



CONTACTOR, AC-3, 7.5KW/400V, 2NO+2NC,
AC 230V 50/60HZ, 3-POLE,
SZ S0 SCREW TERMINAL PERMANENT AUX. SWITCH
FOR SUVA APPLICATIONS

General technical data:

Product brand name		SIRIUS
Size of the contactor		S0
Product extension / auxiliary switch		No
Protection class IP / on the front		IP20
Protection against electrical shock		finger-safe
Degree of pollution		3
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature / during storage	°C	-55 ... 80
Ambient temperature / during operating	°C	-25 ... 60
Shock resistance		
<ul style="list-style-type: none"> at rectangular impulse at AC at sine pulse at AC 		7,5g / 5 ms, 4,7g / 10 ms 11,8g / 5 ms, 7,4g / 10 ms
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	690
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 		10,000,000 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

Operating current

- at AC-1 / at 400 V
 - at 40 °C ambient temperature / rated value
 - at 60 °C ambient temperature / rated value
- at AC-2 / at 400 V / rated value
- at AC-3 / at 400 V / rated value
- at AC-4 / at 400 V / rated value

A	40
A	35
A	17
A	17
A	15.5

Operating current

- with 1 current path / at DC-1
 - at 24 V / rated value
 - at 110 V / rated value
- with 2 current paths in series / at DC-1
 - at 24 V / rated value
 - at 110 V / rated value
- with 3 current paths in series / at DC-1
 - at 24 V / rated value
 - at 110 V / rated value
- with 1 current path / at DC-3 / at DC-5
 - at 24 V / rated value
 - at 110 V / rated value
- with 2 current paths in series / at DC-3 / at DC-5
 - at 24 V / rated value
 - at 110 V / rated value
- with 3 current paths in series / at DC-3 / at DC-5
 - at 24 V / rated value
 - at 110 V / rated value

A	35
A	4.5
A	35
A	35
A	35
A	35
A	20
A	2.5
A	35
A	15
A	35
A	35

Service power

- at AC-2 / at 400 V / rated value
- at AC-3 / at 400 V / rated value
- at AC-4 / at 400 V / rated value

kW	7.5
kW	7.5
kW	7.5

Active power loss / per conductor / typical

W	0.9
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Off-load operating frequency

- at AC
- at DC

1/h	5,000
1/h	1,500

Frequency of operation		
• at AC-1 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-2 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-3 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-4 / according to IEC 60947-6-2 / maximum	1/h	300

Control circuit:		
Type of voltage / of the controlled supply voltage		AC
Control supply voltage / 1		
• at 50 Hz / for AC / rated value	V	230
• at 60 Hz / for AC / rated value	V	230
Working range factor supply voltage rated value / of the magnet coil		
• at 50 Hz / for AC		0.8 ... 1.1
• at 60 Hz / for AC		0.85 ... 1.1
Apparent pull-in power / of the solenoid / for AC	V·A	68
Apparent holding power / of the solenoid / for AC	V·A	7.9
Inductive power factor		
• with the pull-in power of the coil		0.82
• with the pull-in power of the coil		0.25
Closing delay		
• at AC	ms	9 ... 38
Opening delay		
• at AC	ms	4 ... 16
Arcing time	ms	10 ... 10

Auxiliary circuit:		
Contact reliability / of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)
Number of NC contacts / for auxiliary contacts / instantaneous switching		2
Number of NO contacts / for auxiliary contacts / instantaneous switching		2
Operating current / of the auxiliary contacts		
• at AC-12 / maximum	A	10
• at AC-15		
• at 230 V	A	6
• at 400 V	A	3
• at DC-12		
• at 48 V	A	6
• at 60 V	A	6
• at 110 V	A	3

- at 220 V
- at DC-13
- at 24 V
- at 48 V
- at 60 V
- at 110 V
- at 220 V

A	1
A	6
A	2
A	2
A	1
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
 - with type of assignment 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 141

Distance, to be maintained, to the ranks assembly / sideways

mm 0

Distance, to be maintained, to earthed part / 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
 - solid
 - stranded
 - finely stranded
 - with conductor end processing
- for AWG conductors / for main contacts
- for auxiliary contacts
 - solid
 - finely stranded

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)

- with conductor end processing
- for AWG conductors / for auxiliary contacts

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
2x (20 ... 16), 2x (18 ... 14)

Certificates/approvals:

General Product Approval



CQC



CSA

[ROSTEST](#)



UL

Shipping Approval



ABS



DNV



GL



LRS



PRS



RINA

Shipping Approval

other



RMRS

[Manufacturer](#)



VDE

UL/CSA ratings:

yielded mechanical performance (hp)

- for single-phase squirrel cage motors
 - at 110/120 V / rated value
 - at 230 V / rated value
- for three-phase squirrel cage motors
 - at 200/208 V / rated value
 - at 220/230 V / rated value
 - at 460/480 V / rated value
 - at 575/600 V / rated value

hp	1
hp	3
hp	3
hp	5
hp	10
hp	15

Operating current (FLA) / for three-phase squirrel cage motors

- at 480 V / rated value
- at 600 V / rated value

A	14
A	17

Contact rating designation / for auxiliary contacts / according to UL

A600 / Q600

Safety:related Parameter:

B10 value / with high demand rate

- according to SN 31920

1,000,000

T1 value / for proof test interval or service life

- according to IEC 61508

a	20
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Proportion of dangerous failures

- with low demand rate / according to SN 31920
- with high demand rate / according to SN 31920

%	40
%	73

Failure rate (FIT value) / with low demand rate

- according to SN 31920

FIT	100
	Yes
	No

Product function

- mirror contact to IEC 60947-4-1
- positively driven operation to IEC 60947-5-1

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:

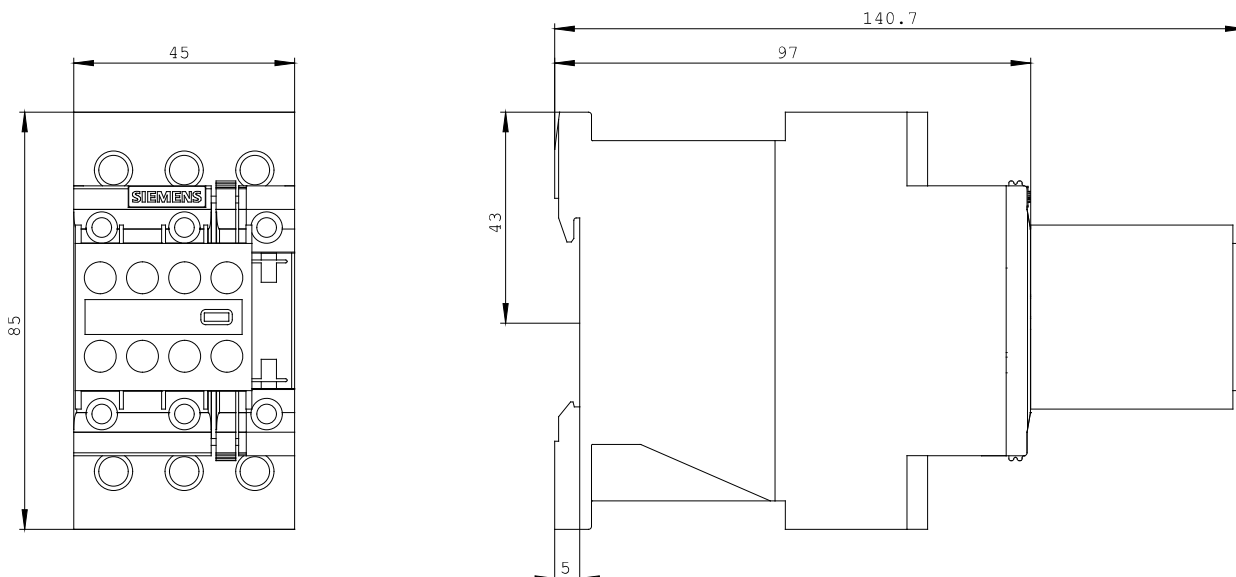
<http://www.siemens.com/cax>

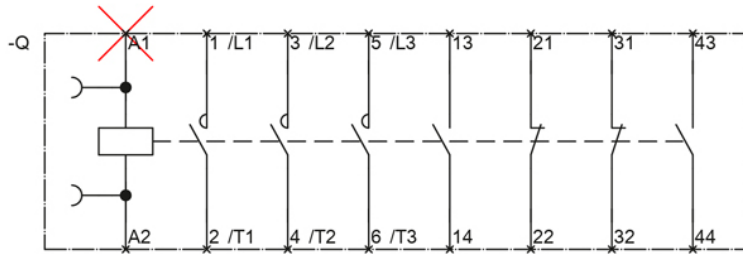
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2025-1AL24-3MA0/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2025-1AL24-3MA0





last change:

Oct 17, 2011