# **SIEMENS**

Data sheet 3RT2037-1AH04



CONTACTOR,AC3:30KW/400V, 2NO+2NC, 48V 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- compatible auxiliary switch block typical</li> </ul>		5 000 000
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>		10 000 000
Thermal short-time current restricted to 10 s	Α	520
Protection class IP		
• on the front		IP20
<ul><li>of the terminal</li></ul>		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		

<ul> <li>at AC-3 Rated value maximum</li> </ul>	V	690
Operating current		
• at AC-1		
— at 400 V at ambient temperature 40 °C Rated value	Α	80
— up to 690 V at ambient temperature 40 $^{\circ}$ C Rated value	Α	80
— up to 690 V at ambient temperature 60 °C Rated value	Α	70
• at AC-2 at 400 V Rated value	Α	65
• at AC-3		
— at 400 V Rated value	Α	65
— at 500 V Rated value	Α	65
— at 690 V Rated value	Α	47
• at AC-4 at 400 V Rated value	Α	55
Operating current with 1 current path		
• at DC-1		
— at 24 V Rated value	Α	70
— at 110 V Rated value	Α	4.5
— at 220 V Rated value	Α	2
— at 440 V Rated value	Α	0.4
— at 600 V Rated value	Α	0.25
• at DC-3 at DC-5		
— at 24 V Rated value	Α	35
— at 110 V Rated value	Α	2.5
— at 220 V Rated value	Α	2
— at 440 V Rated value	Α	0.1
— at 600 V Rated value	Α	0.06
Operating current with 2 current paths in series		
• at DC-1		
— at 24 V Rated value	Α	70
— at 110 V Rated value	Α	45
— at 220 V Rated value	Α	5
— at 440 V Rated value	Α	1
— at 600 V Rated value	Α	0.8
• at DC-3 at DC-5		
— at 110 V Rated value	Α	25
— at 220 V Rated value	Α	5
— at 24 V Rated value	Α	55
— at 440 V Rated value	Α	0.27
— at 600 V Rated value	Α	0.16
Operating current with 3 current paths in series		

• at DC-1		
— at 24 V Rated value	Α	55
— at 110 V Rated value	Α	45
— at 220 V Rated value	Α	45
— at 440 V Rated value	Α	2.9
— at 600 V Rated value	Α	1.4
• at DC-3 at DC-5		
— at 110 V Rated value	Α	45
— at 220 V Rated value	Α	25
— at 24 V Rated value	Α	55
— at 440 V Rated value	Α	0.6
— at 600 V Rated value	Α	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		
● at 50 Hz Rated value	V	48
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		
<ul> <li>for auxiliary contacts</li> </ul>		
— instantaneous contact		2
Number of NO contacts		
for auxiliary contacts		
— instantaneous contact		2
Product expansion Auxiliary switch		No
Operating current at AC-15		
• at 230 V Rated value	Α	6
• at 400 V Rated value	Α	3
• at 690 V Rated value	Α	1
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 125 V Rated value	Α	0.9
• 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	6
— 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:		
Full-load current (FLA) for three-phase AC motor		
● at 480 V Rated value	Α	65
● at 600 V Rated value	Α	52
yielded mechanical performance [hp]		
• for single-phase AC motor at 110/120 V Rated	metric	5
value	hp	
• for single-phase AC motor at 230 V Rated	metric	10
value	hp	
• for three-phase AC motor at 200/208 V Rated	metric	20
value	hp	
• for three-phase AC motor at 220/230 V Rated	metric	20
value	hp	

<ul> <li>for three-phase AC motor at 460/480 V Rated value</li> </ul>	metric hp	50
• for three-phase AC motor at 575/600 V Rated value	metric hp	50
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>		
<ul> <li>— with type of assignment 1 required</li> </ul>		gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 250 A
— with type of assignment 2 required		gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 125 A
• for short-circuit protection of the auxiliary switch		fuse gL/gG: 10 A
required		

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	113.4	
Width	mm	55	
Depth	mm	173.5	
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	50	
— at the side	mm	6	
— downwards	mm	50	
• for live parts			
— forwards	mm	0	
— Backwards	mm	0	
— upwards	mm	50	
— downwards	mm	50	
— 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		
<ul><li>— single or multi-stranded</li></ul>		2x (1 35 mm²), 1x (1 50 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>		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>		
<ul> <li>single or multi-stranded</li> </ul>		2x (0,5 1,5 mm²), 2x (0,75 2,5 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)
Apparent pick-up power of the magnet coil with AC		
● at 50 Hz	V·A	190

Safety related data:		
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
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		
<ul><li>during operation</li></ul>	°C	-25 <b>+</b> 60
during storage	°C	-55 <b>+</b> 80

## Certificates/ approvals:

General Product Approval other







Confirmation

Environmental Confirmations

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

### Industry Mall (Online ordering system)

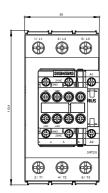
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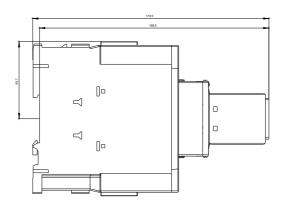
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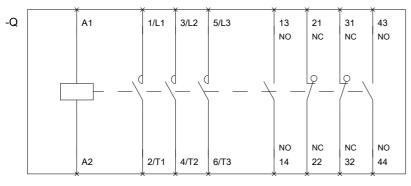
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