voltage resistance / rated value	kV	6
Real loss power / total / typical	W	0.05

Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		F
• according to DIN EN 61346-2		F
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 assignement		2
Trip class		CLASS 10

Main circuit:

Number of poles / for main current circuit		3
Operating voltage / at 3 AC / rated value		
• maximum	V	690
Operating current / at AC-3 / at 400 V		
• rated value	A	12
Adjustable response current		
• of the current-dependent overload release	A	3 … 12
Service power / for three-phase servomotors / at 400 V / at 50 Hz		
• for AC three-phase	kW	1.1 … 5.5
Operating current / of the fuse link		
• rated value	A	25

Auxiliary circuit:

Contact reliability / of the auxiliary contacts		acceptability for PLC control (17 V, 5 mA)
Number of NC contacts / for auxiliary contact		1
Number of NO contacts / for auxiliary contact		1
Number of change-over switches / for auxiliary contact		0
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	A	4
• at 230 V	A	3
• at DC-13		
• at 24 V	A	2
• at 60 V	A	1
• at 110 V	A	0.3
• at 125 V	A	0.3
• at 220 V	A	1

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 fixing/fixation		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
• sidewards	mm	0
distance, to be maintained, to earthed part		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	0
• downwards	mm	0
• sidewards	mm	6
distance, to be maintained, conductive elements		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	0
• downwards	mm	0
• sidewards	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		
• unifilar		1x (0.5 ... 4 mm2), 2x (0.5 ... 1.5 mm2), 2x (0.75 ... 4 mm2)
• stranded wire		1x (0.5 ... 1.5 mm2), 2x (0.5 ... 1.5 mm2), 1x (0.75 ... 4 mm2), 2x (0.75 ... 4 mm2)

• stranded wire	
• with conductor end processing	1x (0.5 ... 2.5 mm2), 2 x (0.5 ... 2.5 mm2)
• at AWG-conductors / for main contacts	1x (20 ... 12), 2x (20 ... 12)
• for auxiliary contact	
• solid	1x (0.5 ... 4 mm2), 2x (0.5 ... 1.5 mm2), 2x (0.75 ... 2.5 mm2)
• stranded wire	
• with wire 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

Safety:

Protection against electrical shock	finger-safe

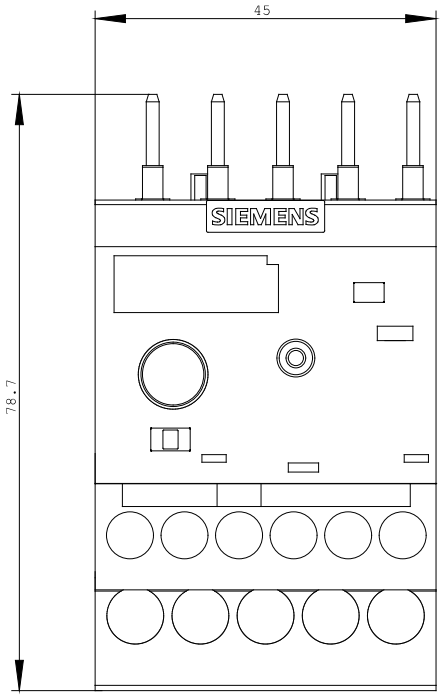
Further information:

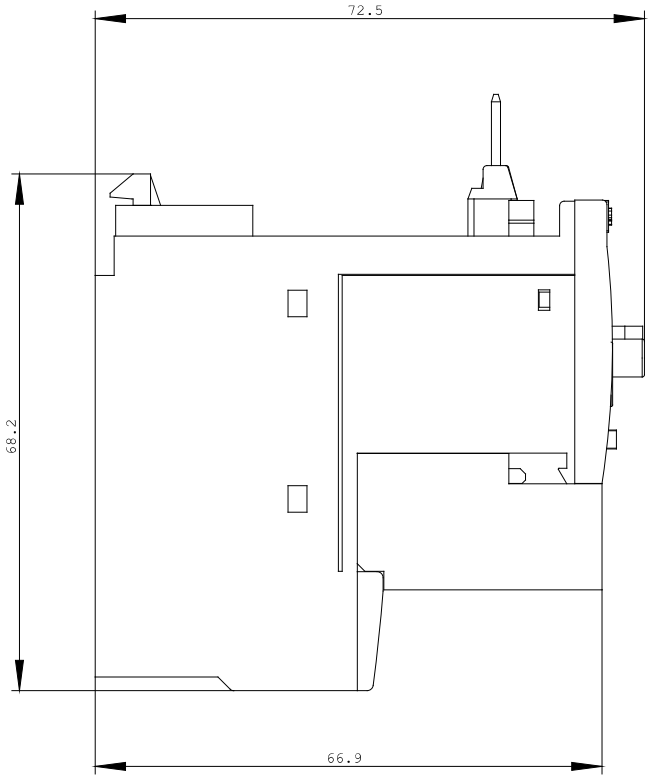
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

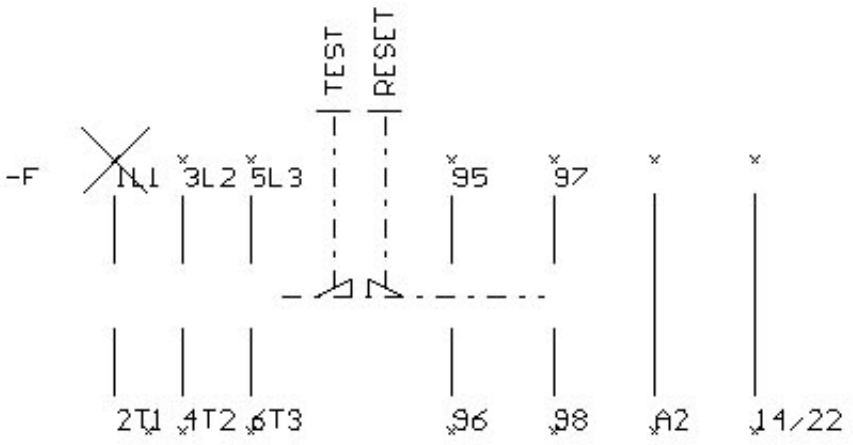
Global Industry Mall (Online ordering system)
http://www.siemens.com/industrial-controls/mall

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3RB3016-1SB0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RB3016-1SB0







last change: Apr 26, 2010