SIEMENS

Data sheet 3RT2023-1AK60

power contactor, AC-3 9 A, 4 kW / 400 V 1 NO + 1 NC, 110 V AC, 50 Hz 120 V, 60 Hz, 3-pole Size S0, screw terminal



Product brand name	SIRIUS
Product designation	Power contactor
Product type designation	3RT2

General technical data	
Size of contactor	S0
Product extension	
 function module for communication 	No
Auxiliary switch	Yes
Power loss [W] for rated value of the current	
 at AC in hot operating state 	1.2 W
• at AC in hot operating state per pole	0.4 W
Power loss [W] for rated value of the current without	7.9 W
load current share typical	
Surge voltage resistance	
of main circuit rated value	6 kV
• of auxiliary circuit rated value	6 kV
maximum permissible voltage for safe isolation	
 between coil and main contacts acc. to EN 	400 V
60947-1	

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Protection class IP	
• on the front	IP20
• of the terminal	IP20
Shock resistance at rectangular impulse	
• at AC	7,5g / 5 ms, 4,7g / 10 ms
Shock resistance with sine pulse	
• at AC	11,8g / 5 ms, 7,4g / 10 ms
Mechanical service life (switching cycles)	
of contactor typical	10 000 000
 of the contactor with added electronics- compatible auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
Reference code acc. to DIN EN 81346-2	Q
Ambient conditions	
Installation altitude at height above sea level	2 000 m
maximum Ambient temperature	2 000 111
	-25 +60 °C
during operation	-55 +80 °C
during storage	-55 +60 C
Main circuit	
Number of poles for main current circuit	3
Number of NO contacts for main contacts	3
Operating voltage	
• at AC-3 rated value maximum	690 V
at AC-3 rated value maximum Operating current	690 V
 at AC-3 rated value maximum Operating current at AC-1 at 400 V 	
at AC-3 rated value maximum Operating current	690 V 40 A
 at AC-3 rated value maximum Operating current at AC-1 at 400 V — at ambient temperature 40 °C rated value 	
 at AC-3 rated value maximum Operating current at AC-1 at 400 V — at ambient temperature 40 °C rated value at AC-1 — up to 690 V at ambient temperature 40 °C 	40 A
 at AC-3 rated value maximum Operating current at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 up to 690 V at ambient temperature 40 °C rated value up to 690 V at ambient temperature 60 °C 	40 A 40 A
 at AC-3 rated value maximum Operating current at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 up to 690 V at ambient temperature 40 °C rated value up to 690 V at ambient temperature 60 °C rated value 	40 A 40 A 35 A
 at AC-3 rated value maximum Operating current at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 up to 690 V at ambient temperature 40 °C rated value up to 690 V at ambient temperature 60 °C rated value at AC-2 at 400 V rated value 	40 A 40 A 35 A
 at AC-3 rated value maximum Operating current at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 up to 690 V at ambient temperature 40 °C rated value up to 690 V at ambient temperature 60 °C rated value at AC-2 at 400 V rated value at AC-3 	40 A 40 A 35 A 9 A
 at AC-3 rated value maximum Operating current at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 up to 690 V at ambient temperature 40 °C rated value up to 690 V at ambient temperature 60 °C rated value at AC-2 at 400 V rated value at AC-3 at 400 V rated value 	40 A 40 A 35 A 9 A
 at AC-3 rated value maximum Operating current at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 up to 690 V at ambient temperature 40 °C rated value up to 690 V at ambient temperature 60 °C rated value at AC-2 at 400 V rated value at AC-3 at 400 V rated value at 500 V rated value 	40 A 40 A 35 A 9 A 9 A 9 A
 at AC-3 rated value maximum Operating current at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 up to 690 V at ambient temperature 40 °C rated value up to 690 V at ambient temperature 60 °C rated value at AC-2 at 400 V rated value at AC-3 at 400 V rated value at 500 V rated value at 690 V rated value 	40 A 40 A 35 A 9 A 9 A 9 A 9 A
 at AC-3 rated value maximum Operating current at AC-1 at 400 V — at ambient temperature 40 °C rated value at AC-1 — up to 690 V at ambient temperature 40 °C rated value — up to 690 V at ambient temperature 60 °C rated value at AC-2 at 400 V rated value at AC-3 — at 400 V rated value — at 500 V rated value — at 690 V rated value at AC-4 at 400 V rated value 	40 A 40 A 35 A 9 A 9 A 9 A 9 A 8.5 A
 at AC-3 rated value maximum Operating current at AC-1 at 400 V — at ambient temperature 40 °C rated value at AC-1 — up to 690 V at ambient temperature 40 °C rated value — up to 690 V at ambient temperature 60 °C rated value at AC-2 at 400 V rated value at AC-3 — at 400 V rated value — at 500 V rated value at AC-4 at 400 V rated value at AC-5a up to 690 V rated value 	40 A 40 A 35 A 9 A 9 A 9 A 9 A 8.5 A 35.2 A

 up to 230 V for current peak value n=20 rated value 	11.4 A
 up to 400 V for current peak value n=20 rated value 	11.4 A
— up to 500 V for current peak value n=20 rated value	9.1 A
— up to 690 V for current peak value n=20 rated value	9 A
• at AC-6a	
 up to 230 V for current peak value n=30 rated value 	7.6 A
 up to 400 V for current peak value n=30 rated value 	7.6 A
 up to 500 V for current peak value n=30 rated value 	6.1 A
 up to 690 V for current peak value n=30 rated value 	6.1 A
Minimum cross-section in main circuit	
• at maximum AC-1 rated value	10 mm ²
Operating current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	4.1 A
• at 690 V rated value	3.3 A
Operating current	
• at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
with 2 current paths in series at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	5 A
	370
— at 440 V rated value	1 A
— at 440 V rated value— at 600 V rated value	
	1 A
— at 600 V rated value	1 A
— at 600 V rated value• with 3 current paths in series at DC-1	1 A 0.8 A
 at 600 V rated value with 3 current paths in series at DC-1 at 24 V rated value 	1 A 0.8 A 35 A
 at 600 V rated value with 3 current paths in series at DC-1 at 24 V rated value at 110 V rated value 	1 A 0.8 A 35 A 35 A

 at 1 current path at DC-3 at DC-5 	
— at 24 V rated value	20 A
— at 110 V rated value	2.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.09 A
— at 600 V rated value	0.06 A
• with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 110 V rated value	15 A
— at 220 V rated value	3 A
— at 440 V rated value	0.27 A
— at 600 V rated value	0.16 A
 with 3 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	10 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
Operating power	
• at AC-2 at 400 V rated value	4 kW
• at AC-3	
— at 230 V rated value	2.2 kW
— at 400 V rated value	4 kW
— at 500 V rated value	4 kW
— at 690 V rated value	7.5 kW
Operating power for approx. 200000 operating cycles at AC-4	
● at 400 V rated value	2 kW
• at 690 V rated value	2.5 kW
Operating apparent output at AC-6a	
 up to 230 V for current peak value n=20 rated value 	4 500 V·A
 up to 400 V for current peak value n=20 rated value 	7 800 V·A
 up to 500 V for current peak value n=20 rated value 	7 800 V·A
 up to 690 V for current peak value n=20 rated value 	10 700 V·A
Operating apparent output at AC-6a	
 up to 230 V for current peak value n=30 rated value 	3 000 V·A
• up to 400 V for current peak value n=30 rated value	5 200 V·A

• up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value Short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum No-load switching frequency • at AC-1 maximum No-load switching frequency • at AC-2 maximum • at AC-2 maximum • at AC-3 maximum • at AC-3 maximum • at AC-4 maximum • at AC-3 maximum • at AC-4 maximum • at AC-5 maximum • at AC-4 maximum • at AC-4 maximum • at AC-5 maximum • at AC-4 maximum • at AC-5 maximum • at AC-4 maximum • at AC-4 maximum • at AC-5 maximum • at AC-4 maximum • at AC-5 maximum • at AC-4 maximum • at AC-5 maximum • at AC-6 maximum • at AC-7 maximum • at AC-8 maximum • at AC-9 maximum • at AC-9 maximum • at AC-1 rated value • at 50 Hz • at 50 Hz • at 60 Hz • at 60 Hz • at 50 Hz • at 60 Hz		
Up to 690 V for current peak value n=30 rated value Short-time withstand current in cold operating state up to 40 °C Ilimited to 1 s switching at zero current maximum Ilimited to 5 s switching at zero current maximum Ilimited to 10 s switching at zero current maximum Ilimited to 30 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum No-load switching frequency at AC		5 200 V·A
Short-time withstand current in cold operating state up to 40 °C Ilimited to 1 s switching at zero current maximum Ilimited to 5 s switching at zero current maximum Ilimited to 5 s switching at zero current maximum Ilimited to 10 s switching at zero current maximum Ilimited to 30 s switching at zero current maximum Ilimited to 30 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum Indicated switching frequency Indicated switching at zero current maximum cross-section acc. to AC-1 rated value Indicated switching at zero current frequency Indicated switching at zero curr	• up to 690 V for current peak value n=30 rated	7 200 V·A
up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum No-load switching frequency • at AC • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum • at AC-5 maximum • at AC-6 maximum • at AC-6 maximum • at AC-6 maximum • at AC-7 maximum • at AC-8 maximum • at AC-8 maximum • at AC-9 maximum • at AC-9 maximum • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum • at AC-4 maximum • at AC-5 maximum • at AC-6 maximum • at AC-7 maximum • at AC-8 maximum • at AC-9 maximum • at AC-9 maximum • at AC-1 maximum • at AC-1 maximum • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-3 maximum • at AC-4 maximum • at AC-5 maximum • at AC-6 maximum • at AC-7 maximum • at AC-8 maximum • at AC-9 maximum • at AC-9 maximum • at AC-9 maximum • at AC-1 maximum • at AC-1 maximum • at AC-1 maximum • at AC-1 maximum • at AC-2 maximum • at AC-2 maximum • at AC-3 maximum • at AC-3 maximum • at AC-1 maximum • at AC-3 maximum • at AC-1 maximum • at AC-2 maximum • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-3 maximum • at AC-3 maximum • at AC-3 maximum • at AC-4 maximum • at AC-3 maximum • at AC-3 maximum • at AC-3 maximum • at AC-4 maximum • at AC-3 maximum • at AC-4 maximu		
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maximum Imited to 10 s switching at zero current maximum Imited to 30 s switching at zero current maximum Imited to 60 s switching at zero current maximum No-load switching frequency at AC Operating frequency at AC-1 maximum 1 000 1/h at AC-2 maximum 1 000 1/h at AC-3 maximum 1 000 1/h at AC-4 maximum 1 000 1/h at AC-5 maximum 1 000 1/h at AC-6 maximum 1 000 1/h at AC-7 maximum 1 000 1/h at AC-8 maximum 1 000 1/h at AC-9 maximum 1 000 1/h at AC-1 maximum 1 000 1/h at AC-1 maximum 1 000 1/h at AC-2 maximum 1 000 1/h at AC-3 maximum 1 000 1/h at AC-4 maximum 1 000 1/h at AC-5 maximum 1 000 1/h at AC-6 maximum 1 000 1/h at AC-1 maximum 1 000 1/h at AC-1 maximum 1 000 1/h at AC-1 maximum 1 000 1/h at AC-2 maximum 1 000 1/h at AC-3 maximum 1 000 1/h at AC-4 maximum 1 000 1/h at AC-4 maximum 1 000 1/h at AC-5 maximum 1 000 1/h at AC-6 maximum 1 000 1/h at AC-7 maximum 1 000 1/h at AC-8 maximum 1 000 1/h at AC-9 maximum 1 000 1/h at AC-1 maximum 1 000 1/h at AC-1 maximum 1 000 1/h at AC-2 maximum 1 000 1/h at AC-3 maximum 1 000 1/h at AC-4 maximum 1 000 1/h at AC-5 maximum 1 000 1/h at AC-1 maximum 1 000 1/h at AC-1 maximum 1 000 1/h at AC-1 maximum 1 000 1/h at AC-2 maximum 1 000 1/h at AC-3 maximum 1 000 1/h at AC-3 maximum 1 000 1/h at AC-3 maximum 1 000 1/h at AC-4 maximum 1 000 1/h at AC-5 maximum 1 000 1/h at AC-6 maximum 1 000 1/h at AC-1 maximum 1 000 1/h at AC-1 maximum 1 000 1/h at AC-1 maximum 1 000 1/h at AC-2 maximum 1 000 1/h at AC-4 maximum 1 000 1/h at AC-5 maximum 1 000 1/h at AC-6 ma	· · · · · · · · · · · · · · · · · · ·	Tron, oscimilman cross section ass. to he mater value
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No-load switching frequency • at AC Operating frequency • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum Control circuit/ Control Type of voltage of the control supply voltage Control supply voltage at AC • at 50 Hz rated value • at 60 Hz rated value • at 50 Hz • at 60 Hz Apparent pick-up power of magnet coil at AC • at 50 Hz • at 60 Hz Apparent pick-up power of magnet coil at AC • at 50 Hz • at 60 Hz Inductive power factor with closing power of the coil	-	78 A; Use minimum cross-section acc. to AC-1 rated value
at AC Operating frequency at AC-1 maximum 1 000 1/h at AC-2 maximum 1 000 1/h at AC-3 maximum 1 000 1/h at AC-4 maximum 300 1/h Control circuit/ Control Type of voltage of the control supply voltage Control supply voltage at AC at 50 Hz rated value 110 V at 60 Hz rated value 120 V Operating range factor control supply voltage rated value of magnet coil at AC at 50 Hz at 60 Hz Apparent pick-up power of magnet coil at AC at 50 Hz at 60 Hz Apparent pick-up power of magnet coil at AC at 50 Hz at 60 Hz Inductive power factor with closing power of the coil	-	68 A; Use minimum cross-section acc. to AC-1 rated value
Operating frequency • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum • at AC-4 maximum • at AC-4 maximum • at AC-4 maximum Control circuit/ Control Type of voltage of the control supply voltage Control supply voltage at AC • at 50 Hz rated value • at 60 Hz rated value Operating range factor control supply voltage rated value of magnet coil at AC • at 50 Hz • at 60 Hz Apparent pick-up power of magnet coil at AC • at 50 Hz • at 60 Hz Inductive power factor with closing power of the coil	No-load switching frequency	
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at AC-2 maximum at AC-3 maximum at AC-4 maxim	Operating frequency	
at AC-3 maximum at AC-4 maximum 1 000 1/h 200 1/h Control circuit/ Control Type of voltage of the control supply voltage AC Control supply voltage at AC at 50 Hz rated value 110 V at 60 Hz rated value 120 V Operating range factor control supply voltage rated value of magnet coil at AC at 50 Hz at 60 Hz 0.8 1.1 Apparent pick-up power of magnet coil at AC at 50 Hz at 50 Hz 68 V·A at 60 Hz Inductive power factor with closing power of the coil	• at AC-1 maximum	1 000 1/h
at AC-4 maximum Control circuit/ Control Type of voltage of the control supply voltage AC Control supply voltage at AC at 50 Hz rated value 110 V at 60 Hz rated value 120 V Operating range factor control supply voltage rated value of magnet coil at AC at 50 Hz at 60 Hz 0.8 1.1 Apparent pick-up power of magnet coil at AC at 50 Hz at 60 Hz Ac 68 V·A at 60 Hz Inductive power factor with closing power of the coil	• at AC-2 maximum	1 000 1/h
Control circuit/ Control Type of voltage of the control supply voltage AC Control supply voltage at AC • at 50 Hz rated value • at 60 Hz rated value 120 V Operating range factor control supply voltage rated value of magnet coil at AC • at 50 Hz • at 60 Hz Apparent pick-up power of magnet coil at AC • at 50 Hz • at 60 Hz Apparent pick-up power of magnet coil at AC • at 50 Hz • at 60 Hz for V·A Inductive power factor with closing power of the coil	• at AC-3 maximum	1 000 1/h
Type of voltage of the control supply voltage Control supply voltage at AC • at 50 Hz rated value • at 60 Hz rated value 120 V Operating range factor control supply voltage rated value of magnet coil at AC • at 50 Hz • at 60 Hz Apparent pick-up power of magnet coil at AC • at 50 Hz • at 60 Hz for V·A Inductive power factor with closing power of the coil	• at AC-4 maximum	300 1/h
Control supply voltage at AC • at 50 Hz rated value • at 60 Hz rated value 120 V Operating range factor control supply voltage rated value of magnet coil at AC • at 50 Hz • at 60 Hz Apparent pick-up power of magnet coil at AC • at 50 Hz • at 50 Hz • at 60 Hz Apparent pick-up power of magnet coil at AC • at 50 Hz • at 60 Hz Inductive power factor with closing power of the coil	Control circuit/ Control	
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 at 60 Hz rated value Operating range factor control supply voltage rated value of magnet coil at AC at 50 Hz at 60 Hz 0.8 1.1 Apparent pick-up power of magnet coil at AC at 50 Hz at 50 Hz at 60 Hz 10 Hz 68 V·A at 60 Hz 10 Hz 11 Hz 120 V 11 Hz 120 V 120 V 121 Hz 120 V 121 Hz 120 V 121 Hz 120 V 121 Hz 121	Control supply voltage at AC	
Operating range factor control supply voltage rated value of magnet coil at AC • at 50 Hz • at 60 Hz Apparent pick-up power of magnet coil at AC • at 50 Hz • at 60 Hz for V·A Inductive power factor with closing power of the coil	• at 50 Hz rated value	110 V
value of magnet coil at AC ● at 50 Hz ● at 60 Hz Apparent pick-up power of magnet coil at AC ● at 50 Hz ● at 60 Hz 68 V·A ● at 60 Hz Inductive power factor with closing power of the coil	• at 60 Hz rated value	120 V
at 60 Hz Apparent pick-up power of magnet coil at AC at 50 Hz at 60 Hz at 60 Hz Inductive power factor with closing power of the coil		
Apparent pick-up power of magnet coil at AC • at 50 Hz • at 60 Hz Inductive power factor with closing power of the coil	● at 50 Hz	0.8 1.1
• at 50 Hz • at 60 Hz • at 60 Hz Inductive power factor with closing power of the coil 68 V·A 67 V·A	● at 60 Hz	0.8 1.1
• at 60 Hz 67 V·A Inductive power factor with closing power of the coil	Apparent pick-up power of magnet coil at AC	
Inductive power factor with closing power of the coil	● at 50 Hz	68 V·A
	● at 60 Hz	67 V·A
0.72	Inductive power factor with closing power of the coil	
♥ at 50 HZ	• at 50 Hz	0.72
● at 60 Hz 0.74	• at 60 Hz	0.74
Apparent holding power of magnet coil at AC	Apparent holding power of magnet coil at AC	
● at 50 Hz 7.9 V·A	● at 50 Hz	
● at 60 Hz 6.5 V·A		7.9 V·A
	• at 60 Hz	

coil

● at 50 Hz	0.25
● at 60 Hz	0.28
Closing delay	
• at AC	9 38 ms
Opening delay	
• at AC	4 16 ms
Arcing time	10 10 ms
Control version of the switch operating mechanism	Standard A1 - A2
A 11: 14	
Auxiliary circuit	

Auxiliary circuit	
Number of NC contacts for auxiliary contacts	
• instantaneous contact	1
Number of NO contacts for auxiliary contacts	
 instantaneous contact 	1
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V rated value	10 A
• at 400 V rated value	3 A
• at 500 V rated value	2 A
• at 690 V rated value	1 A
Operating current at DC-12	
• at 24 V rated value	10 A
• at 48 V rated value	6 A
• at 60 V rated value	6 A
• at 110 V rated value	3 A
• at 125 V rated value	2 A
• at 220 V rated value	1 A
• at 600 V rated value	0.15 A
Operating current at DC-13	
at 24 V rated value	10 A
• at 48 V rated value	2 A
• at 60 V rated value	2 A
• at 110 V rated value	1 A
• at 125 V rated value	0.9 A
• at 220 V rated value	0.3 A
● at 600 V rated value	0.1 A
Contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)

UL/CSA ratings	
Full-load current (FLA) for three-phase AC motor	
• at 480 V rated value	7.6 A
• at 600 V rated value	9 A
Yielded mechanical performance [hp]	

 for single-phase AC motor 	
— at 110/120 V rated value	1 hp
— at 230 V rated value	1 hp
 for three-phase AC motor 	
— at 200/208 V rated value	2 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	5 hp
— at 575/600 V rated value	7.5 hp
Contact rating of auxiliary contacts according to UL	A600 / P600

Short-circuit protection	
Design of the fuse link	
 for short-circuit protection of the main circuit 	
 with type of coordination 1 required 	gG: 63A (690V,100kA), aM: 32A (690V,100kA), BS88: 63A (415V,80kA)
 with type of assignment 2 required 	gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80kA)
 for short-circuit protection of the auxiliary switch required 	gG: 10 A (500 V, 1 kA)

nstallation/ mounting/ dimensions	
Mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
 Side-by-side mounting 	Yes
Height	85 mm
Width	45 mm
Depth	97 mm
Required spacing	
with side-by-side mounting	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
• for grounded parts	
— forwards	10 mm
— upwards	10 mm
— at the side	6 mm
— downwards	10 mm
• for live parts	
— forwards	10 mm
— upwards	10 mm

— downwards	10 mm
— at the side	6 mm

Connections/ Terminals	
Type of electrical connection	
for main current circuit	screw-type terminals
 for auxiliary and control current circuit 	screw-type terminals
 at contactor for auxiliary contacts 	Screw-type terminals
• of magnet coil	Screw-type terminals
Type of connectable conductor cross-sections	
• for main contacts	
— solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)
 single or multi-stranded 	2x (1 2,5 mm²), 2x (2,5 10 mm²)
 finely stranded with core end processing 	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
 at AWG conductors for main contacts 	2x (16 12), 2x (14 8)
Connectable conductor cross-section for main	
contacts	
• solid	1 10 mm²
• stranded	1 10 mm²
 finely stranded with core end processing 	1 10 mm²
Connectable conductor cross-section for auxiliary	
contacts	
 single or multi-stranded 	0.5 2.5 mm²
finely stranded with core end processing	0.5 2.5 mm²
Type of connectable conductor cross-sections	
for auxiliary contacts	
— single or multi-stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 at AWG conductors for auxiliary contacts 	2x (20 16), 2x (18 14)
AWG number as coded connectable conductor cross	
section	
• for main contacts	16 8
for auxiliary contacts	20 14
Safety related data	
B10 value	
 with high demand rate acc. to SN 31920 	1 000 000
Proportion of dangerous failures	
• with low demand rate acc. to SN 31920	40 %

• with high demand rate acc. to SN 31920

• with low demand rate acc. to SN 31920

Failure rate [FIT]

Product function

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73 %

100 FIT

Mirror contact acc. to IEC 60947-4-1	Yes
T1 value for proof test interval or service life acc. to IEC 61508	20 y
Protection against electrical shock	finger-safe
Suitability for use safety-related switching OFF	Yes

Certificates/ approvals

General Product Approval

EMC





Declaration of Conformity







	Marine / Ship- ping
t	

Functional
Safety/Safety
of Machinery

Franckis mad

Type Examination Certificate



Miscellaneous

Type Test Certific-ates/Test Report

Test Certificates

KC

Special Tes Certi-ficate



Marine / Shipping









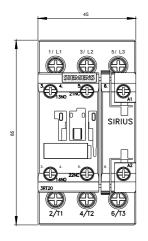


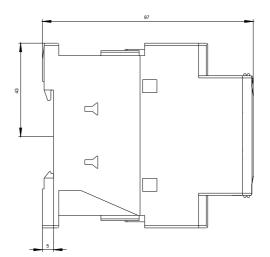
other

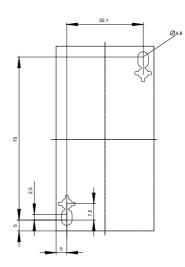
Confirmation

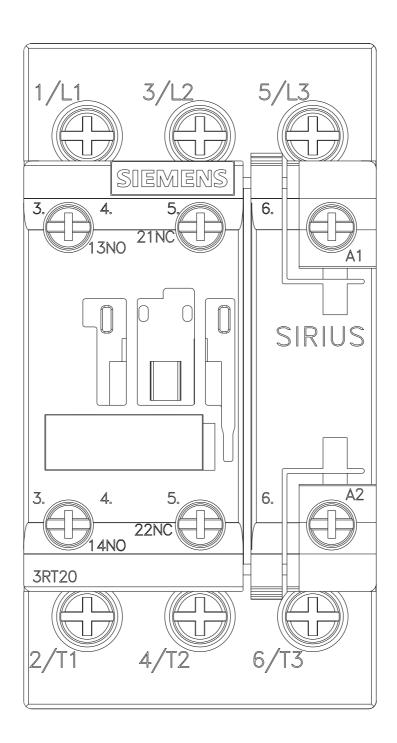
other

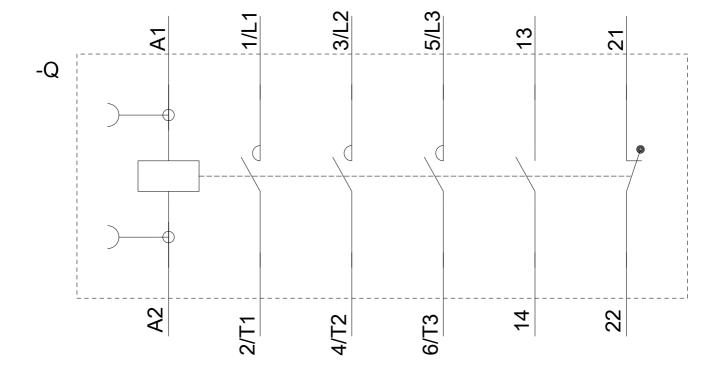












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