SIEMENS

Data sheet

3RT2037-1AL20



CONTACTOR,AC3:30KW/400V, 1NO+1NC, 230V AC 50/60HZ, 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)		
 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
<i>N</i> ain 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		222
• at 50 Hz Rated value	V	230
at 60 Hz Rated value	V	230
Operating range factor control supply voltage rated value of the magnet coil with AC		
-		

• at 50 Hz		0.8 1.1
• at 60 Hz		0.85 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	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

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

hp

 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 / 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
 — 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		
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		
— 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
— upwards — at the side	mm	6
	mm	50
— downwards		
• for live parts		0
— 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
 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	210
• at 60 Hz	V·A	188
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
lechanical data:		
Size of contactor		S2
mbient conditions:		
Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
• during operation	°C	-25 +60
● during storage	°C	-55 +80
Certificates/ approvals:		
General Product Approval	oth	ner
	G	Confirmation Environmental Confirmations

Further information

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

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

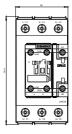
Industry Mall (Online ordering system) http://www.siemens.com/industrymall

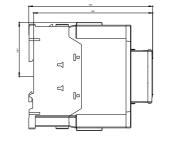
Cax online generator

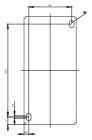
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT20371AL20

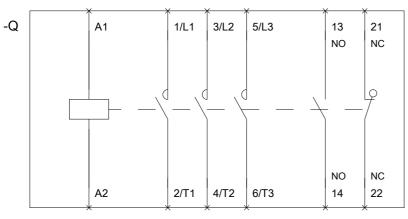
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RT20371AL20/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT20371AL20&lang=en









last modified:

11.03.2015