

3RT2025-1BB40 CONTACTOR,AC3:7,5KW 1NO+1NC DC24V

Technical / CAx data

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CONTACTOR, AC-3, 7.5KW/400V, 1NO+1NC, DC 24V, 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 impulseat DCat sine pulseat DC	
	10g / 5 ms, 7,5g / 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	<ul style="list-style-type: none">of the contactor / typicalof the contactor with added auxiliary switch block / typicalof 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	A	40	
• at 40 °C ambient temperature / rated value	A	35	
• at 60 °C ambient temperature / rated value	A	17	
• at AC-2 / at 400 V / rated value	A	17	
• at AC-3 / at 400 V / rated value	A	15.5	
• at AC-4 / at 400 V / rated value			
Operating current			
• with 1 current path / at DC-1	A	35	
• at 24 V / rated value	A	4.5	
• at 110 V / rated value	A	35	
• with 2 current paths in series / at DC-1	A	35	
• at 24 V / rated value	A	35	
• at 110 V / rated value	A	35	
• with 3 current paths in series / at DC-1	A	35	
• at 24 V / rated value	A	35	
• at 110 V / rated value	A	35	
• with 1 current path / at DC-3 / at DC-5	A	20	
• at 24 V / rated value	A	2.5	
• at 110 V / rated value	A	35	
• with 2 current paths in series / at DC-3 / at DC-5	A	15	
• at 24 V / rated value	A	35	
• at 110 V / rated value	A	35	
• with 3 current paths in series / at DC-3 / at DC-5	A	35	
• at 24 V / rated value	A	35	
• at 110 V / rated value			
Service power			
• at AC-2 / at 400 V / rated value	kW	7.5	
• at AC-3 / at 400 V / rated value	kW	7.5	
• at AC-4 / at 400 V / rated value	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	1/h	1,000	
Frequency of operation / at AC-2 / according to IEC 60947-6-2	1/h	1,000	
Frequency of operation / at AC-3 / according to IEC 60947-6-2	1/h	1,000	
Frequency of operation / at AC-4 / according to IEC 60947-6-2	1/h	300	
Control circuit:			
Type of voltage / of the controlled supply voltage	DC		
Control supply voltage / 1			
• for DC / rated value	V	24	
operating range factor control supply voltage rated value / of the magnet coil			
• for DC		0.8...1.1	
Pull-in power / of the solenoid / for DC	W	5.9	
Holding power / of the solenoid / for DC	W	5.9	
Closing delay			

● at DC	ms	50...170
Opening delay	ms	15...17.5
● at DC	ms	10...10
Arcing time		
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	A	6
● at 230 V	A	3
● at 400 V	A	6
● at DC-12	A	6
● at 48 V	A	6
● at 60 V	A	3
● at 110 V	A	1
● at 220 V	A	0.3
● at DC-13	A	6
● at 24 V	A	2
● at 48 V	A	2
● at 60 V	A	1
● at 110 V	A	0.3
● at 220 V	A	0.3
Short-circuit:		
Design of the fuse link		
● for short-circuit protection of the auxiliary switch / required	fuse gL/gG: 10 A	
● for short-circuit protection of the main circuit	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A	
● with type of assignment 1 / required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25A	
● at type of coordination 2 / required		
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		
● for main current circuit	screw-type terminals	
● for auxiliary and control current circuit	screw-type terminals	
Type of the connectable conductor cross-section		
● for main contacts	2x (1 ... 2.5 mm ²), 2x (2.5 ... 10 mm ²)	
● solid		

<ul style="list-style-type: none"> • 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 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ² 2x (16 ... 12), 2x (14 ... 8)
	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14)

Certificates/approvals:

General Product Approval			Declaration of Conformity	
<input checked="" type="checkbox"/> CCC	<input checked="" type="checkbox"/> CSA	<input checked="" type="checkbox"/> GOST	<input checked="" type="checkbox"/> UL	<input checked="" type="checkbox"/> EC-Declaratior
Test Certificates				
other	Special Test Certificate	Type Test Certificates/Test Report		
Shipping Approval				
<input checked="" type="checkbox"/> ABS (America)	<input checked="" type="checkbox"/> DNV / Det Nor	<input checked="" type="checkbox"/> GL / Germani	<input checked="" type="checkbox"/> LRS / Lloyds R	<input checked="" type="checkbox"/> PRS / Polski R
Shipping Approval	other			<input checked="" type="checkbox"/> RINA / Registr
<input checked="" type="checkbox"/> RMRS / Russ	Confirmation	<input checked="" type="checkbox"/> Household ar		

UL/CSA ratings:

yielded mechanical performance (hp)			
• for single-phase squirrel cage motors	hp	1	
• at 110/120 V / rated value	hp	3	
• at 230 V / rated value	hp	3	
• for three-phase squirrel cage motors	hp	5	
• at 200/208 V / rated value	hp	10	
• at 220/230 V / rated value	hp	10	
• at 460/480 V / rated value	hp	15	
• at 575/600 V / rated value	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:

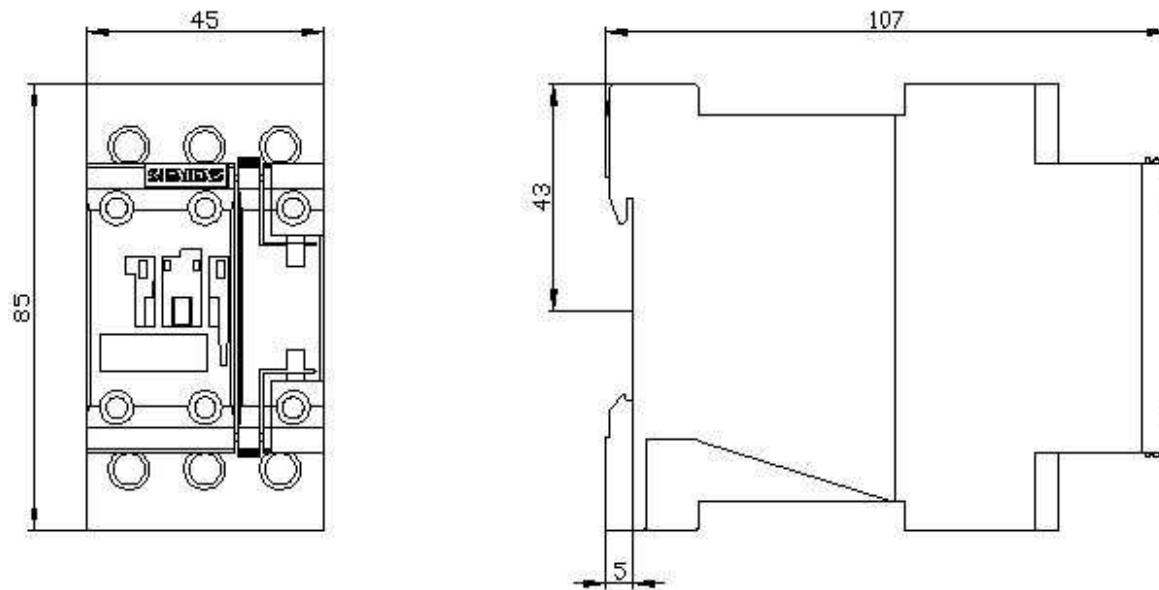
Information- and Downloadcenter (Catalogs, Brochures,...)
<http://www.siemens.com/industrial-controls/catalogs>

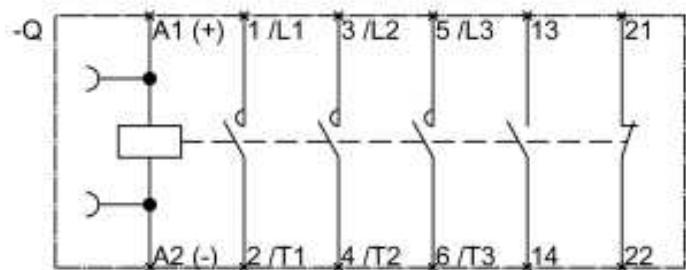
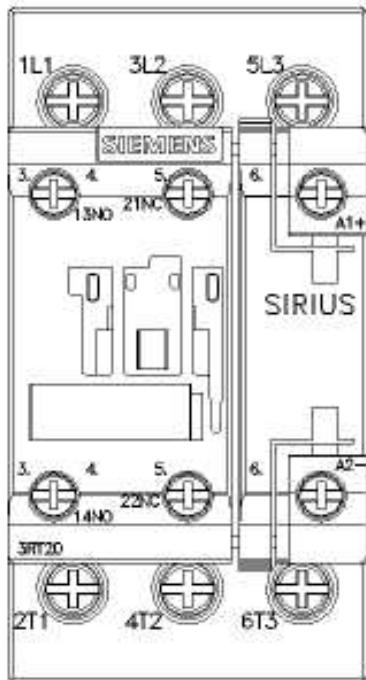
Industry Mall (Online ordering system)
<http://www.siemens.com/industrial-controls/mall>

Cax online generator:
<http://www.siemens.com/cax>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<http://support.automation.siemens.com/WW/view/en/3RT2025-1BB40/all>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2025-1BB40





last change:

Mar 27, 2012