

CONTACTOR, AC-3, 7.5KW/400V, 1NO+1NC,
AC(40-60HZ)/DC ACTUAT. , UC 95...130V,
3-POLE, SZ S0 SCREW TERMINAL

General technical data:		
Product brand name		SIRIUS
Size of the contactor		S0
Product extension / auxiliary switch		Yes
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<ul style="list-style-type: none">• at AC• at DC• at sine pulse<ul style="list-style-type: none">• at AC• at DC		7,5g / 5 ms, 4,7g / 10 ms 10g / 5 ms, 7,5g / 10 ms 11,8g / 5 ms, 7,4g / 10 ms 15g / 5 ms, 10g / 10 ms
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	690
Mechanical operating cycles as operating time		

- of the contactor / typical
- of the contactor with added auxiliary switch block / typical
- of the contactor with added electronics-compatible auxiliary switch block / typical

10,000,000
10,000,000
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

Off-load operating frequency

• at AC	1/h	5,000
• at DC	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:

Design of the surge suppressor		with varistor
Type of voltage / of the controlled supply voltage		AC/DC
Control supply voltage / 1		
• for DC / initial rated value	V	95
• for DC / final rated value	V	130
• at 50 Hz / for AC / rated value	V	110
• at 50 Hz / for AC / initial rated value	V	95
• at 50 Hz / for AC / final rated value	V	130
• at 60 Hz / for AC / rated value	V	110
• at 60 Hz / for AC / initial rated value	V	95
• at 60 Hz / for AC / final rated value	V	130
Working range factor supply voltage rated value / of the magnet coil		
• at 50 Hz / for AC		0.7 ... 1.3
• at 60 Hz / for AC		0.7 ... 1.3
• for DC		0.7 ... 1.3
Apparent pull-in power / of the solenoid / for AC	V·A	13.6
Apparent holding power / of the solenoid / for AC	V·A	1.9
Inductive power factor		
• with the pull-in power of the coil		0.98
• with the pull-in power of the coil		0.61
Pull-in power / of the solenoid / for DC	W	13.2
Holding power / of the solenoid / for DC	W	1.56
Closing delay		
• at AC	ms	50 ... 70
• at DC	ms	50 ... 70
Opening delay		
• at AC	ms	35 ... 45
• at DC	ms	35 ... 45
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		1
Number of NO contacts / for auxiliary contacts / instantaneous switching		1
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	A	1
• at DC-13		
• at 24 V	A	6
• at 48 V	A	2
• at 60 V	A	2
• at 110 V	A	1
• 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
 - 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	107
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 <ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit 		screw-type terminals screw-type terminals
Type of the connectable conductor cross-section <ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> • solid • stranded • finely stranded <ul style="list-style-type: none"> • with conductor end processing • for AWG conductors / for main contacts • for auxiliary contacts <ul style="list-style-type: none"> • solid • finely stranded <ul style="list-style-type: none"> • with conductor 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:

General Product Approval



CQC



CSA

[ROSTEST](#)



UL

Test Certificates

[Manufacturer](#)

Shipping Approval



ABS



DNV



GL



LRS



PRS



RINA

Shipping Approval

other

[Manufacturer](#)



RMRS



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	A	14
• at 600 V / rated value	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
Proportion of dangerous failures		
• with low demand rate / according to SN 31920	%	40
• with high demand rate / according to SN 31920	%	73
Failure rate (FIT value) / with low demand rate		
• according to SN 31920	FIT	100
Product function		
• mirror contact to IEC 60947-4-1		Yes
• positively driven operation to IEC 60947-5-1		No

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:

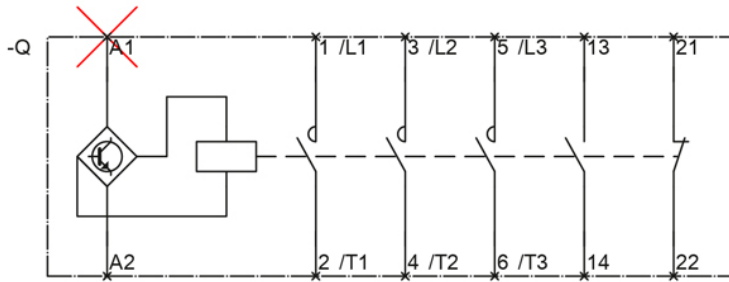
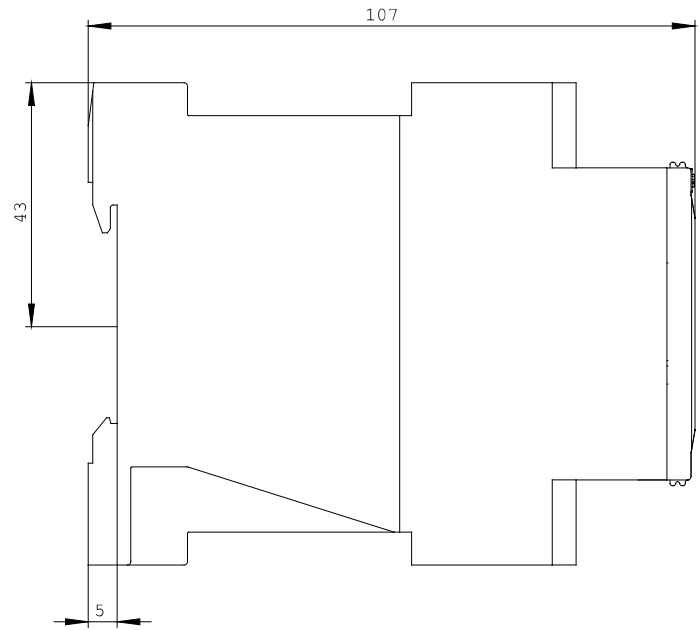
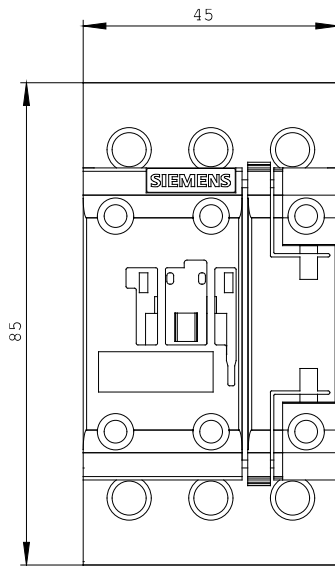
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RT2025-1NF30/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2025-1NF30



last change:

Oct 17, 2011