SIEMENS

Data sheet

3RT2017-2QB41



COUPLING RELAY, AC-3, 5.5KW/ 400V 1NO, DC 24V, 0.7...1.25*US, W. PLUGGED-ON VARISTOR, 3-POLE SZ S00, SPRING-LOADED TERMINAL

product brand name		SIRIUS
Product designation		Coupling relay
General technical data:		
Insulation voltage		
Rated value	V	690
Degree of pollution		3
Surge voltage resistance Rated value	kV	6
Mechanical service life (switching cycles)		
 of the contactor typical 		30 000 000
Thermal short-time current restricted to 10 s	А	90
Protection class IP		
• on the front		IP20
• of the terminal		IP20
Equipment marking		
• acc. to DIN EN 61346-2		Q
• acc. to DIN EN 81346-2		Q
Main circuit:		
Number of poles for main current circuit		3
Number of NC contacts for main contacts		0
Number of NO contacts for main contacts		3
Operating voltage		
 at AC-3 Rated value maximum 	V	690
Operating current		
● at AC-1		

— at 400 V at ambient temperature 40 °C Rated value	A	22
	А	22
— up to 690 V at ambient temperature 40 °C Rated value	A	22
— up to 690 V at ambient temperature 60 °C	A	20
Rated value		
 at AC-2 at 400 V Rated value 	А	12
● at AC-3		
— at 400 V Rated value	А	12
— at 500 V Rated value	А	9.2
— at 690 V Rated value	А	6.7
• at AC-4 at 400 V Rated value	А	8.5
Operating current with 1 current path		
• at DC-1		
— at 24 V Rated value	А	20
— at 110 V Rated value	А	2.1
— at 220 V Rated value	А	0.8
— at 440 V Rated value	А	0.6
— at 600 V Rated value	А	0.6
● at DC-3 at DC-5		
— at 24 V Rated value	А	20
— at 110 V Rated value	А	0.1
Operating current with 2 current paths in series	-	
● at DC-1		
— at 24 V Rated value	А	20
— at 110 V Rated value	А	12
— at 220 V Rated value	А	1.6
— at 440 V Rated value	А	0.8
— at 600 V Rated value	А	0.7
• at DC-3 at DC-5		
— at 110 V Rated value	А	0.35
— at 24 V Rated value	А	20
Operating current with 3 current paths in series	-	
• at DC-1		
— at 24 V Rated value	А	20
— at 110 V Rated value	А	20
— at 220 V Rated value	А	20
— at 440 V Rated value	А	1.3
— at 600 V Rated value	А	1
• at DC-3 at DC-5		
— at 110 V Rated value	А	20
— at 220 V Rated value	А	1.5

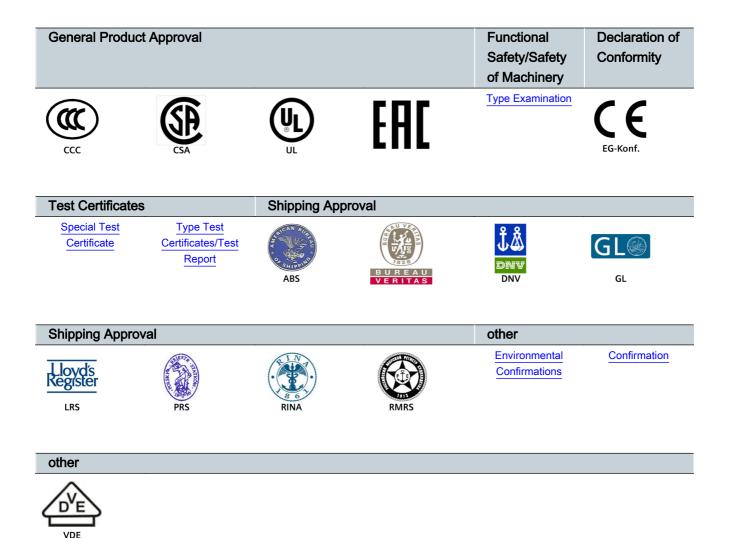
— at 24 V Rated value	А	20
— at 440 V Rated value	А	0.2
— at 600 V Rated value	А	0.2
Operating power		
• at AC-1 at 400 V Rated value	kW	13
• at AC-2 at 400 V Rated value	kW	5.5
• at AC-4 at 400 V Rated value	kW	4
Operating power	-	
• at AC-1		
— at 230 V at 60 °C Rated value	kW	7.5
— at 230 V Rated value	kW	7.5
— at 400 V at 60 °C Rated value	kW	13
— at 690 V at 60 °C Rated value	kW	22
— at 690 V Rated value	kW	22
• at AC-3		
— at 230 V Rated value	kW	3
— at 400 V Rated value	kW	5.5
— at 690 V Rated value	kW	5.5
Operating power for ≥ 200000 operating cycles at AC-4	_	
• at 400 V Rated value	kW	2
• at 690 V Rated value	kW	2.5
Operating frequency	-	
• at AC-3 maximum	1/h	750
Control circuit/ Control:		
Type of voltage of the control supply voltage		DC
Control supply voltage for DC		
Rated value	V	24
Operating range factor control supply voltage rated value of the magnet coil for DC		0.7 1.25
Design of the surge suppressor		with varistor
Closing power of the magnet coil for DC	W	2.8
Holding power of the magnet coil for DC	W	2.8
Auxiliary circuit:		
Number of NC contacts		
 for auxiliary contacts 		
— instantaneous contact		0
Number of NO contacts		
 for auxiliary contacts 		
— instantaneous contact		1
Product expansion Auxiliary switch		No

Operating current at AC-15		
• at 230 V Rated value	А	10
• at 400 V Rated value	А	3
• at 690 V Rated value	А	1
Operating current		
• at DC-12 at 125 V Rated value	А	2
• at DC-12 at 220 V Rated value	А	1
• at DC-12 at 600 V Rated value	А	0.15
 at DC-13 at 125 V Rated value 	А	0.9
 at DC-13 at 220 V Rated value 	А	0.3
• at DC-13 at 600 V Rated value	А	0.1
Operating current	-	
• at DC-12		
— at 60 V Rated value	A	6
— at 110 V Rated value	А	3
• at DC-13		
— at 24 V Rated value	А	10
— at 60 V Rated value	А	2
— at 110 V Rated value	A	1
Contact reliability of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
• at 480 V Rated value	А	11
● at 600 V Rated value	А	11
yielded mechanical performance [hp]	-	
 for single-phase AC motor at 110/120 V Rated value 	metric hp	0.5
 for single-phase AC motor at 230 V Rated value 	metric hp	2
 for three-phase AC motor at 200/208 V Rated value 	metric hp	3
 for three-phase AC motor at 220/230 V Rated value 	metric hp	3
 for three-phase AC motor at 460/480 V Rated value 	metric hp	7.5
 for three-phase AC motor at 575/600 V Rated value 	metric hp	10
Contact rating of the auxiliary contacts acc. to UL		A600 / Q600
Short-circuit: Design of the fuse link		

• for short-circuit protection of the main circuit

- with type of assignment 1 required - with type of assignment 2 required - with type of assignment 2 required - for short-circuit protection of the auxiliary switch required			
• for short-circuit protection of the auxiliary switch required 20 Å fuse gL/gG: 10 A fuse gL/gG: 10 A Installation/mounting/dimensions: +/180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.6° on vertical mounting surface Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 • Side-by-side mounting Yes Height mm Width mm 0 7 Packwards mm - forwards mm - forwards mm - downwards mm - downwards mm - for grounded parts mm - forwards mm - at the side mm - odownwards mm - at the side mm - forwards mm - at the side mm - odownwards mm - at the side mm - odownwards mm - at the side mm - downwards mm - downwards mm - odownwards mm	— with type of assignment 1 required		
required +/-180" rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5" on vertical mounting surface sorew and snap-on mounting out 35 mm standard mounting rail according to DIN EM 50022 Mounting type sorew and snap-on mounting out 35 mm standard mounting rail according to DIN EM 50022 • Side-by-side mounting Yes Height mm 69.5 Width mm 121 Required spacing	— with type of assignment 2 required		
required +/-180" rotation possible on vertical mounting munifing posible mounting position +/-180" rotation possible on vertical mounting surface; can be tilted forward and backward by +/. Mounting type screw and snap-on mounting outface • Side-by-side mounting Yes Height mm 69.5 Width mm 45 Depth mm 121 Required spacing • with side-by-side mounting • with side-by-side mounting mm 0 - Backwards mm 0 - upwards mm 0 - downwards mm 0 - at the side mm 0 - at the side mm 0 - downwards mm 0 - at the side mm 0 - at the side mm 0 - downwards mm 0 - at the side mm 0 - at the side mm 0 - downwards mm 0 - at the side mm 0 - downwards mm 0 </td <td>• for short circuit protection of the quivilian quitch</td> <td></td> <td></td>	• for short circuit protection of the quivilian quitch		
Installation/ mounting / dimensions: +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface Mounting type screw and snap-on mounting onto 35 nm standard mounting rail according to DIN EN 50022 • Side-by-side mounting mm 45 Depth mm 121 Required spacing mm 0 - Backwards mm 0 - upwards mm 0 - downwards mm 0 - brackwards mm 0 - upwards mm 0 - downwards mm 0 - downwards mm 0 - upwards mm 0 - at the side mm 0 - downwards mm 0 - at the side mm 0 - brackwards mm 0 - at the side mm 0 - downwards mm 0 - at the side mm 0 - downwards mm 0 </td <td></td> <td></td> <td></td>			
mounting position +/-180° rotation possible on vertical mounting surface; can be titled forward and backward by +/- 22.5° in vertical mounting surface Mounting type screw and snap-on mounting out 35 mm standard mounting rail according to DIN EN 50022 • Side-by-side mounting mm Height mm Width mm 90.5 Width mm - forwards mm - forwards mm - upwards mm - at the side mm - forwards mm - at the side mm - downwards mm - at the side mm - at the	required		
Mounting type surface; can be tilted forward and backward by +/. 22.5" on vertical mounting unique screw and snap-on mounting on 0.5 mm standard mounting rail according to DIN EN 50022 • Side-by-side mounting Yes Height mm Width mm Depth mm • with side-by-side mounting - • with side-by-side mounting - - forwards mm - forwards mm - upwards mm - downwards mm - at the side mm - of rowards mm - at the side mm - at the side mm - ownwards mm - at the side mm - at the side mm - downwards mm - at the side mm - at th	Installation/ mounting/ dimensions:		
Mounting type 22.5° on vertical mounting surface • Side-by-side mounting screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 • Height mm 69.5 Width mm 45 Depth mm 121 Required spacing mm 0 - forwards mm 0 - gackwards mm 0 - upwards mm 0 - downwards mm 0 - downwards mm 0 - forwards mm 0 - at the side mm 0 - forwards mm 0 - forwards mm 0 - at the side mm 0 - at the side mm 0 - at the side mm 0 - forwards mm 0 - at the side mm 0 - downwards mm 0 - at the side mm 6 - downwards mm 0 - a	mounting position		+/-180° rotation possible on vertical mounting
Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 • Side-by-side mounting Yes Height mm 69.5 Width mm 121 Required spacing mm 0 • ownwards mm 0 — at the side mm 0 — at the side mm 0 — ownwards mm 0 — ownwards mm 0 — at the side mm 0 — forwards mm 0 — downwards mm 0 — at the side mm 0 — forwards mm 0 — at the side mm 0 — downwards mm 0 — at the side mm 0 — ackwards mm <td></td> <td></td> <td>surface; can be tilted forward and backward by +/-</td>			surface; can be tilted forward and backward by +/-
 Side-by-side mounting Side-by-side mounting Height mm 69.5 Width mm 45 Depth mm 121 Required spacing with side-by-side mounting forwards mm Backwards mm for wards at the side mm of orwards mm at the side mm forwards mm at the side mm mm mm at the side for main current circuit for auxiliary and control current circuit for auxiliary and control current circuit for main contacts 			22.5° on vertical mounting surface
Side-by-side mountingYesHeightmm69.5Widthmm45Depthmm121Required spacing forwardsmm0- forwardsmm0- gackwardsmm0- downwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- at the sidemm0- backwardsmm0- forwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- at the sidemm0- at the sidemm6- at the sidemm6- at the sidemm6- to auxiliary and control current circuitspring-loaded terminals- for main current circuitspring-loaded terminals- for main contactsif or auxiliary and control current circuit- for main contactsif or auxiliary and control current circuit- for main contactsif or auxiliary and control current circuit <td>Mounting type</td> <td></td> <td>screw and snap-on mounting onto 35 mm standard</td>	Mounting type		screw and snap-on mounting onto 35 mm standard
Heightmm69.5Widthmm45Depthmm121Required spacingmm0- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- backwardsmm0- at the sidemm0- at the sidemm0- at the sidemm6- downwardsmm0- at the sidemm6- downwardsmm0- at the sidemm6- downwardsmm0- at the sidemm0- at the sidemm0- at the sidemm0- at the sidemm0- backwardsmm0- upwardsmm0- upwardsmm0- at the sidemm0- at the sidemm6Type of electrical connection- for main current circuitspring-loaded terminals- for auxiliary and control current circuitspring-loaded terminals- for main contacts			mounting rail according to DIN EN 50022
Width mm 45 Depth mm 121 Required spacing mm 121 Required spacing mm 0 - forwards mm 0 - Backwards mm 0 - upwards mm 0 - downwards mm 0 - downwards mm 0 - downwards mm 0 - downwards mm 0 - forwards mm 0 - forwards mm 0 - at the side mm 0 - upwards mm 0 - at the side mm 0 - downwards mm 0 - at the side mm 0 - forwards mm 0 - downwards mm 0 - at the side mm 0 - downwards mm <	 Side-by-side mounting 		Yes
Depthmm121Required spacingmm0- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- downwardsmm0- at the sidemm0- for grounded parts forwardsmm0- at the sidemm0- backwardsmm0- forwardsmm0- at the sidemm0- backwardsmm0- at the sidemm0- downwardsmm0- downwardsmm0- forwardsmm0- forwardsmm0- downwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- upwardsmm0- at the sidemm6Connections/ Terminals:Type of electrical connection- for main current circuitspring-loaded terminals- for main current circuitspring-loaded terminals- for main contactsinformal series	Height	mm	69.5
Required spacing mm mm mm - forwards mm 0 - Backwards mm 0 - upwards mm 0 - downwards mm 0 - downwards mm 0 - at the side mm 0 - at the side mm 0 - for grounded parts mm 0 - forwards mm 0 - backwards mm 0 - backwards mm 0 - downwards mm 0 - downwards mm 0 - downwards mm 0 - downwards mm 0 - forwards mm 0 - forwards mm 0 - downwards mm 0 - upwards mm 0 - upwards mm 0 - upwards mm 0 - upwards mm 0 - downwards mm 6 Connections/ Terminals: spring-lo	Width	mm	45
• with side-by-side mountingmm0- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- at the sidemm0• for grounded parts forwardsmm0- at the sidemm0- browardsmm0- browardsmm0- upwardsmm0- upwardsmm0- at the sidemm6- downwardsmm0- forwardsmm0- forwardsmm0- at the sidemm0- at the sidemm0- downwardsmm0- forwardsmm0- at the sidemm0- at the sidemm0- upwardsmm0- at the sidemm6Connections/ Terminalsspring-loaded terminals- at the sidemm6Type of electrical connectionspring-loaded terminals- for main current circuitspring-loaded terminals- for main current circuitspring-loaded terminals- for main contectsinterminals	Depth	mm	121
- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- at the sidemm0- for grounded parts forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm6- downwardsmm0- at the sidemm6- downwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- upwardsmm0- at the sidemm6Connections/ Terminalsspring-loaded terminals- for main current circuitspring-loaded terminals- for main current circuitspring-loaded terminals- for main control current circuitspring-loaded terminals	Required spacing	_	
- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- for grounded partsmm0- forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm0- downwardsmm0- downwardsmm0- downwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- upwardsmm0- upwardsmm0- at the sidemm0- for main current circuitspring-loaded terminals+ for main current circuitspring-loaded terminals+ for main control current circuitspring-loaded terminals+ for main contactsidid	 with side-by-side mounting 		
Litteringmm0- upwardsmm0- downwardsmm0- at the sidemm0• for grounded partsmm0- forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm6- downwardsmm0- for live parts forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- at the sidemm0- at the sidemm0- upwardsmm0- upwardsmm0- at the sidemm6Connections/ Terminals:spring-loaded terminalsfor main current circuitspring-loaded terminalsfor main current circuitspring-loaded terminals• for main contactsidid	— forwards	mm	0
- downwardsmm0- at the sidemm0• for grounded partsmm0- forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm6- downwardsmm0- at the sidemm0- for live partsmm- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- at the sidemm0- upwardsmm0- upwardsmm0- at the sidemm6- otomwardsmm6- at the sidemm6- at the sidespring-loaded terminals- for main current circuitspring-loaded terminals- for main current circuitspring-loaded terminals- for main contactsii	— Backwards	mm	0
at the sidemm0• for grounded partsmm0 forwardsmm0 Backwardsmm0 upwardsmm0 at the sidemm6 downwardsmm0 for live parts forwardsmm0 Backwardsmm0 forwardsmm0 forwardsmm0 Backwardsmm0 upwardsmm0 upwardsmm0 at the sidemm6Connections/ Terminals:spring-loaded terminalsfor main current circuitspring-loaded terminalsfor auxiliary and control current circuitspring-loaded terminalsfor main contactsii	— upwards	mm	0
• for grounded partsmm0- forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm6- downwardsmm0• for live parts forwardsmm0- Backwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- upwardsmm0- at the sidemm6Connections/ Terminals• for main current circuitspring-loaded terminals• for auxiliary and control current circuitspring-loaded terminals• for main contactsis pring-loaded terminals	— downwards	mm	0
- forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm6- downwardsmm0- for live parts forwardsmm0- Backwardsmm0- Backwardsmm0- Backwardsmm0- Journardsmm0- at the sidemm0- at the sidemm6Connections/ Terminals:spring-loaded terminals- for auxiliary and control current circuitspring-loaded terminals- for auxiliary and control current circuitspring-loaded terminals- for main contactsII	— at the side	mm	0
- Backwardsmm0- upwardsmm0- at the sidemm6- downwardsmm0- downwardsmm0• for live parts forwardsmm0- Backwardsmm0- upwardsmm0- upwardsmm0- at the sidemm0- at the sidemm6Connections/ Terminals• for main current circuitspring-loaded terminals• for auxiliary and control current circuitspring-loaded terminals• for main contactsII	• for grounded parts		
- upwardsmm0- at the sidemm6- downwardsmm0- downwardsmm0• for live parts forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- upwardsmm0- at the sidemm6Connections/ Terminals• for main current circuitspring-loaded terminals• for auxiliary and control current circuitspring-loaded terminals• for main contactsii	— forwards	mm	0
at the sidemm6 downwardsmm0• for live partsmm0 forwardsmm0 Backwardsmm0 upwardsmm0 downwardsmm0 at the sidemm6Connections/ Terminals:Type of electrical connectionspring-loaded terminals• for main current circuitspring-loaded terminals• for auxiliary and control current circuitspring-loaded terminals• for main contactsI	— Backwards	mm	0
- downwardsmm0- for live parts forwardsmm- forwardsmm- Backwardsmm- upwardsmm- downwardsmm- at the sidemm6Connections/ Terminals:Type of electrical connectionspring-loaded terminals• for auxiliary and control current circuitspring-loaded terminalsType of connectable conductor cross-sectionspring-loaded terminals	— upwards	mm	0
	— at the side	mm	6
forwardsmm0 Backwardsmm0 upwardsmm0 downwardsmm0 at the sidemm6Connections/ Terminals:Type of electrical connection- for main current circuitspring-loaded terminals- for auxiliary and control current circuitspring-loaded terminalsType of connectable conductor cross-sectionid- for main contactsid	— downwards	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 spring-loaded terminals • for auxiliary and control current circuit spring-loaded terminals • for main contacts i	• for live parts		
upwardsmm0 downwardsmm0 at the sidemm6Connections/ Terminals:Type of electrical connection• for main current circuitspring-loaded terminals• for auxiliary and control current circuitspring-loaded terminals• for main contactsloaded terminals	— forwards	mm	0
	— Backwards	mm	0
at the side mm 6 Connections/ Terminals:	— upwards	mm	0
Connections/ Terminals: Type of electrical connection • for main current circuit • for auxiliary and control current circuit Type of connectable conductor cross-section • for main contacts	— downwards	mm	0
Type of electrical connection spring-loaded terminals • for main current circuit spring-loaded terminals • for auxiliary and control current circuit spring-loaded terminals Type of connectable conductor cross-section • • for main contacts •	— at the side	mm	6
Type of electrical connection spring-loaded terminals • for main current circuit spring-loaded terminals • for auxiliary and control current circuit spring-loaded terminals Type of connectable conductor cross-section e for main contacts			
 for main current circuit for auxiliary and control current circuit spring-loaded terminals spring-loaded terminals 			
 for auxiliary and control current circuit spring-loaded terminals Type of connectable conductor cross-section for main contacts 			spring-loaded terminals
Type of connectable conductor cross-section • for main contacts			
for main contacts			
			$2x (0.5 - 4 \text{ mm}^2)$

 finely stranded with core end processing 		2x (0.5 2.5 mm²)
— finely stranded without core end		2x (0.5 2.5 mm²)
processing		
 for AWG conductors for main contacts 		2x (20 12)
 for auxiliary contacts 		
— single or multi-stranded		2x (0,5 4 mm²)
— finely stranded with core end processing		2x (0.5 2.5 mm²)
— finely stranded without core end		2x (0.5 2.5 mm²)
processing		
 for AWG conductors for auxiliary contacts 		2x (20 12)
Safety related data:		
B10 value with high demand rate acc. to SN 31920	_	1 000 000
Proportion of dangerous failures	-	
• with low demand rate acc. to SN 31920	%	40
 with high demand rate acc. to SN 31920 	%	73
Failure rate [FIT] with low demand rate acc. to SN	FIT	100
31920		
Product function Mirror contact acc. to IEC 60947-4-1		No
T1 value for proof test interval or service life acc. to	у	20
IEC 61508		
Protection against electrical shock		finger-safe
Mechanical data:		
Size of contactor		S00
Ambient conditions:		
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature		
during operation	°C	-25 +60
• during storage	°C	-55 +80
Certificates/ approvals:		



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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=3RT20172QB41

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