## SIEMENS

## Data sheet

## 3RT2047-1AP04

Power contactor, AC-3 110 A, 55 kW / 400 V 2 NO + 2 NC, 230 V AC, 50 Hz 3-pole, 3 NO, Size S3 screw terminal



product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S3
product extension	
<ul> <li>function module for communication</li> </ul>	No
<ul> <li>auxiliary switch</li> </ul>	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	23.7 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	7.9 W
power loss [W] for rated value of the current without load current share typical	19 W
surge voltage resistance	
<ul> <li>of main circuit rated value</li> </ul>	8 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 60947-1</li> </ul>	690 V

protection class IP				
• on the front	IP20			
• of the terminal	IP00			
shock resistance at rectangular impulse				
• at AC	6.7 g / 5 ms, 4.0 g / 10 ms			
shock resistance with sine pulse				
• at AC	10.6 g / 5 ms, 6.3 g / 10 ms			
mechanical service life (switching cycles)				
<ul> <li>of contactor typical</li> </ul>	10 000 000			
<ul> <li>of the contactor with added electronics- compatible auxiliary switch block typical</li> </ul>	5 000 000			
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000			
reference code acc. to DIN EN 81346-2	Q			
Ambient conditions				
<ul> <li>installation altitude at height above sea level</li> </ul>	2 000 m			
maximum				
ambient temperature				
<ul> <li>during operation</li> </ul>	-25 +60 °C			
• during storage	-55 +80 °C			
Main circuit				
number of poles for main current circuit	3			
number of NO contacts for main contacts	3			
operating voltage				
<ul> <li>at AC-3 rated value maximum</li> </ul>	1 000 V			
operating current				
• at AC-1 at 400 V				
— at ambient temperature 40 °C rated value	130 A			
● at AC-1				
— up to 690 V at ambient temperature 40 °C rated value	130 A			
— up to 690 V at ambient temperature 60 °C rated value	110 A			
— up to 1000 V at ambient temperature 40 °C rated value	70 A			
— up to 1000 V at ambient temperature 60 °C rated value	60 A			
• at AC-3				
— at 400 V rated value	110 A			
— at 500 V rated value	110 A			
— at 690 V rated value	98 A			
• at AC-4 at 400 V rated value	97 A			

<ul> <li>at AC-5a up to 690 V rated value</li> </ul>	120 A
• at AC-5b up to 400 V rated value	110 A
● at AC-6a	
<ul> <li>— up to 230 V for current peak value n=20 rated value</li> </ul>	98 A
— up to 400 V for current peak value n=20 rated value	98 A
— up to 500 V for current peak value n=20 rated value	98 A
— up to 690 V for current peak value n=20 rated value	98 A
● at AC-6a	
— up to 230 V for current peak value n=30 rated value	65.3 A
— up to 400 V for current peak value n=30 rated value	65.3 A
— up to 500 V for current peak value n=30 rated value	65.3 A
— up to 690 V for current peak value n=30 rated value	65.3 A
minimum cross-section in main circuit	
• at maximum AC-1 rated value	50 mm <sup>2</sup>
operating current for approx. 200000 operating	
cycles at AC-4	
	46 A
<ul><li>cycles at AC-4</li><li>at 400 V rated value</li><li>at 690 V rated value</li></ul>	46 A 36 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current	
<ul> <li>cycles at AC-4</li> <li>at 400 V rated value</li> <li>at 690 V rated value</li> <li>operating current</li> <li>at 1 current path at DC-1</li> </ul>	36 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value	36 A 100 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value	36 A 100 A 9 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value	36 A 100 A 9 A 2 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating 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	36 A 100 A 9 A 2 A 0.6 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating 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	36 A 100 A 9 A 2 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 24 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	36 A 100 A 9 A 2 A 0.6 A 0.4 A
<ul> <li>cycles at AC-4 <ul> <li>at 400 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>operating current <ul> <li>at 1 current path at DC-1</li> <li>at 24 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>with 2 current paths in series at DC-1</li> <li>at 24 V rated value</li> </ul> </li> </ul>	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating 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 • with 2 current paths in series at DC-1 — at 24 V rated value – at 110 V rated value • at 110 V rated value	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A
<ul> <li>cycles at AC-4 <ul> <li>at 400 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>operating current <ul> <li>at 1 current path at DC-1</li> <li>at 24 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>with 2 current paths in series at DC-1</li> <li>at 24 V rated value</li> </ul> </li> </ul>	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating 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 • with 2 current paths in series at DC-1 — at 24 V rated value – at 110 V rated value • at 110 V rated value	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A 100 A 10 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 24 V rated value — at 220 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 110 V rated value — at 220 V rated value — at 220 V rated value	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating 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 • with 2 current paths in series at DC-1 — at 24 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 24 V rated value	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A 100 A 10 A
cycles at AC-4 • at 400 V rated value • at 690 V rated value operating current • at 1 current path at DC-1 — at 24 V rated value — at 24 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 110 V rated value — at 220 V rated value — at 220 V rated value — at 24 V rated value — at 220 V rated value — at 440 V rated value — at 240 V rated value — at 200 V rated value — at 200 V rated value — at 200 V rated value	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A 100 A 10 A
<ul> <li>cycles at AC-4 <ul> <li>at 400 V rated value</li> <li>at 690 V rated value</li> </ul> </li> <li>operating current <ul> <li>at 1 current path at DC-1</li> <li>at 24 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> </ul> </li> <li>with 2 current paths in series at DC-1 <ul> <li>at 24 V rated value</li> <li>at 24 V rated value</li> <li>at 24 V rated value</li> <li>at 600 V rated value</li> <li>at 24 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> </ul> </li> </ul>	36 A 100 A 9 A 2 A 0.6 A 0.4 A 100 A 100 A 10 A 1.8 A 1 A

- at 400 V rated value 20 A operating current at 1 current path at DC-3 at DC-5 - at 24 V rated value 40 A - at 110 V rated value 25 A - at 220 V rated value 0.15 A - at 440 V rated value 0.06 A • with 2 current paths in series at DC-3 at DC-5 - at 24 V rated value 100 A - at 410 V rated value 0.42 A - at 440 V rated value 0.45 A - at 440 V rated value 0.55 KW - at 400 V rated value 55 KW - at 400 V rated value 55 KW - at 400 V rated value 30 kW - at 500 V for current peak value n=20 rated 40 kV - walue 40 kV for current peak value n=20 rated 40 kVA - walue 40 kV for current peak value n=20 rated 40 kVA - walue 500 V for current peak value n=20 rated 40 kVA - walue 500 V for current peak value n=20 rated 40 kVA - w				
operating current            • at 1 current path at DC-3 at DC-5         40 A           - at 24 V rated value         2.5 A           - at 110 V rated value         1.A           - at 220 V rated value         0.05 A           - at 240 V rated value         0.06 A           - at 600 V rated value         0.06 A           - at 420 V rated value         100 A           - at 410 V rated value         100 A           - at 440 V rated value         0.16 A           - with 3 current paths in series at DC-3 at DC-5         -           - at 420 V rated value         100 A           - at 410 V rated value         0.8 A           - at 420 V rated value         0.8 A           - at 420 V rated value         30 kW           - at 430 V rated value         55 kW           - at 430 V rated value         25 kW           - at 400 V rated value         24 3 kW           - at 630 V rated value         30 kW           - at 630 V rated value<	— at 440 V rated value	4.5 A		
eat 1 current path at DC-3 at DC-5 eat 24 V rated value 40 A eat 24 V rated value 2.5 A at 20 V rated value 0.66 A eat 240 V rated value 0.06 A eat 240 V rated value 0.07 A eat 240 V rated value 0.08 A eat 220 V rated value 0.08 A eat 220 V rated value 0.16 A eat 220 V rated value 0.16 A eat 220 V rated value 0.16 A eat 240 V rated value 0.16 A 0.16 A eat 240 V rated value 0.16 A 0.16 A eat 240 V rated value 0.16 A	— at 600 V rated value	2.6 A		
	operating current			
<ul> <li>at 110 V rated value</li> <li>2.5 A</li> <li>at 220 V rated value</li> <li>1A</li> <li>at 440 V rated value</li> <li>0.05 A</li> <li>at 600 V rated value</li> <li>0.06 A</li> <li>with 2 current paths in series at DC-3 at DC-5</li> <li>at 24 V rated value</li> <li>100 A</li> <li>at 110 V rated value</li> <li>100 A</li> <li>at 110 V rated value</li> <li>100 A</li> <li>at 110 V rated value</li> <li>100 A</li> <li>at 220 V rated value</li> <li>0.06 A</li> <li>at 440 V rated value</li> <li>0.06 A</li> <li>at 440 V rated value</li> <li>0.06 A</li> <li>at 220 V rated value</li> <li>0.06 A</li> <li>at 440 V rated value</li> <li>0.06 A</li> <li>at 220 V rated value</li> <li>0.06 A</li> <li>at 400 V rated value</li> <li>0.06 A</li> <li>at 220 V rated value</li> <li>0.06 A</li> <li>at 400 V rated value</li> <li>0.06 A</li> <li>at 220 V rated value</li> <li>0.06 A</li> <li>at 400 V rated value</li> <li>0.06 A</li> <li>at 400 V rated value</li> <li>0.06 A</li> <li>at 400 V rated value</li> <li>0.8 A</li> <li>at 400 V rated value</li> <li>30 kW</li> <li>at 400 V rated value</li> <li>55 kW</li> <li>at 400 V rated value</li> <li>90 kW</li> <li>operating power for approx. 20000 operating cycles at AC-4</li> <li>at 400 V rated value</li> <li>2.9 kW</li> <li>operating apparent output at AC-5a</li> <li>at 400 V rated value</li> <li>39 kV/A</li> <li>at 600 V for current peak value n=20 rated value</li> <li>at b00 V for current peak value n=20 rated value</li> <li>at 400 V for current peak value n=20 rated value</li> <li>at 400 V for current peak value n=20 rated value</li> <li>at 600 V for current peak value n=20 rated value</li></ul>	<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>			
	— at 24 V rated value	40 A		
Label of the set	— at 110 V rated value	2.5 A		
Lat 600 V rated value0.06 Å• with 2 current paths in series at DC-3 at DC-5100 Å- at 24 V rated value100 Å- at 110 V rated value100 Å- at 220 V rated value0.42 Å- at 440 V rated value0.42 Å- at 600 V rated value100 Å- at 22 V rated value100 Å- at 220 V rated value100 Å- at 220 V rated value100 Å- at 220 V rated value0.8 Å- at 400 V rated value0.8 Å- at 400 V rated value0.8 Å- at 230 V rated value0.8 Å- at 230 V rated value0.8 Å- at 320 V rated value0.8 Å- at 320 V rated value0.8 Å- at 230 V rated value0.8 Å- at 300 V rated value30 kW- at 400 V rated value55 kW- at 230 V rated value30 kW- at 400 V rated value55 kW- at 690 V rated value90 kW- at 690 V rated value24.3 kW- at 690 V rated value24.3 kW- at 690 V rated value39 kV/A- at 90 V for current peak value n=20 rated39 kV/Avalue- up to 500 V for current peak value n=20 rated44 kV/Avalue- up to 600 V for current peak value n=20 rated44 kV/Avalue- up to 600 V for current peak value n=20 rated44 kV/Avalue- up to 600 V for current peak value n=20 rated	— at 220 V rated value	1 A		
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> <li>at 24 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 440 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 100 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 100 V rated value</li> <li>at 100 V rated value</li> <li>at 220 V rated value</li> <li>at 400 V rated value</li> <li>at 600 V rated value n=20 rated</li> <li>at 600 V for current peak value n=20 rated</li> <li>at 600 V for current peak value n=20</li></ul>	— at 440 V rated value	0.15 A		
<ul> <li>at 24 V rated value</li> <li>at 110 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>at 24 V rated value</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 500 V rated value</li> <li>at 500 V rated value</li> <li>by 0 KW</li> <li>at 400 V rated value</li> <li>at 400 V rated value</li> <li>by 0 KW</li> <li>at 400 V rated value</li> <li>by 0 KW</li> <li>by 0 S00 V for current peak value n=20 rated</li> <li>by 10 500 V for current peak value n=20 rated</li> <li>by 10 500 V for current peak value n=20 rated</li> <li>by 10 500 V for current peak value n=20 rated</li> <li>by 10 500 V for current peak value n=20 rated</li> <li>by 10 500 V for current peak value n=20 rated</li> <li>by 10 500 V for current peak value n=20 rated</li> <li>by 10 500 V for current peak value n=20 rated</li> <li>by 10 500 V for current peak value n=20 rated</li> <li>by 10 500 V for current peak value n=20 rated</li> <li>by 10 500 V for current peak value n=20 rated</li> <li>by 10 500 V for current peak value n=20 rated</li> <li>by 10 500 V for current peak value n=20 rated</li> <li>by 10 500 V for current peak value n=20 rated</li> <li>by 10 500 V for current peak value n=20 rated</li> <li>by 10 500 V for current peak value n=20 rated</li> <li>by 10 500 V for</li></ul>	— at 600 V rated value	0.06 A		
- at 110 V rated value       100 A         - at 220 V rated value       7 A         - at 440 V rated value       0.42 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       100 A         - at 20 V rated value       35 A         - at 400 V rated value       0.8 A         - at 400 V rated value       0.8 A         - at 600 V rated value       0.8 A         - at 230 V rated value       0.8 A         - at 400 V rated value       55 kW         • at AC-3       -         - at 230 V rated value       30 kW         - at 400 V rated value       55 kW         - at 690 V rated value       90 kW         operating power for approx. 200000 operating cycles       at AC-4         • at 400 V rated value       24.3 kW         • at 690 V rated value       29. kW         operating power for approx. 200000 operating cycles       39 kV-A         • up to 230 V for current peak value n=20 rated       37 kV-A         value       90 kW       39 kV-A <td><ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul></td> <td></td>	<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>			
at 220 V rated value7 A- at 220 V rated value0.42 A- at 600 V rated value0.16 A• with 3 current paths in series at DC-3 at DC-5 at 24 V rated value100 A- at 110 V rated value100 A- at 220 V rated value35 A- at 400 V rated value0.8 A- at 600 V rated value0.8 A- at 230 V rated value55 kW- at 400 V rated value55 kW- at 600 V rated value90 kW- at 600 V rated value90 kW- at 600 V rated value22.9 kW- at 600 V rated value32.9 kW- at 600 V rated value32.9 kW- at 600 V rated value n=20 rated37 kV-A- up to 500 V for current peak value n=20 rated44 kV-A- up to 500 V for current peak value n=20 rated44 kV-A- up to 500 V for current peak value n=20 rated44 kV-A- up to 500 V for current peak value n=20 rated44 kV-A- up to 500 V for current peak value n=20 rated44 kV-A- up to 500 V for current peak value n=20 rated44 kV-A- up to 500 V for current peak value n=20 rated44 kV-A- up to 500 V for current peak value n=20 rated41 kV-A- up to 500 V for current peak value n=20 rated41 kV-A- up to 500 V for current peak value n=20 rated41 kV-A <tr< td=""><td>— at 24 V rated value</td><td>100 A</td></tr<>	— at 24 V rated value	100 A		
<ul> <li>at 440 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>0.16 A</li> <li>with 3 current paths in series at DC-3 at DC-5</li> <li>at 24 V rated value</li> <li>100 A</li> <li>at 110 V rated value</li> <li>100 A</li> <li>at 220 V rated value</li> <li>0.8 A</li> <li>at 600 V rated value</li> <li>0.35 A</li> <li>operating power</li> <li>et AC-2 at 400 V rated value</li> <li>30 kW</li> <li>at 230 V rated value</li> <li>30 kW</li> <li>at 400 V rated value</li> <li>55 kW</li> <li>at AC-3</li> <li>at 230 V rated value</li> <li>55 kW</li> <li>at 600 V rated value</li> <li>55 kW</li> <li>at AC-3</li> <li>at 230 V rated value</li> <li>55 kW</li> <li>at 400 V rated value</li> <li>56 kW</li> <li>at 400 V rated value</li> <li>57 kW</li> <li>at 400 V rated value</li> <li>58 kW</li> <li>at 400 V rated value</li> <li>57 kW</li> <li>at 400 V rated value</li> <li>90 kW</li> <li>operating power for approx. 200000 operating cycles at AC-4</li> <li>at 400 V rated value</li> <li>22.9 kW</li> <li>operating apparent output at AC-6a</li> <li>up to 520 V for current peak value n=20 rated value</li> <li>90 kV-A</li> <li>value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>94 kV-A</li> <li>value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value<td>— at 110 V rated value</td><td>100 A</td></li></ul>	— at 110 V rated value	100 A		
<ul> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 24 V rated value</li> <li>at 24 V rated value</li> <li>at 24 V rated value</li> <li>at 110 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 400 V rated value</li> <li>at 600 V rated value</li> <li>bt AC-2 at 400 V rated value</li> <li>at AC-3         <ul> <li>at 230 V rated value</li> <li>at AC-3</li> <li>at 230 V rated value</li> <li>at 600 V rated value</li> <li>bt WW</li> <li>at 400 V rated value</li> <li>bt WW</li> <li>at 600 V rated value</li> <li>bt WW</li> <li>at 600 V rated value</li> <li>cat 500 V rated value</li> <li>bt WW</li> </ul> </li> <li>cat 690 V rated value</li> <li>cat 400 V rated value</li> <li>bt WW</li> </ul> operating power for approx. 200000 operating cycles at AC-4 <ul> <li>at 400 V rated value</li> <li>bt WW</li> </ul> operating apparent output at AC-6a <ul> <li>up to 230 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li></ul>	— at 220 V rated value	7 A		
<ul> <li>with 3 current paths in series at DC-3 at DC-5         <ul> <li>at 24 V rated value</li> <li>at 24 V rated value</li> <li>at 10 V rated value</li> <li>at 22 V rated value</li> <li>at 22 V rated value</li> <li>at 22 V rated value</li> <li>at 440 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at AC-2 at 400 V rated value</li> <li>at AC-3                 <ul> <li>at 230 V rated value</li> <li>at 400 V rated value</li></ul></li></ul></li></ul>	— at 440 V rated value	0.42 A		
- at 24 V rated value       100 A         - at 110 V rated value       100 A         - at 220 V rated value       35 A         - at 440 V rated value       0.8 A         - at 600 V rated value       0.35 A         operating power       -         - at 200 V rated value       55 kW         - at 230 V rated value       30 kW         - at 230 V rated value       55 kW         - at 400 V rated value       55 kW         - at 400 V rated value       90 kW         - at 600 V rated value       24.3 kW         - at 600 V rated value       22.9 kW         operating paparent output at AC-8a       39 kV-A         - up to 500 V for current peak value n=20 rated       67 kV-A         - up to 500 V for current peak value n=20 rated       84 kV-A         - up to 690 V for current peak value n=20 rated       84 kV-A	— at 600 V rated value	0.16 A		
<ul> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 440 V rated value</li> <li>0.8 A</li> <li>at 600 V rated value</li> <li>0.8 A</li> <li>at 600 V rated value</li> <li>55 kW</li> <li>at AC-2 at 400 V rated value</li> <li>55 kW</li> <li>at AC-3</li> <li>- at 230 V rated value</li> <li>30 kW</li> <li>- at 400 V rated value</li> <li>55 kW</li> <li>- at 400 V rated value</li> <li>30 kW</li> <li>- at 500 V rated value</li> <li>90 kW</li> <li>operating power for approx. 200000 operating cycles at AC-4</li> <li>at 400 V rated value</li> <li>24.3 kW</li> <li>at 690 V rated value</li> <li>22.9 kW</li> <li>operating apparent output at AC-6a</li> <li>up to 230 V for current peak value n=20 rated value</li> <li>0 kV-A</li> <li>value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>0 for kV-A</li> <li>value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>117 kV-A</li> </ul>	• with 3 current paths in series at DC-3 at DC-5			
<ul> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>0.8 A</li> <li>at 600 V rated value</li> <li>0.35 A</li> <li>operating power</li> <li>at AC-2 at 400 V rated value</li> <li>at AC-3</li> <li>at 230 V rated value</li> <li>30 kW</li> <li>at 400 V rated value</li> <li>55 kW</li> <li>at 600 V rated value</li> <li>90 kW</li> <li>operating power for approx. 200000 operating cycles</li> <li>at 400 V rated value</li> <li>24.3 kW</li> <li>at 690 V rated value</li> <li>24.3 kW</li> <li>at 690 V rated value</li> <li>39 kV-A</li> <li>value</li> <li>up to 230 V for current peak value n=20 rated</li> <li>value</li> <li>up to 500 V for current peak value n=20 rated</li> <li>84 kV-A</li> <li>value</li> <li>value</li> <li>up to 690 V for current peak value n=20 rated</li> <li>117 kV-A</li> </ul>	— at 24 V rated value	100 A		
- at 40 V rated value0.8 A- at 600 V rated value0.35 Aoperating power55 kW- at AC-2 at 400 V rated value55 kW- at 230 V rated value30 kW- at 230 V rated value55 kW- at 400 V rated value55 kW- at 400 V rated value55 kW- at 690 V rated value90 kWoperating power for approx. 200000 operating cycles24.3 kWat 400 V rated value24.3 kW- at 690 V rated value32.9 kWoperating apparent output at AC-6a39 kV-A- up to 230 V for current peak value n=20 rated67 kV-Avalue67 kV-A- up to 500 V for current peak value n=20 rated84 kV-A- up to 690 V for current peak value n=20 rated117 kV-A	— at 110 V rated value	100 A		
at 600 V rated value0.35 Aoperating power	— at 220 V rated value	35 A		
operating power• at AC-2 at 400 V rated value55 kW• at AC-330 kW- at 230 V rated value30 kW- at 400 V rated value55 kW- at 500 V rated value75 kW- at 690 V rated value90 kWoperating power for approx. 200000 operating cyclesat AC-4• at 400 V rated value24.3 kW• at 690 V rated value32.9 kWoperating apparent output at AC-6a39 kV-A• up to 230 V for current peak value n=20 rated value67 kV-A• up to 500 V for current peak value n=20 rated value67 kV-A• up to 500 V for current peak value n=20 rated value84 kV-A• up to 690 V for current peak value n=20 rated value84 kV-A	— at 440 V rated value	0.8 A		
• at AC-2 at 400 V rated value55 kW• at AC-330 kW- at 230 V rated value30 kW- at 400 V rated value55 kW- at 600 V rated value75 kW- at 690 V rated value90 kWoperating power for approx. 200000 operating cycles at AC-424.3 kW• at 690 V rated value24.3 kW• at 690 V rated value32.9 kWoperating apparent output at AC-6a value90 kV-A• up to 230 V for current peak value n=20 rated value39 kV-A• up to 400 V for current peak value n=20 rated value67 kV-A• up to 500 V for current peak value n=20 rated value84 kV-A• up to 500 V for current peak value n=20 rated value117 kV-A	— at 600 V rated value	0.35 A		
<ul> <li>at AC-3         <ul> <li>at AC-3</li> <li>at AC-4</li> </ul> </li> <li>operating power for approx. 200000 operating cycles at AC-4         <ul> <li>at AOU V rated value</li> <li>24.3 kW</li> <li>at AOU V rated value</li> <li>32.9 kW</li> </ul> </li> <li>operating apparent output at AC-6a         <ul> <li>up to 230 V for current peak value n=20 rated value</li> <li>up to 400 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>up to 690 V for c</li></ul></li></ul>	operating power			
- at 230 V rated value30 kW- at 400 V rated value55 kW- at 500 V rated value75 kW- at 690 V rated value90 kWoperating power for approx. 200000 operating cycles at AC-424.3 kW• at 400 V rated value24.3 kW• at 690 V rated value32.9 kWoperating apparent output at AC-6a value39 kV-A• up to 230 V for current peak value n=20 rated value67 kV-A• up to 500 V for current peak value n=20 rated value84 kV-A• up to 500 V for current peak value n=20 rated value84 kV-A	• at AC-2 at 400 V rated value	55 kW		
<ul> <li>at 400 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 600 V rated value</li> <li>90 kW</li> </ul> operating power for approx. 200000 operating cycles at AC-4 <ul> <li>at AC-4</li> <li>at 400 V rated value</li> <li>24.3 kW</li> <li>at 690 V rated value</li> <li>32.9 kW</li> </ul> operating apparent output at AC-6a <ul> <li>up to 230 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 500 V for current peak value n=20 rated value</li> <li>117 kV-A</li> </ul>	• at AC-3			
at 500 V rated value75 kW at 690 V rated value90 kWoperating power for approx. 200000 operating cycles at AC-424.3 kW• at 400 V rated value24.3 kW• at 690 V rated value32.9 kWoperating apparent output at AC-6a39 kV·A• up to 230 V for current peak value n=20 rated value67 kV·A• up to 500 V for current peak value n=20 rated value84 kV·A• up to 500 V for current peak value n=20 rated value117 kV·A	— at 230 V rated value	30 kW		
	— at 400 V rated value	55 kW		
operating power for approx. 200000 operating cycles at AC-4• at 400 V rated value24.3 kW• at 690 V rated value32.9 kWoperating apparent output at AC-6a• up to 230 V for current peak value n=20 rated value39 kV·A• up to 400 V for current peak value n=20 rated value67 kV·A• up to 500 V for current peak value n=20 rated value117 kV·A	— at 500 V rated value	75 kW		
at AC-4-• at 400 V rated value24.3 kW• at 690 V rated value32.9 kWoperating apparent output at AC-6a-• up to 230 V for current peak value n=20 rated value39 kV·A• up to 400 V for current peak value n=20 rated value67 kV·A• up to 500 V for current peak value n=20 rated value84 kV·A• up to 690 V for current peak value n=20 rated value117 kV·A	— at 690 V rated value	90 kW		
• at 690 V rated value32.9 kWoperating apparent output at AC-6a39 kV·A• up to 230 V for current peak value n=20 rated value39 kV·A• up to 400 V for current peak value n=20 rated value67 kV·A• up to 500 V for current peak value n=20 rated value84 kV·A• up to 690 V for current peak value n=20 rated117 kV·A				
• at 690 V rated value32.9 kWoperating apparent output at AC-6a39 kV·A• up to 230 V for current peak value n=20 rated value67 kV·A• up to 400 V for current peak value n=20 rated value67 kV·A• up to 500 V for current peak value n=20 rated value84 kV·A• up to 500 V for current peak value n=20 rated value117 kV·A		24.3 kW		
operating apparent output at AC-6a       39 kV·A         • up to 230 V for current peak value n=20 rated value       39 kV·A         • up to 400 V for current peak value n=20 rated value       67 kV·A         • up to 500 V for current peak value n=20 rated value       84 kV·A         • up to 500 V for current peak value n=20 rated value       84 kV·A         • up to 690 V for current peak value n=20 rated       117 kV·A		32.9 kW		
<ul> <li>up to 200 V for current peak value n=20 rated</li> <li>up to 400 V for current peak value n=20 rated</li> <li>up to 500 V for current peak value n=20 rated</li> <li>up to 690 V for current peak value n=20 rated</li> <li>117 kV·A</li> </ul>				
value       • up to 500 V for current peak value n=20 rated value       84 kV·A         • up to 690 V for current peak value n=20 rated       117 kV·A		39 kV·A		
<ul> <li>• up to 690 V for current peak value n=20 rated</li> <li>• up to 690 V for current peak value n=20 rated</li> <li>117 kV·A</li> </ul>		67 kV·A		
		84 kV·A		
		117 kV·A		

<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	26 kV·A			
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	45.2 kV·A			
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	56.5 kV·A			
<ul> <li>up to 690 V for current peak value n=30 rated value</li> </ul>	78 kV·A			
short-time withstand current in cold operating state				
up to 40 °C				
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	1 960 A; Use minimum cross-section acc. to AC-1 rated value			
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	1 502 A; Use minimum cross-section acc. to AC-1 rated value			
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	1 095 A; Use minimum cross-section acc. to AC-1 rated value			
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	707 A; Use minimum cross-section acc. to AC-1 rated value			
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	562 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-1 maximum	900 1/h			
• at AC-2 maximum	350 1/h			
• at AC-3 maximum	850 1/h			
• at AC-4 maximum	200 1/h			
Control circuit/ Control				
type of voltage of the control supply voltage	AC			
control supply voltage at AC				
• at 50 Hz rated value	230 V			
operating range factor control supply voltage rated value of magnet coil at AC				
• at 50 Hz	0.8 1.1			
apparent pick-up power of magnet coil at AC				
• at 50 Hz	296 V·A			
inductive power factor with closing power of the coil				
• at 50 Hz	0.61			
apparent holding power of magnet coil at AC				
● at 50 Hz	19 V·A			
inductive power factor with the holding power of the coil				
● at 50 Hz	0.38			
closing delay				

● at AC	13 50 ms			
opening delay				
• at AC	10 21 ms			
arcing time	10 20 ms			
control version of the switch operating mechanism	Standard A1 - A2			
Auxiliary circuit				
number of NC contacts for auxiliary contacts				
<ul> <li>instantaneous contact</li> </ul>	2			
number of NO contacts for auxiliary contacts				
<ul> <li>instantaneous contact</li> </ul>	2			
operating current at AC-12 maximum	10 A			
operating current at AC-15				
• at 230 V rated value	6 A			
• at 400 V rated value	3 A			
• at 500 V rated value	2 A			
• at 690 V rated value	1 A			
operating current at DC-12				
• at 24 V rated value	10 A			
• at 48 V rated value	6 A			
• at 60 V rated value	6 A			
• at 110 V rated value	3 A			
• at 125 V rated value	2 A			
• at 220 V rated value	1 A			
• at 600 V rated value	0.15 A			
operating current at DC-13				
• at 24 V rated value	6 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)			
JL/CSA ratings				
full-load current (FLA) for three-phase AC motor				
● at 480 V rated value	96 A			
• at 600 V rated value	99 A			
yielded mechanical performance [hp]				
for single-phase AC motor				
— at 110/120 V rated value	10 hp			
— at 230 V rated value	20 hp			

<ul> <li>for three-phase AC motor</li> </ul>				
— at 200/208 V rated value	30 hp			
— at 220/230 V rated value	40 hp			
— at 460/480 V rated value	75 hp			
— at 575/600 V rated value	100 hp			
contact rating of auxiliary contacts according to UL	A600 / P600			
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: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200			
	A (415 V, 80 kA)			
— with type of assignment 2 required	gG: 200A (690V,100kA), aM: 100A (690V,100kA), BS88: 160A (415V,80kA)			
<ul> <li>for short-circuit protection of the auxiliary switch</li> </ul>	gG: 10 A (500 V, 1 kA)			
required				
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 Yes			
side-by-side mounting				
height width	140 mm 70 mm			
depth	195 mm			
required spacing	135 1111			
with side-by-side mounting				
— forwards	20 mm			
	10 mm			
— upwards	10 mm			
— downwards	0 mm			
— at the side	0 11111			
• for grounded parts	20 mm			
— forwards	20 mm			
— upwards	10 mm			
— at the side	10 mm			
— downwards	10 mm			
• for live parts				
— forwards	20 mm			
— upwards	10 mm			
— downwards	10 mm			
— at the side	10 mm			
Connections/ Terminals				

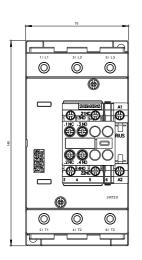
type of electrical connection				
<ul> <li>for main current circuit</li> </ul>	screw-type terminals			
<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals			
<ul> <li>at contactor for auxiliary contacts</li> </ul>	Screw-type terminals			
• of magnet coil	Screw-type terminals			
type of connectable conductor cross-sections				
<ul> <li>for main contacts</li> </ul>				
— finely stranded with core end processing	2x (2.5 35 mm²), 1x (2.5 50 mm²)			
<ul> <li>at AWG conductors for main contacts</li> </ul>	2x (10 1/0), 1x (10 2)			
connectable conductor cross-section for main				
contacts				
• solid	2.5 16 mm²			
• stranded	6 70 mm²			
<ul> <li>finely stranded with core end processing</li> </ul>	2.5 50 mm²			
connectable conductor cross-section for auxiliary				
contacts				
• single or multi-stranded	0.5 2.5 mm <sup>2</sup>			
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm²			
• type of connectable conductor cross-sections				
for auxiliary contacts	$2 \times (0.5 - 4.5 - 2 \times 2^{2}) 2 \times (0.75 - 2.5 - 2 \times 2^{2})$			
— 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 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> )			
<ul> <li>type of connectable conductor cross-sections at AWG conductors for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14)			
AWG number as coded connectable conductor cross				
section	40 0			
• for main contacts	10 2			
<ul> <li>for auxiliary contacts</li> </ul>	20 14			
Safety related data				
B10 value				
• with high demand rate acc. to SN 31920	1 000 000			
proportion of dangerous failures				
• with low demand rate acc. to SN 31920	40 %			
• with high demand rate acc. to SN 31920	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			
<ul> <li>positively driven operation acc. to IEC 60947-5-</li> <li>1</li> </ul>	No			
T1 value for proof test interval or service life acc. to IEC 61508	20 у			
protection against electrical shock	finger-safe when touched vertically from front acc. to IEC 60529			

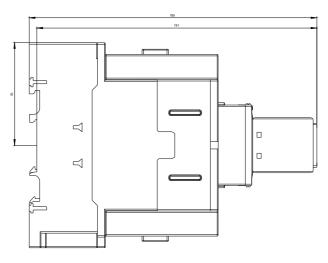
Yes

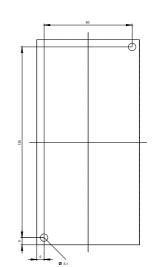
uitability for use safe		g OFF Yes			
ertificates/ approva	als				
General Product	Approval				EMC
	CSA		<u>KC</u>	EHC	RCM
Declaration of Co	onformity	Test Certific- ates	Marine / Ship	ping	
CE EG-Konf.	Miscellaneous	Special Test Certi- ficate	ABS	Lloyd's Register	6
Marine / Shipping	9		other	ENJ	rn3
RINA	RMRS	DNVGLCOM/AF	Confirmation		
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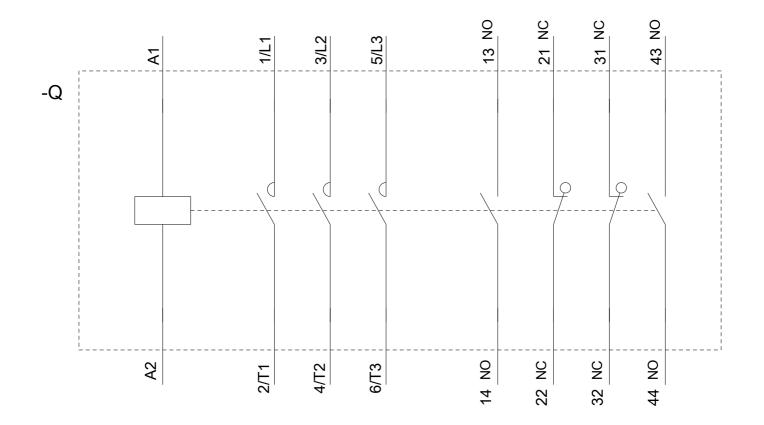
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2047-1AP04/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2047-1AP04&objecttype=14&gridview=view1









last modified:

09/24/2020