SIEMENS

Data sheet

3RT2038-1AR64



CONTACTOR,AC3:37KW/400V, 2NO+2NC,400VAC50HZ/400.440V60HZ 3-POLE, SIZE S2, SCREW 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- 		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	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
Aain 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
	_	

• 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 60 Hz Rated value Operating range factor control supply voltage rated	V	400 440
• at 50 Hz Rated value	V	400
Control supply voltage with AC		
Type of voltage of the control supply voltage		AC
Control circuit/ Control:		
• at AC-3 maximum	1/h	500
Operating frequency		
• at 690 V Rated value	kW	21.8
• at 400 V Rated value	kW	15.8
AC-4		
Operating power for ≥ 200000 operating cycles at		TO
— at 500 V Rated value — at 690 V Rated value	kW	45
- at 400 V Rated value	kW kW	37 37
- at 230 V Rated value	kW	22
• at AC-3		22
— at 690 V Rated value	kW	102
— at 690 V at 60 °C Rated value	kW	85
— at 400 V at 60 °C Rated value	kW	49
— at 230 V Rated value	kW	34
— at 230 V at 60 °C Rated value	kW	28
• at AC-1		20
Operating power		
• at AC-4 at 400 V Rated value	kW	30
• at AC-2 at 400 V Rated value	kW	37
• at AC-1 at 400 V Rated value	kW	59
Operating power		
— at 600 V Rated value	A	0.6
— at 440 V Rated value	А	0.6
— at 24 V Rated value	А	55
— at 220 V Rated value	А	25
— at 110 V Rated value	А	45
• at DC-3 at DC-5		
— at 600 V Rated value	А	1.4
— at 440 V Rated value	А	2.9
— at 220 V Rated value	А	45
— at 110 V Rated value	А	45
— at 24 V Rated value	A	55

		0.0 1.1
• 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		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	А	6
• 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	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	А	65
• at 600 V Rated value	А	62
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	15
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 value 	metric hp	25
 for three-phase AC motor at 460/480 V Rated value 	metric hp	50
 for three-phase AC motor at 575/600 V Rated value 	metric hp	60
Contact rating of the auxiliary contacts acc. to UL	P	A600 / Q600
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: 160 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	173.5
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
— at the side	mm	6
— downwards	mm	50
• for live parts		
— forwards	mm	0
— Backwards	mm	0
	mm	50
— upwards		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	212
• at 60 Hz	V·A	188
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 maximum	m	2 000
Ambient temperature	_	
during operation	°C	-25 +60
during operation	°C	-55 +80
	•	
Certificates/ approvals:		
General Product Approval	oth	
	<u>C</u>	Confirmation Environmental Confirmations

Further information

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

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

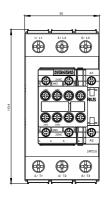
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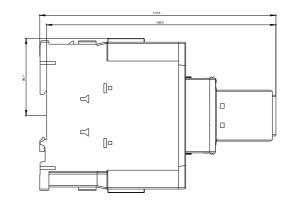
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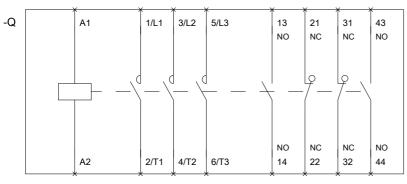
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