SIEMENS

Data sheet

3RT2038-3AB00



CONTACTOR, AC3:37KW/400V, 1NO+1NC, 24V 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- 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	640
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
1ain 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	90
Rated value		
— up to 690 V at ambient temperature 40 $^\circ C$	А	90
Rated value		
— up to 690 V at ambient temperature 60 °C Rated value	A	80
• at AC-2 at 400 V Rated value	А	80
● at AC-3		
— at 400 V Rated value	А	80
— at 500 V Rated value	А	80
— at 690 V Rated value	А	58
• 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	75
— 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	75
— 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	59
 at AC-2 at 400 V Rated value 	kW	37
 at AC-4 at 400 V Rated value 	kW	30
Operating power	-	
• at AC-1		
— at 230 V at 60 °C Rated value	kW	28
— at 230 V Rated value	kW	34
— at 400 V at 60 °C Rated value	kW	49
— at 690 V at 60 °C Rated value	kW	85
— at 690 V Rated value	kW	102
● at AC-3		
— at 230 V Rated value	kW	22
— at 400 V Rated value	kW	37
— at 500 V Rated value	kW	37
— at 690 V Rated value	kW	45
Operating power for ≥ 200000 operating cycles at AC-4		
• at 400 V Rated value	kW	15.8
• at 690 V Rated value	kW	21.8
Operating frequency		
• at AC-3 maximum	1/h	500
Control circuit/ Control:	-	
Type of voltage of the control supply voltage		AC
Control supply voltage with AC		
• at 50 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

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	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	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	А	62
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	15

value

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

• for three-phase AC motor at 200/208 V Rated

20

25

metric

metric

hp

hp

• for three-phase AC motor at 575/600 V Rated value metric hp 60 Contact rating of the auxiliary contacts acc. to UL A600 / P600 Short-circuit Design of the fuse link • for short-circuit protection of the main circuit – with type of assignment 1 required gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 250 A • for short-circuit protection of the auxiliary switch required full gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 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 on 35 mm standard mounting rail according to DIN EN 50022 • Side-by-side mounting Yes Height mm 113.4 Width mm Depth mm • with side-by-side mounting - • with side-by-side mounting mm • with side-by-side mounting - • with side-by-side mounting mm • downwards mm • a the side mm • a the side mm • a the side mm • for grounded parts - • a the side mm • a the side mm • a the side mm • a the side mm <th> for three-phase AC motor at 460/480 V Rated value </th> <th>metric hp</th> <th>50</th>	 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 fuse gL/gG: 10 A fuse gL/gG: 10 A fuse gL/gG: 0 A	-		60
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 side mounting for side mounting for side mounting for spacing for space for	Contact rating of the auxiliary contacts acc. to UL		A600 / P600
• for short-circuit protection of the main circuit gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 250 A	Short-circuit:		
with type of assignment 1 requiredgL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 260 A with type of assignment 2 requiredgL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A• for short-circuit protection of the auxiliary switchfuse gL/gG: 10 AInstallation/ 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 nm standard mounting rail according to DIN EN 50022• Side-by-side mountingYesHeightmmMith55Depthmm- forwardsmm- upwardsmm- downwardsmm- downwardsmm- forwardsmm- forwardsmm- forwardsmm- forwardsmm- forwardsmm- forwardsmm- forwardsmm- forwardsmm- forwardsmm- upwardsmm- forwardsmm- forwardsmm- provardsmm- provardsmm- provardsmm- provardsmm- provardsmm- at the sidemm- forwardsmm- at the sidemm- provardsmm- at the sidemm- provardsmm- at the sidemm- at the sidemm- at the sidemm- at the sidemm- provards	Design of the fuse link		
with type of assignment 2 required gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A • for short-circuit protection of the auxiliary switch required fuse gL/gG: 10 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 out 35 mm standard mounting rail according to DIN EN 50022 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 0 - gravards mm 0 - upwards mm 0 - at the side mm 0 - at the side mm 50 - downwards mm 50 - at the side mm 50 <td> for short-circuit protection of the main circuit </td> <td></td> <td></td>	 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 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 - with side-by-side mounting mm 0 - forwards mm 0 - at the side mm 0 - ownwards mm 50 - ownwards mm 50 - at the side	 — 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 tilled forward and backward by +/-22.5° on vertical mounting surface Mounting type screw and snap-on mounting onto 35 mm standard mounting rot DIN EN 50022 • Side-by-side mounting Yes Height mm 113.4 Width mm 55 Depth mm 130 Required specing - - • with side-by-side mounting mm 0 - forwards mm 0 - gackwards mm 0 - upwards mm 0 - at the side mm 0 - at the side mm 50 - odownwards mm 50 - at the side mm 50 - at the side </td <td>- with type of assignment 2 required</td> <td></td> <td>gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A</td>	- with type of assignment 2 required		gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A
Installation/ mounting/ dimensions: mounting position +/-180° rotation possible on vertical mounting surface; can be tilled 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 - forwards mm - upwards mm - downwards mm - forwards mm - forwards mm - upwards mm - downwards mm - forwards mm - downwards mm - forwards mm - at the side mm - forwards mm - at the side mm - at the side mm - backwards 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 screew 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 — ackwards mm 0 — at the side mm 0 — oforwards mm 0 — at the side mm 0 — forwards mm 0 — at the side mm 50 — otowards mm 50 — at the side mm 50 — forwards mm 0 — at the side	required		
Mounting type 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 - gackwards mm 0 - upwards mm 0 - at the side mm 0 - forwards mm 50 - at the side mm 50 - forwards mm 50 - forwards mm 50 </td <td>Installation/ mounting/ dimensions:</td> <td></td> <td></td>	Installation/ mounting/ dimensions:		
Side-by-side mountingmounting rail according to DIN EN 50022Heightmm113.4Widthmm55Depthmm130Required spacing• with side-by-side mounting forwardsmm0- Backwardsmm0- upwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- forwardsmm0- at the sidemm50- at the sidemm50- at the sidemm50- forwardsmm6- at the sidemm6- at the sidemm50- at the sidemm50- at the sidemm6- at the sidemm50- forwardsmm0- forwardsmm0- forwardsmm50- forwardsmm50- forwardsmm50- forwardsmm50- forwardsmm50- forwardsmm50- forwardsmm50- forwardsmm50- forwardsmm50-	mounting position		surface; can be tilted forward and backward by +/-
Heightmm113.4Widthmm55Depthmm130Required spacingmm130• with side-by-side mountingmm0- forwardsmm0- backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- at the sidemm50- at the sidemm50- at the sidemm50- at the sidemm50- at the sidemm6- at the sidemm50- at the sidemm50 <td>Mounting type</td> <td></td> <td></td>	Mounting type		
Widthmm55Depthmm130Required spacingmm0- forwardsmm0- backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- forwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- at the sidemm0- forwardsmm0- forwardsmm50- at the sidemm50- at the sidemm50- at the sidemm50- at the sidemm0- nowmardsmm50- at the sidemm50- forwardsmm0- forwardsmm50- forwardsmm0- forwardsmm0- forwardsmm50- forwardsmm0- packwardsmm0- packwardsmm50- forwardsmm0- backwardsmm50- mather- mm- backwardsmm50- backwardsmm50- mather- mm- mather- mm	Side-by-side mounting		Yes
Depthmm130Required spacing• with side-by-side mounting- forwardsmm0- backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm50- at the sidemm50- for live parts forwardsmm0- forwardsmm50- forwardsmm50- forwardsmm0- gackwardsmm50- forwardsmm50- forwardsmm<	Height	mm	113.4
Required spacingImm• with side-by-side mountingmm0- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- at the sidemm0• for grounded partsmm0- forwardsmm0- forwardsmm0- forwardsmm0- forwardsmm0- at the sidemm0- forwardsmm50- at the sidemm50- at the sidemm50- at the sidemm50- for live partsImm50- forwardsmm0- forwardsmm0- forwardsmm0- Backwardsmm50- forwardsmm0- Backwardsmm0- markedmm0- markedmm50- markedmm0- markedmm0- markedmm50- markedmm0- markedmm50	Width	mm	55
• with side-by-side mountingmm0- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- downwardsmm0- at the sidemm0- forwardsmm0- forwardsmm0- forwardsmm0- Backwardsmm0- upwardsmm50- at the sidemm50- at the sidemm50- downwardsmm50- forwardsmm0- forwardsmm50- forwardsmm0- forwardsmm50- forwardsmm0- Backwardsmm0- Backwardsmm50- forwardsmm50- markedmm50- markedmm50 <td< td=""><td>-</td><td>mm</td><td>130</td></td<>	-	mm	130
- forwardsmm0- Backwardsmm0- upwardsmm0- downwardsmm0- downwardsmm0- at the sidemm0• for grounded parts forwardsmm0- Backwardsmm0- upwardsmm0- het sidemm50- at the sidemm50- at the sidemm50- downwardsmm50- forwardsmm0- forwardsmm0- forwardsmm50- forwardsmm0- forwardsmm0- forwardsmm0- het wardsmm0- het wardsmm0- upwardsmm50	· · · ·		
Backwardsmm0- Backwardsmm0- downwardsmm0- downwardsmm0- at the sidemm0• for grounded parts forwardsmm0- Backwardsmm0- upwardsmm50- at the sidemm6- downwardsmm50- for wardsmm50- for wardsmm0- forwardsmm50- forwardsmm50- forwardsmm0- forwardsmm0- forwardsmm50	 with side-by-side mounting 		
upwardsmm0 downwardsmm0 at the sidemm0• for grounded parts forwardsmm0 Backwardsmm0 upwardsmm50 at the sidemm6 at the sidemm50 forwardsmm6 forwardsmm6 forwardsmm6 forwardsmm50 forwardsmm0 forwardsmm0 forwardsmm0 Backwardsmm0 mupwardsmm50	— forwards	mm	0
- downwardsmm0- at the sidemm0• for grounded parts forwardsmm0- Backwardsmm0- upwardsmm50- at the sidemm6- downwardsmm50- for live parts-50- forwardsmm6- downwardsmm60- forwardsmm50- forwardsmm0- forwardsmm0- marksmm0- marksmm0- marksmm50	— Backwards	mm	0
- at the sidemm0• for grounded partsmm0- forwardsmm0- Backwardsmm0- upwardsmm50- at the sidemm6- downwardsmm50• for live partsmm50- forwardsmm0- forwardsmm0- forwardsmm0- hackwardsmm0- hackwardsmm50	— upwards	mm	0
• for grounded parts·- forwardsmm0- Backwardsmm0- upwardsmm50- at the sidemm6- downwardsmm50• for live parts·50- forwardsmm0- Backwardsmm0- hardsmm0- hardsmm0- hardsmm0- hardsmm0- hardsmm0- hardsmm0- hardsmm0- hardsmm50	— downwards	mm	0
forwardsmm0 Backwardsmm0 upwardsmm50 at the sidemm6 downwardsmm50 for live parts50 forwardsmm0 Backwardsmm0 upwardsmm50	— at the side	mm	0
Backwardsmm0 upwardsmm50 at the sidemm6 downwardsmm50• for live parts forwardsmm0 Backwardsmm0 upwardsmm50	 for grounded parts 		
upwardsmm50 at the sidemm6 downwardsmm50• for live parts forwardsmm0 Backwardsmm0 upwardsmm50	— forwards	mm	0
at the sidemm6 downwardsmm50• for live parts forwardsmm0 Backwardsmm0 upwardsmm50	— Backwards	mm	0
- downwardsmm50• for live partsmm0- forwardsmm0- Backwardsmm0- upwardsmm50	— upwards	mm	50
• for live parts mm 0 — forwards mm 0 — Backwards mm 0 — upwards mm 50	— at the side	mm	6
— forwardsmm0— Backwardsmm0— upwardsmm50	— downwards	mm	50
— Backwardsmm0— upwardsmm50	• for live parts		
— upwards mm 50	— forwards	mm	0
	— Backwards	mm	0
— downwards mm 50	— 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		2x (0.5 2.5 mm²)
processing		2:: (20 44)
• for AWG conductors for auxiliary contacts		2x (20 14)
Apparent pick-up power of the magnet coil with AC		100
● at 50 Hz	V·A	190
Safety 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		
 during operation 	°C	-25 +60
during storage	°C	-55 +80
Certificates/ approvals:		
General Product Approval	oth	er
	<u>C</u>	onfirmation Environmental Confirmations

Further information

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

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

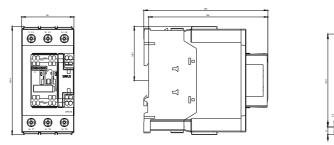
Industry Mall (Online ordering system) http://www.siemens.com/industrymall

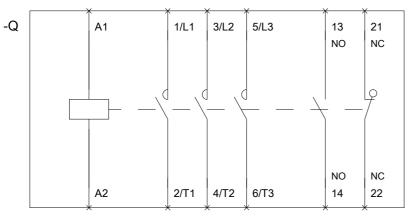
Cax online generator

http://support.automation.siemens.com/WW/CAX order/default.aspx?lang=en&mlfb=3RT20383AB00

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RT20383AB00/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=3RT20383AB00&lang=en





last modified:

11.03.2015