SIEMENS

Data sheet

3RT2025-2XF40-0LA2



CONT. F. RAILW. A., AC-3, 7.5KW/400V, 1NO+1NC, . DC 110V, 0,7...1,25*US, M. VARISTOR INTEGRATED, 3-POLE SIZE S0, SPRING-TYPE TERM.

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)			
 of the contactor typical 		10 000 000	
 of the contactor with added electronics- compatible auxiliary switch block typical 		5 000 000	
 of the contactor with added auxiliary switch block typical 		10 000 000	
Thermal short-time current restricted to 10 s	А	150	
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	А	40
Rated value		
— up to 690 V at ambient temperature 40 °C	A	40
Rated value	^	35
— up to 690 V at ambient temperature 60 °C Rated value	A	55
• at AC-2 at 400 V Rated value	A	17
• at AC-3		
— at 400 V Rated value	А	17
— at 500 V Rated value	А	17
— at 690 V Rated value	А	13
• at AC-4 at 400 V Rated value	А	15.5
Operating current with 1 current path	-	
• at DC-1		
— at 24 V Rated value	А	35
— at 110 V Rated value	А	4.5
— at 220 V Rated value	А	1
— at 440 V Rated value	А	0.4
— at 600 V Rated value	А	0.25
• at DC-3 at DC-5		
— at 24 V Rated value	А	20
— at 110 V Rated value	А	2.5
— at 220 V Rated value	А	1
— at 440 V Rated value	А	0.09
— at 600 V Rated value	А	0.06
Operating current with 2 current paths in series	_	
• at DC-1		
— at 24 V Rated value	А	35
— at 110 V Rated value	А	35
— at 220 V Rated value	А	5
— at 440 V Rated value	А	1
— at 600 V Rated value	А	0.8
• at DC-3 at DC-5		
— at 110 V Rated value	А	15
— at 220 V Rated value	А	3
— at 24 V Rated value	А	35
— at 440 V Rated value	А	0.27
— at 600 V Rated value	А	0.16

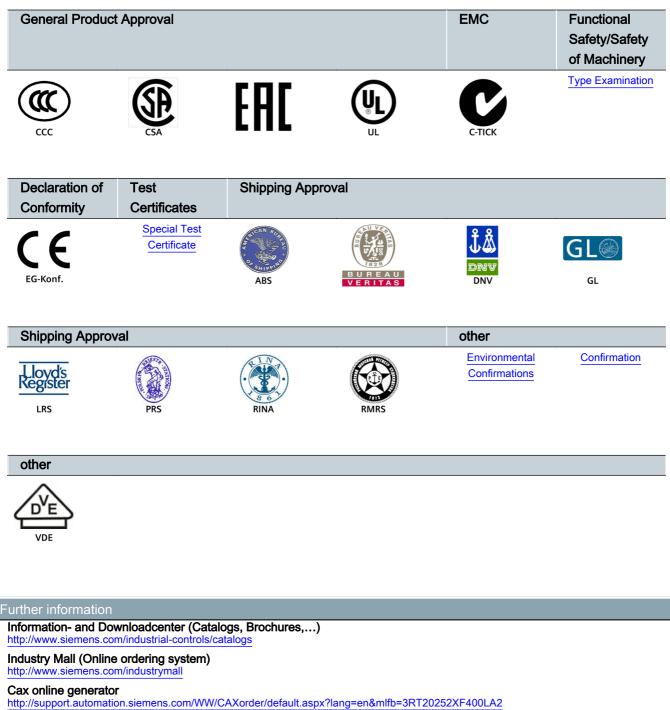
• at DC-1		
— at 24 V Rated value	А	35
— at 110 V Rated value	А	35
— at 220 V Rated value	А	35
— at 440 V Rated value	А	2.9
— at 600 V Rated value	А	1.4
• at DC-3 at DC-5		
— at 110 V Rated value	А	35
— at 220 V Rated value	А	10
— at 24 V Rated value	А	35
— at 440 V Rated value	А	0.6
— at 600 V Rated value	А	0.6
Operating power	_	
• at AC-1 at 400 V Rated value	kW	23
• at AC-2 at 400 V Rated value	kW	7.5
• at AC-4 at 400 V Rated value	kW	7.5
Operating power		
● at AC-1		
— at 230 V at 60 °C Rated value	kW	13.3
— at 230 V Rated value	kW	13.3
— at 400 V at 60 °C Rated value	kW	23
— at 690 V at 60 °C Rated value	kW	40
— at 690 V Rated value	kW	40
• at AC-3		
— at 230 V Rated value	kW	4
— at 400 V Rated value	kW	7.5
— at 690 V Rated value	kW	11
Operating power for \geq 200000 operating cycles at	_	
AC-4		
• at 400 V Rated value	kW	3.5
at 690 V Rated value	kW	6
Operating frequency		4.000
• at AC-3 maximum	1/h	1 000
Control circuit/ Control:		
Type of voltage of the control supply voltage		DC
Control supply voltage for DC		
Rated value	V	110
Operating range factor control supply voltage rated		0.7 1.25
value of the magnet coil for DC		with verifier
Design of the surge suppressor	W	with varistor
Closing power of the magnet coil for DC Holding power of the magnet coil for DC	W	13.2 1.56
I MARINE POWER OF THE HIAGHER CONTINUE DO	vv	1.00

Auxiliary circuit: Number of NC contacts	_	
for auxiliary contacts		
— instantaneous contact		1
Number of NO contacts		
for auxiliary contacts		
— instantaneous contact		1
Product expansion Auxiliary switch		Yes
Operating current at AC-15		165
at 230 V Rated value	А	10
at 200 V Rated value	A	3
at 690 V Rated value	A	1
Operating current		
at DC-12 at 125 V Rated value	А	2
at DC-12 at 220 V Rated value	A	-
at DC-12 at 200 V Rated value at DC-12 at 600 V Rated value	A	0.15
	A	0.9
at DC-13 at 125 V Rated value	A	0.3
• at DC-13 at 220 V Rated value	A	0.3
at DC-13 at 600 V Rated value	A	0.1
Operating current		
• at DC-12	•	
— at 60 V Rated value	A	6
— at 110 V Rated value	A	3
• at DC-13		
— at 24 V Rated value	A	10
— at 60 V Rated value	A	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	14
• at 600 V Rated value	А	17
yielded mechanical performance [hp]		
 for single-phase AC motor at 110/120 V Rated value 	metric hp	1
 for single-phase AC motor at 230 V Rated value 	metric hp	3
 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	5

value hp metric hp • for three-phase AC motor at 575/600 V Rated metric 15 • for three-phase AC motor at 575/600 V Rated hp A600 / Q600 Short-circuit • A600 / Q600 Short-circuit Design of the fuse link • for short-circuit protection of the main circuit • gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A • with type of assignment 1 required • for short-circuit protection of the auxiliary switch required gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 A • for short-circuit protection of the auxiliary switch required sufface; can be tilted forward and backward by +/- 22.5° no vertical mounting surface; can be tilted forward and backward by +/- 22.5° no vertical mounting surface; can be tilted forward and backward by +/- 22.5° no vertical mounting surface; can be tilted forward and backward by +/- 22.5° no vertical mounting surface; can be tilted forward and backward by +/- 22.5° no vertical mounting surface; can be tilted forward and backward by +/- 22.5° no vertical mounting surface; can be tilted forward and backward by +/- 22.5° no vertical mounting for bion Nounting type screw and snap-on mounting on 03 5m standard mounting relia according to DIN EN 50022 • Side-by-side mounting mm 102 With the approximation of the auxiliary motor and the side mounting mm 0 • with side-by-side mounting mm 0	 for three-phase AC motor at 460/480 V Rated 	metric	10
value hp 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 for short-circuit protection of the auxiliary switch required stillation/ mounting/ dimensions: #/-180* rotation possible on vertical mounting surface: can be tilted forward and backward by +/- 22.5* on vertical mounting surface stide-by-side mounting Side-by-side mounting Yes Height mm 102 With side-by-side mounting forwards mm according to DIN EN 50022 Side-by-side mounting forwards mm forwards mm according to DIN EN 50022 for grounded parts at the side mm at the side at the side mm at the side mm at the side mm<td>value</td><td>hp</td><td></td>	value	hp	
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 • for short-circuit protection of the auxiliary switch required gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 A fuse gL/gG: 10 A Installation/ mounting/ dimensions: fuse gL/gG: 10 A Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes Height mm 102 Width mm 102 Width mm 107 Required spacing • with side-by-side mounting - forwards mm 0 - upwards mm 0 - at the side 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 - at the side mm 6 - at the side mm 0 - at the side mm 0			15
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 for short-circuit protection of the auxiliary switch required gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 A * for short-circuit protection of the auxiliary switch required #/-180° rotation possible on vertical mounting surface: 25 A 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 Side-by-side mounting Yes Height mm 102 Width mm 45 Depth mm 107 Required spacing with side-by-side mounting mm downwards quwards downwards quwards downwards for grounded parts for grounded parts for grounded parts for grounded parts downwards quwards at the side downwards at the side downwards mm oownards at the side mm downwards<td>Contact rating of the auxiliary contacts acc. to UL</td><td>-</td><td>A600 / Q600</td>	Contact rating of the auxiliary contacts acc. to UL	-	A600 / Q600
• for short-circuit protection of the main circuit gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A with type of assignment 2 required gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 A • for short-circuit protection of the auxiliary switch required fuse gL/gG: 10 A 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 mm standard mounting rail according to DIN EN 50022 • Side-by-side mounting Yes Height mm 102 Width mm 45 Depth mm 0 - growards mm 0 - upwards mm 0 - downwards mm 0 - at the side mm 0 - forwards mm 0 - at the side mm 0 - Backwards mm 0 - at the side	Short-circuit:		
	Design of the fuse link		
A method63 Å- with type of assignment 2 required63 Å• for short-circuit protection of the auxiliary switch requiredfuse gL/gG: 10 ÅInstallation/ mounting/ dimensions:+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surfaceMounting typescrew and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022• Side-by-side mountingremHeightmm102YeesWidthmm0	 for short-circuit protection of the main circuit 		
25 Å • for short-circuit protection of the auxiliary switch required 25 Å Installation/ mounting/ dimensions: fuse gL/gG: 10 Å Installation/ mounting/ dimensions: +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/-22.5° on vertical mounting surface; can be tilted forward and backward by +/-22.5° on vertical mounting onto 35 mm standard mounting rail according to DIN EN 50022 • Side-by-side mounting Yes Height mm 102 Width mm 45 Depth mm 107 Required spacing - • with side-by-side mounting mm 0 - forwards mm 0 - gackwards mm 0 - upwards mm 0 - at the side mm 0 - gackwards mm 0 - at the side mm 0	— with type of assignment 1 required		
required Installation/ 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 • Side-by-side mounting Yes Height mm 102 Width mm 45 Depth mm 107 Required spacing - - - forwards mm 0 - gadwards mm 0 - downwards mm 0 - at the side mm 0 - backwards mm 0 - upwards mm 0 - forwards mm 0 - at the side mm 0 - backwards mm 0 - at the side mm 6 - downwards mm	— with type of assignment 2 required		
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 • Side-by-side mounting mm 102 Width mm 45 Depth mm 107 Required spacing mm 0 - backwards mm 0 - upwards mm 0 - at the side mm 0 - backwards mm 0 - at the side mm 0 - backwards mm 0 - downwards mm 0 - upwards mm 0 - at the side mm			fuse gL/gG: 10 A
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 • Side-by-side mounting mm 102 Width mm 45 Depth mm 107 Required spacing mm 0 - backwards mm 0 - upwards mm 0 - at the side mm 0 - backwards mm 0 - at the side mm 0 - backwards mm 0 - downwards mm 0 - upwards mm 0 - at the side mm	Installation/ mounting/ dimensions:		
Side-by-side mountingmounting rail according to DIN EN 50022Heightmm102Widthmm45Depthmm107Required spacingmm107• with side-by-side mountingmm0- forwardsmm0- grawardsmm0- downwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- at the sidemm0- forwardsmm0- downwardsmm0- at the sidemm6- downwardsmm0			surface; can be tilted forward and backward by +/-
Heightmm102Widthmm45Depthmm107Required spacing	Mounting type		
Widthmm45Depthmm107Required spacing• with side-by-side mounting forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- at the sidemm0- upwardsmm0- at the sidemm0- at the sidemm0- at the sidemm0- at the sidemm6- downwardsmm0	 Side-by-side mounting 		Yes
Depthmm107Required spacingrFrequired spacing• with side-by-side mountingmm0- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- mandationmm0- mandationmm0- mat the sidemm0- at the sidemm0- at the sidemm0- at the sidemm6- downwardsmm0	Height	mm	102
Required spacingImage: Figure Fig	Width	mm	45
• with side-by-side mountingImmImm- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0• for grounded partsImm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- hackwardsmm0- upwardsmm6- at the sidemm0- downwardsmm0	Depth	mm	107
- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0• for grounded parts forwardsmm0- Backwardsmm0- Backwardsmm0- horwardsmm0- backwardsmm0- at the sidemm0- upwardsmm0- at the sidemm0- at the sidemm6- downwardsmm0	Required spacing		
	 with side-by-side mounting 		
- upwardsmm0- downwardsmm0- at the sidemm0• for grounded parts forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm0- backwardsmm0- upwardsmm0- at the sidemm6- downwardsmm0	— forwards	mm	0
- downwardsmm0- at the sidemm0• for grounded parts forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm6- downwardsmm0	— Backwards	mm	0
- at the sidemm0• for grounded partsmm0- forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm6- downwardsmm0	— upwards	mm	0
 for grounded parts forwards mm Backwards mm mm mm mm mm mm forwards mm mm mm forwards mm mm forwards forwards	— downwards	mm	0
forwardsmm0 Backwardsmm0 upwardsmm0 at the sidemm6 downwardsmm0	— at the side	mm	0
— Backwardsmm0— upwardsmm0— at the sidemm6— downwardsmm0	 for grounded parts 		
upwardsmm0 at the sidemm6 downwardsmm0	— forwards	mm	0
— at the side mm 6 — downwards mm 0	— Backwards	mm	0
— downwards mm 0	— upwards	mm	0
	— at the side	mm	6
● for live parts	— downwards	mm	0
	• for live parts		
— forwards mm 0	— forwards	mm	0
— Backwards mm 0	— Backwards	mm	0
— upwards mm 0	— upwards	mm	0
— downwards 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
Type of connectable conductor cross-section		
• for main contacts		
— single or multi-stranded		2x (1 10 mm²)
— finely stranded with core end processing		2x (1 6 mm²)
 finely stranded without core end processing 		2x (1 6 mm²)
 for AWG conductors for main contacts 		2x (18 8)
 for auxiliary contacts 		
— single or multi-stranded		2x (0,5 2,5 mm²)
— finely stranded with core end processing		2x (0.5 1.5 mm²)
 finely stranded without core end processing 		2x (0.5 2.5 mm²)
 for AWG conductors for auxiliary contacts 		2x (20 14)
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 31920	FIT	100
Product function Mirror contact acc. to IEC 60947-4-1		Yes
T1 value for proof test interval or service life acc. to IEC 61508	У	20
Protection against electrical shock		finger-safe
Mechanical data:		
Size of contactor		SO
Ambient conditions:		
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature	°C	40 170
• during operation	°C	-40 +70
during storage	°C	-55 +80
Certificates/ approvals:		



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

http://support.automation.siemens.com/WW/view/en/3RT20252XF400LA2/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=3RT20252XF400LA2&lang=en

