SIEMENS

Data sheet

3RT2037-1NB36



CONTACTOR,AC3:30KW/400V, 2NO+2NC, 20-33V AC/DC, WITH VARISTOR, 3-POLE, SIZE S2, SCREW TERMINAL LATERAL AUXILIARY CONTACT BLOCK

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)		
 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	A	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
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 $^\circ\mathrm{C}$	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 \geq 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/DC
Control supply voltage with AC		
• at 50 Hz Rated value	V	20 33
• at 60 Hz Rated value	V	20 33
Control supply voltage for DC		
Rated value	V	20 33

Operating range factor control supply voltage rated value of the magnet coil with AC		
• at 50 Hz		0.8 1.1
• at 60 Hz		0.8 1.1
Operating range factor control supply voltage rated	-	0.8 1.1
value of the magnet coil for DC		
Design of the surge suppressor	-	with varistor
Closing power of the magnet coil for DC	W	23
Holding power of the magnet coil for DC	W	1
Auxiliary circuit:		
Number of NC contacts		
 for auxiliary contacts 		
— instantaneous contact		3
Number of NO contacts		
 for auxiliary contacts 		
— instantaneous contact		3
Product expansion Auxiliary switch		No
Operating current at AC-15		
• at 230 V Rated value	A	6
• at 400 V Rated value	A	3
• at 690 V Rated value	A	1
Operating current		
• at DC-12 at 125 V Rated value	A	2
• at DC-12 at 220 V Rated value	A	1
• at DC-12 at 600 V Rated value	A	0.15
• at DC-13 at 125 V Rated value	A	0.9
• at DC-13 at 220 V Rated value	A	0.3
• at DC-13 at 600 V Rated value	А	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	А	6
— 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	A	65
• at 600 V Rated value	A	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
	hp	20
 for three-phase AC motor at 220/230 V Rated value 	metric hp	20
 for three-phase AC motor at 460/480 V Rated 	metric	50
value	hp	
 for three-phase AC motor at 575/600 V Rated 	metric	50
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		
·		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 		fuse gL/gG: 10 A
required		
nstallation/ mounting/ dimensions:		
nstallation/ mounting/ dimensions: mounting position		+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/-
		surface; can be tilted forward and backward by +/-
mounting position		surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard
mounting position Mounting type	mm	surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
mounting position Mounting type • Side-by-side mounting	mm	surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes
mounting position Mounting type • Side-by-side mounting Height		surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes 113.4
mounting position Mounting type • Side-by-side mounting Height Width	mm	surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes 113.4 75
mounting position Mounting type • Side-by-side mounting Height Width Depth	mm	surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes 113.4 75
mounting position Mounting type • Side-by-side mounting Height Width Depth Required spacing	mm	surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes 113.4 75
mounting position Mounting type • Side-by-side mounting Height Width Depth Required spacing • with side-by-side mounting	mm mm	surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes 113.4 75 130
mounting position Mounting type • Side-by-side mounting Height Width Depth Required spacing • with side-by-side mounting — forwards	mm mm	surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes 113.4 75 130
mounting position Mounting type • Side-by-side mounting Height Width Depth Required spacing • with side-by-side mounting	mm mm mm	surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes 113.4 75 130 0 0
mounting position Mounting type • Side-by-side mounting Height Width Depth Required spacing • with side-by-side mounting	mm mm mm mm	surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes 113.4 75 130 0 0 0
mounting position Mounting type • Side-by-side mounting Height Width Depth Required spacing • with side-by-side mounting	mm mm mm mm mm	surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes 113.4 75 130 0 0 0 0
mounting position Mounting type • Side-by-side mounting Height Width Depth Required spacing • with side-by-side mounting	mm mm mm mm mm	surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes 113.4 75 130 0 0 0 0
mounting position Mounting type • Side-by-side mounting Height Width Depth Required spacing • with side-by-side mounting — forwards — backwards — upwards — upwards — at the side • for grounded parts — forwards — forwards	mm mm mm mm mm mm	surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes 113.4 75 130 0 0 0 0 0
mounting position Mounting type • Side-by-side mounting Height Width Depth Required spacing • with side-by-side mounting — forwards — forwards — backwards — upwards — upwards — downwards — at the side • for grounded parts	mm mm mm mm mm mm	surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 Yes 113.4 75 130 0 0 0 0 0 0 0

— downwards	mm	50
for live parts		
•	mm	0
— forwards	mm	
— 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
• for auxiliary and control current circuit		screw-type 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 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)
 for AWG conductors for auxiliary contacts 		2x (20 16), 2x (18 14)
Apparent pick-up power of the magnet coil with AC		
• at 50 Hz	V·A	40
• at 60 Hz	V·A	40
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 other







Confirmation

Environmental Confirmations

urther information

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

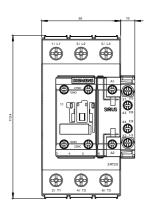
Industry Mall (Online ordering system) http://www.siemens.com/industrymall

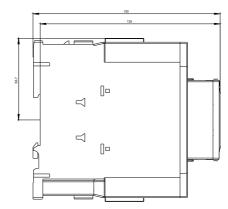
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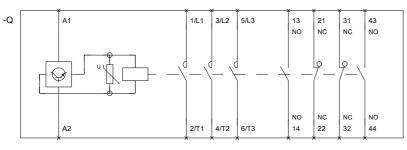
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT20371NB36&lang=en







last modified:

11.03.2015