# SIEMENS

#### Data sheet

### 3RT2023-1AB00

power contactor, AC-3 9 A, 4 kW / 400 V 1 NO + 1 NC, 24 V AC, 50 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	SO
Product extension	
<ul> <li>function module for communication</li> </ul>	No
<ul> <li>Auxiliary switch</li> </ul>	Yes
Surge voltage resistance	
<ul> <li>of main circuit rated value</li> </ul>	6 kV
<ul> <li>of auxiliary circuit rated value</li> </ul>	6 kV
maximum permissible voltage for safe isolation	
<ul> <li>between coil and main contacts acc. to EN</li> </ul>	400 V
60947-1	
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

11,8g / 5 ms, 7,4g / 10 ms
10 000 000
5 000 000
10 000 000
К
Q
2 000 m
-25 +60 °C
-55 +80 °C
3
3
690 V
40 A
40 A
35 A
9 A
9 A
9 A
9 A
8.5 A
35.2 A
7.4 A
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	9.1 A
rated value	
— up to 690 V for current peak value n=20	9 A
rated value	
● 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 <sup>2</sup>
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	
<ul> <li>at 1 current path at DC-1</li> </ul>	
— 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
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 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
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 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
Operating current	
• 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
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— 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
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
— 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-1	
— at 230 V rated value	13.3 kW
— at 230 V at 60 °C rated value	13.3 kW
— at 400 V rated value	23 kW
— at 400 V at 60 °C rated value	23 kW
— at 690 V rated value	40 kW
— at 690 V at 60 °C rated value	40 kW
• 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
Thermal short-time current limited to 10 s	80 A
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	0.4 W
No-load switching frequency	
• at AC	5 000 1/h
Operating frequency	
• at AC-1 maximum	1 000 1/h
● at AC-2 maximum	1 000 1/h

• at AC-4 maximum     300 1/h       Control circuit/ Control     AC       Control supply voltage at AC     -       • at 50 Hz rade value     24 V       Operating range factor control supply voltage rated     24 V       Operating range factor control supply voltage rated     24 V       • at 50 Hz     0.8 1.1       Apparent pick-up power of magnet coll at AC     -       • at 50 Hz     0.8 1.1       Apparent pick-up power of magnet coll at AC     0.8 1.1       • at 50 Hz     0.82       Apparent pick-up power of magnet coll at AC     0.82       • at 50 Hz     0.82       Clocking delay     0.82       • at 50 Hz     0.82       Clocking delay     0.25       • at 30 Hz     0.25       Clocking delay     0.38 ms       • at AC     4 16 ms       Arcing time     10 10 ms       Auting vircuit     1       Number of NC contacts for auditary contacts     1       • instantaneous contact     1       • at 200 V rated value     3A       • at 200 V rated value     6A       • at 200 V rated value     6A	<ul> <li>at AC-3 maximum</li> </ul>	1 000 1/h
Control circuit/ Control           Type of voltage of the control supply voltage         AC           Control supply voltage at AC         e at 50 Hz rated value         24 V           Operating range factor control supply voltage rated value of magnet coil at AC         e at 50 Hz         0.8 1.1           Apparent plok-up power of magnet coil at AC         e at 50 Hz         65 V A           Inductive power factor with closing power of the coil         e at 50 Hz         65 V A           Inductive power factor with closing power of the coil         e at 50 Hz         7.6 V A           Inductive power factor with the holding power of the coil         e at 50 Hz         7.6 V A           Inductive power factor with the holding power of the coil         e at 50 Hz         7.6 V A           Inductive power factor with the holding power of the coil         e at 50 Hz         7.6 V A           Inductive power factor with the holding power of the coil         e at 50 Hz         7.6 V A           Inductive power factor with the holding power of the coil         e at 50 Hz         0.25           Closing delay         e at AC         4 16 ms           e at AC         4 16 ms         1           Number of NC contacts for auxiliary contacts         1         1           Operating current at AC-15         e         e		300 1/h
Type of voltage of the control supply voltage     AC       Control supply voltage at AC     24 V       • at 50 Hz rated value     24 V       • at 50 Hz     0.8 1.1       Apparent pick-up power of magnet coil at AC     0.8 1.1       • at 50 Hz     65 V.A       Inductive power factor with closing power of the coil     0.82       • at 50 Hz     0.82       Apparent holding power of magnet coil at AC     0.82       • at 50 Hz     0.82       Inductive power factor with the holding power of the coil     0.82       • at 50 Hz     0.25       Closing delay     0.25       • at 50 Hz     0.25       Closing delay     0.38 ms       • at AC     4 16 ms       Arcing time     10 10 ms       Auxiliary circuit     1       Number of NC contacts for auxiliary contacts     1       • instantaneous contact     1       Operating current at AC-12 maximum     10 A       Operating current at AC-12 maximum     10 A       Operating current at AC-12     2A       • at 300 V rated value     3 A       • at 600 V rated value     1 A       Operating current at AC-12     1 A       Operating current at AC-12     1 A       Operating current at AC-12     1 A       Op		
Control supply voltage at AC     24 V       • at 50 Hz rated value     24 V       Operating range factor control supply voltage rated value of magnet coll at AC     0.8 1.1       • at 50 Hz     0.8 1.1       Apparent pick-up power of magnet coll at AC     65 V A       • at 50 Hz     0.82       Apparent holding power of magnet coll at AC     0.82       • at 50 Hz     0.82       Apparent holding power of magnet coll at AC     0.82       • at 50 Hz     0.82       Inductive power factor with the holding power of the coll     0.82       • at 50 Hz     0.82       Closing delay     7.6 V A       • at 50 Hz     0.25       Closing delay     0.81       • at AC     0.25       Closing delay     0.81       • at AC     4 16 ms       Arcing time     10 10 ms       Auxiliary circuit     1       Number of NC contacts for auxiliary contacts     1       • instantaneous contact     1       • at 300 V rated value     3A       • at 300 V rated value     3A       • at 600 V rated value     3A       • at 600 V rated value     10 A       • at 600 V rated value     6A       • at 600 V rated value     6A       • at 600 V rated value     6A		
• at 50 Hz rated value24 VOperating range factor control supply voltage rated value of magnet coll at AC0.8 1.1• at 50 Hz0.8 1.1Apparent pick-up power of magnet coll at AC0.8 1.1• at 50 Hz0.8 1.1• at 50 Hz0.82• at 50 Hz0.82• at 50 Hz0.82• at 50 Hz0.25Closing delay0.25• at AC9 38 ms• at AC9 38 msOperaing delay0 10 ms• at AC10 10 msAurilitor of INC contacts for auxiliary contacts1• instantaneous contact1• at 200 V rated value10.AOperating current at AC-151• at 300 V rated value3.A• at 300 V rated value1.AOperating current at AC-151• at 300 V rated value3.A• at 300 V rated value1.AOperating current at AC-151• at 300 V rated value3.A• at 300 V rated value3.A• at 300 V rated value1.A• at 300 V rated value3.A• at 300 V rated value6.A		AC
Control is grange factor control supply voltage rated value of magnet coil at AC         0.8 1.1           Apparent plok-up power of magnet coil at AC         65 V A           i at 50 Hz         65 V A           Inductive power factor with closing power of the coil • at 50 Hz         65 V A           Inductive power factor with closing power of the coil • at 50 Hz         0.82           Apparent holding power of magnet coil at AC         7.6 V A           Inductive power factor with the holding power of the coil         0.25           Closing delay         0.25           • at 50 Hz         0.25           Closing delay         0.38 ms           • at AC         9 38 ms           Opening delay         10 10 ms           • at AC         10 10 ms           Availiary clocult         10 10 ms           Number of NC contacts for auxiliary contacts         1           • instantaneous contact         1           Operating current at AC-12 maximum         10 A           Operating current at AC-15         1           • instantaneous contact         10 A           Operating current at AC-12 maximum         10 A           • at 500 V rated value         3A           • at 500 V rated value         1A           Operating current at AC		24.1/
value of magnet coil at AC0.8 1.1Apparent pick-up power of magnet coil at AC65 V/Aat 50 Hz65 V/AInductive power factor with closing power of the coil0.82at 50 Hz0.82Apparent holding power of magnet coil at AC7.6 V/Aat 50 Hz0.82Inductive power factor with the holding power of the coil7.6 V/Ai at 50 Hz0.25Closing delay9 38 msat AC9 38 msOpening delay4 16 msat AC4 16 msArcing time10 10 msAuxiliary circuit1Number of NC contacts for auxiliary contacts1o instantaneous contact1Operating current at AC-151at 230 V rated value3Aat 400 V rated value3Aat 600 V rated value3Aat 600 V rated value6Aat 600 V rated value6Aat 600 V rated value3Aat 6125 V rated value3A </th <th></th> <th>24 V</th>		24 V
• at 50 Hz0.811Apparent pick-up power of magnet coil at AC • at 50 Hz65 VAInductive power factor with closing power of the coil0.82Apparent holding power of magnet coil at AC • at 50 Hz0.82Apparent holding power of magnet coil at AC • at 50 Hz7.6 VAInductive power factor with the holding power of the coil0.25Closing delay • at AC0.25Opening delay • at AC4 16 msArcing time10 10 msAvring time10 10 msAuxiliary circuit1Number of NC contacts for auxiliary contacts • instantaneous contact1Operating current at AC-15 • at 400 V rated value1Auxiliary circuit10.AOperating current at AC-15 • at 400 V rated value3.A• at 600 V rated value1.A• at 600 V rated value6.A• at 600 V rated value <td< th=""><th></th><th></th></td<>		
• at 50 Hz65 VAInductive power factor with closing power of the coll • at 50 Hz0.82Apparent holding power of magnet coll at AC • at 50 Hz7.6 VA• at 50 Hz7.6 VAInductive power factor with the holding power of the coll0.25Closing delay • at AC9 38 msOpening delay • at AC4 16 msArcing time10 10 msAuxiliary circuit1Number of NC contacts for auxiliary contacts • instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-13 • at 230 V rated value10 A• at 50 V rated value3 A• at 600 V rated value10 A• at 600 V rated value6A• at 600 V rated value6A• at 600 V rated value6A• at 24 V rated value6A• at 100 V rated value6A• at 240 V rated value6A• at 600 V rated value6A• at 24 V rated value6A• at 25 V rated value6A• at 25 V rated value6A• at 100 V rated value6A• at 25 V rated value6A• at 25 V rated value6A• at 25 V rated value6A• at 100 V rated value6A• at 25 V rated value7	-	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         0.82           Apparent holding power of magnet coll at AC • at 50 Hz         7.6 V-A           Inductive power factor with the holding power of the coll         0.25           • at 50 Hz         0.25           Closing delay         9 38 ms           • at AC         9 38 ms           Opening delay         -           • at AC         4 16 ms           Arcing time         10 10 ms           Availiary circuit         -           Number of NC contacts for auxiliary contacts         1           • instantaneous contact         1           Operating current at AC-12 maximum         10 A           Operating current at AC-12 maximum         10 A           Operating current at AC-13         -           • at 230 V rated value         3A           • at 500 V rated value         2A           • at 600 V rated value         10 A           • at 600 V rated value         6A           • at 600 V rated value         6A           • at 60 V rated value         6A           • at 40 V rated value         6A		65 V·A
Apparent holding power of magnet coll at AC       7.6 VA         i at 50 Hz       7.6 VA         Inductive power factor with the holding power of the coll       0.25         i at 50 Hz       0.25         Closing delay       938 ms         • at AC       938 ms         Opening delay       416 ms         • at AC       416 ms         Arcing time       1010 ms         Auxiliary circuit       1010 ms         Auxiliary circuit       1         Number of NC contacts for auxiliary contacts       1         • instantaneous contact       1         Operating current at AC-12 maximum       10 A         Operating current at AC-15       1         • at 200 V rated value       3A         • at 690 V rated value       3A         • at 690 V rated value       6A         • at 690 V rated value       6A         • at 48 V rated value       6A         • at 48 V rated value       6A         • at 110 V rated value       3A         • at 125 V rated value       6A         • at 125 V rated value       6A         • at 125 V rated value       6A         • at 125 V rated value       3A         • at 125 V	Inductive power factor with closing power of the coil	
• at 50 Hz7.6 V-AInductive power factor with the holding power of the coil.25• at 50 Hz0.25Closing delay9 38 ms• at AC9 38 msOpening delay 16 ms• at AC4 16 msArcing time10 10 msAuxiliary circuit 10 msNumber of NC contacts for auxiliary contacts1• instantaneous contact1Number of NC contacts for auxiliary contacts1• instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-15 16 ms• at 300 V rated value3 A• at 600 V rated value1 A• at 600 V rated value1 A• at 600 V rated value3 A• at 600 V rated value10 A• at 600 V rated value10 A• at 600 V rated value3 A• at 600 V rated value10 A• at 600 V rated value10 A• at 600 V rated value2 A• at 600 V rated value10 A• at 600 V rated value10 A• at 600 V rated value2 A• at 600 V rated value6 A• at 60 V rated value2 A• at 60 V rated value3 A• at 60 V rated value6 A• at 70 V rated value7 A <trr>• at 70 V rated value7 A<t< th=""><th>● at 50 Hz</th><th>0.82</th></t<></trr>	● at 50 Hz	0.82
Inductive power factor with the holding power of the coil       Inductive power factor with the holding power of the coil         Inductive power factor with the holding power of the coil       0.25         Closing delay       938 ms         Inductive power factor with the holding power of the coil       938 ms         Opening delay       416 ms         Inductive power of NC contacts for auxiliary contacts       1010 ms         Auxiliary circuit       Inductive power of NC contacts for auxiliary contacts         Instantaneous contact       1         Number of NC contacts for auxiliary contacts       1         Instantaneous contact       1         Operating current at AC-12 maximum       10 A         Operating current at AC-15       10 A         Instantaneous contact       3A         Instantaneous contact       10 A         Operating current at AC-15       10 A         Instantaneous contact       10 A         Instantacture       10 A         Instantacture       10 A         Insta	Apparent holding power of magnet coil at AC	
coil	• at 50 Hz	7.6 V·A
Closing delay• at AC9 38 msOpening delay4 16 ms• at AC4 16 msArcing time10 10 msAuxiliary circuit1Number of NC contacts for auxiliary contacts1• instantaneous contact1Number of NO contacts for auxiliary contacts1• instantaneous contact1• instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-15		
• at AC938 msOpening delay • at AC416 msArcing time1010 msAuxiliary circuit1Number of NC contacts for auxiliary contacts • instantaneous contact1Number of NO contacts for auxiliary contacts1• instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-1510 A• at 230 V rated value3 A• at 600 V rated value10 A• at 600 V rated value10 A• at 24 V rated value6 A• at 48 V rated value6 A• at 48 V rated value6 A• at 60 V rated value6 A• at 10 V rated value6 A• at 25 V rated value2 A• at 220 V rated value1 A	• at 50 Hz	0.25
Opening delay• at AC4 16 msArcing time10 10 msAuxiliary circuit1Number of NC contacts for auxiliary contacts1• instantaneous contact1Number of NO contacts for auxiliary contacts1• instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-151• at 230 V rated value3 A• at 690 V rated value2 A• at 690 V rated value10 AOperating current at DC-121• at 24 V rated value6 A• at 48 V rated value6 A• at 60 V rated value3 A• at 60 V rated value6 A• at 10 V rated value6 A• at 260 V rated value6 A• at 260 V rated value6 A• at 270 V rated value6 A• at 280 V rated value6 A• at 290 V rated value6 A• at 20 V rated value7 A• at 220 V rated value7 A <th>Closing delay</th> <th></th>	Closing delay	
• at AC4 16 msArcing time10 10 msAuxiliary circuit1Number of NC contacts for auxiliary contacts1• instantaneous contact1Number of NO contacts for auxiliary contacts1• instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-151• at 230 V rated value3 A• at 690 V rated value1 AOperating current at DC-121• at 24 V rated value10 A• at 48 V rated value6 A• at 60 V rated value3 A• at 24 V rated value10 A• at 24 V rated value24• at 20 V rated value24• at 20 V rated value34• at 110 V rated value34• at 125 V rated value24• at 220 V rated value1A	• at AC	9 38 ms
Arcing time10 10 msAuxiliary circuitINumber of NC contacts for auxiliary contacts • instantaneous contact1Number of NO contacts for auxiliary contacts1• instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-15 • at 230 V rated value2A• at 690 V rated value1A• at 690 V rated value10 A• at 690 V rated value6A• at 24 V rated value6A• at 48 V rated value6A• at 60 V rated value6A• at 72 V rated value74• at 72 V	Opening delay	
Auxiliary circuitNumber of NC contacts for auxiliary contacts• instantaneous contact1Number of NO contacts for auxiliary contacts• instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-15-• at 230 V rated value10 A• at 400 V rated value3 A• at 690 V rated value1 AOperating current at DC-12• at 60 V rated value6 A• at 60 V rated value6 A• at 110 V rated value6 A• at 110 V rated value3 A• at 20 V rated value10 A• at 20 V rated value10 A• at 20 V rated value1 A• at 20 V rated value2 A• at 20 V rated value10 A• at 20 V rated value1 A• at 20 V rated value3 A• at 220 V rated value3 A• at	• at AC	4 16 ms
Number of NC contacts for auxiliary contacts1Number of NO contacts for auxiliary contacts1Number of NO contacts for auxiliary contacts1• instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-15-• at 230 V rated value3 A• at 400 V rated value2 A• at 500 V rated value1 AOperating current at DC-12-• at 24 V rated value6 A• at 80 V rated value6 A• at 110 V rated value3 A• at 20 V rated value10 A• at 24 V rated value10 A• at 25 V rated value6 A• at 210 V rated value10 A• at 220 V rated value10 A• at 220 V rated value1 A• at 220 V rated value1 A• at 220 V rated value1 A	Arcing time	10 10 ms
• instantaneous contact1Number of NO contacts for auxiliary contacts1• instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-15-• at 230 V rated value10 A• at 230 V rated value3 A• at 500 V rated value2 A• at 690 V rated value10 A• at 690 V rated value6 A• at 24 V rated value6 A• at 48 V rated value3 A• at 60 V rated value10 A• at 24 V rated value6 A• at 25 V rated value3 A• at 26 V rated value10 A• at 27 V rated value10 A• at 28 V rated value6 A• at 29 V rated value6 A• at 20 V rated value1 A• at 20 V rated value1 A• at 220 V rated value1 A	Auxiliary circuit	
Number of NO contacts for auxiliary contacts• instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-15•• at 230 V rated value10 A• at 400 V rated value3 A• at 500 V rated value1 A• at 690 V rated value1 AOperating current at DC-12•• at 24 V rated value6 A• at 80 V rated value6 A• at 110 V rated value3 A• at 24 V rated value10 A• at 25 V rated value10 A• at 125 V rated value3 A• at 125 V rated value1 A		
• instantaneous contact1Operating current at AC-12 maximum10 AOperating current at AC-15-• at 230 V rated value10 A• at 400 V rated value3 A• at 400 V rated value2 A• at 500 V rated value1 A• at 690 V rated value1 AOperating current at DC-12-• at 24 V rated value6 A• at 48 V rated value6 A• at 60 V rated value3 A• at 24 V rated value10 A• at 24 V rated value6 A• at 25 V rated value3 A• at 125 V rated value1 A	Number of NC contacts for auxiliary contacts	
Intelaction of contactOperating current at AC-12 maximum10 AOperating current at AC-15-• at 230 V rated value10 A• at 400 V rated value3 A• at 500 V rated value2 A• at 690 V rated value1 AOperating current at DC-12-• at 24 V rated value6 A• at 60 V rated value6 A• at 110 V rated value3 A• at 220 V rated value1 A		1
Operating current at AC-15• at 230 V rated value10 A• at 230 V rated value3 A• at 400 V rated value2 A• at 500 V rated value1 A• at 690 V rated value1 AOperating current at DC-1210 A• at 24 V rated value6 A• at 60 V rated value6 A• at 110 V rated value3 A• at 125 V rated value1 A	• instantaneous contact	1
• at 230 V rated value10 A• at 400 V rated value3 A• at 500 V rated value2 A• at 690 V rated value1 AOperating current at DC-12-• at 24 V rated value10 A• at 48 V rated value6 A• at 60 V rated value6 A• at 110 V rated value3 A• at 125 V rated value1 A	instantaneous contact     Number of NO contacts for auxiliary contacts	
• 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       10 A         • at 24 V rated value       6 A         • at 60 V rated value       6 A         • at 60 V rated value       6 A         • at 110 V rated value       3 A         • at 125 V rated value       1 A	<ul> <li>instantaneous contact</li> <li>Number of NO contacts for auxiliary contacts</li> <li>instantaneous contact</li> </ul>	1
• 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       3 A         • at 125 V rated value       2 A         • at 220 V rated value       1 A	instantaneous contact     Number of NO contacts for auxiliary contacts     instantaneous contact     Operating current at AC-12 maximum	1 10 A
• at 690 V rated value1 AOperating current at DC-1210 A• at 24 V rated value6 A• at 48 V rated value6 A• at 60 V rated value6 A• at 110 V rated value3 A• at 125 V rated value2 A• at 220 V rated value1 A	instantaneous contact     Number of NO contacts for auxiliary contacts     instantaneous contact     Operating current at AC-12 maximum     Operating current at AC-15	1 10 A
Operating current at DC-12• at 24 V rated value10 A• at 48 V rated value6 A• at 60 V rated value6 A• at 110 V rated value3 A• at 125 V rated value2 A• at 220 V rated value1 A	<ul> <li>instantaneous contact</li> <li>Number of NO contacts for auxiliary contacts         <ul> <li>instantaneous contact</li> </ul> </li> <li>Operating current at AC-12 maximum</li> <li>Operating current at AC-15         <ul> <li>at 230 V rated value</li> </ul> </li> </ul>	1 10 A 10 A
• at 24 V rated value10 A• at 48 V rated value6 A• at 60 V rated value6 A• at 110 V rated value3 A• at 125 V rated value2 A• at 220 V rated value1 A	<ul> <li>instantaneous contact</li> <li>Number of NO contacts for auxiliary contacts         <ul> <li>instantaneous contact</li> </ul> </li> <li>Operating current at AC-12 maximum</li> <li>Operating current at AC-15         <ul> <li>at 230 V rated value</li> <li>at 400 V rated value</li> </ul> </li> </ul>	1 10 A 10 A 3 A
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>6 A</li> <li>at 110 V rated value</li> <li>3 A</li> <li>at 125 V rated value</li> <li>2 A</li> <li>at 220 V rated value</li> <li>1 A</li> </ul>	<ul> <li>instantaneous contact</li> <li>Number of NO contacts for auxiliary contacts</li> <li>instantaneous contact</li> <li>Operating current at AC-12 maximum</li> <li>Operating current at AC-15 <ul> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> </ul> </li> </ul>	1 10 A 10 A 3 A 2 A
<ul> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>1 A</li> </ul>	<ul> <li>instantaneous contact</li> <li>Number of NO contacts for auxiliary contacts</li> <li>instantaneous contact</li> <li>Operating current at AC-12 maximum</li> <li>Operating current at AC-15 <ul> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> </ul> </li> </ul>	1 10 A 10 A 3 A 2 A 1 A
<ul> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>1 A</li> </ul>	<ul> <li>instantaneous contact</li> <li>Number of NO contacts for auxiliary contacts</li> <li>instantaneous contact</li> <li>Operating current at AC-12 maximum</li> <li>Operating current at AC-15 <ul> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>Operating current at DC-12</li> </ul>	1 10 A 10 A 3 A 2 A 1 A
<ul> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>1 A</li> </ul>	<ul> <li>instantaneous contact</li> <li>Number of NO contacts for auxiliary contacts <ul> <li>instantaneous contact</li> </ul> </li> <li>Operating current at AC-12 maximum</li> <li>Operating current at AC-15 <ul> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> <li>at 690 V rated value</li> <li>at 24 V rated value</li> </ul> </li> </ul>	1 10 A 10 A 3 A 2 A 1 A 10 A
• at 220 V rated value 1 A	<ul> <li>instantaneous contact</li> <li>Number of NO contacts for auxiliary contacts <ul> <li>instantaneous contact</li> </ul> </li> <li>Operating current at AC-12 maximum</li> <li>Operating current at AC-15 <ul> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> <li>at 690 V rated value</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> </ul> </li> </ul>	1 10 A 10 A 3 A 2 A 1 A 10 A 6 A
	<ul> <li>instantaneous contact</li> <li>Number of NO contacts for auxiliary contacts <ul> <li>instantaneous contact</li> </ul> </li> <li>Operating current at AC-12 maximum</li> <li>Operating current at AC-15 <ul> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>Operating current at DC-12 <ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> </ul> </li> </ul>	1 10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A
• at 600 V rated value 0.15 A	<ul> <li>instantaneous contact</li> <li>Number of NO contacts for auxiliary contacts <ul> <li>instantaneous contact</li> </ul> </li> <li>Operating current at AC-12 maximum</li> <li>Operating current at AC-15 <ul> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>Operating current at DC-12 <ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> </ul> </li> </ul>	1 10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A
	<ul> <li>instantaneous contact</li> <li>Number of NO contacts for auxiliary contacts <ul> <li>instantaneous contact</li> </ul> </li> <li>Operating current at AC-12 maximum</li> <li>Operating current at AC-15 <ul> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>Operating current at DC-12 <ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> </ul> </li> </ul>	1 10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 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]	
<ul> <li>for single-phase AC motor</li> </ul>	
— at 110/120 V rated value	1 hp
— at 230 V rated value	1 hp
<ul> <li>for three-phase AC motor</li> </ul>	
— 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 / Q600

Short-circuit protection				
Design of the fuse link				
<ul> <li>for short-circuit protection of the main circuit</li> </ul>				
— 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)			
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	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			
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715			
<ul> <li>Side-by-side mounting</li> </ul>	Yes			
Height	85 mm			
Width	45 mm			

97 mm

Depth

Required spacing			
<ul> <li>with side-by-side mounting</li> </ul>			
— forwards	10 mm		
— upwards	10 mm		
— downwards	10 mm		
— at the side	0 mm		
<ul> <li>for grounded parts</li> </ul>			
— 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		
<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals		
<ul> <li>at contactor for auxiliary contacts</li> </ul>	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)		
<ul> <li>finely stranded with core end processing</li> </ul>	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²		
<ul> <li>at AWG conductors for main contacts</li> </ul>	2x (16 12), 2x (14 8)		
Connectable conductor cross-section for main			
contacts			
• solid	1 10 mm²		
• stranded	1 10 mm²		
<ul> <li>finely stranded with core end processing</li> </ul>	1 10 mm²		
Connectable conductor cross-section for auxiliary			
contacts	0.5		
• single or multi-stranded	0.5 2.5 mm <sup>2</sup>		
• finely stranded with core end processing	0.5 2.5 mm²		
Type of connectable conductor cross-sections			
for auxiliary contacts	$2 \times (0.5 - 1.5 \text{ mm}^2) = 2 \times (0.75 - 2.5 \text{ mm}^2)$		
— single or multi-stranded	2x (0,5 1,5 mm <sup>2</sup> ), 2x (0,75 2,5 mm <sup>2</sup> )		
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		

<ul> <li>at AWG conductors for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14)
AWG number as coded connectable conductor cross	
section	
• for main contacts	16 8
<ul> <li>for auxiliary contacts</li> </ul>	20 14
Safety related data	
B10 value	
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	1 000 000
Proportion of dangerous failures	
• with low demand rate acc. to SN 31920	40 %
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	73 %
Failure rate [FIT]	
• with low demand rate acc. to SN 31920	100 FIT
Product function	
<ul> <li>Mirror contact acc. to IEC 60947-4-1</li> </ul>	Yes
T1 value for proof test interval or service life acc. to	20 у
IEC 61508	
Protection against electrical shock	finger-safe

Certificates/ approvals

General Product	Approval				EMC
CCC	(SA)		<u>KC</u>	EHC	RCM
Functional Safety/Safety of Machinery	Declaration of	f Conformity	Test Certificates		Marine / Ship- ping
Type Examination Certificate	EG-Konf.	Miscellaneous	Type Test Certific- ates/Test Report	Special Test Certi- ficate	ABS
Marine / Shippin	g				
BUREAU VERITAS	Lloyd's Register LRS	PRS	RINA	RMRS	DNVGLCOM/AF
other					
Confirmation	VDE				

#### Further information

Information- and Downloadcenter (Catalogs, Brochures,...) www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2023-1AB00

#### Cax online generator

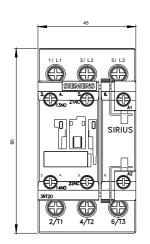
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2023-1AB00

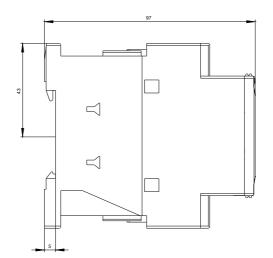
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT2023-1AB00

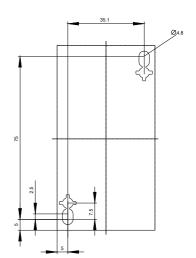
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2023-1AB00&lang=en

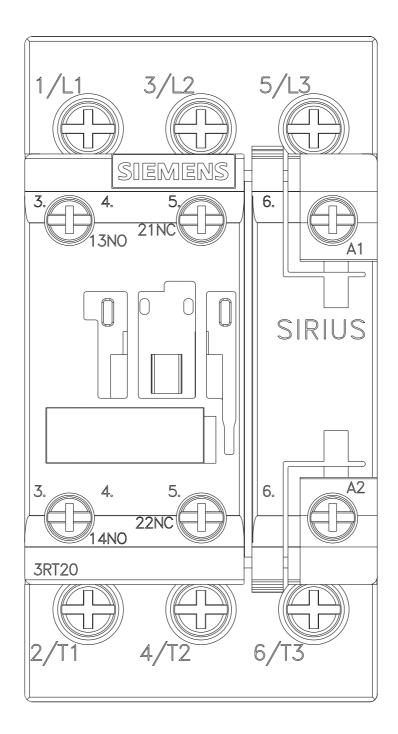
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2023-1AB00/char

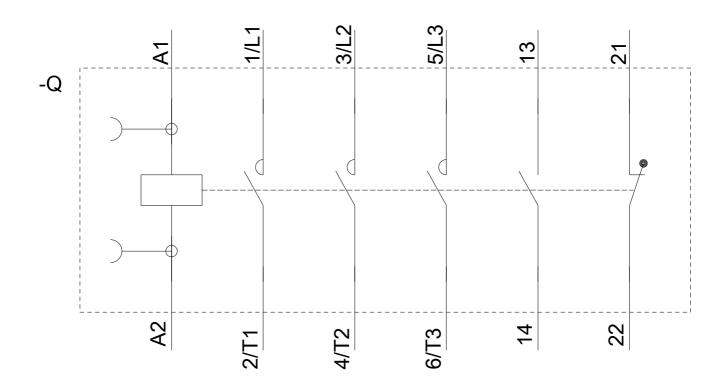
Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2023-1AB00&objecttype=14&gridview=view1











last modified:

08/09/2019