



CONTACTOR, AC-3, 7.5KW/400V, 1NO+1NC,
AC(50-60HZ)/DC ACTUAT. , UC 21...28V,
3-POLE, SZ S0 SCREW TERMINAL

General technical data:		
product brand name		SIRIUS
Size of the contactor		S0
Product extension / auxiliary switch		Yes
Product extension / function module for communication		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
• during operating	°C	-25 ... +60
Shock resistance		
• at rectangular impulse		
• at AC		7,5g / 5 ms, 4,7g / 10 ms
• at DC		10g / 5 ms, 7,5g / 10 ms
• at sine pulse		
• at AC		11,8g / 5 ms, 7,4g / 10 ms
• at DC		15g / 5 ms, 10g / 10 ms
Impulse voltage resistance / rated value	kV	6

Insulation voltage / rated value	V	690
Maximum permissible voltage for protective separation / between coil and main contacts / in accordance with EN 60947-1	V	400
Mechanical operating cycles as operating time		
• 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
Operating current / at AC-1 / at 400 V		
• at 40 °C ambient temperature / rated value	A	40
• at 60 °C ambient temperature / rated value	A	35
Connectable conductor cross-section / in main circuit		
• at AC-1		
• at 40 °C / minimum permissible	m ²	10
• at 60 °C / minimum permissible	m ²	10
Operational current		
• at AC-2 / at 400 V / rated value	A	17
• at AC-3		
• at 400 V / rated value	A	17
• at 500 V / rated value	A	17
• at 690 V / rated value	A	13
• at AC-4 / at 400 V / rated value	A	15.5
Operational current		
• with 1 current path / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	4.5
• at 220 V / rated value	A	1
• at 440 V / rated value	A	0.4
• at 600 V / rated value	A	0.25
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35
• at 220 V / rated value	A	5
• at 440 V / rated value	A	1
• at 600 V / rated value	A	0.8
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	A	35

• at 110 V / rated value	A	35
• at 220 V / rated value	A	35
• at 440 V / rated value	A	2.9
• at 600 V / rated value	A	1.4
Operational current		
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	2.5
• at 220 V / rated value	A	1
• at 440 V / rated value	A	0.09
• at 600 V / rated value	A	0.06
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	15
• at 220 V / rated value	A	3
• at 440 V / rated value	A	0.27
• at 600 V / rated value	A	0.16
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35
• at 220 V / rated value	A	10
• at 440 V / rated value	A	0.6
• at 600 V / rated value	A	0.6
Service power		
• at AC-1		
• at 230 V / rated value	kW	13.3
• at 400 V / rated value	kW	23
• at 500 V / rated value	kW	29
• at 690 V / rated value	kW	40
• at AC-2 / at 400 V / rated value	kW	7.5
• at AC-3		
• at 230 V / rated value	kW	4
• at 400 V / rated value	kW	7.5
• at 690 V / rated value	kW	11
• at AC-4 / at 400 V / rated value	kW	7.5
Active power loss / at AC-3 / at 400 V / with rated operational current value / per conductor	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	1/h	1,000
• at AC-2 / according to IEC 60947-6-2	1/h	1,000
• at AC-3 / according to IEC 60947-6-2	1/h	1,000
• at AC-4 / according to IEC 60947-6-2	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		
• for DC		
• rated value	V	21 ... 28
• at 50 Hz / at AC / rated value	V	24
• at 50 Hz / at AC		
• rated value	V	21 ... 28
• at 60 Hz / at AC / rated value	V	24
• at 60 Hz / at AC		
• rated value	V	21 ... 28
operating range factor control 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	6.5
Apparent holding power / of the solenoid / for AC	V·A	1.3
Inductive power factor		
• with the pull-in power of the coil		0.96
• with the pull-in power of the coil		0.78
Pull-in power / of the solenoid / for DC	W	6.7
Holding power / of the solenoid / for DC	W	1.63
Closing delay		
• at AC	ms	60 ... 80
• at DC	ms	60 ... 75
Opening delay		
• at AC	ms	30 ... 45
• at DC	ms	30 ... 45
Arcing time	ms	10 ... 10
Residual current / of electronics / for control with signal <0>		
• at 230 V / with AC / maximum permissible	mA	7
• at 24 V / with DC / maximum permissible	mA	16

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		
<ul style="list-style-type: none"> • [nicht versorgt: PMD_ABP551_001_000] • • at 690 V 	A A	2 1

UL/CSA ratings:

yielded mechanical performance (hp)		
<ul style="list-style-type: none"> • for single-phase squirrel cage motors <ul style="list-style-type: none"> • at 110/120 V / rated value • at 230 V / rated value • for three-phase squirrel cage motors <ul style="list-style-type: none"> • 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 hp hp hp hp hp	1 3 3 5 10 15
Operating current (FLA) / for three-phase squirrel cage motors		
<ul style="list-style-type: none"> • at 480 V / rated value • at 600 V / rated value 	A A	14 17
Contact rating designation / for auxiliary contacts / according to UL		A600 / Q600

Short-circuit:

Design of the fuse link		
<ul style="list-style-type: none"> • for short-circuit protection of the auxiliary switch / required • for short-circuit protection of the main circuit <ul style="list-style-type: none"> • 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:

mounting position		+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
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

Connections:

Design of the electrical connection		
<ul style="list-style-type: none"> • for main current circuit 		screw-type terminals
<ul style="list-style-type: none"> • for auxiliary and control current circuit 		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 		2x (1 ... 2.5 mm ²), 2x (2.5 ... 10 mm ²)
<ul style="list-style-type: none"> • finely stranded <ul style="list-style-type: none"> • with conductor end processing 		2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ²
<ul style="list-style-type: none"> • for AWG conductors / for main contacts 		2x (16 ... 12), 2x (14 ... 8)
<ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> • solid 		2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
<ul style="list-style-type: none"> • finely stranded <ul style="list-style-type: none"> • with conductor end processing 		2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
<ul style="list-style-type: none"> • for AWG conductors / for auxiliary contacts 		2x (20 ... 16), 2x (18 ... 14)

Sicherheitsrelevante Kenngrößen:

B10 value / with high demand rate		
<ul style="list-style-type: none"> • according to SN 31920 		1,000,000
T1 value / for proof test interval or service life		
<ul style="list-style-type: none"> • according to IEC 61508 	a	20
Proportion of dangerous failures		
<ul style="list-style-type: none"> • with low demand rate / according to SN 31920 	%	40
<ul style="list-style-type: none"> • with high demand rate / according to SN 31920 	%	73
Failure rate (FIT value) / with low demand rate		
<ul style="list-style-type: none"> • according to SN 31920 	FIT	100
Product function		
<ul style="list-style-type: none"> • mirror contact to IEC 60947-4-1 <ul style="list-style-type: none"> • comment 		Yes with 3RH29
<ul style="list-style-type: none"> • positively driven operation to IEC 60947-5-1 		No

Certificates/approvals:

General Product Approval	EMC	Functional Safety / Safety of Machinery
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CCC



CSA



GOST



UL



C-TICK

[Type Examination](#)

Declaration of Conformity

Test Certificates



EG-Konf.

[other](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

Shipping Approval



ABS



BUREAU
VERITAS



DNV



GL



LRS



PRS

Shipping Approval

other



RINA



RMRS

[Confirmation](#)



VDE

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

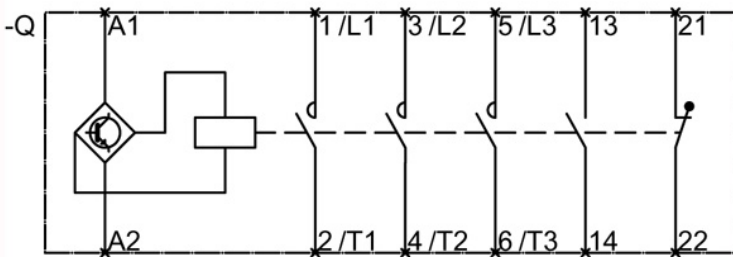
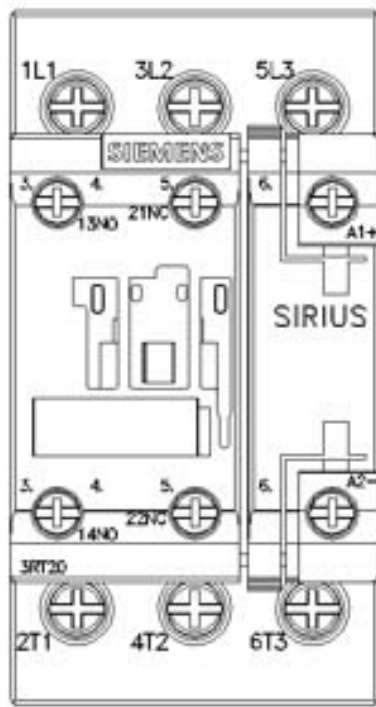
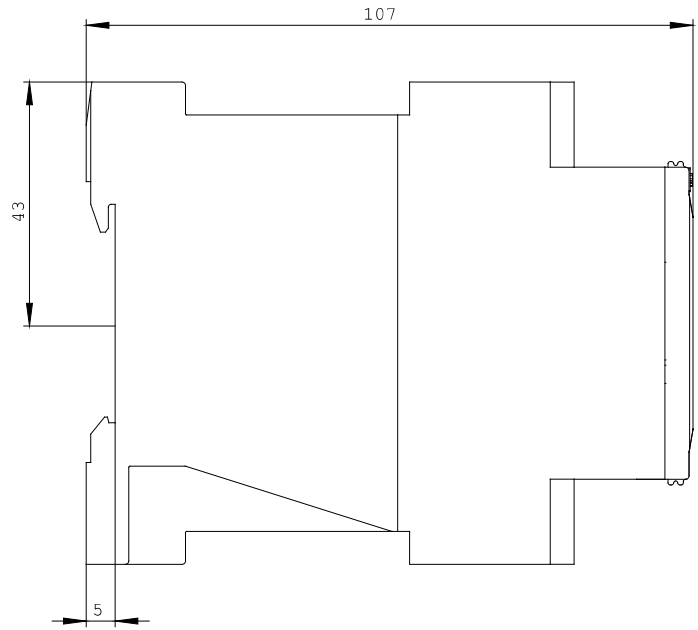
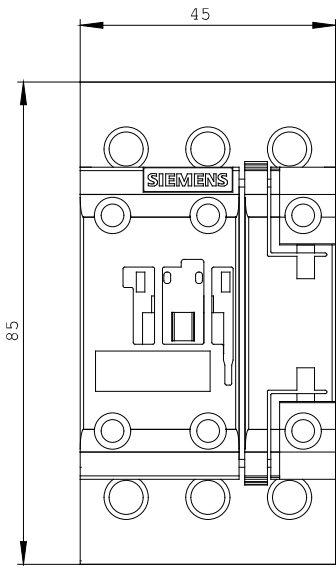
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RT2025-1NB30/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2025-1NB30



last change:

Feb 15, 2013