# **SIEMENS**

Data sheet 3RT2046-1AV00



power contactor, AC-3e/AC-3, 95 A, 45 kW / 400 V, 3-pole, 400 V AC, 50 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S3  $\,$ 

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
auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	19.8 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	6.6 W
without load current share typical	7.3 W
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	1 000 V
<ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul>	690 V
surge voltage resistance	
<ul> <li>of main circuit rated value</li> </ul>	8 kV
of auxiliary circuit rated value	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	690 V
shock resistance at rectangular impulse	
• at AC	10.3g / 5 ms, 6,.g / 10 ms
shock resistance with sine pulse	
• at AC	16.3g / 5 ms, 10.g / 10 ms
mechanical service life (operating cycles)	
of contactor typical	10 000 000
<ul> <li>of the contactor with added electronically optimized 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 according to IEC 81346-2	Q
Substance Prohibitance (Date)	03/01/2017
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

number of NO contacts for main contacts	3
operating voltage	
• at AC-3 rated value maximum	1 000 V
at AC-3e rated value maximum	1 000 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated	130 A
value	
• at AC-1	
<ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> </ul>	130 A
— up to 690 V at ambient temperature 60 °C rated	110 A
value	TIOA
• at AC-3	
— at 400 V rated value	95 A
— at 500 V rated value	95 A
— at 690 V rated value	78 A
— at 1000 V rated value	30 A
• at AC-3e	
— at 400 V rated value	95 A
— at 500 V rated value	95 A
— at 690 V rated value	78 A
— at 1000 V rated value	30 A
at AC-4 at 400 V rated value	80 A
at AC-5a up to 690 V rated value	114 A
at AC-5b up to 400 V rated value	95 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	84.4 A
— up to 400 V for current peak value n=20 rated value	84.4 A
— up to 500 V for current peak value n=20 rated value	84.4 A
— up to 690 V for current peak value n=20 rated value	58 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	56.3 A
— up to 400 V for current peak value n=30 rated value	56.3 A
— up to 500 V for current peak value n=30 rated value	56.3 A
— up to 690 V for current peak value n=30 rated value	56.3 A
minimum cross-section in main circuit at maximum AC-1 rated	50 mm <sup>2</sup>
value	
operational current for approx. 200000 operating cycles at	
AC-4	
• at 400 V rated value	42 A
at 690 V rated value	30 A
operational current	
at 1 current path at DC-1	
— at 24 V rated value	100 A
— at 60 V rated value	60 A
— at 110 V rated value	9 A
— at 220 V rated value	2 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.4 A
with 2 current paths in series at DC-1	
— at 24 V rated value	100 A
— at 60 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	10 A
— at 440 V rated value	1.8 A
— at 600 V rated value	1 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	100 A
— at 60 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	80 A
	4.5 A

	— at 600 V rated value	2.6 A
	• at 1 current path at DC-3 at DC-5	
### ### ### ### ### ### ### ### ### ##	— at 24 V rated value	40 A
	— at 60 V rated value	6 A
	— at 110 V rated value	2.5 A
With 2 current paths in series at DC-3 at DC-5	— at 220 V rated value	1 A
with 2 current paths in series at DC-3 at DC-5	— at 440 V rated value	0.15 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	100 A
	— at 60 V rated value	100 A
	— at 110 V rated value	100 A
■ with 3 current paths in series at DC-3 at DC-5     ■ at 24 V rated value     ■ at 10 V rated value     ■ at 10 V rated value     ■ at 10 V rated value     ■ at 220 V rated value     ■ at 400 V rated value     ■ at 60 V for current peak value n=30 rated value     ■ at 60 V for current peak value	— at 220 V rated value	7 A
with 3 current paths in series at DC-3 at DC-5	— at 440 V rated value	0.42 A
at 24 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	100 A
at 220 V rated value	— at 60 V rated value	100 A
operating power of the value	— at 110 V rated value	
Acc	— at 220 V rated value	35 A
operating power  at AC-2 at 400 V rated value  at AC-3  — at 230 V rated value — at 400 V rated value — at 690 V rated value — at 690 V rated value — at 1000 V rated value — at 230 V rated value — at 230 V rated value — at 400 V rated value — at 400 V rated value — at 690 V rated value — 37 kW  operating power for approx. 200000 operating cycles at AC-4  4 at 400 V rated value  operating apparent power at AC-6a  • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rat	— at 440 V rated value	0.8 A
at AC-2 at 400 V rated value 55 kW at 40-3 at 1000 V rated value 55 kW at 1000 V rated value 37 kW  at AC-3e at 230 V rated value 37 kW  at AC-3e at 200 V rated value 37 kW  at AC-3e at 200 V rated value 37 kW  at AC-3e at 200 V rated value 37 kW  at 900 V rated value 38 kW  at 900 V rated value 39 kW  at 900 V rated value 39 kW  at 900 V rated value 30 V rated value 40 up 0 V rated value 22 kW  41 400 V rated value 22 kW  42 4 W  43 400 V rated value 33 kW  40 up to 400 V for current peak value n=20 rated value 40 up to 500 V for current peak value n=20 rated value 40 up to 500 V for current peak value n=20 rated value 40 up to 500 V for current peak value n=30 rated value 40 up to 500 V for current peak value n=30 rated value 40 up to 500 V for current peak value n=30 rated value 40 up to 500 V for current peak value n=30 rated value 40 up to 500 V for current peak value n=30 rated value 40 up to 500 V for current peak value n=30 rated value 40 up to 500 V for current peak value n=30 rated value 40 up to 500 V for current peak value n=30 rated value 40 up to 500 V for current peak value n=30 rated value 40 VC   ilimited to 1 s switching at zero current maximum 4 limited to 10 s switching at zero current maximum 4 limited to 10 s switching at zero current maximum 5 limited to 60 s switching at zero current maximum 6 limited to 60 s switching at zero current maximum 6 limited to 60 s switching at zero current maximum 6 limited to 60 s switching at zero current maximum 70 limited to 60 switching at zero current maximum 8 limited to 60 s switching at zero current maximum 9 limited to 60 switching at zero current maximum 9 limited to 60 switching at zero current maximum 9 limited to 60 switching at zero current maximum 9 limited to 60 switching at zero current maximum 9 limited to 60 switching at zero	— at 600 V rated value	0.35 A
at AC-3  at 230 V rated value  at 400 V rated value  55 kW  at 690 V rated value  55 kW  at 1000 V rated value  75 kW  37 kW  at AC-3e  at 230 V rated value  22 kW  at AC-3e  at 230 V rated value  22 kW  at AC-3e  at 230 V rated value  22 kW  at 690 V rated value  55 kW  at 690 V rated value  55 kW  at 690 V rated value  75 kW  37 kW  operating power for approx. 200000 operating cycles at AC-4  at 400 V rated value  22 kW  operating power for approx. 200000 operating cycles at AC-4  at 400 V rated value  22 kW  operating apparent power at AC-6a  up to 230 V for current peak value n=20 rated value  up to 400 V for current peak value n=20 rated value  up to 500 V for current peak value n=20 rated value  bup to 500 V for current peak value n=20 rated value  up to 500 V for current peak value n=20 rated value  69 kVA  operating apparent power at AC-6a  up to 230 V for current peak value n=30 rated value  up to 500 V for current peak value n=30 rated value  up to 500 V for current peak value n=30 rated value  69 kVA  operating apparent power at AC-6a  up to 600 V for current peak value n=30 rated value  48 kVA  48 kVA  49 kVA  49 to 400 V for current peak value n=30 rated value  49 to 500 V for current peak value n=30 rated value  49 to 500 V for current peak value n=30 rated value  40 to 600 V for current peak value n=30 rated value  40 kVA  40 c  41 kVA  42 kVA  43 kVA  44 kVA  45 kW  46 kVA  47 kW  48 kVA  49 to 400 V for current peak value n=30 rated value  49 kVA  40 to 40 c for current peak value n=30 rated value  40 kV We minimum cross-section acc. to AC-1 rated value  41 kVA  42 kVA  43 kVA  44 kVA  45 kVB  46 kVB  47 kWA  48 kVB  48 kVB  49 kVA  49 to 40 kVB  4	operating power	
- at 230 V rated value - at 400 V rated value - at 500 V rated value - at 690 V rated value - at 1000 V rated value - at 230 V rated value - at 2500 V rated value - at 2500 V rated value - at 500 V rated value - at 1000 V rated value - at 400 V rated value - at 400 V rated value - 22 kW - at 690 V rated value - 27.4 kW  operating apparent power at AC-6a - up to 230 V for current peak value n=20 rated value - up to 500 V for current peak value n=20 rated value - up to 500 V for current peak value n=20 rated value - up to 500 V for current peak value n=20 rated value - up to 500 V for current peak value n=30 rated value - up	• at AC-2 at 400 V rated value	45 kW
- at 400 V rated value - at 500 V rated value - at 690 V rated value - at 1000 V rated value - at 1000 V rated value - at 230 V rated value - at 230 V rated value - at 400 V rated value - at 690 V rated value - at 1000 V rated value - at 690 V rated value - 22 kW - at 400 V rated value - 22 kW - at 690 V rated value - 22 kW - at 690 V rated value - 27.4 kW  operating power for approx. 200000 operating cycles at AC-4  • at 400 V rated value - 27.4 kW  operating apparent power at AC-8a • up to 230 V for current peak value n=20 rated value - up to 690 V for current peak value n=20 rated value - up to 690 V for current peak value n=20 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for cu	• at AC-3	
- at 500 V rated value - at 890 V rated value - at 1000 V rated value  *at AC-3e  - at 230 V rated value - at 400 V rated value - at 690 V rated value - at 1000 V rated value - at 690 V rated value - at 1000 V rated value - at 690 V rated value - at 690 V rated value - at 1000 V rated value - at 400 V rated value  • at 400 V rated value • at 690 V rated value • at 690 V rated value • up to 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 500 V for current peak value n=30 ra	— at 230 V rated value	22 kW
- at 690 V rated value - at 1000 V rated value  * at AC-3e - at 230 V rated value - at 400 V rated value - at 500 V rated value - at 690 V rated value - up to 500 V for current peak value n=20 rated value - up to 690 V for current peak value n=20 rated value - up to 690 V for current peak value n=30 rated value - up to 690 V for current peak value n=	— at 400 V rated value	45 kW
- at 1000 V rated value  • at AC-3e  - at 230 V rated value  - at 400 V rated value  - at 500 V rated value  - at 690 V rated value  - at 1000 V rated value  - at 690 V rated value  - at 1000 V rated value  - at 400 V rated value  - at 1000 V rated value  - at 1000 V rated value  - at 400 V rated value  - at 690 V rated value  - at 690 V rated value  - at 400 V rated value  - at 690 V ra	— at 500 V rated value	55 kW
at AC-3e — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 690 V rated value — at 1000 V rated value — at 400 V rated value — at 400 V rated value  22 kW  • at 400 V rated value • at 690 V rated value  • at 400 V rated value  10 peratting apparent power at AC-8a  • up to 230 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value  • up to 690 V for current peak value n=20 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • ilmited to 1 s switching at zero current maximum  • ilmited to 5 s witching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maxim	— at 690 V rated value	75 kW
- at 230 V rated value - at 400 V rated value - at 400 V rated value - at 690 V rated value - at 1000 V rated value - at 400 V rated value - at 690 V rated value - 22 kW - at 690 V rated value - 27.4 kW - at 690 V for current peak value n=20 rated value - at 690 V for current peak value n=20 rated value - at 690 V for current peak value n=20 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak valu	— at 1000 V rated value	37 kW
- at 400 V rated value - at 500 V rated value - at 690 V rated value - at 1000 V rated value - at 1000 V rated value - at 1000 V rated value - at 400 V rated value - at 690 V rated value - au pro 230 V for current peak value n=20 rated value - au pro 500 V for current peak value n=30 rated value - au pro 230 V for current peak value n=30 rated value - au pro 500 V for current peak value n=30 rated value - au pro 500 V for current peak value n=30 rated value - au pro 690 V for current peak value n=30 rated value -	• at AC-3e	
- at 500 V rated value - at 690 V rated value - at 1000 V rated value - at 1000 V rated value  operating power for approx. 200000 operating cycles at AC-  4  • at 400 V rated value • at 690 V rated value • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 230 V for current peak value n=20 rated value • up to 230 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • timited to 1 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum	— at 230 V rated value	
	— at 400 V rated value	
operating power for approx. 200000 operating cycles at AC- 4  • at 400 V rated value • at 690 V rated value • at 690 V rocurrent peak value n=20 rated value • up to 230 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 230 V for current peak value n=20 rated value • up to 230 V for current peak value n=20 rated value • up to 230 V for current peak value n=30 rated value • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • limited to 1 s switching at zero current maximum • limited to 1 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum		
operating power for approx. 200000 operating cycles at AC- 4  • at 400 V rated value • at 690 V rated value • at 690 V rated value  operating apparent power at AC-6a • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 230 V for current peak value n=20 rated value  operating apparent power at AC-6a • up to 230 V for current peak value n=30 rated value • up to 230 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • 17.3 kVA  short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum		
at 400 V rated value at 690 V rated value 27.4 kW  operating apparent power at AC-6a  up to 230 V for current peak value n=20 rated value up to 400 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value up to 690 V for current in cold operating state up to 40 °C  Ilmited to 1 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum		37 kW
<ul> <li>at 400 V rated value</li> <li>at 690 V rated value</li> <li>operating apparent power at AC-6a</li> <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 690 V for current peak value n=20 rated value</li> <li>up to 230 V for current peak value n=20 rated value</li> <li>up to 230 V for current peak value n=20 rated value</li> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>up to 500 V for current peak value n=30 rated value</li> <li>short-time withstand current in cold operating state up to 40 °C</li> <li>limited to 1 s switching at zero current maximum</li> <li>limited to 10 s switching at zero current maximum</li> <li>limited to 10 s switching at zero current maximum</li> <li>limited to 30 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> </ul>		
• at 690 V rated value  operating apparent power at AC-6a  • up to 230 V for current peak value n=20 rated value  • up to 500 V for current peak value n=20 rated value  • up to 690 V for current peak value n=20 rated value  • up to 500 V for current peak value n=20 rated value  • up to 690 V for current peak value n=30 rated value  • up to 230 V for current peak value n=30 rated value  • up to 400 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • limited to 1 s switching at zero current maximum  • limited to 1 s switching at zero current maximum  • limited to 10 s switching at zero current maximum  • limited to 30 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum		22 kW
operating apparent power at AC-6a  • up to 230 V for current peak value n=20 rated value  • up to 400 V for current peak value n=20 rated value  • up to 500 V for current peak value n=20 rated value  • up to 690 V for current peak value n=20 rated value  • up to 230 V for current peak value n=30 rated value  • up to 400 V for current peak value n=30 rated value  • up to 400 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • limited to 1 s switching at zero current maximum  • limited to 5 s switching at zero current maximum  • limited to 10 s switching at zero current maximum  • limited to 30 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum		
• up to 230 V for current peak value n=20 rated value     • up to 400 V for current peak value n=20 rated value     • up to 500 V for current peak value n=20 rated value     • up to 690 V for current peak value n=20 rated value     • up to 690 V for current peak value n=20 rated value     • up to 230 V for current peak value n=30 rated value     • up to 400 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • limited to 1 s switching at zero current maximum     • limited to 5 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 30 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • lim		21.1101
<ul> <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 690 V for current peak value n=20 rated value</li> <li>operating apparent power at AC-6a</li> <li>up to 230 V for current peak value n=30 rated value</li> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>short-time withstand current in cold operating state up to 40 °C</li> <li>limited to 1 s switching at zero current maximum</li> <li>limited to 5 s switching at zero current maximum</li> <li>limited to 10 s switching at zero current maximum</li> <li>limited to 30 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s</li></ul>		33 kVA
up to 500 V for current peak value n=20 rated value     up to 690 V for current peak value n=20 rated value     operating apparent power at AC-6a         up to 230 V for current peak value n=30 rated value         up to 400 V for current peak value n=30 rated value         up to 500 V for current peak value n=30 rated value         up to 690 V for current peak value n=30 rated value         up to 690 V for current peak value n=30 rated value         short-time withstand current in cold operating state up to 40 °C          elimited to 1 s switching at zero current maximum         elimited to 5 s switching at zero current maximum         elimited to 10 s switching at zero current maximum         elimited to 30 s switching at zero current maximum         elimited to 60 s switching at zero current maximum         elimited to 60 s switching at zero current maximum         elimited to 60 s switching at zero current maximum         elimited to 60 s switching at zero current maximum         elimited to 60 s switching at zero current maximum         elimited to 60 s switching at zero current maximum         elimited to 60 s switching at zero current maximum         elimited to 60 s switching frequency         eat AC	·	
• up to 690 V for current peak value n=20 rated value  operating apparent power at AC-6a      • up to 230 V for current peak value n=30 rated value     • up to 400 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • limited to 1 s switching at zero current maximum     • limited to 1 s switching at zero current maximum     • limited to 5 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 30 s switching at zero current maximum     • limited to 60 s switching at z	·	
operating apparent power at AC-6a  • up to 230 V for current peak value n=30 rated value  • up to 400 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  5 hort-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  • limited to 5 s switching at zero current maximum  • limited to 10 s switching at zero current maximum  • limited to 30 s switching at zero current maximum  • limited to 60 s switching at zero current maximum		
<ul> <li>up to 230 V for current peak value n=30 rated value</li> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>short-time withstand current in cold operating state up to 40 °C</li> <li>limited to 1 s switching at zero current maximum</li> <li>limited to 5 s switching at zero current maximum</li> <li>limited to 10 s switching at zero current maximum</li> <li>limited to 30 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited</li></ul>		
<ul> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>short-time withstand current in cold operating state up to 40 °C</li> <li>limited to 1 s switching at zero current maximum</li> <li>limited to 5 s switching at zero current maximum</li> <li>limited to 10 s switching at zero current maximum</li> <li>limited to 30 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 6</li></ul>		22.4 kVA
<ul> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>short-time withstand current in cold operating state up to 40 °C</li> <li>limited to 1 s switching at zero current maximum</li> <li>limited to 5 s switching at zero current maximum</li> <li>limited to 10 s switching at zero current maximum</li> <li>limited to 30 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> </ul>		
<ul> <li>up to 690 V for current peak value n=30 rated value</li> <li>short-time withstand current in cold operating state up to 40 °C</li> <li>limited to 1 s switching at zero current maximum</li> <li>limited to 5 s switching at zero current maximum</li> <li>limited to 10 s switching at zero current maximum</li> <li>limited to 30 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>li</li></ul>		
short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  • limited to 5 s switching at zero current maximum  • limited to 10 s switching at zero current maximum  • limited to 30 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching frequency  • at AC  5 000 1/h		
Ilimited to 1 s switching at zero current maximum     Ilimited to 5 s switching at zero current maximum     Ilimited to 10 s switching at zero current maximum     Ilimited to 30 s switching at zero current maximum     Ilimited to 60 s switching at zero current maximum		
<ul> <li>limited to 5 s switching at zero current maximum</li> <li>limited to 10 s switching at zero current maximum</li> <li>limited to 30 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>mo-load switching frequency</li> <li>at AC</li> <li>1 297 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>486 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>486 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>5 000 1/h</li> </ul>		
<ul> <li>limited to 10 s switching at zero current maximum</li> <li>limited to 30 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>mo-load switching frequency</li> <li>at AC</li> <li>yes minimum cross-section acc. to AC-1 rated value</li> <li>486 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>5 000 1/h</li> </ul>	<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	1 725 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>no-load switching frequency</li> <li>at AC</li> <li>486 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>5 000 1/h</li> </ul>	<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	1 297 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>◆ limited to 60 s switching at zero current maximum</li> <li>1486 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>15 000 1/h</li> </ul>	<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	946 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency  • at AC  5 000 1/h	<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	610 A; Use minimum cross-section acc. to AC-1 rated value
• at AC 5 000 1/h	• limited to 60 s switching at zero current maximum	486 A; Use minimum cross-section acc. to AC-1 rated value
	no-load switching frequency	
operating frequency	• at AC	5 000 1/h
operating nequency	operating frequency	
• at AC-1 maximum 900 1/h	• at AC-1 maximum	900 1/h

* all AC3 missimum * all AC4 missimum * all AC4 missimum * all AC5 missimum * all AC6 missimum * all AC6 missimum * all AC6 missimum * all AC6 missimum * all AC7 mis	a at AC 2 maximum	250.4/b
a th AC- maximum by or Voltage of the control supply voltage Control supply voltage at AC a to the fired value perstant grange factor control supply voltage rated value of magnet coil at AC a to the fired value perstant grange factor control supply voltage rated value of magnet coil at AC a to the fired value b to the fired value a to the fired value a to the fired value a to the fired value b to the fired value a to the fired value a to the fired value b to the fired value a to the fired value b to the fired value a to the fired value b to the fired value b to the fired value a to the fired value b to the fir	• at AC-2 maximum	350 1/h
• at AC-4 maximum   250 4th		
Control circuit/ Control  ** st 00 Hz rated value  ** of 10 Hz rated va		
type of voltage of the control supply voltage control supply voltage at AC  * at 50 Ftz milet value  400 V  operating range factor control supply voltage rated value of magnet coil at AC  * at 50 Ftz  apparent plot-up power of magnet coil at AC  * at 50 Ftz  paparent plot-up power of magnet coil at AC  * at 50 Ftz  apparent plot-up power of magnet coil at AC  * at 50 Ftz  apparent plot-up power of magnet coil at AC  * at 50 Ftz  apparent holding power of magnet coil at AC  * at 50 Ftz  and sol Vtz  closing delay  * at AC  arcing time  arcing tim		250 1/11
Control supply voltage at AC  • at 50 Hz rated value  • at 50 Hz rated value  paparating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  supparate pick-up power of magnet coil at AC  • at 50 Hz  • at 50 Hz  control to voltage power of the coil  • at 50 Hz  apparant holding power of magnet coil at AC  • at 50 Hz  apparant holding power of magnet coil at AC  • at 50 Hz  apparant holding power of magnet coil at AC  • at 50 Hz  control version of the switch operating more of the coil  • at 50 Hz  closing delay  • at AC  10 21 ms  arcing time  control version of the switch operating mechanism  Standard A1 - A2  Auxiliary circuit  number of NC contacts for sustiliary contacts instantaneous or contact  contact  at 200 V rated value  • at 200 V rated value  • at 600 V rated value  • at 600 V rated value  • at 600 V rated value  • at 60 V rated value  • a		AC
a 15 0 Hz rated value 400 V operating range factor control supply voltage rated value of magnet coil at AC 2 0 8 1.1  apparent pick-up power of magnet coil at AC 2 269 VA 150 Hz 2 0.81 1.1  apparent pick-up power of magnet coil at AC 2 10 269 VA 160 VA		AC
operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  apparent pick-up power factor with closing power of the coil • at 50 Hz  apparent holding power of magnet coil at AC  • at 50 Hz  apparent holding power of magnet coil at AC  • at 50 Hz  apparent holding power of magnet coil at AC  • at 50 Hz  apparent holding power factor with the holding power of the coil • at 50 Hz  inductive power factor with the holding power of the coil • at 50 Hz  • at AC  • a		400 V
magnot coil af AC  apaparent pick-up power of magnet coil at AC  at 50 Hz  closing delay  at 70 AC  at 150 Hz  arcing time  control version of the switch operating mechanism  found of NC contacts for auxiliary contacts instantaneous control version of NC contacts for auxiliary contacts instantaneous control version accurated AC-15  at 250 VX at 50		400 V
apparent pick-up power of magnet coll at AC  at 30 Hz  Inductive power factor with closing power of the coll at 30 Hz  art 50 Hz  19 VA  Inductive power factor with the holding power of the coll at 50 Hz  Inductive power factor with the holding power of the coll at 50 Hz  closing delay at AC  13 50 ms  opening delay at AC  arcing time 10 20 ms  control version of the switch operating mechanism Standard A1 - A2  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact  number of NC contacts for auxiliary contacts instantaneous of action of the switch operating mechanism  at 30 Vite contact at AC-16 at 30 Vited value at 400 Vited value	magnet coil at AC	
aut 50 Hz		0.8 1.1
		296 VA
apparent holding power of magnet coil at AC	inductive power factor with closing power of the coil	
Inductive power factor with the holding power of the coil   at 50 Hz   0.38	● at 50 Hz	0.61
Inductive power factor with the holding power of the coil   a at 50 Hz   0.38     closing delay   13	apparent holding power of magnet coil at AC	
e at 50 Hz  closing delay	● at 50 Hz	19 VA
e 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 instantaneous contact  number of NC contacts for auxiliary contacts instantaneous contact  number of NC contacts for auxiliary contacts instantaneous contact  number of NC contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum 10 A  operational current at AC-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 1 A • at 690 V rated value 1 A  operational current at DC-12  • at 24 V rated value 6 A • at 48 V rated value 6 A • at 100 V rated value 6 A • at 110 V rated value 3 A • at 125 V rated value 3 A • at 125 V rated value 1 A • at 126 V rated value 1 A • at 127 V rated value 1 A • at 128 V rated value 1 A • at 129 V rated value 1 A • at 120 V rate	inductive power factor with the holding power of the coil	
• at AC opening delay • at AC arcing time 10 21 ms Arcling time 10 20 ms Standard A1 - A2 Avuillary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous 1 contact number of NC contacts for auxiliary contacts 1 contact reliability of auxiliary contact		0.38
aring time		13 50 ms
arcing time		
Control version of the switch operating mechanism   Standard A1 - A2		
Auxiliary circuit   number of NC contacts for auxiliary contacts instantaneous contact   number of NC contacts for auxiliary contacts instantaneous contact   number of NO contacts for auxiliary contacts instantaneous   number of NO contacts for auxiliary contacts   number of NO contacts for auxiliary contacts   number of NO contacts for auxiliary contacts   number of NO contact   number		
number of NC contacts for auxiliary contacts instantaneous contact c		Standard A1 - A2
Description   Contacts   Contact		
Contact	contact	
Operational current at AC-15	contact	1
	operational current at AC-12 maximum	10 A
• at 400 V rated value 2 A • at 590 V rated value 1 A  operational current at DC-12  • at 24 V rated value 10 A • at 48 V rated value 6 A • at 48 V rated value 6 A • at 110 V rated value 2 A • at 110 V rated value 3 A • at 125 V rated value 2 A • at 220 V rated value 1 A • at 200 V rated value 1 A • at 200 V rated value 2 A • at 220 V rated value 1 A • at 600 V rated value 2 A • at 220 V rated value 2 A • at 220 V rated value 1 A • at 600 V rated value 2 A • at 220 V rated value 2 A • at 24 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 110 V rated value 2 A • at 110 V rated value 3 A • at 220 V rated value 4 A • at 125 V rated value 9 A • at 220 V rated value 0.9 A • at 220 V rated value 0.3 A • at 200 V rated value 0.1 A • at 480 V rated value 0.1 A • at 500 V rated value 0.1 A • at 600 V r	operational current at AC-15	
• at 500 V rated value	<ul> <li>at 230 V rated value</li> </ul>	
• at 690 V rated value		
Operational current at DC-12	<ul> <li>at 500 V rated value</li> </ul>	
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 6 A</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 125 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <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 48 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 110 V rated value</li> <li>at 125 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 200 V rated value</li> <li>at 600 V rate</li></ul>		1 A
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 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>at 600 V rated value</li> <li>ontage of the following of</li></ul>		
<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>at 600 V rated value</li> <li>ot 3A</li> <li>at 220 V rated value</li> <li>1 A</li> <li>at 600 V rated value</li> <li>0.15 A</li> </ul> Operational current at DC-13 <ul> <li>at 24 V rated value</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 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>at 200 V rated value</li> <li>3A</li> <li>at 600 V rated value</li> <li>0.1 A</li> </ul> Contact reliability of auxiliary contacts <ul> <li>1 faulty switching per 100 million (17 V, 1 mA)</li> </ul> UL/CSA ratings full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> </ul>		
<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> <li>at 600 V rated value</li> <li>0.15 A</li> <li>operational current at DC-13</li> <li>at 24 V rated value</li> <li>at 80 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 110 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>full-load current (FLA) for 3-phase AC motor</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> </ul>		
<ul> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>1 A</li> <li>at 600 V rated value</li> <li>0.15 A</li> <li>operational current at DC-13</li> <li>at 24 V rated value</li> <li>at 80 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> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 100 V rated value</li> </ul>		
• at 220 V rated value • at 600 V rated value • at 600 V rated value  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 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)  ULICSA ratings  full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value • at 77 A  yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value  10 hp		
• at 600 V rated value		
operational current at DC-13		
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 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>at 600 V rated value</li> <li>at 600 V rated value</li> <li>o.1 A</li> <li>contact reliability of auxiliary contacts</li> <li>1 faulty switching per 100 million (17 V, 1 mA)</li> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>or single-phase AC motor</li> <li>at 110/120 V rated value</li> <li>at 10 hp</li> </ul>		U.15 A
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>1 A</li> <li>at 125 V rated value</li> <li>0.9 A</li> <li>at 220 V rated value</li> <li>0.3 A</li> <li>at 600 V rated value</li> <li>0.1 A</li> <li>contact reliability of auxiliary contacts</li> <li>1 faulty switching per 100 million (17 V, 1 mA)</li> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>for single-phase AC motor</li> <li>at 110/120 V rated value</li> <li>10 hp</li> </ul>	•	40.4
<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>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at faulty switching per 100 million (17 V, 1 mA)</li> </ul> UL/CSA ratings full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>for single-phase AC motor</li> <li>af or single-phase AC motor</li> <li>af 110/120 V rated value</li> <li>10 hp</li> </ul>		
<ul> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> <li>1 faulty switching per 100 million (17 V, 1 mA)</li> </ul> UL/CSA ratings full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>of or single-phase AC motor</li> <li>for single-phase AC motor</li> <li>at 110/120 V rated value</li> <li>10 hp</li> </ul>		
<ul> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>0.1 A</li> <li>contact reliability of auxiliary contacts</li> <li>1 faulty switching per 100 million (17 V, 1 mA)</li> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>for single-phase AC motor</li> <li>at 110/120 V rated value</li> <li>10 hp</li> </ul>		
<ul> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>0.1 A</li> <li>contact reliability of auxiliary contacts</li> <li>1 faulty switching per 100 million (17 V, 1 mA)</li> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>yielded mechanical performance [hp]</li> <li>for single-phase AC motor</li> <li>at 110/120 V rated value</li> <li>10 hp</li> </ul>		
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  77 A  yielded mechanical performance [hp]  for single-phase AC motor  — at 110/120 V rated value  10 hp		
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  77 A  yielded mechanical performance [hp]  • for single-phase AC motor  — at 110/120 V rated value  10 hp		
### Comparison of Comparison o		
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value 96 A  • at 600 V rated value 77 A  yielded mechanical performance [hp]  • for single-phase AC motor  — at 110/120 V rated value 10 hp		1 faulty switching per 100 million (17 V, 1 mA)
<ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>77 A</li> <li>yielded mechanical performance [hp]</li> <li>for single-phase AC motor</li> <li>at 110/120 V rated value</li> <li>10 hp</li> </ul>		
at 600 V rated value  77 A  yielded mechanical performance [hp]      for single-phase AC motor          — at 110/120 V rated value  10 hp		
yielded mechanical performance [hp]  ● for single-phase AC motor  — at 110/120 V rated value 10 hp		
for single-phase AC motor  — at 110/120 V rated value  10 hp		77 A
— at 110/120 V rated value 10 hp		
·	- 1	
— at 230 V rated value 20 hp		
	— at 230 V rated value	20 np

• for 3-phase AC motor	
— at 200/208 V rated value	30 hp
— at 220/230 V rated value	30 hp
— at 460/480 V rated value	75 hp
— at 575/600 V rated value	75 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>	
<ul><li>— with type of coordination 1 required</li></ul>	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: 160 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA)
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	140 mm
width	70 mm
depth	152 mm
required spacing	
<ul><li>with side-by-side mounting</li></ul>	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
<ul> <li>for grounded parts</li> </ul>	
— forwards	20 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
<ul> <li>for live parts</li> </ul>	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm
Connections/ Terminals	
type of electrical connection	
for main current circuit	screw-type terminals
for auxiliary and control circuit	screw-type terminals
at contactor for auxiliary contacts	Screw-type terminals
of magnet coil	Screw-type terminals
type of connectable conductor cross-sections for main contacts	"
finely stranded with core end processing	2x (2.5 35 mm²), 1x (2.5 50 mm²)
connectable conductor cross-section for main contacts	, , , , , , , , , , , , , , , , , , , ,
solid	2.5 16 mm²
• stranded	6 70 mm²
finely stranded with core end processing	2.5 50 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	0.0 2.0 mm
• for auxiliary contacts	
solid or stranded	2x (0.5
	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
— finely stranded with core end processing	
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section	2x (20 16), 2x (18 14)
for main contacts	10 2
for auxiliary contacts	20 14
→ IOI auxiliary cornacts	£V 17

Safety related data	
product function	
<ul> <li>mirror contact according to IEC 60947-4-1</li> </ul>	Yes
<ul> <li>positively driven operation according to IEC 60947-5-1</li> </ul>	No
suitability for use safety-related switching OFF	Yes
B10 value with high demand rate according to SN 31920	1 000 000
proportion of dangerous failures	
<ul> <li>with low demand rate according to SN 31920</li> </ul>	40 %
<ul> <li>with high demand rate according to SN 31920</li> </ul>	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

#### Certificates/ approvals

### **General Product Approval**



Confirmation





<u>KC</u>





Type Examination Certificate





Special Test Certificate

Type Test Certificates/Test Report

#### Marine / Shipping













other	Railway	Dangerous Good	Environment
Confirmation	Vibration and Shock	Transport Information	Environmental Con- firmations

#### 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=3RT2046-1AV00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2046-1AV00

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

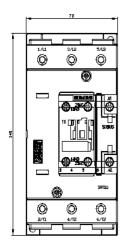
https://support.industry.siemens.com/cs/ww/en/ps/3RT2046-1AV00

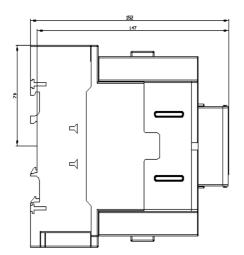
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2046-1AV00&lang=en

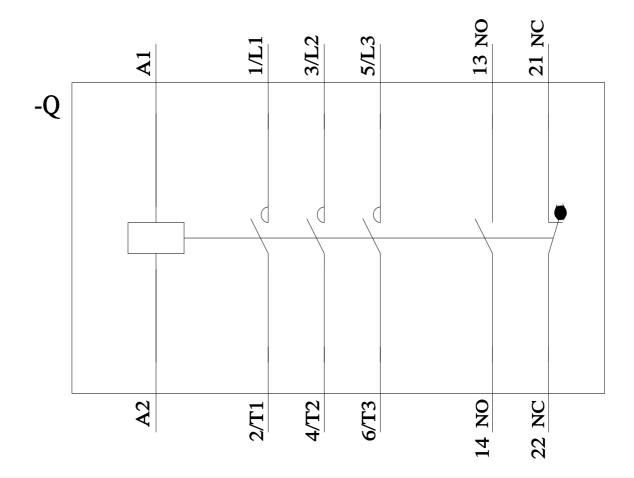
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2046-1AV00/characteristics

Further characteristics (e.g. electrical endurance, switching frequency)









last modified: 8/15/2023 🖸

## **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Siemens:

3RT20461AV00