



CONTACTOR, AC-3, 5.5KW/400V, 1NO+1NC,
AC110V 50HZ, 120V 60HZ 3-POLE,
SZ S0 SCREW TERMINAL

General technical data:

Product brand name		SIRIUS
Product designation		3RT2 contactor
Size of the contactor		S0
Protection class IP / frontal/front side		IP20
Degree of pollution		3
Installation altitude / at a height over sea level / maximum	m	2000
Ambient temperature		
• during storage	°C	-55 ... 80
• during the operating phase	°C	-25 ... 60
• during transport	°C	-55 ... 80
Resistance against shock		12.5g / 5 ms and 7.8g / 10 ms
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	690
Resistive loss		
• per conductor / typical	W	0.5
Apparent loss power / of the magnet coil / at AC / typical	V·A	8.5
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		K

<ul style="list-style-type: none"> • according to DIN EN 61346-2 		Q
Mechanical operating cycles as operating time <ul style="list-style-type: none"> • of the contactor / typical • of the contactor with added auxiliary switch block / typical • of the contactor with added electronics-compatible auxiliary switch block / typical 		10000000 10000000 10000000
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 3 AC / rated value <ul style="list-style-type: none"> • maximum 	V	690
Operating current / at AC-1 / at 400 V <ul style="list-style-type: none"> • at 40 °C ambient temperature / rated value • at 60 °C ambient temperature / rated value 	A	40 35
Operating current <ul style="list-style-type: none"> • at AC-2 / at 400 V / rated value • at AC-3 / at 400 V / rated value • at AC-4 / at 400 V / rated value • with 1 current path / at DC-1 <ul style="list-style-type: none"> • at 24 V / rated value • at 110 V / rated value • with 2 current paths in series / at DC-1 <ul style="list-style-type: none"> • at 24 V / rated value • at 110 V / rated value • with 3 current paths in series / at DC-1 <ul style="list-style-type: none"> • at 24 V / rated value • at 110 V / rated value • with 1 current path / at DC-3 / at DC-5 <ul style="list-style-type: none"> • at 24 V / rated value • at 110 V / rated value • with 2 current paths in series / at DC-3 / at DC-5 <ul style="list-style-type: none"> • at 24 V / rated value • at 110 V / rated value • with 3 current paths in series / at DC-3 / at DC-5 <ul style="list-style-type: none"> • at 24 V / rated value • at 110 V / rated value 	A	12 12 12.5 35 4.5 35 35 35 35 20 2.5 35 15 35 35
Service power <ul style="list-style-type: none"> • at AC-2 / at 400 V / rated value 	kW	5.5

<ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value • at AC-4 / at 400 V / rated value 	kW	5.5
	kW	7.5
	kW	7.5
	kW	5.5
Operating reactive power / at AC-6b		
<ul style="list-style-type: none"> • at 230 V / rated value • at 400 V / rated value • at 690 V / rated value 	var	0
	var	0
	var	0
Off-load operating frequency	1/h	5000
Switching frequency		
<ul style="list-style-type: none"> • at AC-1 / according to IEC 60947-6-2 / maximum • at AC-2 / according to IEC 60947-6-2 / maximum • at AC-3 / according to IEC 60947-6-2 / maximum • at AC-4 / according to IEC 60947-6-2 / maximum 	1/h	1000
	1/h	1000
	1/h	1000
	1/h	300

Control circuit:

Design of activation of the operating mechanism		conventional
Type of voltage / of the controlled supply voltage		AC
Control supply voltage frequency		
<ul style="list-style-type: none"> • 1 / rated value • 2 / rated value 	Hz	50
	Hz	60
Control supply voltage / 1		
<ul style="list-style-type: none"> • at 50 Hz / for AC <ul style="list-style-type: none"> • rated value • at 60 Hz / for AC <ul style="list-style-type: none"> • rated value 	V	110
	V	120
Operating range factor control supply voltage rated value / of the solenoid		
<ul style="list-style-type: none"> • at 50 Hz / for AC • at 60 Hz / for AC 		0.8 ... 1.1
		0.85 ... 1.1
Apparent pull-in power / of the solenoid / for AC	V·A	65
Apparent holding power / of the solenoid / for AC	V·A	8.5
Inductive power factor		
<ul style="list-style-type: none"> • with the pull-in power of the coil • with the pull-in power of the coil 		0.82
		0.25

Auxiliary circuit:

Product extension / auxiliary switch		Yes
Contact reliability / of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)
Number of NC contacts / for auxiliary contacts		

<ul style="list-style-type: none"> instantaneous switching lagging switching 		1	
		0	
Number of NO contacts / for auxiliary contact			
<ul style="list-style-type: none"> instantaneous switching leading switching 		1	
		0	
Operating current / of the auxiliary contacts			
<ul style="list-style-type: none"> at AC-12 / maximum 	A	10	
<ul style="list-style-type: none"> at AC-15 			
<ul style="list-style-type: none"> at 230 V 	A	10	
<ul style="list-style-type: none"> at 400 V 	A	3	
<ul style="list-style-type: none"> at DC-12 			
<ul style="list-style-type: none"> at 48 V 	A	6	
<ul style="list-style-type: none"> at 60 V 	A	6	
<ul style="list-style-type: none"> at 110 V 	A	3	
<ul style="list-style-type: none"> at 220 V 	A	1	
<ul style="list-style-type: none"> at DC-13 			
<ul style="list-style-type: none"> at 24 V 	A	6	
<ul style="list-style-type: none"> at 48 V 	A	2	
<ul style="list-style-type: none"> at 60 V 	A	2	
<ul style="list-style-type: none"> at 110 V 	A	1	
<ul style="list-style-type: none"> at 220 V 	A	0.3	

Short-circuit:

Design of the fuse link

- for short-circuit protection of the auxiliary switch / required
- for short-circuit protection of the main circuit
 - at type of coordination 1 / required
 - at type of coordination 2 / required

fuse gL/gG: 10 A

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25A

Installation/mounting/dimensions:

Built in orientation		vertical
Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
Type of fixing/fixation / series installation		Yes
Width	mm	45
Height	mm	85
Depth	mm	92
Distance, to be maintained, to the ranks assembly		
<ul style="list-style-type: none"> forwards 	mm	0
<ul style="list-style-type: none"> backwards 	mm	0

• upwards	mm	6
• downwards	mm	6
• sideways	mm	0
Distance, to be maintained, to earthed part		
• forwards	mm	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	mm	6
Distance, to be maintained, conductive elements		
• forwards	mm	6
• backwards	mm	6
• upwards	mm	6
• downwards	mm	10
• sideways	mm	6

Connections:

Design of the electrical connection

- for main current circuit
- for auxiliary and control current circuit

screw-type terminals
screw-type terminals

Type of the connectable conductor cross-section

- for main contacts
 - unifilar
 - stranded wire
 - stranded wire
 - with conductor end processing
- at AWG-conductors / for main contacts
- for auxiliary contacts
 - solid
 - finely stranded
 - with wire end processing
- for AWG conductors / for auxiliary contacts

2x (1 ... 2.5 mm²), 2x (2.5 ... 10 mm²)
2x (1 ... 2.5 mm²), 2x (2.5 ... 10 mm²)
2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm²
2x (16 ... 12), 2x (14 ... 8)
2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
2x (20 ... 16), 2x (18 ... 14)

Certificates/approvals:

Verification of suitability

CE / UL / CSA / CCC

Safety:

B10 value / with high demand rate

- according to SN 31920

1000000

T1 value / for proof test interval or service life

- according to IEC 61508

a 20

Proportion of dangerous failures		
• with low demand rate / according to SN 31920	%	40
• with high demand rate / according to SN 31920	%	75
Failure rate (FIT value) / with low demand rate		
• according to SN 31920	FIT	100
Protection against electrical shock		finger-safe

Further information:

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

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

Industry Mall (Online ordering system)

<http://www.siemens.com/industrial-controls/mall>

CAX-Online-Generator

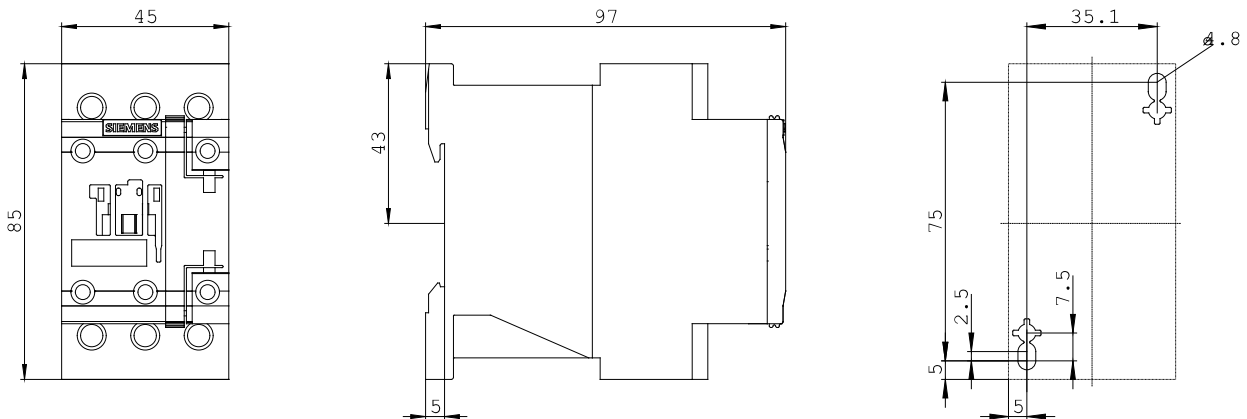
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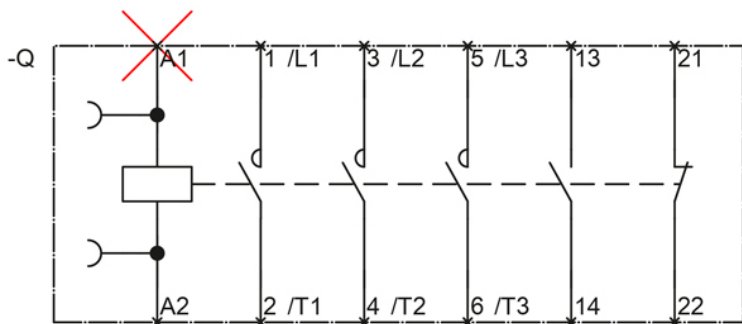
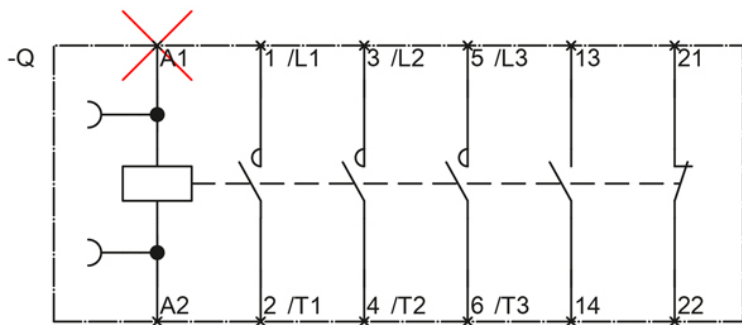
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2024-1AK60/all>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2024-1AK60





last change:

Oct 7, 2010