# SIEMENS

### Data sheet

## 3RT2038-1AU00



CONTACTOR,AC3:37KW/400V, 1NO+1NC, 240V AC 50HZ, 3-POLE, SIZE S2, SCREW TERMINAL

Figure similar		
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>		10 000 000
<ul> <li>of the contactor with added electronics-</li> </ul>		5 000 000
compatible auxiliary switch block typical		
<ul> <li>of the contactor with added auxiliary switch</li> </ul>		10 000 000
block typical		
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
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	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
<ul> <li>at AC-2 at 400 V Rated value</li> </ul>	kW	37
<ul> <li>at AC-4 at 400 V Rated value</li> </ul>	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 400 V Rated value     at 690 V Rated value	kW	21.8
Operating frequency		2.10
• at AC-3 maximum	1/h	500
Control circuit/ Control:		10
Type of voltage of the control supply voltage		AC
Control supply voltage with AC	V	240
at 50 Hz Rated value     Operating range factor control supply voltage rated	V	270
value of the magnet coil with AC		
• at 50 Hz		0.8 1.1

Auxiliary circuit:		
Number of NC contacts		
<ul> <li>for auxiliary contacts</li> </ul>		
— instantaneous contact		1
Number of NO contacts		
<ul> <li>for auxiliary contacts</li> </ul>		
— 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]		
<ul> <li>for single-phase AC motor at 110/120 V Rated value</li> </ul>	metric hp	5
<ul> <li>for single-phase AC motor at 230 V Rated value</li> </ul>	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><ul> <li>for three-phase AC motor at 460/480 V Rated value</li> </ul></th> <th>metric hp</th> <th>50</th>	<ul> <li>for three-phase AC motor at 460/480 V Rated value</li> </ul>	metric hp	50
Short-circuit:         Design of the fuse link <ul> <li>for short-circuit protection of the main circuit</li> <li>with type of assignment 1 required</li> <li>with type of assignment 2 required</li> <li>for short-circuit protection of the auxiliary switch required</li> <li>fuse gL/gG: 10 A</li> <li>fuse gL/gG: 10 A</li> <li>fuse gL/gG: 0 A</li></ul>	-		60
Design of the fuse link <ul> <li>for short-circuit protection of the main circuit</li> <li>with type of assignment 1 required</li> <li>with type of assignment 2 required</li> <li>for short-circuit protection of the auxiliary switch required</li> <li>for side mounting</li> <li>for side mounting</li> <li>for side mounting</li> <li>for spacing</li> <li>for space</li> <li>for</li></ul>	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><ul> <li>for short-circuit protection of the main circuit</li> </ul></td> <td></td> <td></td>	<ul> <li>for short-circuit protection of the main circuit</li> </ul>		
• 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         - grounded parts       mm       0         - at the side       mm       50         - ownwards       mm       50         - upwards       mm       50         - at the side       mm       0         - at the side       mm       50         - upwards       mm       50         - at the side       mm       50         - forwards       mm       6         - upwards       mm       50         - at the side       mm       50         - at the side       mm	<ul> <li>— with type of assignment 1 required</li> </ul>		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<	<ul> <li>for short-circuit protection of the auxiliary switch</li> </ul>		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- materialmm50- materialmm50- materialmm50- materialmm50-	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- 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<	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	<ul> <li>with side-by-side mounting</li> </ul>		
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	<ul> <li>for grounded parts</li> </ul>		
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			
<ul> <li>for main current circuit</li> </ul>		screw-type terminals	
<ul> <li>for auxiliary and control current circuit</li> </ul>		screw-type terminals	
Type of connectable conductor cross-section			
<ul> <li>for main contacts</li> </ul>			
— 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)	
<ul> <li>for AWG conductors for main contacts</li> </ul>		2x (18 2), 1x (18 1)	
<ul> <li>for auxiliary contacts</li> </ul>			
— single or multi-stranded		2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)	
— finely stranded with core end processing		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)	
Apparent pick-up power of the magnet coil with AC			
• at 50 Hz	V·A	190	
Safety related data:			
Proportion of dangerous failures	_		
• with low demand rate acc. to SN 31920	%	40	
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	%	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 maximum	m	2 000	
Ambient temperature			
<ul> <li>during operation</li> </ul>	°C	-25 +60	
• during storage	°C	-55 +80	
Certificates/ approvals:			
General Product Approval			
	(	Confirmation Environmental	
		Confirmations	

#### Further information

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

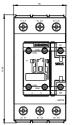
#### Industry Mall (Online ordering system) http://www.siemens.com/industrymall

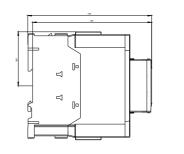
Cax online generator

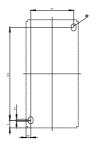
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT20381AU00

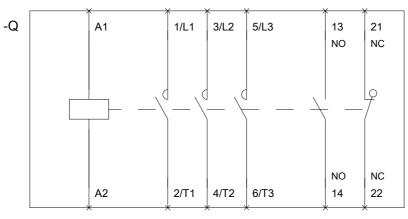
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RT20381AU00/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT20381AU00&lang=en









last modified:

11.03.2015