SIEMENS

Data sheet

3RT2037-3AF00



CONTACTOR,AC3:30KW/400V, 1NO+1NC, 110V AC 50HZ, 3-POLE, SIZE S2, SPRING-TYPE 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)			
 of the contactor typical 		10 000 000	
• of the contactor with added electronics-		5 000 000	
compatible auxiliary switch block typical			
 of the contactor with added auxiliary switch 		10 000 000	
block typical			
Thermal short-time current restricted to 10 s	А	520	
Protection class IP			
• on the front		IP20	
• of the terminal		IP00	
Equipment marking			
• acc. to DIN EN 61346-2		Q	
• acc. to DIN EN 81346-2		Q	
lain 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 $^\circ\mathrm{C}$	А	80
Rated value		
— up to 690 V at ambient temperature 40 °C	А	80
Rated value		70
— up to 690 V at ambient temperature 60 °C Rated value	A	70
• at AC-2 at 400 V Rated value	А	65
• at AC-3		
— at 400 V Rated value	А	65
— at 500 V Rated value	А	65
— at 690 V Rated value	А	47
• at AC-4 at 400 V Rated value	А	55
Operating current with 1 current path		
● at DC-1		
— at 24 V Rated value	А	70
— at 110 V Rated value	А	4.5
— at 220 V Rated value	А	2
— 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	35
— at 110 V Rated value	А	2.5
— at 220 V Rated value	А	2
— at 440 V Rated value	А	0.1
— 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	70
— at 110 V Rated value	А	45
— 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	25
— at 220 V Rated value	А	5
— at 24 V Rated value	А	55
— at 440 V Rated value	А	0.27
— at 600 V Rated value	А	0.16
Operating current with 3 current paths in series		

● at DC-1		
— at 24 V Rated value	А	55
— at 110 V Rated value	А	45
— at 220 V Rated value	А	45
— 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	45
— at 220 V Rated value	А	25
— at 24 V Rated value	А	55
— 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	53
• at AC-2 at 400 V Rated value	kW	30
• at AC-4 at 400 V Rated value	kW	30
Operating power		
● at AC-1		
— at 230 V at 60 °C Rated value	kW	26
— at 230 V Rated value	kW	30
— at 400 V at 60 °C Rated value	kW	46
— at 690 V at 60 °C Rated value	kW	79
— at 690 V Rated value	kW	91
• at AC-3		
— at 230 V Rated value	kW	18.5
— at 400 V Rated value	kW	30
— at 500 V Rated value	kW	37
— at 690 V Rated value	kW	37
Operating power for ≥ 200000 operating cycles at AC-4		
• at 400 V Rated value	kW	14.7
• at 690 V Rated value	kW	20
Operating frequency		
• at AC-3 maximum	1/h	700
Control circuit/ Control:		
Type of voltage of the control supply voltage		AC
Control supply voltage with AC		440
• at 50 Hz Rated value	V	110
Operating range factor control supply voltage rated value of the magnet coil with AC		
• at 50 Hz		0.8 1.1

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		
• at 230 V Rated value	A	10
• at 400 V Rated value	A	3
• at 690 V Rated value	А	1
Operating current		
• at DC-12 at 125 V Rated value	A	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	А	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	А	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	65
at 600 V Rated value	A	52
yielded mechanical performance [hp]		
 for single-phase AC motor at 110/120 V Rated value 	metric hp	5
 for single-phase AC motor at 230 V Rated value 	metric hp	10
• for three-phase AC motor at 200/208 V Rated	metric	20
·	hn	

valuefor three-phase AC motor at 220/230 V Rated value

20

hp

hp

metric

• for three-phase AC motor at 575/600 V Rated value netric hp 50 Contact rating of the auxiliary contacts acc. to UL A600 / P600 Short-circuit A600 / P600 Short-circuit gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 250 A - with type of assignment 1 required - with type of assignment 2 required gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 125 A for short-circuit protection of the auxiliary switch required full gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 125 A Installation/ inounting/ dimensions: +1-180' rotation possible on vertical mounting surface; can be titled forward and backward by +/- 22.5' on vertical mounting surface Mounting type screw and snapon mounting onto 35 mm standard mounting rul according to DIN EN 50022 • Side-by-side mounting Yes Height mm with side-by-side mounting mm • with side-by-side mounting Yes Height mm with side-by-side mounting mm • Side-by-side mounting mm • Wath mm media mm • Side-by-side mounting mm <	 for three-phase AC motor at 460/480 V Rated value 	metric hp	50
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 for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions: mounting position t/-180° rotation possible on vertical mounting surface; can be titled forward and backward by t/- 22.5° on vertical mounting onto 35 mm standard mounting rula according to DIN EN 50022 Side-by-side mounting Ves Height mm 113.4 Width mm 55 Depth mm 0 ackwards mm 0 at the side mm 0 at the side mm 50 backwards mm 50 back	-		50
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 NH 3NA, DIAZED 5SB, NEOZED 5SE: 250 A gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 125 A fuse gL/gG: 10 A Installation/ mounting / dimensions: for short-circuit protection of the auxiliary switch required for short-circuit protection of the auxiliary switch required fuse gL/gG: 10 A fuse gL/gG: 10 A fuse gL/gG: 10 A Mounting position fuse full forward and backward by +/- 22.5° on vertical mounting surface: can be titled forward and backward by +/- 22.5° on vertical mounting surface Side-by-side mounting Mit side-by-side mounting for wards mm fusitify mm fusitify mm	Contact rating of the auxiliary contacts acc. to UL		A600 / P600
	Short-circuit:		
	Design of the fuse link		
with type of assignment 2 required gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 125 A fuse gL/gG: 10 A fuse gL/gG: 10 A Installation/ mounting/ dimensions: #/-180° rotation possible on vertical mounting 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 113.4 Width mm 55 Depth mm 130 Required spacing - - • with side-by-side mounting mm 0 - growards mm 0 - upwards mm 0 - of orwards mm 0 - at the side mm 0 - at the side mm 50 - upwards mm 50 - at the side mm 50 - dow	 for short-circuit protection of the main circuit 		
• 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 titled 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 Yes Height mm 113.4 Width mm 55 Depth mm 130 Required spacing - • with side-by-side mounting mm - forwards mm 0 - grounds mm 0 - upwards mm 0 - downwards mm 0 - downwards mm 50 - orowards mm 50 - orowards mm 50 - at the side mm 50 - orowards mm 0 - at the side mm 50 - orowards mm 50 - downwards mm 50 - at the side mm 50	 — with type of assignment 1 required 		gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 250 A
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 113.4 Width mm 55 Depth mm 130 Required spacing - - • with side-by-side mounting mm 0 - forwards mm 0 - grounds mm 0 - at the side mm 0 - forwards mm 50 - at the side mm 50	- with type of assignment 2 required		gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 125 A
Installation/ mounting/ dimensions: mounting position +/-180" rotation possible 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 Mounting type • Side-by-side mounting • Side-by-side mounting mm Height mm Width mm Depth mm • with side-by-side mounting mm • onwards mm mounting type mm • with side by-side mounting mm - forwards mm - adownwards mm - adownwards mm - forwards mm - at the side mm - at the side mm - downwards mm - downwards mm - forwards mm - downwards mm - forwards	 for short-circuit protection of the auxiliary switch 		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 Height mm Width mm Depth mm • orwards mm - forwards mm - downwards mm - downwards mm - forwards mm - at the side mm - upwards mm - downwards mm - forwards mm - forwards mm - forwards mm - forwards mm - downwards mm - forwards mm - forwards mm - forwards mm - at the side mm - at the side mm - forwards mm - at the side mm - downwards mm - downwards mm - forwards </td <td>required</td> <td></td> <td></td>	required		
Mounting type surface; can be tilted forward and backward by +/- 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 • Side-by-side mounting mm Height mm 113.4 Width mm 55 Depth mm 130 Required spacing - - • with side-by-side mounting mm 0 - forwards mm 0 - gackwards mm 0 - upwards mm 0 - at the side mm 0 - forwards mm 0 - forwards mm 0 - forwards mm 0 - at the side mm 0 - forwards mm 50 - at the side mm 50 - at the side mm 0 - at the side mm 50 - at the side mm 50 - at the side mm 50 - at the side mm 50 <	Installation/ mounting/ dimensions:		
Numbermounting rail according to DIN EN 50022• Side-by-side mountingYesHeightmm113.4Widthmm55Depthmm130Required spacing-• with side-by-side mounting forwardsmm0- gackwardsmm0- gackwardsmm0- downwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- at the sidemm0- forwardsmm50- at the sidemm50- at the sidemm50- forwardsmm50- at the sidemm50- forwardsmm50- forwardsmm50- backwardsmm50- at the sidemm50- forwardsmm50- forwardsmm50- at the sidemm50- forwardsmm50- forwardsmm50- at the sidemm50- at the side	mounting position		surface; can be tilted forward and backward by +/-
Heightmm113.4Widthmm55Depthmm130Required spacing	Mounting type		
Vidthmm55Depthmm130Required spacingmm0• with side-by-side mountingmm0- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- at the sidemm0- forwardsmm50- at the sidemm50- at the sidemm50- at the sidemm6- at the sidemm50- at the sidemm50- at the sidemm50- at the sidemm50- backwardsmm0- forwardsmm50- forwardsmm50- forwardsmm50- forwardsmm50- forwardsmm50- backwardsmm50- backwardsmm50- upwardsmm50- backwardsmm50- backwardsmm50- backwardsmm50- backwardsmm50- backwardsmm50- backwardsmm50- backwardsmm50- backwardsmm50- backwardsmm50	Side-by-side mounting		Yes
Depthmm130Required spacing• with side-by-side mounting///////////////////////////////	Height	mm	113.4
Required spacingImage: spacing• with side-by-side mountingmm0- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- downwardsmm0- at the sidemm0• for grounded parts forwardsmm0- at the sidemm0- forwardsmm50- at the sidemm50- at the sidemm50- at the sidemm50- at the sidemm6- downwardsmm50- forwardsmm0- forwardsmm50- forwardsmm50- forwardsmm50- upwardsmm50- upwardsm	Width	mm	55
with side-by-side mountingImm0- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0• for grounded partsImm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- at the sidemm0- forwardsmm50- at the sidemm50- at the sidemm50- for live partsImm50- forwardsmm0- forwardsmm0- forwardsmm50- forwardsmm50- forwardsmm50- upwardsmm50- upwards<	-	mm	130
- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- at the sidemm0• for grounded parts forwardsmm0- Backwardsmm0- upwardsmm50- at the sidemm50- at the sidemm50- at the sidemm50- forwardsmm50- forwardsmm50- forwardsmm50- forwardsmm50- forwardsmm50- forwardsmm50- upwardsmm50- upwardsmm50	Required spacing		
- Backwardsmm0- upwardsmm0- downwardsmm0- downwardsmm0- at the sidemm0• for grounded parts forwardsmm0- Backwardsmm0- upwardsmm50- at the sidemm50- odownwardsmm50- for live parts50- forwardsmm50- forwardsmm50- forwardsmm50- forwardsmm50- forwardsmm50- forwardsmm50- marksmm50- upwardsmm50- upwards upwards <tr< td=""><td> with side-by-side mounting </td><td></td><td></td></tr<>	 with side-by-side mounting 		
- upwardsmm0- downwardsmm0- at the sidemm0- at the sidemm0• for grounded partsmm0- forwardsmm0- backwardsmm0- upwardsmm50- at the sidemm50- downwardsmm50- forwardsmm0- forwardsmm50- forwardsmm0- forwardsmm0- forwardsmm50- forwardsmm50- upwardsmm50- upwardsmm50- upwardsmm50	— forwards	mm	0
downwardsmm0 at the sidemm0 for grounded parts forwardsmm0 Backwardsmm0 upwardsmm50 at the sidemm50 downwardsmm50 forwardsmm0 forwardsmm0 at the sidemm50 forwardsmm0 forwardsmm0 forwardsmm0 forwardsmm50 upwardsmm50 upwardsmm50 upwardsmm50 upwardsmm50	— Backwards	mm	0
at the sidemm0• for grounded partsmm0 forwardsmm0 Backwardsmm50 upwardsmm6 at the sidemm50 downwardsmm50• for live partsmm0 forwardsmm0 Backwardsmm0 forwardsmm0 forwardsmm50 forwardsmm50 Backwardsmm50 upwardsmm50 upwardsmm50	— upwards	mm	0
• for grounded partsmm0- forwardsmm0- Backwardsmm0- upwardsmm50- at the sidemm6- downwardsmm50• for live partsmm50- forwardsmm0- forwardsmm0- gackwardsmm0- hackwardsmm0- upwardsmm50- upwardsmm50- upwardsmm50- downwardsmm50	— downwards	mm	0
forwardsmm0 Backwardsmm0 upwardsmm50 at the sidemm6 downwardsmm50• for live parts forwardsmm0 Backwardsmm0 upwardsmm50 upwardsmm50 upwardsmm50 upwardsmm50	— at the side	mm	0
Backwardsmm0- upwardsmm50- at the sidemm6- downwardsmm50• for live parts50- forwardsmm0- Backwardsmm0- upwardsmm50- downwardsmm50	 for grounded parts 		
upwardsmm50 at the sidemm6 downwardsmm50 for live parts forwardsmm0 Backwardsmm0 upwardsmm50 downwardsmm50	— forwards	mm	0
- at the sidemm6- downwardsmm50• for live parts forwardsmm0- Backwardsmm0- upwardsmm50- downwardsmm50	— Backwards	mm	0
- downwardsmm50• for live partsmm0- forwardsmm0- Backwardsmm0- upwardsmm50- downwardsmm50	— upwards	mm	50
• for live partsImm0— forwardsmm0— Backwardsmm0— upwardsmm50— downwardsmm50	— at the side	mm	6
forwardsmm0 Backwardsmm0 upwardsmm50 downwardsmm50	— downwards	mm	50
— Backwardsmm0— upwardsmm50— downwardsmm50	• for live parts		
— upwardsmm50— downwardsmm50	— forwards	mm	0
— downwards mm 50	— Backwards	mm	0
	— upwards	mm	50
	— downwards	mm	50
— at the side mm 6	— at the side	mm	6

Connections/ Terminals:		
Type of electrical connection		
 for main current circuit 		screw-type 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 35 mm²), 1x (1 50 mm²)
— finely stranded with core end processing		2x (1 25 mm²), 1x (1 35 mm²)
 for AWG conductors for main contacts 		2x (18 2), 1x (18 1)
 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)
Apparent pick-up power of the magnet coil with AC		
• at 50 Hz	V·A	190
afety related data:		
Proportion of dangerous failures		
• with low demand rate acc. to SN 31920	%	40
 with high demand rate acc. to SN 31920 	%	73
Product function Mirror contact acc. to IEC 60947-4-1		Yes
Protection against electrical shock		finger-safe when touched vertically from front acc. to IEC 60529
Mechanical data:		
Size of contactor		S2
Ambient conditions:		
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature	*0	05 100
during operation	°C	-25 +60
 during storage 	°C	-55 +80
Certificates/ approvals:		
General Product Approval	oth	
	Ċ	onfirmation Environmental Confirmations

Further information

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

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

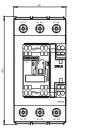
Industry Mall (Online ordering system) http://www.siemens.com/industrymall

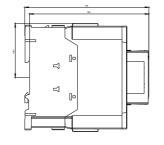
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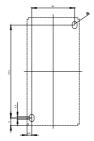
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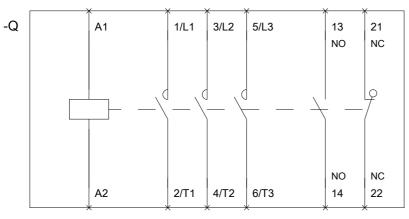
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RT20373AF00/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT20373AF00&lang=en









last modified:

11.03.2015