Data sheet 3RT2027-1CL24-3MA0



power contactor, AC-3e/AC-3, 32 A, 15 kW / 400 V, 3-pole, 230 V AC, 50/60 Hz, with plugged-in varistor, auxiliary contacts: 2 NO + 2 NC, screw terminal, size: S0, captive auxiliary switch

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	No
power loss [W] for rated value of the current	
 at AC in hot operating state 	6.3 W
 at AC in hot operating state per pole 	2.3 W
 without load current share typical 	10.5 W
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	8,3g / 5 ms, 5,3g / 10 ms
shock resistance with sine pulse	
• at AC	13,5g / 5 ms, 8,3g / 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
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 %
Main circuit	
number of poles for main current circuit	3

	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	50 A
value	
• at AC-1	
 up to 690 V at ambient temperature 40 °C rated value 	50 A
— up to 690 V at ambient temperature 60 °C rated	42 A
value	
• at AC-3	
— at 400 V rated value	32 A
— at 500 V rated value	32 A
— at 690 V rated value	21 A
• at AC-3e	
— at 400 V rated value	32 A
— at 500 V rated value	32 A
— at 690 V rated value	21 A
• at AC-4 at 400 V rated value	22 A
• at AC-5a up to 690 V rated value	44 A
• at AC-5b up to 400 V rated value	26.5 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	30.8 A
— up to 400 V for current peak value n=20 rated value	30.8 A
— up to 500 V for current peak value n=20 rated value	27 A
— up to 690 V for current peak value n=20 rated value	21 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	20.5 A
— up to 400 V for current peak value n=30 rated value	20.5 A
— up to 500 V for current peak value n=30 rated value	18 A
— up to 690 V for current peak value n=30 rated value	18 A
minimum cross-section in main circuit at maximum AC-1 rated	
	10 mm²
value	10 mm ²
	10 mm²
value operational current for approx. 200000 operating cycles at	10 mm²
value operational current for approx. 200000 operating cycles at AC-4	
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value	12 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value	12 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current	12 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1	12 A 12 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value	12 A 12 A 35 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 60 V rated value	12 A 12 A 35 A 20 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 60 V rated value — at 110 V rated value	12 A 12 A 35 A 20 A 4.5 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value	12 A 12 A 35 A 20 A 4.5 A 1 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 440 V rated value	12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value	12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value • with 2 current paths in series at DC-1	12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — at 22 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value	12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A 0.25 A
operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 600 V rated value — at 600 V rated value	12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A 0.25 A
value operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — 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	12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A 0.25 A
operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — at 24 V rated value — at 600 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value	12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 35 A
operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 110 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value — at 220 V rated value — at 600 V rated value — at 24 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 60 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value	12 A 12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 35 A 35 A 35 A
operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 600 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 600 V rated value — at 440 V rated value — at 600 V rated value	12 A 12 A 12 A 20 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 35 A 35 A 36 A 37 A 38
operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value — at 220 V rated value — at 220 V rated value — at 24 V rated value — at 240 V rated value — at 440 V rated value — at 600 V rated value	12 A 12 A 12 A 35 A 20 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 35 A 36 A 37 A 38
poperational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 110 V rated value — at 60 V rated value — at 60 V rated value — at 60 V rated value — at 120 V rated value — at 220 V rated value — at 24 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value • with 3 current paths in series at DC-1 — at 24 V rated value • with 3 current paths in series at DC-1 — at 24 V rated value — at 60 V rated value	12 A 12 A 12 A 20 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 35 A 36 A 37 A 38
operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 110 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 24 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 60 V rated value — at 60 V rated value — at 220 V rated value — at 24 V rated value — at 24 V rated value — at 24 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value • with 3 current paths in series at DC-1 — at 24 V rated value — at 100 V rated value	12 A 12 A 12 A 20 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 35 A 36 A 37 A 38
operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 60 V rated value — at 220 V rated value — at 24 V rated value — at 24 V rated value — at 24 V rated value — at 600 V rated value — at 24 V rated value — at 24 V rated value — at 20 V rated value	12 A 12 A 12 A 20 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 35 A 35 A 36 A 37 A 38
operational current for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 110 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 24 V rated value — at 600 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 60 V rated value — at 60 V rated value — at 220 V rated value — at 24 V rated value — at 24 V rated value — at 24 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value • with 3 current paths in series at DC-1 — at 24 V rated value — at 100 V rated value	12 A 12 A 12 A 20 A 4.5 A 1 A 0.4 A 0.25 A 35 A 35 A 35 A 36 A 37 A 38

1041/	00.4
— 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-2 at 400 V rated value	15 kW
• at AC-3	
— at 230 V rated value	7.5 kW
— at 400 V rated value	15 kW
— at 500 V rated value	15 kW
— at 690 V rated value	18.5 kW
	10.5 KVV
• at AC-3e	7.5 120
— at 230 V rated value	7.5 kW
— at 400 V rated value	15 kW
— at 500 V rated value	15 kW
— at 690 V rated value	18.5 kW
operating power for approx. 200000 operating cycles at AC-	
at 400 V rated value	6 kW
at 690 V rated value	10.3 kW
operating apparent power at AC-6a	10.0 KVV
• up to 230 V for current peak value n=20 rated value	12.2 kVA
·	21.3 kVA
up to 400 V for current peak value n=20 rated value	
• up to 500 V for current peak value n=20 rated value	23.3 kVA
up to 690 V for current peak value n=20 rated value	25 kVA
operating apparent power at AC-6a	0.41374
• up to 230 V for current peak value n=30 rated value	8.1 kVA
• up to 400 V for current peak value n=30 rated value	14.2 kVA
 up to 500 V for current peak value n=30 rated value 	15.5 kVA
up to 690 V for current peak value n=30 rated value	21.5 kVA
short-time withstand current in cold operating state up to 40 °C	
	400 At Lieu minimum erose coetion and to AC 4 rated value
Ilmited to 1 s switching at zero current maximum	499 A; Use minimum cross-section acc. to AC-1 rated value
Ilimited to 5 s switching at zero current maximum	341 A; Use minimum cross-section acc. to AC-1 rated value
Iimited to 10 s switching at zero current maximum	260 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	199 A; Use minimum cross-section acc. to AC-1 rated value
limited to 60 s switching at zero current maximum	162 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	5 000 1/h
	5 000 1/h
• at AC	5 000 1/h 1 000 1/h
at AC operating frequency	
at AC operating frequency at AC-1 maximum	1 000 1/h
at AC operating frequency at AC-1 maximum at AC-2 maximum	1 000 1/h 750 1/h
 at AC operating frequency at AC-1 maximum at AC-2 maximum at AC-3 maximum 	1 000 1/h 750 1/h 750 1/h
 at AC operating frequency at AC-1 maximum at AC-2 maximum at AC-3 maximum at AC-3e maximum 	1 000 1/h 750 1/h 750 1/h 750 1/h

Sprice of violage of the control supply voltage at AC 20 V		
• at 80 Hz rated value 230 V operating range factor control supply voltage rated value of magnate cont at AC at 50 Hz • at 50 Hz 0.8 1.1 e still 00 Hz 0.85 1.1 design of the surge suppressor with variation apparent pick-up power of magnet coil at AC 1 HVA • at 50 Hz 0.72 • at 50 Hz 0.74 • at 50 Hz 0.74 • at 50 Hz 0.72 • at 50 Hz 0.74 • at 50 Hz 0.74 • at 50 Hz 0.75 • at 80 Hz 0.25 • at 80 Hz 0.25 • at 80 Hz 0.28 closing delay • at 60 Hz • at AC 416 ms arcing time 1010 ms contiact 240 ms contiact 240 ms <td>type of voltage of the control supply voltage</td> <td>AC</td>	type of voltage of the control supply voltage	AC
a st 0Hz rated value 230 V ceresting range factor control supply voltage rated value of ragents coil at AC 0.8 ± .1.1 a xt 0Hz 0.85 ± .1.1 design of the surge suppressor with variator a xt 0Hz 81 VA a xt 0Hz 181 VA a xt 0Hz 70 VA Inductive power factor with closing power of the coil 4 xt 0Hz a xt 0Hz 0.72 a xt 0Hz 4 xt 0Hz a xt 0Hz 0.72 a xt 0Hz 4 xt 0Hz a xt 0Hz 0.72 a xt 0Hz <		
operating range factor control supply voltage rated value of magnet coll at 50 Hz		
magnet coil at AC at 50 Hz 0.851.1 design of the surge suppressor with varietor apparent pick-up power of magnet coil at AC at 50 Hz 31 VA a 150 Hz 31 VA 31 VA inductive power factor with closing power of the coil 4 20 VA a 150 Hz 0.72 0.74 a paparent holding power of magnet coil at AC 4 50 Hz 0.5 VA a 150 Hz 4 50 Hz 0.25 a 150 Hz 0.25 0.28 a 150 Hz 0.25 0.28 a 150 Hz 0.25 0.28 closing delay 0.25 0.28 a 150 Hz 0.25 0.28 closing delay 0.4 A. 16 ms 0.8 a 150 Hz 0.10 ms 0.8 control version of the switch operating mechanism 2. 0.8 control version of the switch operating mechanism 2. 0.8 control version of the switch operating mechanism 2. 0.8 control version of VC contacts for auxiliary contacts instantaneous contact 2. 0.8		230 V
+ all Ol Hz		
design of the surge suppressor	● at 50 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	● at 60 Hz	0.85 1.1
a 150 Hz	design of the surge suppressor	with varistor
* at 60 Hz	apparent pick-up power of magnet coil at AC	
Inductive power factor with closing power of the coil	• at 50 Hz	81 VA
	• at 60 Hz	79 VA
	inductive power factor with closing power of the coil	
a parent holding power of magnet coil at AC	• at 50 Hz	0.72
* at 60 Hz	• at 60 Hz	0.74
miductive power factor with the holding power of the coil a 15 0Hz	apparent holding power of magnet coil at AC	
inductive power factor with the holding power of the coil 0.25 a st 60 Hz 0.28 closing delay at AC 840 ms opening delay 110 ms a rcing time 1010 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 2 number of NC contacts for auxiliary contacts instantaneous contact 2 ontact 1040 ms operational current at AC-12 maximum 10 A operational current at AC-12 maximum 10 A operational current at AC-12 maximum 10 A operational current at DC-12 3.A • at 580 V rated value 542 ms • at 580 V rated value 1A • at 24 V rated value 6.A • at 48 V rated value 6.A • at 48 V rated value 6.A • at 48 V rated value 6.A • at 22 V rated value 6.A • at 110 V rated value 1.A • at 220 V rated value 1.A • at 220 V rated value 2.A • at 600 V rated value <td>● at 50 Hz</td> <td>10.5 VA</td>	● at 50 Hz	10.5 VA
• at 50 Hz • at 60 Hz closing delay • at AC	• at 60 Hz	8.5 VA
• at 60 Hz 0.28 closing delay	inductive power factor with the holding power of the coil	
al AC	● at 50 Hz	0.25
• at AC 8 40 ms opening delay 4 16 ms arcing time 10 10 ms Slandard A1 - A2 Auxiliary circuit Image of NC contacts for auxiliary contacts instantaneous contact 2 number of NC contacts for auxiliary contacts instantaneous contact 2 number of NC contacts for auxiliary contacts instantaneous contact 2 contact 10 A 2 contact of NC contacts for auxiliary contacts instantaneous contact 2 contact 2 contact 2 contact 2 contact 2 contact 2 contact 6 A contact contact value contact value contact valu	● at 60 Hz	0.28
opening delay 4 and Cm 4 and Cm arcing time 10 and 0 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 2 number of NC contacts for auxiliary contacts instantaneous contact 2 operational current at AC-12 maximum 10 A operational current at AC-15 maximum 6 A operational current at AC-14 maximum 6 A operational current at Variet value 2 A ot 230 V rated value 3 A ot 300 V rated value 1 A operational current at DC-12 1 A ot 24 V rated value 6 A ot 300 V rated value 6 A ot 300 V rated value 6 A ot 48 V rated value 6 A ot 11 10 V rated value 6 A ot 12 V rated value 1 A ot 27 V rated value 1 A ot 28 V rated value 6 A ot 29 V rated value 1 A	closing delay	
	• at AC	8 40 ms
	opening delay	
control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit Contact number of NC contacts for auxiliary contacts instantaneous contact 2 operational current at AC-12 maximum 10 A operational current at AC-15 • at 230 V rated value • at 400 V rated value 3 A • at 500 V rated value 1 A • at 500 V rated value 1 A • at 24 V rated value 6 A • at 48 V rated value 6 A • at 48 V rated value 6 A • at 60 V rated value 6 A • at 110 V rated value 3 A • at 120 V rated value 6 A • at 110 V rated value 1 A • at 125 V rated value 2 A • at 220 V rated value 1 A • at 220 V rated value 2 A • at 600 V rated value 2 A • at 48 V rated value 2 A • at 24 V rated value 2 A • at 48 V rated value 2 A • at 48 V rated value 2 A • at 48 V rated value 2 A		4 16 ms
Auxillary circuit 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 400 V rated value • at 600 V rated value • at 890 V rated value • at 80 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 80 V rated value • at 100 V rated value • at 110 V rated value • at 125 V rated value • at 110 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated valu	arcing time	10 10 ms
number of NC contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value • at 690 V rated value • at 640 V rated value • at 640 V rated value • at 650 V rated value • at 640 V rated value • at 650 V rated value • at 640 V rated value • at 110 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 24 V rated value • at 24 V rated value • at 600 V rated value • at 110 V rated value • at 24 V rated value • at 25 V rated value • at 25 V rated value • at 26 V rated value • at 27 V rated value • at 28 V rated value • at 29 V rated value • at 29 V rated value • at 29 V rated value • at 110 V rated value • at 125 V rated value • at 125 V rated value • at 110 V rated value • at 120 V rated value • at 110 V rated value	control version of the switch operating mechanism	Standard A1 - A2
contact contact number of NO contacts for auxiliary contacts instantaneous contact 2 operational current at AC-12 maximum 10 A operational current at AC-15 *** • at 230 V rated value 6 A • at 400 V rated value 3 A • at 500 V rated value 1 A • at 690 V rated value 10 A • at 48 V rated value 6 A • at 60 V rated value 6 A • at 110 V rated value 6 A • at 125 V rated value 1 A • at 220 V rated value 1 A • at 220 V rated value 2 A • at 600 V rated value 1 A • at 24 V rated value 2 A • at 600 V rated value 2 A • at 48 V rated value 2 A • at 100 V rated value 2 A • at 100 V rated value 3 A • at 220 V rated value 3 A • at 220 V rated value 3 A <td>Auxiliary circuit</td> <td></td>	Auxiliary circuit	
Number of NO contacts for auxiliary contacts instantaneous	number of NC contacts for auxiliary contacts instantaneous	2
Operational current at AC-12 maximum 10 A		
Poperational current at AC-15	· · · · · · · · · · · · · · · · · · ·	2
 at 230 V rated value at 400 V rated value at 500 V rated value at 690 V rated value at 690 V rated value at 690 V rated value at 24 V rated value at 48 V rated value at 48 V rated value at 10 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 24 V rated value at 27 V rated value at 48 V rated value at 48 V rated value at 60 V rated value at 7 V rated value at 110 V rated value at 24 V rated value at 25 V rated value at 20 V rated value at 30 V rated value at 480 V rated value 	operational current at AC-12 maximum	10 A
 at 400 V rated value at 500 V rated value at 690 V rated value 1 A 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 60 V rated value at 60 V rated value at 80 V rated value at 125 V rated value at 220 V rated value at 80 V rated value at 60 V rated value at 60 V rated value at 24 V rated value at 48 V rated value at 48 V rated value at 60 V rated value at 60 V rated value at 60 V rated value at 110 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 20 V rated value at 600 V rated value at 480 V rated value at 600 V rated value at 600 V rated value 	operational current at AC-15	
• at 500 V rated value • at 690 V rated value 1 A 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 600 V rated value • at 220 V rated value • at 220 V rated value • at 24 V rated value • at 24 V rated value • at 48 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 110 V rated value • at 110 V rated value • at 220 V rated value • at 220 V rated value • at 320 V rated value • at 480 V rated value • at 600 V rated value • at 480 V rated value • at 600 V rated value • 27 A	 at 230 V rated value 	6 A
• at 690 V rated value 1 A operational current at DC-12 • at 24 V rated value 10 A • at 48 V rated value 6A • at 80 V rated value 6A • at 110 V rated value 3A • at 125 V rated value 1A • at 220 V rated value 1A • at 800 V rated value 1A • at 80 V rated value 1A • at 80 V rated value 1A • at 80 V rated value 1A • at 110 V rated	 at 400 V rated value 	3 A
e 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 80 V rated value 1 A • at 80 V rated value 2 A • at 220 V rated value 1 A • at 60 V rated value 1 A • at 60 V rated value 2 A • at 25 V rated value 2 A • at 100 V rated value 1 A • at 26 V rated value 2 A • at 27 V rated value 2 A • at 28 V rated value 2 A • at 48 V rated value 2 A • at 110 V rated value 1 A • at 125 V rated value 2 A • at 110 V rated value 1 A • at 125 V r	 at 500 V rated value 	2 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 600 V rated value at 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 110 V rated value at 125 V rated value at 120 V rated value at 120 V rated value at 20 V rated value at 20 V rated value at 600 V rated value at 600 V rated value at 480 V rated value at 600 V rated value 	at 690 V rated value	1 A
 at 48 V rated value at 60 V rated value at 110 V rated value at 1125 V rated value at 220 V rated value at 600 V rated value at 600 V rated value ont5 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 60 V rated value at 110 V rated value at 125 V rated value at 125 V rated value at 220 V rated value at 200 V rated value at 300 V rated value at 300 V rated value at 600 V rated value at 480 V rated value at 600 V rated value 	operational current at DC-12	
 at 60 V rated value at 110 V rated value at 1125 V rated value at 220 V rated value at 600 V rated value at 600 V rated value ontact reliability of auxiliary contacts full-load current (FLA) for 3-phase AC motor at 480 V rated value at 6A at 25 V rated value at 26 V rated value at 27 A at 27 A at 27 A 	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 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 110 V rated value at 125 V rated value at 125 V rated value at 220 V rated value at 200 V rated value at 600 V rated value at 3 A at 600 V rated value at 3 A at 600 V rated value at 480 V rated value at 600 V rated value at 480 V rated value	at 48 V rated value	6 A
 at 125 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 220 V rated value at 200 V rated value at 600 V rated value at 600 V rated value at 600 V rated value at 480 V rated value at 600 V rated value at 480 V rated value at 600 V rated value at 70 A at 70 A at 70 A at 70 A at	at 60 V rated value	6 A
at 220 V rated value at 600 V rated value 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 125 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 600 V rated value at 125 V rated value at 600 V rated value 2 A at 600 V rated value 3 A at 600 V rated value 7 A 480 V rated value at 600 V rated value 480 V rated value at 600 V rated value 480 V rated value at 600 V rated value 480 V rated value 3 A 480 V rated value	• at 110 V rated value	3 A
	• at 125 V rated value	2 A
operational current at DC-13 6 A • at 24 V rated value 2 A • at 48 V rated value 2 A • at 60 V rated value 1 A • at 110 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) JL/CSA ratings full-load current (FLA) for 3-phase AC motor 27 A • at 480 V rated value 27 A • at 600 V rated value 27 A	• 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 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 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 at 125 V rated value at 220 V rated value at 600 V rated value at 600 V rated value at 600 V rated value at faulty switching per 100 million (17 V, 1 mA) JL/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 at 600 V rated value 	operational current at DC-13	
 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 at 600 V rated value 1 A 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 at 600 V rated value 27 A 	at 24 V rated value	6 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 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 at 600 V rated value 27 A 	at 48 V rated value	2 A
at 125 V rated value at 220 V rated value at 600 V rated value 0.1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) JL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 27 A 27 A	at 60 V rated value	2 A
at 220 V rated value at 600 V rated value ontact 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 27 A	at 110 V rated value	1 A
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 27 A 27 A	at 125 V rated value	0.9 A
contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) JL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value 27 A 27 A	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 27 A 27 A		
JL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value 27 A • at 600 V rated value 27 A		
full-load current (FLA) for 3-phase AC motor • at 480 V rated value 27 A • at 600 V rated value 27 A		
 at 480 V rated value at 600 V rated value 27 A 27 A 		
• at 600 V rated value 27 A		27 A
yielded inechanical performance [rip]		217
• for single-phase AC motor		

— at 110/120 V rated value	2 hp
— at 230 V rated value	5 hp
 for 3-phase AC motor 	
— at 200/208 V rated value	10 hp
 at 220/230 V rated value 	10 hp
— at 460/480 V rated value	20 hp
— at 575/600 V rated value	25 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
 for short-circuit protection of the main circuit 	
 — with type of coordination 1 required 	gG: 125A (690V,100kA), aM: 50A (690V,100kA), BS88: 125A (415V,80kA)
 — with type of assignment 2 required 	gG: 50A (690V,100kA), aM: 25A (690V, 100kA), BS88: 50A (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	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
• side-by-side mounting	Yes
height	85 mm
width	45 mm
depth	141 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
— upwarus — downwards	10 mm
— at the side	6 mm
Connections/ Terminals	Offilli
type of electrical connection	
for main current circuit for auxiliary and control 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	0(4 0.5
• solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)
solid or 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
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	
• solid or 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 	
— solid or 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)
 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
B10 value with high demand rate according to SN 31920	450 000
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] with low demand rate according to SN 31920	100 FIT
T1 value for proof test interval or service life according to IEC 61508	20 a
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
suitability for use	
 safety-related switching OFF 	Yes
Certificates/ approvals	

General Product Approval



Confirmation





<u>KC</u>



chinery



Type Examination Certificate





Type Test Certificates/Test Report



Marine / Shipping other











Confirmation

other Railway Environment



Confirmation

Vibration and Shock

Environmental Confirmations

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RT2027-1CL24-3MA0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2027-1CL24-3MA0

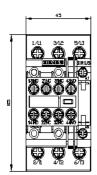
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

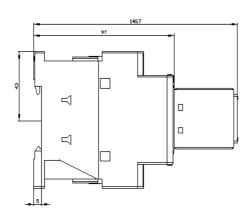
https://support.industry.siemens.com/cs/ww/en/ps/3RT2027-1CL24-3MA0

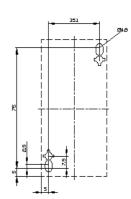
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax de.aspx?mlfb=3RT2027-1CL24-3MA0&lang=en

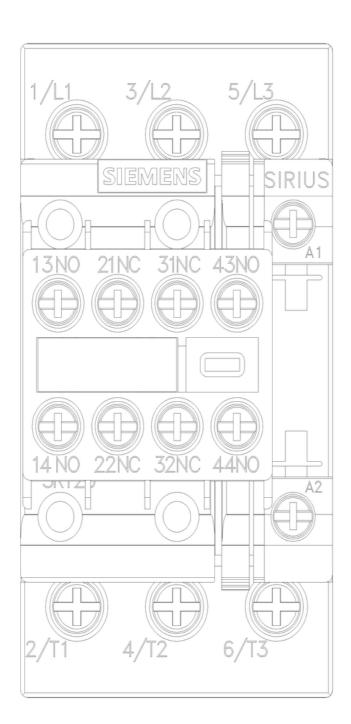
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2027-1CL24-3MA0/char

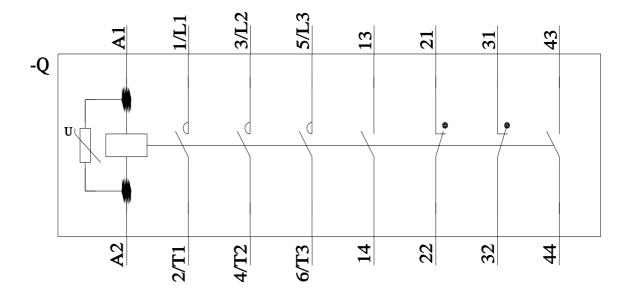
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2027-1CL24-3MA0&objecttype=14&gridview=view1











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