SIEMENS

Data sheet 3RT2024-1AP00



power contactor, AC-3e/AC-3, 12 A, 5.5 kW / 400 V, 3-pole, 230 V AC, 50 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S0

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 	0.9 W
 at AC in hot operating state per pole 	0.3 W
without load current share typical	1.9 W
type of calculation of power loss depending on pole	quadratic
insulation voltage	
 of main circuit with degree of pollution 3 rated value 	690 V
of auxiliary circuit with degree of pollution 3 rated value	690 V
surge voltage resistance	
of main circuit rated value	6 kV
of auxiliary circuit rated value	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	400 V
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 (operating cycles)	
 of contactor typical 	10 000 000
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000
of the contactor with added auxiliary switch block typical	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
Weight	0.406 kg
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
 during operation 	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %

Environmental footprint	
Environmental Product Declaration(EPD)	Yes
Global Warming Potential [CO2 eq] total	74.2 kg
Global Warming Potential [CO2 eq] during manufacturing	1.9 kg
Global Warming Potential [CO2 eq] during operation	72.4 kg
Global Warming Potential [CO2 eq] after end of life	-0.117 kg
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-3e rated value maximum 	690 V
operational current	
 at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 	40 A
— up to 690 V at ambient temperature 40 °C rated value	40 A
— up to 690 V at ambient temperature 60 °C rated value	35 A
• at AC-3	
— at 400 V rated value	12 A
— at 500 V rated value	12 A
— at 690 V rated value	9 A
• at AC-3e	
— at 400 V rated value	12 A
— at 500 V rated value	12 A
— at 690 V rated value	9 A
• at AC-4 at 400 V rated value	12.5 A
• at AC-5a up to 690 V rated value	35.2 A
at AC-5b up to 400 V rated value	9.9 A
• at AC-6a	44.4
— 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	11.3 A
 up to 690 V for current peak value n=20 rated value at AC-6a 	9 A
— 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	7.6 A
— up to 690 V for current peak value n=30 rated value	7.6 A
minimum cross-section in main circuit at maximum AC-1 rated value	10 mm²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	5.5 A
at 690 V rated value	5.5 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 60 V rated value	20 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 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A

with 3 current paths in series at DC-1	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	35 A
— at 440 V rated value	2.9 A
— at 600 V rated value	1.4 A
• at 1 current path at DC-3 at DC-5	Let A
— at 24 V rated value	20 A
— at 60 V rated value	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 60 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 60 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-3	
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	7.5 kW
• at AC-3e	
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	7.5 kW
operating power for approx. 200000 operating cycles at AC-4	
at 400 V rated value	2.6 kW
• at 690 V rated value	4.6 kW
operating apparent power at AC-6a	
• up to 230 V for current peak value n=20 rated value	4.5 kVA
• up to 400 V for current peak value n=20 rated value	7.8 kVA
• up to 500 V for current peak value n=20 rated value	9.8 kVA
• up to 690 V for current peak value n=20 rated value	10.7 kVA
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	3 kVA
• up to 400 V for current peak value n=30 rated value	5.2 kVA
• up to 500 V for current peak value n=30 rated value	6.5 kVA
• up to 690 V for current peak value n=30 rated value	9 kVA
short-time with stand current in cold operating state up to 40 $^{\circ}\text{C}$	
 limited to 1 s switching at zero current maximum 	210 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	210 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	170 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	126 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 60 s switching at zero current maximum 	105 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	5 000 1/h

operating frequency • at AC-2 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum • at AC-5 have a according to according		
# at AC-2 maximum	operating frequency	
+ al AC 3-maximum	• at AC-1 maximum	1 000 1/h
### ARC-Se maximum ### ARC-Se maximum ### S00 9 th ### S0	• at AC-2 maximum	1 000 1/h
### ARC4 maximum Type of Voltage of the control supply voltage AC Control supply voltage at AC ### at SO Hz tracted value Operating range factor control a supply voltage rated value of magnet coil at AC ### at SO Hz ### and	• at AC-3 maximum	1 000 1/h
Control strottle Control	• at AC-3e maximum	1 000 1/h
ype of voltage of the control supply voltage control supply voltage at AC	• at AC-4 maximum	300 1/h
ype of voltage of the control supply voltage control supply voltage at AC		
control supply voltage at AC at 50 Nz related value operating range factor control supply voltage rated value of magnet coil at AC 0.8 1.1 apparent pick-up power of magnet coil at AC 65 VA inductive power factor with closing power of the coil 65 VA inductive power factor with the holding power of the coil 0.82 apparent holding power of magnet coil at AC 15 0 Nz a 15 0 Nz 7.6 VA Inductive power factor with the holding power of the coil 0.25 closing delay 11 AC a 15 0 Nz 8 40 ms operating file 10 10 ms control varsion of the switch operating mechanism Standard A1 - A2 Availlary circuit 10 ms number of NC contacts for auxiliary contacts instantaneous contact 1 number of NC contacts for auxiliary contacts instantaneous contact 1 operational current at AC-15 3 A a 12 30 V rated value 10 A a 12 30 V rated value 10 A a 12 4 V rated value 10 A a 12 4 V rated value 10 A a 12 4 V rated value 6 A <td< th=""><th></th><th>AC.</th></td<>		AC.
■ at 50 Hz mied value		7.0
magnet coil at AC		230 V
### ### ##############################		
apparent pick-up power of magnet coil at AC • ut 00 1t2 at 00 1t2 parent holding power factor with closing power of the coil • at 50 1t2 at 50 1t2 7.6 VA inductive power factor with the holding power of the coil • at 50 1t2 closing delay • at AC 8 40 ms opening delay • at AC a and AC a and AC copening delay • at AC a and AC a and AC a and AC control version of the switch operating mechanism Standard A1 - A2 Auxiliary crieati rumber of NC contacts for auxiliary contacts instantaneous contact contact operational current at AC-12 maximum operational current at AC-13 maximum operational current at AC-13 maximum operational current at AC-14 maximum operational current at AC-12		
at 50 Hz	• at 50 Hz	0.8 1.1
Inductive power factor with closing power of the coil	apparent pick-up power of magnet coil at AC	
■ at 50 Hz apparent holding power of magnet coil at AC ■ at 50 Hz T.6 VA Inductive power factor with the holding power of the coil ■ at 50 Hz at	● at 50 Hz	65 VA
apparent holding power of magnet coil at AC	inductive power factor with closing power of the coil	
* at 50 Hz	• at 50 Hz	0.82
* at 50 Hz	apparent holding power of magnet coil at AC	
Inductive power factor with the holding power of the coil • at 50 Hz 0.25 closing delay • at AC 4 16 ms opening delay • at AC 4 16 ms arcing time 10 10 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous 1 control version of the switch operating mechanism 10 10 ms control version of the switch operating mechanism 1 control version of the switch operating mechanism		7.6 VA
e at 50 Hz closing delay at AC at AC penning delay at AC at AC at AC at AC at AC at AC penning delay at AC by Tated value at AC by Tated value at AC at	inductive power factor with the holding power of the coil	
closing delay		0.25
• at AC opining delay • at AC arcling time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous 1 1 10 4 4 4 4 4 4 4 4 4 4 4 4 4		
e at AC 416 ms arcing time 1010 ms control version of the switch operating mechanism Slandard A1 - A2 Auxiliary circuit rumber of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous 1 contact number of NC contacts for auxiliary contacts instantaneous 2 contact contacts for auxiliary contacts instantaneous 1 contact contacts for auxiliary contacts instantaneous 2 contact contacts for auxiliary contacts instantaneous 2 contact contacts for auxiliary contacts instantaneous 3 contact contacts for auxiliary contacts instantaneous 2 contact contacts for auxiliary contacts instantaneous 3 contact contacts for auxiliary contacts instantaneous 2 contact contacts for auxiliary contacts 10 A at 400 V rated value 10 A at 400 V rated value 2 A at 400 V rated value 10 A at 48 V rated value 6 A at 48 V rated value 6 A at 48 V rated value 10 A at 48 V rated value 2 A at 48 V rated value 10 A at 48 V rated value 2 A at 48 V rated value 2 A at 48 V rated value 10 A at 20 V rated value 10 A at 48 V rated value 11 A at 48 V rated value 11 A yleided mochanical performance (tp)		8 40 ms
		o vo illo
arcing time		4 16 ms
control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum 10 A operational current at AC-12 maximum 10 A operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 400 V rated value • at 600 V rated value • at 600 V rated value • at 84 V rated value • at 84 V rated value • at 80 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value • at 100 V rated value • at 110 V rated value • at 11		
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous 1		
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum 10 A operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 690 V rated value • at 690 V rated value • at 690 V rated value • at 48 V rated value • at 48 V rated value • at 110 V rated value • at 110 V rated value • at 120 V rated value • at 120 V rated value • at 140 V rated value • at 24 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value • at 48 V rated value • at 110		Statiual (I A I - AZ
contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-15 10 A e at 230 V rated value 10 A e at 230 V rated value 3 A e at 500 V rated value 2 A e at 690 V rated value 1 A operational current at DC-12 10 A e at 24 V rated value 6 A e at 48 V rated value 6 A e at 48 V rated value 6 A e at 110 V rated value 3 A e at 125 V rated value 2 A e at 220 V rated value 1 A e at 220 V rated value 1 A e at 600 V rated value 0.15 A operational current at DC-13 10 A e at 24 V rated value 2 A e at 48 V rated value 2 A e at 48 V rated value 2 A e at 110 V rated value 1 A e at 22 V rated value 2 A e at 125 V rated value 0.9 A e at 220 V rated value 0.3 A e at 600 V rated value 0.1 A contact reliability of auxiliar		
number of NO contacts for auxiliary contacts instantaneous		1
Operational current at AC-12 maximum	number of NO contacts for auxiliary contacts instantaneous	1
operational current at AC-15		10 A
	·	
		10 Δ
• at 500 V rated value		
• at 690 V rated value 1 A operational 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 2 A • at 125 V rated value 1 A • at 220 V rated value 1 A • at 600 V rated value 10 A • at 25 V rated value 10 A • at 25 V rated value 2 A • at 26 V rated value 10 A • at 26 V rated value 2 A • at 27 V rated value 2 A • at 48 V rated value 2 A • at 110 V rated value 1 A • at 125 V rated value 1 A • at 200 V rated value 1 A • at 480 V rated value 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 3-phase AC motor • at 480 V rated value 11 A • at 600 V rated value 11 A yielded mechanical performance [hp]		
operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 24 V rated value • at 24 V rated value • at 24 V rated value • at 36 V rated value • at 27 V rated value • at 28 V rated value • at 29 V rated value • at 20 V rated value • at 20 V rated value • at 20 V rated value • at 30 V rated value • at 20 V rated value • at 20 V rated value • at 30 V rated value • at 480 V rated value		
 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 220 V rated value at 600 V rated value 0.15 A operational current at DC-13 at 24 V rated value at 48 V rated value at 60 V rated value at 60 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 20 V rated value at 30 V rated value at 600 V rated value at 480 V rated value at 14 A yielded mechanical performance [hp] 		TA .
 at 48 V rated value at 60 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value outs A outs A v rated value outs A v rated value at 24 V rated value at 24 V rated value at 24 V rated value at 60 V rated value at 60 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 125 V rated value at 120 V rated value at 600 V rated value at 480 V rated value at 480 V rated value at 480 V rated value at 600 V rated value at 480 V rated value at 1 A at 600 V rated value at 1 A at 600 V rated value at 1 A 	•	40.4
 at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value ot 50 V rated value ot 50 V rated value ot 24 V rated value at 24 V rated value at 24 V rated value at 48 V rated value at 60 V rated value at 60 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 480 V rated value at 600 V rated value at 480 V rated value at 1A at 600 V rated value at 1A 		
 at 110 V rated value at 125 V rated value at 220 V rated value 1 A at 600 V rated value 0.15 A operational current at DC-13 at 24 V rated value at 80 V rated value at 60 V rated value at 60 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 220 V rated value at 600 V rated value at 70 A 		
 at 125 V rated value at 220 V rated value 1 A at 600 V rated value 0.15 A operational current at DC-13 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 220 V rated value at 600 V rated value at 1 A yielded mechanical performance [hp] 		
■ at 220 V rated value ■ at 600 V rated value ■ 0.15 A Operational current at DC-13 ■ at 24 V rated value ■ at 48 V rated value ■ at 60 V rated value ■ at 110 V rated value ■ at 110 V rated value ■ at 125 V rated value ■ at 125 V rated value ■ at 220 V rated value ■ at 220 V rated value ■ at 220 V rated value ■ at 600 V rated value □ 1 A Contact reliability of auxiliary contacts I faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor ■ at 480 V rated value ■ at 600 V rated value		
• at 600 V rated value 0.15 A operational current at DC-13 • at 24 V rated value 10 A • at 48 V rated value 2 A • at 60 V rated value 1 A • at 110 V rated value 1 A • at 125 V rated value 1 A • at 220 V rated value 1 A • at 600 V rated value 1 A • at 600 V rated value 1 A • at 600 V rated value 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 3-phase AC motor • at 480 V rated value 11 A • at 600 V rated value 11 A yielded mechanical performance [hp]	• at 125 V rated value	
operational current at DC-13 • at 24 V rated value	• at 220 V rated value	1 A
 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 480 V rated value at 480 V rated value at 480 V rated value at 600 V rated value 	at 600 V rated value	0.15 A
 at 48 V rated value at 60 V rated value at 110 V rated value 1 A at 125 V rated value at 220 V rated value at 600 V rated value at 600 V rated value 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 11 A yielded mechanical performance [hp] yelded mechanical performance [hp]	operational current at DC-13	
 at 60 V rated value 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 3-phase AC motor at 480 V rated value at 600 V rated value 11 A yielded mechanical performance [hp] 	• at 24 V rated value	10 A
at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 11 A yielded mechanical performance [hp]	• at 48 V rated value	2 A
at 125 V rated value at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 11 A yielded mechanical performance [hp]	• at 60 V rated value	2 A
at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value yielded mechanical performance [hp]	• at 110 V rated value	1 A
at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value yielded mechanical performance [hp]	at 125 V rated value	0.9 A
• at 600 ∨ rated value	at 220 V rated value	0.3 A
contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp]		
### Comparison of Comparison o		
full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value 11 A yielded mechanical performance [hp]		The state of the s
● at 480 V rated value 11 A ● at 600 V rated value 11 A yielded mechanical performance [hp]		
• at 600 V rated value 11 A yielded mechanical performance [hp]		11 A
yielded mechanical performance [hp]		
		IIA
■ Ioi single-pnase AC motor		
	◆ for single-phase AC motor	

— at 110/120 V rated value	1 hp
— at 230 V rated value	2 hp
• for 3-phase AC motor	
— at 200/208 V rated value	3 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	7.5 hp
— at 575/600 V rated value	10 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)
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
fastening method side-by-side mounting	Yes
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
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 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)
— solid or stranded	2x (1 2.5 mm²), 2x (2.5 10 mm²)
— solid or stranded — finely stranded with core end processing	2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
— finely stranded with core end processing	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
— finely stranded with core end processingfor AWG cables for main contacts	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
— finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8)
— finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts • solid	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 1 10 mm²
— finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts • solid • stranded	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 1 10 mm² 1 10 mm²
— finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts • solid • stranded • finely stranded with core end processing	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 1 10 mm² 1 10 mm²
— finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts • solid • stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 1 10 mm² 1 10 mm² 1 10 mm²
— finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts • solid • stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 1 10 mm² 1 10 mm² 1 10 mm²
— finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts • solid • stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 1 10 mm² 1 10 mm² 1 10 mm²
- finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts • solid • stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 1 10 mm² 1 10 mm² 1 10 mm²

 for AWG cables 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	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
 positively driven operation according to IEC 60947-5-1 	No
suitable for safety function	Yes
suitability for use safety-related switching OFF	Yes
service life maximum	20 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
 with low demand rate according to SN 31920 	40 %
 with high demand rate according to SN 31920 	73 %
B10 value with high demand rate according to SN 31920	1 000 000
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
ISO 13849	
device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type A
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Approvals Certificates	









Confirmation



General Product Approval

EMV

Test Certificates

Marine / Shipping

<u>KC</u>





Special Test Certificate Type Test Certificates/Test Report



Marine / Shipping







<u>Miscellaneous</u>

other

Confirmation

other

Railway

Environment

Confirmation

Special Test Certificate



Environmental Confirmations

Further informatior

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2024-1AP00

Cax online generator

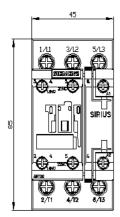
 $\underline{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT2024-1AP00}$

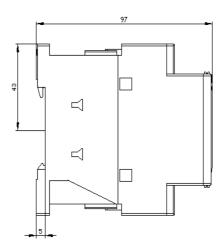
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT2024-1AP00

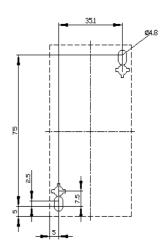
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2024-1AP00&lang=en

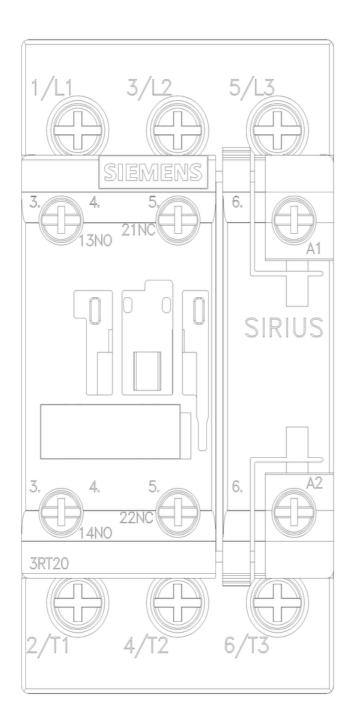
Characteristic: Tripping characteristics, I2t, Let-through current

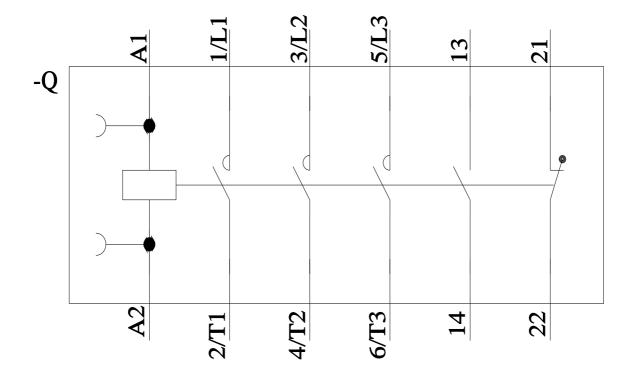
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2024-1AP00&objecttype=14&gridview=view1











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