# **SIEMENS**

Data sheet 3RT2517-1AB00



2NO+2NC CONTACTOR, AC3: 5.5KW AC 24V 50HZ 4-POLE, 2NO+2NC, SZ: S00, SCREW TERMINAL

product brand name		SIRIUS
Product designation		3RT2 contactor
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)		
<ul> <li>of the contactor typical</li> </ul>		30 000 000
<ul> <li>of the contactor with added electronics- compatible auxiliary switch block typical</li> </ul>		5 000 000
<ul> <li>of the contactor with added auxiliary switch</li> </ul>		10 000 000

Main circuit:	
Number of poles for main current circuit	4
Number of NC contacts for main contacts	2
Number of NO contacts for main contacts	2
Operating current	
• at AC-1	

block typical

Protection class IP

• on the front

Equipment marking

• acc. to DIN EN 61346-2

• acc. to DIN EN 81346-2

IP20

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<ul> <li>up to 690 V at ambient temperature 40 °C</li> <li>Rated value</li> </ul>	Α	22
<ul> <li>up to 690 V at ambient temperature 60 °C</li> <li>Rated value</li> </ul>	Α	20
● at AC-2 at AC-3 at 400 V		
— per NO contact Rated value	Α	12
— per NC contact Rated value	Α	9
Operating current with 1 current path		
• at DC-1		
— at 24 V Rated value	Α	20
— at 110 V Rated value	Α	2.1
— at 220 V Rated value	Α	0.8
— at 440 V Rated value	Α	0.6
• at DC-3 at DC-5		
— at 24 V per NC contact Rated value	Α	20
— at 24 V per NO contact Rated value	Α	20
— at 110 V per NC contact Rated value	Α	0.075
— at 110 V per NO contact Rated value	Α	0.15
— at 220 V per NC contact Rated value	Α	0.375
— at 220 V per NO contact Rated value	Α	0.75
Operating current with 2 current paths in series		
• at DC-1		
— at 24 V Rated value	Α	20
— at 110 V Rated value	Α	12
— at 220 V Rated value	Α	1.6
— at 440 V Rated value	Α	0.8
• at DC-3 at DC-5		
— at 110 V per NC contact Rated value	Α	0.175
— at 110 V per NO contact Rated value	Α	0.35
— at 24 V per NC contact Rated value	Α	20
— at 24 V per NO contact Rated value	Α	20
Operating power		
• at AC-1 at 400 V Rated value	kW	13
Operating power		
• at AC-1		
— at 230 V Rated value	kW	7.5
• at AC-2 at AC-3		
— at 230 V per NC contact Rated value	kW	2.2
— at 230 V per NO contact Rated value	kW	3
— at 400 V per NC contact Rated value	kW	4
— at 400 V per NO contact Rated value	kW	5.5

Control circuit/ Control:		
Type of voltage of the control supply voltage		AC
Control supply voltage with AC		
● at 50 Hz Rated value	V	24
● at 60 Hz Rated value	V	24
Operating range factor control supply voltage rated		
value of the magnet coil with AC		
● at 50 Hz		0.8 1.1
• at 60 Hz		0.85 1.1
Apparent pick-up power of the magnet coil with AC	V·A	37
Apparent holding power of the magnet coil with AC	V·A	5.7
Inductive power factor		
<ul> <li>with closing power of the coil</li> </ul>		0.8
<ul><li>with the holding power of the coil</li></ul>		0.25
Auxiliary circuit:		
Number of NC contacts		
<ul> <li>for auxiliary contacts</li> </ul>		
<ul> <li>instantaneous contact</li> </ul>		0
Number of NO contacts		
<ul> <li>for auxiliary contacts</li> </ul>		
— instantaneous contact		0
Product expansion Auxiliary switch		Yes
Operating current at AC-15		
• at 230 V Rated value	Α	10
• at 400 V Rated value	Α	3
Operating current		
• at DC-12 at 125 V Rated value	Α	2
• at DC-12 at 220 V Rated value	Α	1
• at DC-12 at 600 V Rated value	Α	0.15
• at DC-13 at 220 V Rated value	Α	0.3
• at DC-13 at 600 V Rated value	Α	0.1
Operating current		
• at DC-12		
— at 60 V Rated value	Α	6
— at 110 V Rated value	Α	3
● at DC-13		
— at 24 V Rated value	Α	10
— at 60 V Rated value	Α	2
— at 110 V Rated value	Α	1
Contact reliability of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings:		

yielded mechanical performance [hp]		
<ul> <li>for single-phase AC motor at 110/120 V Rated value</li> </ul>	metric hp	0.5
<ul> <li>for single-phase AC motor at 230 V Rated value</li> </ul>	metric hp	2
Contact rating of the auxiliary contacts acc. to UL		A600 / Q600

Short-circuit:	
Design of the fuse link	
<ul> <li>for short-circuit protection of the main circuit</li> </ul>	
— with type of assignment 1 required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A
— with type of assignment 2 required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	fuse gL/gG: 10 A

nstallation/ mounting/ dimensions:		
mounting position		+/-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 mm standard mounting rail according to DIN EN 50022
<ul> <li>Side-by-side mounting</li> </ul>		Yes
Height	mm	57.5
Width	mm	45
Depth	mm	73
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
• 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
<ul> <li>for auxiliary and control current circuit</li> </ul>		screw-type terminals
Type of connectable conductor cross-section		
• for main contacts		
— solid		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
<ul><li>— single or multi-stranded</li></ul>		2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
<ul> <li>finely stranded with core end processing</li> </ul>		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>for AWG conductors for main contacts</li> </ul>		2x (20 16), 2x (18 14), 2x 12
• for auxiliary contacts		
— solid		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
<ul> <li>single or multi-stranded</li> </ul>		2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
<ul> <li>finely stranded with core end processing</li> </ul>		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>for AWG conductors for auxiliary contacts</li> </ul>		2x (20 16), 2x (18 14), 2x 12
Apparent pick-up power of the magnet coil with AC		
● at 50 Hz	V·A	37

Safety related data:		
B10 value with high demand rate acc. to SN 31920		1 000 000
Proportion of dangerous failures		
<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	%	40
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	%	73
Failure rate [FIT] with low demand rate acc. to SN	FIT	100
31920		
Product function Mirror contact acc. to IEC 60947-4-1		Yes
• Note		with 3RH29
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

Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature		
<ul><li>during operation</li></ul>	°C	-25 +60
during storage	°C	-55 <b>+</b> 80

## Certificates/ approvals:

#### **General Product Approval**

Functional Safety/Safety of Machinery Declaration of Conformity









Type Examination



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#### **Shipping Approval**

#### Certificates

Special Test Certificate













LRS

### **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

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT25171AB00}$ 

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

http://support.automation.siemens.com/WW/view/en/3RT25171AB00/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=3RT25171AB00&lang=en



