## SIEMENS

## Data sheet

## 3RT2027-1AC20



Power contactor, AC-3 32 A, 15 kW / 400 V 1 NO + 1 NC, 24 V AC 50/60 Hz, 3-pole Size S0, screw terminals

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	SO
product extension	
<ul> <li>function module for communication</li> </ul>	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	6.3 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	2.3 W
<ul> <li>without load current share typical</li> </ul>	10.5 W
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 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>	6 kV
<ul> <li>of auxiliary circuit rated value</li> </ul>	6 kV
maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at AC	8,3g / 5 ms, 5,3g / 10 ms
shock resistance with sine pulse	
• at AC	13,5g / 5 ms, 8,3g / 10 ms
mechanical service life (switching cycles)	
<ul> <li>of contactor typical</li> </ul>	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)	10/01/2009
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
during operation	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %

Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V
operational current	
<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated value</li> </ul>	50 A
● at AC-1	
<ul> <li>— up to 690 V at ambient temperature 40 °C rated value</li> </ul>	50 A
— up to 690 V at ambient temperature 60 °C rated value	42 A
• at AC-3	
— at 400 V rated value	32 A
— at 500 V rated value	32 A
— at 690 V rated value	21 A
• at AC-3e	
— at 400 V rated value	32 A
— at 500 V rated value	32 A
— at 690 V rated value	21 A
<ul> <li>at AC-4 at 400 V rated value</li> </ul>	22 A
<ul> <li>at AC-5a up to 690 V rated value</li> </ul>	44 A
<ul> <li>at AC-5b up to 400 V rated value</li> </ul>	26.5 A
• at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	30.8 A
<ul> <li>— up to 400 V for current peak value n=20 rated value</li> </ul>	30.8 A
— up to 500 V for current peak value n=20 rated value	27 A
<ul> <li>up to 690 V for current peak value n=20 rated value</li> <li>at AC-6a</li> </ul>	21 A
<ul> <li>at AC-ba</li> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	20.5 A
<ul> <li>— up to 400 V for current peak value n=30 rated value</li> </ul>	20.5 A
<ul> <li>— up to 500 V for current peak value n=30 rated value</li> </ul>	18 A
— up to 690 V for current peak value n=30 rated value	18 A
minimum cross-section in main circuit at maximum AC-1 rated value	10 mm <sup>2</sup>
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	12 A
• at 690 V rated value	12 A
operational current	
<ul> <li>at 1 current path at DC-1</li> </ul>	
— at 24 V rated value	35 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	5 A
— at 440 V rated value	1A
— at 600 V rated value	0.8 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	

- at 24 V rated value         35 Å           - at 22 V rated value         35 Å           - at 24 V rated value         29 Å           - at 60 V rated value         1.4 Å           - at 24 V rated value         20 Å           - at 24 V rated value         20 Å           - at 10 V rated value         20 Å           - at 24 V rated value         20 Å           - at 24 V rated value         20 Å           - at 24 V rated value         0.00 Å           - at 24 V rated value         0.16 Å           - at 24 V rated value         0.16 Å           - at 24 V rated value         0.16 Å           - at 24 V rated value         0.6 Å           - at 24 V rated value         0.6 Å           - at 24 V rated value         0.6 Å           - at 23 V rated value         0.6 Å           - at 23 V rated value         15 ÅW           - at 23 V rated value         15 ÅW           - at 23 V rated value         15 ÅW           <		
- al 220 V rade value         35 Å           - al 600 V rade value         29 Å           - al 600 V rade value         20 Å           - al 700 V rade value         20 Å           - al 200 V rade value         20 Å           - al 200 V rade value         20 Å           - al 200 V rade value         009 Å           - al 200 V rade value         016 Å           - al 200 V rade value         15 KW           - al 200 V rade value         10 KW           - al	— at 24 V rated value	35 A
- alt 40 V radid value     2.9 Å       - alt 600 V radid value     1.4 Å       - alt 24 V radid value     2.0 Å       - alt 24 V radid value     2.0 Å       - alt 24 V radid value     2.0 Å       - alt 24 V radid value     0.09 Å       - alt 24 V radid value     0.09 Å       - alt 20 V radid value     0.09 Å       - alt 24 V radid value     0.16 Å       - alt 24 V radid value     0.6 Å       - alt 24 V radid value     0.6 Å       - alt 20 V radid value     0.6 Å       - alt 20 V radid value     15 KW	— at 110 V rated value	
• at 1 current path at DC-3 at DC-5         >           - at 24 V rade Value         25 A           - at 24 V rade Value         0.09 A           - at 210 V rated Value         0.09 A           - at 24 V rade Value         0.09 A           - at 220 V rated Value         0.09 A           - at 220 V rated Value         0.07 A           - at 240 V rated Value         0.16 A           - at 240 V rated Value         0.16 A           - at 240 V rated Value         0.6 A           - at 240 V rated Value         0.6 A           - at 250 V rated Value         1.6 A	— at 440 V rated value	
	— at 600 V rated value	1.4 A
- at 10 V rited value2.5 Å- at 200 V rated value0.09 Å- at 600 V rated value0.09 Å- at 600 V rated value35 Å- at 24 V rated value35 Å- at 220 V rated value0.16 Å- at 220 V rated value0.16 Å- at 440 V rated value0.6 Å- at 440 V rated value0.6 Å- at 440 V rated value10 Å- at 440 V rated value10 Å- at 440 V rated value10 Å- at 600 V rated value15 ÅW- at 600 V rated value16 ÅW• at 600 V rated value16 ÅW• at 600 V rated value10 ÅW• at 600 V rated value10 ÅW• at 600 V rated value10 ÅW• at 600 V rated value21 ÅWA• at 600 V rated value21 ÅWA• at 600 V rated value = 30 rated value23 ÅVA• at 600 V rated value = 30 rated value23 ÅVA• at 600 V rated value = 30 rated value<	<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	
- at 20 V rated value1 A- at 440 V rated value0.06 A- at 600 V rated value0.06 A• with 2 current paths in series at DC-3 at DC-535 A- at 110 V rated value15 A- at 240 V rated value0.27 A- at 600 V rated value0.27 A- at 600 V rated value0.16 A- at 240 V rated value0.6 A- at 240 V rated value0.6 A- at 240 V rated value10 A- at 250 V rated value15 KW- at 250 V rated value15 KW- at 650 V rated value25 KW- at 650	— at 24 V rated value	20 A
	— at 110 V rated value	2.5 A
	— 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>35 A</li> <li>at 220 V rated value</li> <li>36 A</li> <li>at 220 V rated value</li> <li>37 A</li> <li>at 220 V rated value</li> <li>37 A</li> <li>at 24 V rated value</li> <li>36 A</li> <li>at 24 V rated value</li> <li>37 A</li> <li>at 24 V rated value</li> <li>36 A</li> <li>at 24 V rated value</li> <li>37 A</li> <li>at 24 V rated value</li> <li>36 A</li> <li>at 230 V rated value</li> <li>36 A</li> <li>at 400 V rated value</li> <li>36 A</li> <li>at 230 V rated value</li> <li>36 A</li> <li>at 230 V rated value</li> <li>36 A</li> <li>at 230 V rated value</li> <li>37 KW</li> <li>at 400 V rated value</li> <li>38 KW</li> <li>at 400 V rated value</li> <li>38 KW</li> <li>at 400 V rated value</li> <li>38 KW</li> <li>at 400 V rated value</li> <li>39 KW</li> <li>at 400 V rated value</li> <li>30 KW</li> <li>at 400 V rated value</li> <li>31 KVA</li> <li>at 400 V rated value</li> <li>32 KVA</li> <li>at 400 V rated value</li> <li>33 KW</li> <li>at 400 V rated value</li> <li>at 800 V fracturent peak value n=20 rated value</li> <li>33 KVA</li> <li>at 000 V fracturent peak value n=20 rated value</li> <li>31 KVA</li> <li>at 000 V fracturent peak value n=20 rated value</li> <li>at 800 V fracturent peak value n=20 rated value</li> <li>31 KVA</li> <li>at 000 V fracturent peak value n=30 rated value</li> <li>32 KVA</li> <li>at 000 V fracturent peak value n=30 rated value</li> <li>32 KVA</li> <li>at 000 V fracturen</li></ul>	— at 440 V rated value	0.09 A
	— at 600 V rated value	0.06 A
	<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
	— at 24 V rated value	35 A
	— at 110 V rated value	15 A
	— at 220 V rated value	3 A
with 3 current paths in series at DC-3 at DC-5         - at 24 V rated value 35 A         - at 224 V rated value 35 A         - at 220 V rated value 06 A         - at 220 V rated value 0.6 A         - at 200 V rated value 0.7 5 kW         - at 200 V rated value 0.7 5 kW         - at 200 V rated value 0.7 5 kW         - at 200 V rated value 0.7 5 kW         - at 200 V rated value 0.7 5 kW         - at 200 V rated value 0.7 5 kW         - at 200 V rated value 0.7 5 kW         - at 300 V rated value 0.1 5 kW         - at 300 V rated value 0.1 5 kW         - at 400 V rated value 0.1 5 kW         - at 600 V rated value 0.1 5 kW         - at 600 V rated value 0.2 15 kW         - at 600 V rated value 0.2 0 rated value 0.1 8 kW         - at 600 V rated value 0.2 0 rated value 0.2 15 kW         - at 600 V rated value 0.2 0 rated value 0.2 3 kVA         - up to 200 V for current peak value n=20 rated value 2.3 kVA         - up to 200 V for current peak value n=20 rated value 2.3 kVA         - up to 200 V for current peak value n=30 rated value 2.3 kVA         - up to 200 V for current peak value n=30 rated value 2.3 kVA         - up to 500 V for current peak value n=30 rated value 2.3 kVA         - up to 600 V for current peak value n=30 rated value 2.3 kVA         - up to 600 V for current peak value n=30 rated value 2.1 kVA         - up to 600 V for current peak value n=30 rated value 2.1 kVA         - up to 600 V for current peak value n=30 rated value 2.1 kVA	— at 440 V rated value	0.27 A
	— at 600 V rated value	0.16 A
	<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
	— at 24 V rated value	35 A
	— at 110 V rated value	35 A
	— at 220 V rated value	10 A
operating power       et AC-3	— at 440 V rated value	0.6 A
• at AC-3       - at 230 V rated value       7.5 kW         - at 400 V rated value       15 kW         - at 690 V rated value       15 kW         - at 690 V rated value       15 kW         - at 230 V rated value       15 kW         - at 230 V rated value       15 kW         - at 400 V rated value       15 kW         - at 400 V rated value       15 kW         - at 400 V rated value       15 kW         - at 500 V rated value       15 kW         - at 690 V rated value       18 kW         operating power for approx. 200000 operating cycles at AC-4       18 kW         • at 400 V rated value       10.3 kW         operating apparent power at AC-6a       12.2 kVA         • up to 500 V for current peak value n=20 rated value       23.3 kVA         • up to 500 V for current peak value n=20 rated value       25 kVA         operating apparent power at AC-6a       8.1 kVA         • up to 500 V for current peak value n=30 rated value       14.2 kVA         • up to 500 V for current peak value n=30 rated value       15.5 kVA         • up to 500 v for current peak value n=30 rated value       15.5	— at 600 V rated value	0.6 A
	operating power	
at 400 V rated value15 kW at 500 V rated value15 kW at 600 V rated value15 kW at 230 V rated value7.5 kW at 400 V rated value15 kW at 600 V rated value6 kW at 600 V rated value6 kW at 600 V rated value6 kW at 600 V rated value18.5 kW at 600 V rated value6 kW at 600 V rated value10.3 kW at 600 V rated value21.3 kW operating apparent power at AC-6a23.3 kVA up to 230 V for current peak value n=20 rated value23.3 kVA up to 500 V for current peak value n=20 rated value25. kVA operating apparent power at AC-6a8.1 kVA up to 500 V for current peak value n=30 rated value21.5 kVA operating apparent power at AC-6a8.1 kVA up to 500 V for current peak value n=30 rated value15.5 kVA up to 500 V for current peak value n=30 rated value15.5 kVA up to 600 V for current peak value n=30 rated value21.5 kVA operating apparent power at AC-6a499 A; Use minimum cross-section acc. to AC-1 rated value ot 00 V for current peak value n=30 rated value35 A; Use minimum cross-section acc. to AC-1 rated value ot 00 V for current peak value n=30 rated value21.5 kVA ot 00 V for current peak value n=30 rated value35 A; Use minimum cross-section acc. to AC-1 rated value	• at AC-3	
at 500 V rated value15 kW at 690 V rated value18.5 kW• at AC-3e	— at 230 V rated value	7.5 kW
at 690 V rated value18.5 kW• at AC-3e7.5 kW at 230 V rated value15 kW at 400 V rated value15 kW at 690 V rated value15 kW at 690 V rated value15 kW at 690 V rated value16 kW at 690 V rated value18.5 kWoperating power for approx. 20000 operating cycles18.5 kWe at 400 V rated value6 kW• at 400 V rated value10.3 kWoperating apparent power at AC-6a10.3 kW• up to 230 V for current peak value n=20 rated value21.3 kVA• up to 600 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a6.1 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value15.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value25.6 kVA• up to 600 V for current peak value n=30 rated value25.6 kVA• up to 600 V for current peak value n=30 rated value15.5 kVA• up to 600 V for current peak value n=30 rated value26.0 k.1 use minimum cross-section acc. to AC-1 rated value• up to 600 V for current peak value n=30 rated value26.0 k.1 use minimum cross-section acc. to AC-1 rated value• up to 600 V for current p	— at 400 V rated value	15 kW
• at AC-3e         7.5 kW           - at 230 V rated value         7.5 kW           - at 400 V rated value         15 kW           - at 690 V rated value         15 kW           - at 690 V rated value         18.5 kW           operating power for approx. 200000 operating cycles at AC-4         6 kW           • at 400 V rated value         6 kW           • at 400 V rated value         10.3 kW           operating apparent power at AC-6a         12.2 kVA           • up to 230 V for current peak value n=20 rated value         23.3 kVA           • up to 500 V for current peak value n=20 rated value         23.3 kVA           • up to 500 V for current peak value n=20 rated value         23.3 kVA           • up to 500 V for current peak value n=20 rated value         23.3 kVA           • up to 500 V for current peak value n=30 rated value         25. kVA           operating apparent power at AC-6a         8.1 kVA           • up to 500 V for current peak value n=30 rated value         15.5 kVA           • up to 500 V for current peak value n=30 rated value         21.5 kVA           • up to 500 V for current peak value n=30 rated value         21.5 kVA           • up to 500 V for current peak value n=30 rated value         21.5 kVA           • up to 500 V for current peak value n=30 rated value         21.5 kVA	— at 500 V rated value	15 kW
at 230 V rated value7.5 kW at 400 V rated value15 kW at 500 V rated value15 kW at 690 V rated value18.5 kWoperating power for approx. 20000 operating cycles at AC-46 kW• at 400 V rated value6 kW• at 400 V rated value10.3 kWoperating apparent power at AC-5a12.2 kVA• up to 230 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23. kVA• up to 500 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a8.1 kVA• up to 500 V for current peak value n=30 rated value5 kVAoperating apparent power at AC-6a8.1 kVA• up to 500 V for current peak value n=30 rated value14.2 kVA• up to 690 V for current peak value n=30 rated value15. kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current maximum499 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum499 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum186 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum186 A; Use minimum cross-section acc. to AC-1 rated value• limited	— at 690 V rated value	18.5 kW
at 400 V rated value15 kW at 500 V rated value15 kW at 690 V rated value18.5 kWoperating power for approx. 20000 operating cycles at AC-48.5 kW• at 400 V rated value6 kW• at 690 V rated value6 kW• at 690 V rated value10.3 kWoperating apparent power at AC-6a12.2 kVA• up to 230 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value23.3 kVA• up to 500 V for current peak value n=30 rated value8.1 kVA• up to 500 V for current peak value n=30 rated value14.2 kVA• up to 690 V for current peak value n=30 rated value14.5 kVA• up to 690 V for current peak value n=30 rated value15. kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value20.4 Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum499 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum182 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum182 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum182 A; Use minimum cross-section acc. to AC-1 rated value <td>• at AC-3e</td> <td></td>	• at AC-3e	
at 500 V rated value15 kW at 690 V rated value18.5 kWoperating power for approx. 200000 operating cycles at AC-46 kW- at 400 V rated value6 kW- at 690 V rated value10.3 kWoperating apparent power at AC-6a12.2 kVA- up to 230 V for current peak value n=20 rated value21.3 kVA- up to 500 V for current peak value n=20 rated value23.3 kVA- up to 500 V for current peak value n=20 rated value23.3 kVA- up to 500 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a8.1 kVA- up to 500 V for current peak value n=30 rated value8.1 kVA- up to 500 V for current peak value n=30 rated value8.1 kVA- up to 500 V for current peak value n=30 rated value15.5 kVA- up to 690 V for current peak value n=30 rated value21.5 kVA- up to 690 V for current peak value n=30 rated value21.5 kVA- up to 690 V for current peak value n=30 rated value21.5 kVA- up to 690 V for current peak value n=30 rated value21.5 kVA- up to 690 V for current peak value n=30 rated value21.5 kVA- up to 690 V for current maximum499 A; Use minimum cross-section acc. to AC-1 rated value- limited to 1 s switching at zero current maximum366 A; Use minimum cross-section acc. to AC-1 rated value- limited to 10 s switching at zero current maximum460 A; Use minimum cross-section acc. to AC-1 rated value- limited to 60 s switching at zero current maximum152 A; Use minimum cross-section acc. to AC-1 rated value- limit	— at 230 V rated value	7.5 kW
	— at 400 V rated value	15 kW
operating power for approx. 20000 operating cycles at AC-46 kW• at 400 V rated value6 kW• at 690 V rated value10.3 kWoperating apparent power at AC-6a12.2 kVA• up to 230 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 500 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a8.1 kVA• up to 230 V for current peak value n=30 rated value8.1 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 600 V for current peak value n=30 rated value15.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 40 °C499 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum395 A; Use minimum cross-section acc. to AC-1 rated value• limited to 50 s switching at zero current maximum186 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum186 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum1000 1/h• at AC-1 maximum1 000 1/h	— at 500 V rated value	15 kW
at AC-46 kW• at 400 V rated value6 kW• at 690 V rated value10.3 kWoperating apparent power at AC-6a12.2 kVA• up to 230 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a8.1 kVA• up to 500 V for current peak value n=30 rated value8.1 kVA• up to 500 V for current peak value n=30 rated value14.2 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• limited to 1 s switching at zero current maximum499 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum260 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum186 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum152 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum152 A; U	— at 690 V rated value	18.5 kW
• at 400 V rated value6 kW• at 690 V rated value10.3 kWoperating apparent power at AC-6a12.2 kVA• up to 230 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a8.1 kVA• up to 230 V for current peak value n=30 rated value8.1 kVA• up to 500 V for current peak value n=30 rated value14.2 kVA• up to 600 V for current peak value n=30 rated value15.5 kVAboth of current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value14.2 kVA• up to 600 V for current peak value n=30 rated value21.5 kVAshort-time withstand current in cold operating state up to 40 °C499 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 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 curr	operating power for approx. 200000 operating cycles	
• at 690 V rated value10.3 kWoperating apparent power at AC-6a12.2 kVA• up to 230 V for current peak value n=20 rated value12.2 kVA• up to 400 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a8.1 kVA• up to 230 V for current peak value n=30 rated value25 kVAoperating apparent power at AC-6a8.1 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 600 V for current peak value n=30 rated value15.5 kVA• up to 600 V for current peak value n=30 rated value15.5 kVA• up to 600 V for current peak value n=30 rated value15.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value25.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value25.5 kVA• up to 600 V for current peak value n=30 rated value25.5 kVA• up to 600 V for current peak value n=30 rated value25.5 kVA• up to 600 V for current peak value n=30 rated value25.5 kVA• up to 600 V for current peak value n=30 rated value25.5 kVA• up to 600 V for current peak value n=30 rated value25.5 kVA• limited to 1 s switching at zero current maximum395 A; Use minimum cross-section acc. to AC-1	at AC-4	
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=20 rated value• 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 230 V for current peak value n=30 rated value• up to 230 V for current peak value n=30 rated value• up to 600 V for current peak value n=30 rated value• up to 600 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 maximum• 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	<ul> <li>at 400 V rated value</li> </ul>	6 kW
• up to 230 V for current peak value n=20 rated value12.2 kVA• up to 400 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a8.1 kVA• up to 200 V for current peak value n=30 rated value8.1 kVA• up to 600 V for current peak value n=30 rated value14.2 kVA• up to 500 V for current peak value n=30 rated value8.1 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 400 °C21.5 kVA• limited to 1 s switching at zero current maximum499 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum260 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 S switching at zero current maximum152 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 S switching at zero current maximum152 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum1000 1/h• at AC5 000 1/h• operating frequency1000 1/h• at AC-1 maximum1000 1/h• at AC-2 maximum750 1/h	at 690 V rated value	10.3 kW
• up to 400 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a8.1 kVA• up to 230 V for current peak value n=30 rated value8.1 kVA• up to 500 V for current peak value n=30 rated value14.2 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 40 °C11.6 kVA• limited to 1 s switching at zero current maximum499 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum260 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum186 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum152 A; Use minimum cross-section acc. to AC-1 rated value• at AC5 000 1/hoperating frequency5 000 1/h• at AC-1 maximum1 000 1/h• at AC-2 maximum1 000 1/h• at AC-2 maximum750 1/h	operating apparent power at AC-6a	
• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a8.1 kVA• up to 230 V for current peak value n=30 rated value8.1 kVA• up to 500 V for current peak value n=30 rated value14.2 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 40 °C499 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum395 A; Use minimum cross-section acc. to AC-1 rated value• limited to 3 s switching at zero current maximum260 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum152 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum152 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum5 000 1/h• at AC5 000 1/h• at AC-1 maximum1 000 1/h• at AC-2 maximum1 000 1/h• at AC-2 maximum750 1/h	<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	12.2 kVA
• up to 690 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a8.1 kVA• up to 230 V for current peak value n=30 rated value8.1 kVA• up to 400 V for current peak value n=30 rated value14.2 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• limited to 1 s switching at zero current maximum499 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum260 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum186 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum152 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum152 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum152 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum5 000 1/h• at AC5 000 1/h• at AC-1 maximum1 000 1/h• at AC-2 maximum1 000 1/h• at AC-2 maximum750 1/h	<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	21.3 kVA
operating apparent power at AC-6a8.1 kVA• up to 230 V for current peak value n=30 rated value8.1 kVA• up to 400 V for current peak value n=30 rated value14.2 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• limited to 1 s switching at zero current maximum499 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum499 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum260 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum186 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum152 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum152 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum152 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum1000 1/h• at AC5 000 1/h• at AC-1 maximum1 000 1/h• at AC-2 maximum1 000 1/h	<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	23.3 kVA
<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>21.5 kVA</li> <li>short-time withstand current in cold operating state</li> <li>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>liz A; Use minimum cross-section acc. to AC-1 rated value</li> <li>152 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>ta AC</li> <li>5 000 1/h</li> <li>operating frequency         <ul> <li>at AC-1 maximum</li> <li>1 000 1/h</li> <li>at AC-2 maximum</li> <li>ta AC-2 maximum</li> </ul> </li> </ul>	• up to 690 V for current peak value n=20 rated value	25 kVA
<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>21.5 kVA</li> <li>short-time withstand current in cold operating state</li> <li>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 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</li></ul>	operating apparent power at AC-6a	
<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>21.5 kVA</li> <li>short-time withstand current in cold operating state</li> <li>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<td><ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul></td><td>8.1 kVA</td></li></ul>	<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	8.1 kVA
• up to 690 V for current peak value n=30 rated value21.5 kVAshort-time withstand current in cold operating state up to 40 °C499 A; Use minimum cross-section acc. to AC-1 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 frequency • at AC1000 1/hoperating frequency • at AC-1 maximum • at AC-2 maximum1 000 1/h	<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	14.2 kVA
short-time withstand current in cold operating state up to 40 °C499 A; Use minimum cross-section acc. to AC-1 rated value• 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 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • at AC-1 maximum • at AC-2 maximum1000 1/h • limited to 10 s • limited to 10 s<	<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	15.5 kVA
up to 40 °C499 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum395 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum260 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum186 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum182 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum152 A; Use minimum cross-section acc. to AC-1 rated value• at AC5 000 1/h• at AC5 000 1/h• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h	<ul> <li>up to 690 V for current peak value n=30 rated value</li> </ul>	21.5 kVA
<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>at AC</li> <li>operating frequency</li> <li>at AC-1 maximum</li> <li>at AC-2 m</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>186 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>152 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>5 000 1/h</li> <li>operating frequency</li> <li>at AC-1 maximum</li> <li>1 000 1/h</li> <li>at AC-2 maximum</li> </ul>	<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	499 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>186 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>152 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>152 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>5 000 1/h</li> <li>operating frequency         <ul> <li>at AC-1 maximum</li> <li>1000 1/h</li> <li>at AC-2 maximum</li> <li>750 1/h</li> </ul> </li> </ul>	<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	395 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 60 s switching at zero current maximum152 A; Use minimum cross-section acc. to AC-1 rated valueno-load switching frequency5 000 1/h• at AC5 000 1/hoperating frequency1 000 1/h• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h	<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	260 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency• at AC5 000 1/hoperating frequency• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h	<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	186 A; Use minimum cross-section acc. to AC-1 rated value
• at AC5 000 1/hoperating frequency1 000 1/h• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h	<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	152 A; Use minimum cross-section acc. to AC-1 rated value
operating frequency• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h	no-load switching frequency	
• at AC-1 maximum         1 000 1/h           • at AC-2 maximum         750 1/h	• at AC	5 000 1/h
• at AC-2 maximum 750 1/h	operating frequency	
	• at AC-1 maximum	1 000 1/h
• at AC-3 maximum 750 1/h	• at AC-2 maximum	750 1/h
	<ul> <li>at AC-3 maximum</li> </ul>	750 1/h

e of AC 20 movimum	750 1/h
• at AC-3e maximum	
• at AC-4 maximum	250 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz rated value	24 V
at 60 Hz rated value	24 V
operating range factor control supply voltage rated	
value of magnet coil at AC • at 50 Hz	0.8 1.1
	0.85 1.1
• at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	04.1/4
• at 50 Hz	81 VA
• at 60 Hz	79 VA
inductive power factor with closing power of the coil	0.70
• at 50 Hz	0.72
• at 60 Hz	0.74
apparent holding power of magnet coil at AC	40 5 1/4
• at 50 Hz	10.5 VA
• at 60 Hz	8.5 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.25
• at 50 Hz	0.25
closing delay	0.20
	9 40 ma
opening delay	8 40 ms
• at AC	4 16 ms
	10 10 ms
arcing time control version of the switch operating mechanism	Standard A1 - A2
	Standard AT - Az
Auxiliary circuit	1
number of NC contacts for auxiliary contacts	1
instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact	1
number of NO contacts for auxiliary contacts instantaneous contact	1 10 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum	
number of NO contacts for auxiliary contacts instantaneous contact	
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15	10 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value	10 A 10 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value	10 A 10 A 3 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value	10 A 10 A 3 A 2 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value	10 A 10 A 3 A 2 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12	10 A 10 A 3 A 2 A 1 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value	10 A 10 A 3 A 2 A 1 A 10 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 60 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value • at 690 V rated value • at 24 V rated value • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 40 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value • at 690 V rated value • at 24 V rated value • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value • at 690 V rated value • at 24 V rated value • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value • at 690 V rated value • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value • at 690 V rated value • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 10 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 10 A 10 A 10 A 2 A 1 A 10 A 2 A 1 A 10 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value • at 690 V rated value • at 24 V rated value • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 24 V rated value • at 24 V rated value • at 600 V rated value • at 60 V rated value • at 60 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 10 A 10 A 6 A 10
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value • at 690 V rated value • at 24 V rated value • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value • at 600 V rated value • at 24 V rated value • at 24 V rated value • at 24 V rated value • at 110 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 1 A 0.15 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value • at 690 V rated value • at 24 V rated value • at 24 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 24 V rated value • at 25 V rated value • at 600 V rated value • at 20 V rated value • at 220 V rated value • at 220 V rated value • at 220 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 10 A 2 A 1 A 10 A 2 A 1 A 10 A 2 A 1 A 1 A
number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value • at 690 V rated value • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 10 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 24 V rated value • at 24 V rated value • at 25 V rated value • at 24 V rated value • at 25 V rated value • at 20 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 10 A 2 A 1 A 10 A 2 A 1 A 10 A 0.15 A 10 A 0.15 A
number of NO contacts for auxiliary contacts         instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 400 V rated value         • at 500 V rated value         • at 690 V rated value         • at 690 V rated value         • at 690 V rated value         • at 40 V rated value         • at 690 V rated value         • at 40 V rated value         • at 40 V rated value         • at 24 V rated value         • at 60 V rated value         • at 110 V rated value         • at 125 V rated value         • at 220 V rated value         • at 24 V rated value         • at 24 V rated value         • at 24 V rated value         • at 220 V rated value         • at 24 V rated value         • at 24 V rated value         • at 25 V rated value         • at 110 V rated value         • at 125 V rated value         • at 125 V rated value         • at 220 V rated value         • at 600 V rated value         • at 600 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 10 A 2 A 1 A 10 A 2 A 1 A 10 A 0.15 A 10 A 0.15 A
number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 400 V rated value         • at 500 V rated value         • at 690 V rated value         • at 690 V rated value         • at 690 V rated value         • at 600 V rated value         • at 24 V rated value         • at 60 V rated value         • at 10 V rated value         • at 220 V rated value         • at 220 V rated value         • at 600 V rated value         • at 220 V rated value         • at 24 V rated value         • at 25 V rated value         • at 200 V rated value         • at 210 V rated value         • at 220 V rated value         • at 24 V rated value         • at 25 V rated value         • at 600 V rated value         • at 110 V rated value         • at 125 V rated value         • at 125 V rated value         • at 220 V rated value         • at 125 V rated value         • at 600 V rated val	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 10 A 2 A 1 A 10 A 2 A 1 A 0.15 A 10 A 0.15 A
number of NO contacts for auxiliary contacts         instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 400 V rated value         • at 500 V rated value         • at 690 V rated value         • at 690 V rated value         • at 690 V rated value         • at 40 V rated value         • at 690 V rated value         • at 40 V rated value         • at 40 V rated value         • at 24 V rated value         • at 60 V rated value         • at 110 V rated value         • at 125 V rated value         • at 220 V rated value         • at 24 V rated value         • at 24 V rated value         • at 24 V rated value         • at 220 V rated value         • at 24 V rated value         • at 24 V rated value         • at 25 V rated value         • at 110 V rated value         • at 125 V rated value         • at 125 V rated value         • at 220 V rated value         • at 600 V rated value         • at 600 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 10 A 2 A 1 A 10 A 2 A 1 A 0.15 A 10 A 0.15 A

● at 600 V rated value	27 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	2 hp
— at 230 V rated value	5 hp
• for 3-phase AC motor	
— at 200/208 V rated value	10 hp
— at 220/230 V rated value	10 hp
— at 460/480 V rated value	20 hp
— at 575/600 V rated value	25 hp
contact rating of auxiliary contacts according to UL	A600 / 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: 125A (690V,100kA), aM: 50A (690V,100kA), BS88: 125A (415V,80kA)
— with type of assignment 2 required	gG: 50A (690V,100kA), aM: 25A (690V, 100kA), BS88: 50A (415V, 80kA)
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
<ul> <li>side-by-side mounting</li> </ul>	Yes
height	85 mm
width	45 mm
depth	97 mm
required spacing	
<ul> <li>with side-by-side mounting</li> </ul>	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
<ul> <li>for grounded parts</li> </ul>	
— forwards	10 mm
— upwards	10 mm
— at the side	6 mm
— downwards	10 mm
for live parts	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	6 mm
Connections/ Terminals	
type of electrical connection	
• for main current circuit	screw-type terminals
<ul> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals
at contactor for auxiliary contacts	Screw-type terminals
of magnet coil	Screw-type terminals
type of connectable conductor cross-sections	
<ul> <li>for main contacts</li> <li>— solid</li> </ul>	$2x(1 - 2.5 \text{ mm}^2) 2x(2.5 - 10 \text{ mm}^2)$
— solid — solid or stranded	$2x (1 2.5 mm^2), 2x (2.5 10 mm^2)$ $2x (1 2.5 mm^2), 2x (2.5 10 mm^2)$
	$2x (1 \dots 2.5 \text{ mm}^2), 2x (2.5 \dots 10 \text{ mm}^2)$ $2x (1 \dots 2.5 \text{ mm}^2), 2x (2.5 \dots 6 \text{ mm}^2), 1x 10 \text{ mm}^2$
<ul> <li>finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> </ul>	2x (1 2.5 mm <sup>2</sup> ), 2x (2.5 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup>
connectable conductor cross-section for main	2x (16 12), 2x (14 8)
contacts • solid	1 10 mm²
	1 10 mm <sup>2</sup>
<ul> <li>stranded</li> </ul>	I IV IIIII <sup>-</sup>

connectable conduc		na	1 10 mm²		
finely stranded with core end processing     connectable conductor cross-section for auxiliary					
contacts		uuxiiuiy			
<ul> <li>solid or strande</li> </ul>	d		0.5 2.5 mm <sup>2</sup>		
<ul> <li>finely stranded</li> </ul>	with core end processir	ng	0.5 2.5 mm <sup>2</sup>		
type of connectable	conductor cross-sect	ions			
<ul> <li>for auxiliary con</li> </ul>	itacts				
— solid or stra	anded		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
<ul> <li>finely stran</li> </ul>	nded with core end proc	essing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
at AWG cables	for auxiliary contacts		2x (20 16), 2x (18 14)		
AWG number as coded connectable conductor cross section					
for main contacts     for auxiliant contacts			16 8		
<ul> <li>for auxiliary contacts</li> </ul>		20 14			
Safety related data					
product function					
<ul> <li>mirror contact a</li> </ul>	ccording to IEC 60947-	4-1	Yes		
B10 value with high de	emand rate according t	o SN 31920	450 000		
proportion of dange	rous failures				
<ul> <li>with low deman</li> </ul>	d rate according to SN	31920	40 %		
with high deman	nd rate according to SN	l 31920	73 %		
failure rate [FIT] with I 31920	ow demand rate accord	ding to SN	100 FIT		
T1 value for proof test IEC 61508	t interval or service life	according to	20 y		
protection class IP o 60529	on the front according	to IEC	IP20		
touch protection on	the front according to	IEC 60529	finger-safe, for vertication	al contact from the front	
suitability for use					
<ul> <li>safety-related st</li> </ul>	witching OFF		Yes		
Certificates/ approvals	s				
General Product Ap					
		Confirmatic	<sup>2n</sup>	KC	EAC
	Functional	Confirmatic	n (Ju)	KC	EAC
		Confirmatic		KC Test Certificates	EAC
General Product Ap	Functional Safety/Safety of			Test Certificates	ERC Type Test Certific- ates/Test Report
General Product Ap	Functional Safety/Safety of Machinery	Declaration of	of Conformity	Test Certificates	
General Product Ap	Functional Safety/Safety of Machinery	Declaration of	of Conformity	Test Certificates	



## **Further information**

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

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2027-1AC20

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2027-1AC20

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2027-1AC20

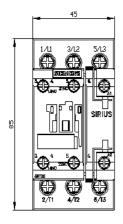
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

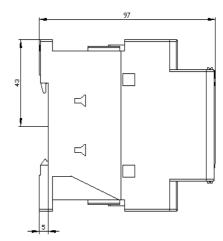
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2027-1AC20&lang=en

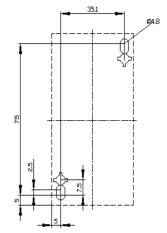
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

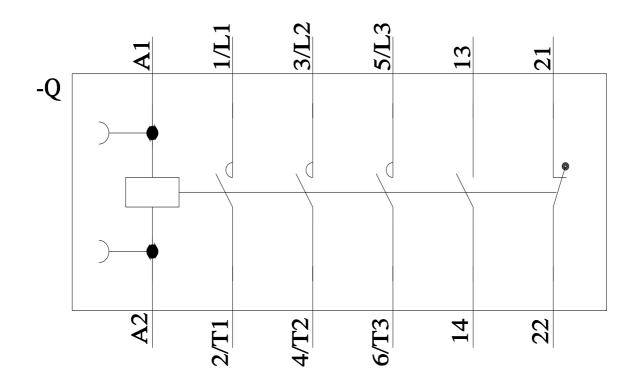
https://support.industry.siemens.com/cs/ww/en/ps/3RT2027-1AC20/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2027-1AC20&objecttype=14&gridview=view1









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