SIEMENS

Product data sheet

3RT2038-3AK60



CONTACTOR,AC3:37KW/400V, 1NO+1NC,110VAC 50HZ/120V 60HZ, 3-POLE, SIZE S2, SPRING-TYPE TERMINAL

General technical data:		
product brand name		SIRIUS
Size of contactor	-	S2
Product expansion		
Auxiliary switch		Yes
function module for communication		No
Protection class IP / on the front		IP20
Degree of pollution		3
Installation altitude / at height above sea level / maximum	m	2,000
Ambient temperature		
during storage	°C	-55 +80
during operation	°C	-25 +60
Surge voltage resistance / Rated value	kV	6
Insulation voltage / Rated value	V	690
maximum permissible voltage for safe isolation / between coil and main contacts / acc. to EN 60947-1	V	400
Mechanical service life (switching cycles)		
of the contactor / typical		10,000,000
of the contactor with added auxiliary switch block / typical		10,000,000
 of the contactor with added electronics-compatible auxiliary switch block / typical 		5,000,000

Main circuit:		
Number of NC contacts / for main contacts		0
Number of NO contacts / for main contacts		3
Connectable conductor cross-section / in main circuit		
• at AC-1		
• at 40 °C / minimum permissible	mm²	35
• at 60 °C / minimum permissible	mm²	35
Operating current		
• at AC-1 / up to 690 V		
• at ambient temperature 40 °C / Rated value	А	90
• at ambient temperature 60 °C / Rated value	А	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 / for \geq 200000 operating cycles / at AC-4		
• at 400 V / Rated value	А	30
• at 690 V / Rated value	А	24
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
• 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
• 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

Operating current		
• with 1 current path / 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
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / Rated value	А	55
• at 110 V / Rated value	А	25
• at 220 V / Rated value	А	5
• at 440 V / Rated value	А	0.27
• at 600 V / Rated value	А	0.16
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / Rated value	А	55
• at 110 V / Rated value	А	45
• at 220 V / Rated value	А	25
• at 440 V / Rated value	А	0.6
• at 600 V / Rated value	А	0.6
Operating power		
• at AC-1 / at 230 V / Rated value	kW	34
• at AC-1 / at 400 V / Rated value	kW	59
• at AC-1 / at 690 V / Rated value	kW	102
• at AC-2		
• at 400 V / Rated value	kW	37
• 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
• at AC-4		
• at 400 V / Rated value	kW	30
Operating power / for \geq 200000 operating cycles / at AC-4		
• at 400 V / Rated value	kW	15.8
• at 690 V / Rated value	kW	21.8
Thermal short-time current / restricted to 10 s	А	640
Active power loss / at AC-3 / at 400 V / for rated value of the operating current / per conductor	W	5.7
No-load switching frequency		
• with AC	1/h	5,000

Operating frequency		
• at AC-1 / maximum	1/h	700
• at AC-2 / maximum	1/h	350
• at AC-3 / maximum	1/h	500
• at AC-4 / maximum	1/h	150
Control circuit/ Control:		
Type of voltage / of the control supply voltage		AC
Control supply voltage	_	
• with AC / at 50 Hz / Rated value	V	110
• with AC / at 60 Hz / Rated value	V	120
Operating range factor control supply voltage rated value / of the magnet coil	_	
• with AC / at 50 Hz		0.8 1.1
• with AC / at 60 Hz		0.8 1.1
Apparent pick-up power / of the magnet coil / with AC		
• at 50 Hz	V·A	212
• at 60 Hz	V·A	188
Apparent holding power / of the magnet coil / with AC		
• at 50 Hz	V·A	18.5
• at 60 Hz	V·A	16.5
Closing delay	_	
• with AC	ms	10 80
Opening delay		
• with AC	ms	10 18
Arcing time	ms	10 20
Auxiliary circuit:		
Number of NC contacts / for auxiliary contacts / instantaneous contact		1
Number of NO contacts / for auxiliary contacts / instantaneous		1
contact		
Operating current		
• at AC-12 / maximum	А	10
• at AC-15		
• at 230 V / Rated value	А	10
• at 400 V / Rated value	А	3
• at 500 V / Rated value	А	2
• at 690 V / Rated value	А	1
Operating current / at DC-12		
• at 24 V / Rated value	А	10

• at 48 V / Rated value	А	6
• at 60 V / Rated value	А	6
• at 110 V / Rated value	А	3
• at 125 V / Rated value	А	2
• at 220 V / Rated value	А	1
• at 440 V / Rated value	А	0.3
• at 600 V / Rated value	А	0.15
Operating current / at DC-13		
• at 24 V / Rated value	А	10
• at 48 V / Rated value	А	2
• at 60 V / Rated value	А	2
• at 110 V / Rated value	А	1
• at 125 V / Rated value	А	0.9
• at 220 V / Rated value	А	0.3
• at 440 V / Rated value	А	0.14
• at 600 V / Rated value	А	0.1
UL/CSA ratings:		
yielded mechanical performance [hp]		
for single-phase AC motor		
• at 110/120 V / Rated value	hp	5
• at 230 V / Rated value	hp	15
for three-phase AC motor		
• at 200/208 V / Rated value	hp	20
• at 220/230 V / Rated value	hp	25
• at 460/480 V / Rated value	hp	50
• at 575/600 V / Rated value	hp	60
Full-load current (FLA) / for three-phase AC motor		
• at 480 V / Rated value	А	65
• at 600 V / Rated value	А	62
Contact rating / of the auxiliary contacts / acc. to UL		A600 / P600
Short-circuit:		
Design of the fuse link		
 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 surface

Width		mm	55	
Height		mm	113.4	
Depth		 mm	130	
Spacing required / with side-by-side mounting		mm	0	
Connections/ terminals:				
Design of the electrical connection				
 for main current circuit 			screw-type terminals	
• for auxiliary and control current circuit			spring-loaded terminals	
Type of connectable conductor cross-section	n	_		
 for main contacts 				
 single or multi-stranded 			2x (1 35 mm²), 1x (1 50 mm²)	
 finely stranded / with core end proce 	essing		2x (1 25 mm²), 1x (1 35 mm²)	
• for AWG conductors / for main contact	6		2x (18 2), 1x (18 1)	
Type of connectable conductor cross-section	n	_		
 for auxiliary contacts 				
 single or multi-stranded 			2x (0,5 2,5 mm²)	
 finely stranded / with core end proce 	essing		2x (0.5 1.5 mm²)	
 finely stranded / without core end pr 	ely stranded / without core end processing		2x (0.5 2.5 mm²)	
 for AWG conductors / for auxiliary cont 	acts		2x (20 14)	
Safety related data:				
Proportion of dangerous failures				
• with low demand rate / acc. to SN 3192	20	%	40	
• with high demand rate / acc. to SN 319	20	%	73	
Product function				
• Mirror contact acc. to IEC 60947-4-1			Yes	
positively driven operation acc. to IEC	60947-5-1		No	
Certificates/ approvals:				
General Product Approval	other			
	<u>Confirmation</u>			
Further information:				

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

Industry Mall (Online ordering system)

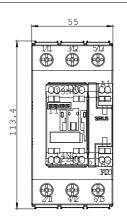
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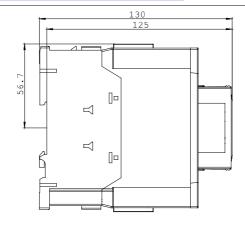
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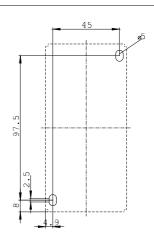
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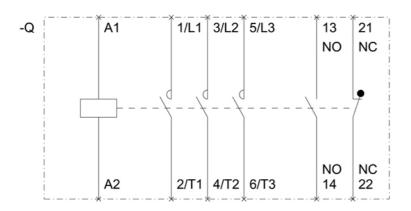
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RT2038-3AK60/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2038-3AK60









last change:

Dec 17, 2014