# **SIEMENS**

Data sheet 3RT2018-1AB02



Power contactor, AC-3 16 A, 7.5 kW / 400 V 1 NC, 24 V AC, 50/60 Hz 3-pole, Size S00 screw terminals

product type designation  product type designation  general technical data  size of contactor  product extension  • function module for communication  • auxiliary switch  power loss [W] for rated value of the current at AC in hot operating state  • per pole  power loss [W] for rated value of the current without load current share typical  surge voltage resistance  • of main circuit rated value  • of auxiliary circuit rated value  • of auxiliary circuit rated value  shock resistance at rectangular impulse  • at AC  shock resistance with sine pulse  • at AC  mechanical service life (switching cycles)  • of the contactor with added electronically optimized auxiliary switch block  • of the contactor with added auxiliary switch block  • of the contactor with added auxiliary switch block  • of the contactor with added auxiliary switch block  • of the contactor with added auxiliary switch block  • of the contactor with added auxiliary switch block  • of the contactor with added auxiliary switch block  • of the contactor with added auxiliary switch block  • of the contactor with added auxiliary switch block  • of the contactor with added auxiliary switch block  • of the contactor with added auxiliary switch block	
Size of contactor   S00	
size of contactor  product extension  • function module for communication • auxiliary switch  power loss [W] for rated value of the current at AC in hot operating state • per pole  power loss [W] for rated value of the current without load current share typical  surge voltage resistance • of main circuit rated value • of auxiliary circuit rated value  of auximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1  shock resistance at rectangular impulse • at AC  shock resistance with sine pulse • at AC  mechanical service life (switching cycles) • of contactor typical  of the contactor with added electronically optimized auxiliary switch block typical	
product extension  • function module for communication  • auxiliary switch  power loss [W] for rated value of the current at AC in hot operating state  • per pole  power loss [W] for rated value of the current without load current share typical  surge voltage resistance  • of main circuit rated value  • of auxiliary circuit rated value  maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1  shock resistance at rectangular impulse  • at AC  shock resistance with sine pulse  • at AC  mechanical service life (switching cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical	
• function module for communication     • auxiliary switch     power loss [W] for rated value of the current at AC in hot operating state     • per pole     power loss [W] for rated value of the current without load current share typical     surge voltage resistance     • of main circuit rated value     • of auxiliary circuit rated value     • of auxiliary circuit rated value     maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1     shock resistance at rectangular impulse     • at AC     shock resistance with sine pulse     • at AC     in the contactor typical     • of contactor typical     • of the contactor with added electronically optimized auxiliary switch block typical	
auxiliary switch power loss [W] for rated value of the current at AC in hot operating state  • per pole  power loss [W] for rated value of the current without load current share typical  surge voltage resistance  • of main circuit rated value  • of auxiliary circuit rated value  maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1  shock resistance at rectangular impulse  • at AC  shock resistance with sine pulse  • at AC  mechanical service life (switching cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  o 6.6 W  6.6 W  6.6 W  6.7 W  5.7 W  1.7	
power loss [W] for rated value of the current at AC in hot operating state  • per pole  power loss [W] for rated value of the current without load current share typical  surge voltage resistance  • of main circuit rated value  • of auxiliary circuit rated value  for auximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1  shock resistance at rectangular impulse  • at AC  shock resistance with sine pulse  • at AC  mechanical service life (switching cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical	
operating state  • per pole  power loss [W] for rated value of the current without load current share typical  surge voltage resistance  • of main circuit rated value  • of auxiliary circuit rated value  maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1  shock resistance at rectangular impulse  • at AC  shock resistance with sine pulse  • at AC  mechanical service life (switching cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  2.2 W  5.7 W  5.7 W  400 V  400 V  400 V  5.73g / 5 ms, 4,7g / 10 ms  7,3g / 5 ms, 4,7g / 10 ms  5.7 W	
power loss [W] for rated value of the current without load current share typical  surge voltage resistance  of main circuit rated value  of auxiliary circuit rated value  maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1  shock resistance at rectangular impulse  of at AC  shock resistance with sine pulse  of at AC  at AC  11,4g / 5 ms, 7,3g / 10 ms  mechanical service life (switching cycles)  of contactor typical  of the contactor with added electronically optimized auxiliary switch block typical	
Surge voltage resistance	
of main circuit rated value     of auxiliary circuit rated value     of auxiliary circuit rated value      maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1      shock resistance at rectangular impulse     o at AC	
• of auxiliary circuit rated value      maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1      shock resistance at rectangular impulse     • at AC      shock resistance with sine pulse     sho	
maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1  shock resistance at rectangular impulse  • at AC  shock resistance with sine pulse  • at AC  at AC  11,4g / 5 ms, 7,3g / 10 ms  mechanical service life (switching cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical	
coil and main contacts acc. to EN 60947-1  shock resistance at rectangular impulse  • at AC  shock resistance with sine pulse  • at AC  11,4g / 5 ms, 7,3g / 10 ms  mechanical service life (switching cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical	
<ul> <li>at AC</li> <li>5 ms, 4,7g / 10 ms</li> <li>shock resistance with sine pulse</li> <li>at AC</li> <li>11,4g / 5 ms, 7,3g / 10 ms</li> <li>mechanical service life (switching cycles)</li> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>5 000 000</li> </ul>	
shock resistance with sine pulse  • at AC  11,4g / 5 ms, 7,3g / 10 ms  mechanical service life (switching cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  5 000 000	
<ul> <li>at AC</li> <li>mechanical service life (switching cycles)</li> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>11,4g / 5 ms, 7,3g / 10 ms</li> <li>30 000 000</li> <li>5 000 000</li> </ul>	
mechanical service life (switching cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  30 000 000  5 000 000	
<ul> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>30 000 000</li> <li>5 000 000</li> </ul>	
• of the contactor with added electronically optimized auxiliary switch block typical 5 000 000	
auxiliary switch block typical	
of the contactor with added auxiliary switch block	
typical	
reference code acc. to IEC 81346-2	
Ambient conditions	
installation altitude at height above sea level maximum 2 000 m	
• ambient temperature during operation -25 +60 °C	
• ambient temperature during storage -55 +80 °C	
Main circuit	
number of poles for main current circuit 3	
number of NO contacts for main contacts 3	
operating voltage at AC-3 rated value maximum     690 V	
operational current	

<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated value</li> <li>at AC-1</li> </ul>	22 A
<ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> </ul>	22 A
<ul> <li>up to 690 V at ambient temperature 60 °C rated value</li> </ul>	20 A
• at AC-3	
— at 400 V rated value	16 A
— at 500 V rated value	12.4 A
— at 690 V rated value	8.9 A
at AC-4 at 400 V rated value	11.5 A
at AC-5a up to 690 V rated value	19.4 A
at AC-5b up to 400 V rated value	13.2 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	9.6 A
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	9.6 A
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	9.6 A
— up to 690 V for current peak value n=20 rated value	8.9 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	6.6 A
— up to 400 V for current peak value n=30 rated value	6.4 A
— up to 500 V for current peak value n=30 rated value	6.4 A
<ul><li>— up to 690 V for current peak value n=30 rated value</li></ul>	6.4 A
	4 9
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm²
operational current for approx. 200000 operating cycles at AC-4	
rated value operational current for approx. 200000 operating	5.5 A
operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value	
operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current	5.5 A
operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value  • at 690 V rated value  operational current  • at 1 current path at DC-1	5.5 A 4.4 A
rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current • at 1 current path at DC-1  — at 24 V rated value	5.5 A 4.4 A
operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value	5.5 A 4.4 A 20 A 2.1 A
operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value	5.5 A 4.4 A 20 A 2.1 A 0.8 A
operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value  • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 440 V rated value	5.5 A 4.4 A 20 A 2.1 A 0.8 A 0.6 A
rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 440 V rated value  — at 600 V rated value	5.5 A 4.4 A 20 A 2.1 A 0.8 A
rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 440 V rated value  — at 600 V rated value  • with 2 current paths in series at DC-1	5.5 A 4.4 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A
rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 440 V rated value  — at 600 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value	5.5 A 4.4 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A
rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 440 V rated value  — at 600 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  — at 110 V rated value	5.5 A 4.4 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 12 A
rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 440 V rated value  — at 600 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  — at 210 V rated value  — at 220 V rated value  — at 220 V rated value  — at 24 V rated value  — at 210 V rated value  — at 220 V rated value	5.5 A 4.4 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A 0.6 A 12 A 1.6 A
rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 600 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  — at 120 V rated value  — at 440 V rated value	5.5 A 4.4 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 12 A 1.6 A 0.8 A
rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 440 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  • at 110 V rated value  — at 24 V rated value  — at 24 V rated value  — at 440 V rated value  — at 110 V rated value  — at 440 V rated value  — at 440 V rated value  — at 600 V rated value  — at 600 V rated value	5.5 A 4.4 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A 0.6 A 12 A 1.6 A
rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 440 V rated value  — at 600 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  — at 24 V rated value  — at 24 V rated value  — at 440 V rated value  — at 100 V rated value  — at 110 V rated value  — at 600 V rated value  — at 440 V rated value  — at 600 V rated value  — at 600 V rated value  — at 600 V rated value  • with 3 current paths in series at DC-1	5.5 A 4.4 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 12 A 1.6 A 0.8 A 0.7 A
rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 440 V rated value  — at 600 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  — at 110 V rated value  — at 440 V rated value  — at 600 V rated value  — at 220 V rated value  — at 220 V rated value  — at 440 V rated value  — at 440 V rated value  — at 600 V rated value  • with 3 current paths in series at DC-1  — at 24 V rated value	5.5 A 4.4 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 12 A 1.6 A 0.8 A 0.7 A
rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 440 V rated value  — at 600 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 440 V rated value  — at 600 V rated value  — at 220 V rated value  — at 220 V rated value  — at 24 V rated value  — at 440 V rated value  — at 440 V rated value  — at 600 V rated value  — at 600 V rated value  • with 3 current paths in series at DC-1  — at 24 V rated value  • at 110 V rated value  — at 110 V rated value	5.5 A 4.4 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A
rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 440 V rated value  — at 600 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  — at 440 V rated value  — at 600 V rated value  — at 20 V rated value  — at 220 V rated value  — at 24 V rated value  — at 440 V rated value  — at 440 V rated value  — at 440 V rated value  — at 600 V rated value  — at 600 V rated value  — at 600 V rated value  — at 24 V rated value  • with 3 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 220 V rated value	5.5 A 4.4 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A 20 A 20 A
rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 440 V rated value  — at 600 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  — at 440 V rated value  — at 440 V rated value  — at 440 V rated value  • with 3 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 440 V rated value	5.5 A 4.4 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A 20 A 20 A 20 A
rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 600 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  — at 110 V rated value  — at 220 V rated value  — at 24 V rated value  — at 24 V rated value  — at 24 V rated value  — at 440 V rated value  — at 440 V rated value  — at 600 V rated value  — at 22 V rated value  — at 24 V rated value  — at 24 V rated value  — at 440 V rated value  — at 600 V rated value  — at 600 V rated value	5.5 A 4.4 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A 20 A 20 A
operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 600 V rated value  — at 600 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  — at 110 V rated value  — at 220 V rated value  — at 24 V rated value  — at 24 V rated value  — at 24 V rated value  — at 440 V rated value  — at 440 V rated value  — at 600 V rated value  — at 110 V rated value  — at 220 V rated value  — at 440 V rated value  — at 440 V rated value  — at 110 V rated value  — at 110 V rated value  — at 440 V rated value  — at 440 V rated value  — at 440 V rated value  — at 600 V rated value  — at 600 V rated value	5.5 A 4.4 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A 20 A 20 A 20 A
rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 600 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  — at 110 V rated value  — at 220 V rated value  — at 24 V rated value  — at 24 V rated value  — at 24 V rated value  — at 440 V rated value  — at 440 V rated value  — at 600 V rated value  — at 22 V rated value  — at 24 V rated value  — at 24 V rated value  — at 440 V rated value  — at 600 V rated value  — at 600 V rated value	5.5 A 4.4 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A 20 A 20 A 20 A
operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 600 V rated value  — at 600 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  — at 110 V rated value  — at 220 V rated value  — at 24 V rated value  — at 24 V rated value  — at 24 V rated value  — at 440 V rated value  — at 600 V rated value  • with 3 current paths in series at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  — at 440 V rated value  — at 440 V rated value  — at 600 V rated value	5.5 A 4.4 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A 20 A 20 A 20 A 1.3 A 1.4



- at 110 V rated value	<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
with 3 current paths in series at DC-3 at DC-5	— at 24 V rated value	20 A
		0.35 A
	<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
	— at 24 V rated value	20 A
	— at 110 V rated value	20 A
	— at 220 V rated value	1.5 A
a	— at 440 V rated value	0.2 A
- at 230 V rated value	— at 600 V rated value	0.2 A
at 230 V rated value at 400 V rated value at 400 V rated value	operating power	
	• at AC-3	
	— at 230 V rated value	4 kW
operating power for approx. 200000 operating cycles at AC-4  at 400 V rated value at 609 V rated value at 609 V rated value but 609 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=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 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 500 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value sup to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C limited to 1 s switching at zero 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 60 s switching at zero cur	— at 400 V rated value	7.5 kW
operating power for approx. 200000 operating cycles at AC-4	— at 500 V rated value	7.5 kW
at AC-4  at 400 V rated value at 690 V rated value 3.5 kW  operating apparent power at AC-8a  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 690 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 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 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 meak 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 up t	— at 690 V rated value	7.5 kW
at AC-4  at 400 V rated value at 690 V rated value 3.5 kW  operating apparent power at AC-8a  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 690 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 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 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 meak 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 up t	operating power for approx. 200000 operating cycles	
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=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 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 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  short-time withstand current in cold operating state up to 40 °C  ilmited to 1 s switching at zero current maximum  ilmited to 5 s switching at zero current maximum  ilmited to 10 s switching at zero current maximum  ilmited to 50 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 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		
operating apparent power at AC-5a  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=20 rated value up to 690 V for current peak value n=30 rated value up to 400 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 600 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value vp to 600 V for current peak value n=30 rated value vp to 600 V for current peak value n=30 rated value vp to 600 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C vision to 5 s switching at zero current maximum imited to 10 s switching at zero current maximum imited to 10 s switching at zero current maximum vision to 60 s switching at zero current ma	• at 400 V rated value	2.5 kW
• 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=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 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 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 1 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 3 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     • lat AC-     • at AC-     • at AC-     • at AC-3 maximum     • at AC-4 maximum     • at AC-4 maximum	• at 690 V rated value	3.5 kW
• 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=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 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 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 1 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 3 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     • lat AC-     • at AC-     • at AC-     • at AC-3 maximum     • at AC-4 maximum     • at AC-4 maximum	operating apparent power at AC-6a	
• 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 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 500 V for current peak value n=30 rated value     • up to 690 V for up to 690 V for up to 600 V for u		3.8 kV·A
• 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 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 500 V for current peak value n=30 rated value     • up to 690 V for up to 690 V for up to 600 V for u	·	6.6 kV·A
• up to 690 V for current peak value n=20 rated value operating apparent power at AC-8a • 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 sup to 590 V for current peak value n=30 rated value sup to 590 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 30 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 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 no-load switching frequency • at AC-1 maximum  at AC-2 maximum  at AC-2 maximum  at AC-3 maximum  at AC-3 maximum  at AC-4 maximum  250 1/h  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  at 50 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  at 50 Hz  at 60 Hz		8.3 kV·A
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 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  * 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 30 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 60 s switching at zero current maximum no-load switching frequency • at AC  operating frequency • at AC-2 maximum • at AC-3 maximum • at AC-3 maximum • at AC-4 maximum • at AC-5 maximum • at AC-4 maximum • at AC-5 maximum • at AC-6 maximum • at AC-6 maximum • at AC-7 maximum • at AC-8 maximum • at AC-9 maximum • at AC-	·	10.6 kV·A
• 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 590 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 rated value     • limited to 1 s switching at zero current maximum     • limited to 1 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 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     roll at AC-0 rated value     • at AC-1 maximum     • at AC-2 maximum     • at AC-3 maximum     • at AC-3 maximum     • at AC-4 maximum     • at AC-4 maximum     • at AC-4 maximum     250 1/h      control circuit/ Control      type of voltage of the control supply voltage		
• 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  short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  • limited to 1 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  • 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 70 switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 10 s switching at zero current maximum  • limited to 10 switching at zero current maximum  • limited to 10 switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 switching at zero current maximum  • limited to 80 s switching at zero current maximum  1000 l/h  • at AC-1 rated value  • at AC-1 maximum  1 000 1/h  • at AC-3 maximum  • at AC-3 maximum  • at AC-4 maximum  250 1/h  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz  • at 60		2.5 kV·A
• 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  * our to 690 V for current peak value n=30 rated value  * imited to 10 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 30 s switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 s switching at zero current maximum  • limited to 80 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 80 s switching at zero current maximum  1000 1/h  • at AC-1 maximum  • at AC-2 maximum  • at AC-3 maximum  • at AC-3 maximum  • at AC-3 maximum  • at AC-3 maximum  • at AC-4 maximum  • at AC-3 maximum  • at AC-3 maximum  • at AC-4 maximum  • at AC-3 maximum  • at AC-4 maximum  • at AC-3 maximum  • at AC-4 waximum  • at AC-4 maximum  • at AC-5 maximum  • at AC-4 maximum  • at AC-5 maximum  • at AC-6 maximum  • at AC-7 maximum  • at AC-8 maximum  • at AC-9 maximum  • at AC-9 maximum  • at AC-1 maximum  • at AC-1 maximum  1 000 1/h  • at AC-3 maximum  • at AC-3 maximum  • at AC-4 maximum  • at AC-4 maximum  • at AC-5 maximum  • at AC-6 maximum  • at AC-7 maximum  • at AC-8 maximum  • at AC-9 maximum  • at AC-9 maximum  • at AC-9 maximum  • at AC-9 maximum  • at AC-1 maximum  • at AC-1 maximum  • at AC-1 maximum  • at AC-2 maximum  • at AC-3 maximum		4.4 kV·A
• up to 690 V for current peak value n=30 rated value  short-time withstand current in cold operating state up to 40 °C  • 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 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  no-load switching frequency  • at AC  operating frequency  • at AC-1 maximum  • at AC-2 maximum  • at AC-3 maximum  • at AC-3 maximum  • at AC-4 maximum  • at AC-4 maximum  • at AC-4 maximum  • at AC-5 hz rated value  • at 50 Hz rated value  • at 50 Hz  • at 60 Hz  • at 50 Hz  • at 60 Hz		
short-time withstand current in cold operating state up to 40 °C  imitted to 1 s switching at zero current maximum imited to 5 s switching at zero current maximum imited to 10 s switching at zero current maximum imited to 10 s switching at zero current maximum imited to 10 s switching at zero current maximum imited to 60 s switching at zero current maximum imited to 60 s switching at zero current maximum a limited to 60 s switching at zero current maximum mo-load switching frequency at AC  10 000 1/h  operating frequency at AC-2 maximum at AC-2 maximum at AC-3 maximum at AC-3 maximum at AC-3 maximum at AC-4 maximum 250 1/h  Control circuit/ Control  type of voltage of the control supply voltage control supply voltage at AC at 50 Hz rated value operating range factor control supply voltage rated value of magnet coil at AC at 60 Hz  apparent pick-up power of magnet coil at AC at 50 Hz at 60 Hz  at 50 Hz	·	
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 no-load switching frequency • at AC  operating frequency • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum • at AC-4 maximum  ot AC-4 maximum  250 1/h  Control circuit/ Control  type of voltage of the control supply voltage control supply voltage at AC • at 50 Hz rated value • at 60 Hz • at 60 Hz • at 60 Hz • at 50 Hz • at 60 Hz • at 50 Hz		7.0 KV 71
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 Ilimited to 60 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum Ino-load switching frequency In at AC In at AC In at AC In at AC In at AC-1 rated value In at AC-2 maximum In at AC-3 maximum In at AC-3 maximum In at AC-3 maximum In at AC-3 maximum In at AC-4 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 Ilimited to 60 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum Ino-load switching frequency In at AC In at AC In at AC In at AC In at AC-1 rated value In at AC-2 maximum In at AC-3 maximum In at AC-3 maximum In at AC-3 maximum In at AC-3 maximum In at AC-4 maximum	<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	300 A; Use minimum cross-section acc. to AC-1 rated value
Ilimited to 30 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum Incload switching frequency  at AC  operating frequency  at AC-1 maximum  1 000 1/h  at AC-2 maximum  at AC-3 maximum  at AC-4 maximum  type of voltage of the control supply voltage  at 60 Hz  operating range factor control supply voltage rated value  operating range factor control supply voltage rated value  at 60 Hz  at 50 Hz  at 60 Hz  inductive power factor with closing power of the coil  at 60 Hz  ola 30 s switching at zero current maximum  74 A; Use minimum cross-section acc. to AC-1 rated value  10 000 1/h  74 A; Use minimum cross-section acc. to AC-1 rated value  10 000 1/h  10 000 1/		169 A; Use minimum cross-section acc. to AC-1 rated value
Ilimited to 30 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum Incload switching frequency  at AC  operating frequency  at AC-1 maximum  1 000 1/h  at AC-2 maximum  at AC-3 maximum  at AC-4 maximum  type of voltage of the control supply voltage  at 60 Hz  operating range factor control supply voltage rated value  operating range factor control supply voltage rated value  at 60 Hz  at 50 Hz  at 60 Hz  inductive power factor with closing power of the coil  at 60 Hz  ola 30 s switching at zero current maximum  74 A; Use minimum cross-section acc. to AC-1 rated value  10 000 1/h  74 A; Use minimum cross-section acc. to AC-1 rated value  10 000 1/h  10 000 1/	<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	128 A; Use minimum cross-section acc. to AC-1 rated value
Ilimited to 60 s switching at zero current maximum  no-load switching frequency  at AC  operating frequency  at AC-1 maximum  at AC-2 maximum  at AC-3 maximum  at AC-3 maximum  at AC-4 maximum  be at AC-4 maximum  at AC-4 maximum  control circuit/ Control  type of voltage of the control supply voltage  at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  at 50 Hz  at 60 Hz	_	92 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency  • at AC  operating frequency  • at AC-1 maximum  • at AC-2 maximum  • at AC-3 maximum  • at AC-3 maximum  • at AC-4 maximum  • at AC-4 maximum  750 1/h  • at AC-4 maximum  250 1/h  Control circuit/ Control  type of voltage of the control supply voltage  type of voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  • at 50 Hz  • at 60 Hz	-	74 A; Use minimum cross-section acc. to AC-1 rated value
at AC  operating frequency  at AC-1 maximum  at AC-2 maximum  at AC-3 maximum  at AC-3 maximum  at AC-4 maximum  at AC-4 maximum  at AC-4 maximum  but at AC-4 maximum  control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at AC  at 50 Hz rated value  at 60 Hz rated value  at 50 Hz  at 60 Hz		·
operating frequency  • at AC-1 maximum  • at AC-2 maximum  • at AC-3 maximum  • at AC-4 maximum  • at AC-4 maximum  • at AC-4 maximum  250 1/h  Control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz	· ,	10 000 1/h
<ul> <li>at AC-1 maximum</li> <li>at AC-2 maximum</li> <li>at AC-3 maximum</li> <li>at AC-4 maximum</li> <li>at AC-4 maximum</li> <li>250 1/h</li> </ul> Control circuit/ Control type of voltage of the control supply voltage <ul> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>at 60 Hz</li> <li>at 60 Hz</li> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>at 50 Hz</li> <li>at 60 Hz</li> </ul>		
at AC-2 maximum at AC-3 maximum bat AC-4 maximum bat AC-6 maximum bat AC-6 maximum bat AC-7 maximum bat AC-		1 000 1/h
at AC-3 maximum at AC-4 maximum 250 1/h  Control circuit/ Control  type of voltage of the control supply voltage control supply voltage at AC  at 50 Hz rated value at 60 Hz  at 50 Hz at 60 Hz  at 60 Hz  control supply voltage rated value  at 50 Hz at 60 Hz  at 50 Hz at 60 Hz  at 60 Hz  control supply voltage rated value of magnet coil at AC  at 50 Hz at 60 Hz  at 60 Hz  at 50 Hz at 60 Hz  control supply voltage rated value of magnet coil at AC  at 50 Hz at 60 Hz  control supply voltage rated value of magnet coil at AC  at 50 Hz at 60 Hz  control supply voltage  at 50 Hz at 60 Hz  control supply voltage  at 50 Hz at 60 Hz  control supply voltage  at 50 Hz at 60 Hz  control supply voltage  at 50 Hz at 60 Hz  control supply voltage  at 60 Hz  con		
at AC-4 maximum  Control circuit/ Control  type of voltage of the control supply voltage  AC  control supply voltage at AC      at 50 Hz rated value     at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC      at 50 Hz     at 60 Hz  apparent pick-up power of magnet coil at AC      at 50 Hz     at 60 Hz  at 60 Hz  ot 60 Hz		
type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz • at 60 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz • at 60 Hz  • at 60 Hz  inductive power factor with closing power of the coil • at 50 Hz • at 60 Hz  0.8  0.8  0.8  0.8  0.8  0.8  0.75		
type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  24 V  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with closing power of the coil  • at 50 Hz  • at 60 Hz  0.8  0.8  0.8  0.8  0.8  0.8		200 1111
control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  • at 60 Hz  inductive power factor with closing power of the coil  • at 50 Hz  • at 60 Hz  0.8  0.8  0.8  0.8  0.75		AC
<ul> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> <li>operating range factor control supply voltage rated value of magnet coil at AC</li> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>at 60 Hz</li> <li>at 50 Hz</li> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>at 50 Hz</li> <li< td=""><td></td><td>AC</td></li<></ul>		AC
<ul> <li>at 60 Hz rated value</li> <li>operating range factor control supply voltage rated value of magnet coil at AC</li> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>at 60 Hz</li> <li>at 50 Hz</li> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>0.8</li> <li>at 60 Hz</li> <li>0.75</li> </ul>		24.1/
operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz • at 60 Hz  • at 60 Hz  inductive power factor with closing power of the coil • at 50 Hz • at 60 Hz  • at 60 Hz  0.8  0.8  • at 60 Hz  0.8		
value of magnet coil at AC          • at 50 Hz         • at 60 Hz           0.8 1.1          • at 60 Hz           0.85 1.1          apparent pick-up power of magnet coil at AC          37 V·A          • at 50 Hz           33 V·A          inductive power factor with closing power of the coil          0.8          • at 50 Hz           0.8          • at 60 Hz           0.75		24 V
■ at 60 Hz     apparent pick-up power of magnet coil at AC     ■ at 50 Hz     ■ at 60 Hz     inductive power factor with closing power of the coil     ■ at 50 Hz     ■ at 50 Hz     ■ at 50 Hz     ■ at 60 Hz     0.8     ■ at 60 Hz     0.75	value of magnet coil at AC	
apparent pick-up power of magnet coil at AC  • at 50 Hz • at 60 Hz  inductive power factor with closing power of the coil • at 50 Hz • at 60 Hz  0.8 • at 60 Hz  0.75		
• at 50 Hz         • at 60 Hz         • at 60 Hz  inductive power factor with closing power of the coil         • at 50 Hz         • at 60 Hz          • at 60 Hz  0.8		0.85 1.1
<ul> <li>at 60 Hz</li> <li>inductive power factor with closing power of the coil</li> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>0.8</li> <li>0.75</li> </ul>		
inductive power factor with closing power of the coil  o at 50 Hz o at 60 Hz  0.8  0.75	● at 50 Hz	
• at 50 Hz		33 V·A
• at 60 Hz 0.75	inductive power factor with closing power of the coil	
	● at 50 Hz	0.8
apparent holding power of magnet coil at AC		0.75
	apparent holding power of magnet coil at AC	



● at 50 Hz	5.7 V·A
● at 60 Hz	4.4 V·A
inductive power factor with the holding power of the coil	
● at 50 Hz	0.25
● at 60 Hz	0.25
closing delay	
• at AC	8 33 ms
opening delay	
• at AC	4 15 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	1
operational current at AC-12 maximum	10 A
operational current at AC-15	
<ul> <li>at 230 V rated value</li> </ul>	10 A
<ul><li>at 400 V rated value</li></ul>	3 A
• at 500 V rated value	2 A
at 690 V rated value	1 A
operational current at DC-12	
• at 24 V rated value	10 A
<ul> <li>at 48 V rated value</li> </ul>	6 A
<ul><li>at 60 V rated value</li></ul>	6 A
at 110 V rated value	3 A
• at 125 V rated value	2 A
• at 220 V rated value	1 A
at 600 V rated value	0.15 A
operational current at DC-13	
• at 24 V rated value	10 A
at 48 V rated value	2 A
at 60 V rated value	2 A
• at 110 V rated value	1 A
at 125 V rated value	0.9 A
at 220 V rated value	0.3 A
at 600 V rated value	_ 0.1 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	14 A
at 600 V rated value	11 A
yielded mechanical performance [hp]	
for single-phase AC motor     at 110/120 V reted value	1 ha
— at 110/120 V rated value	1 hp
— at 230 V rated value	2 hp
• for 3-phase AC motor	3 hn
— at 200/208 V rated value	3 hp
— at 220/230 V rated value — at 460/480 V rated value	5 hp
— at 460/480 V rated value  — at 575/600 V rated value	10 hp 10 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	10001 0000
design of the fuse link	
<ul> <li>for short-circuit protection of the main circuit</li> <li>— with type of coordination 1 required</li> </ul>	aC: 504 (600)/ 100k4) aM: 254 (600)/ 100k4) BC00: 504 (415)/ 00k4)
with type of coordination i required  — with type of assignment 2 required	gG: 50A (690V,100kA), aM: 25A (690V,100kA), BS88: 50A (415V,80kA)
for short-circuit protection of the auxiliary switch required	gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80kA) gG: 10 A (500 V, 1 kA)



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
side-by-side mounting	Yes
height	58 mm
width	45 mm
depth	73 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
onnections/ Terminals	
type of electrical connection	
for main current circuit	screw-type terminals
<ul> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals
<ul> <li>at contactor for auxiliary contacts</li> </ul>	Screw-type terminals
of magnet coil	Screw-type terminals
type of connectable conductor cross-sections	
<ul> <li>for main contacts</li> </ul>	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
at AWG cables for main contacts	2x (20 16), 2x (18 14), 2x 12
connectable conductor cross-section for main	
ontacts solid	0.5 4 mm²
<ul><li>stranded</li><li>finely stranded with core end processing</li></ul>	0.5 4 mm <sup>2</sup> 0.5 2.5 mm <sup>2</sup>
• linely stranded with core end processing  connectable conductor cross-section for auxiliary	0.0 Z.0 IIIIII
connectable conductor cross-section for auxiliary contacts	
solid or stranded	0.5 4 mm²
finely stranded with core end processing	0.5 2.5 mm <sup>2</sup>
type of connectable conductor cross-sections	
for auxiliary contacts	
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
— finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
at AWG cables for auxiliary contacts	2x (20 16), 2x (18 14), 2x 12
AWG number as coded connectable conductor cross section for main contacts	20 12
<ul> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> </ul>	20 12
afety related data	
B10 value with high demand rate acc. to SN 31920	1 000 000



<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	73 %
failure rate [FIT] with low demand rate acc. to SN 31920	100 FIT
product function	
<ul> <li>mirror contact acc. to IEC 60947-4-1</li> </ul>	Yes
T1 value for proof test interval or service life acc. to IEC 61508	20 y
protection class IP on the front acc. to IEC 60529	IP20
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front
suitability for use safety-related switching OFF	Yes

Certificates/ approvals

## **General Product Approval**









<u>KC</u>





**EMC** 

### **Declaration of Conformity**

#### **Test Certificates**

Marine / Shipping





**Miscellaneous** 

**Special Test** Certificate

Type Test Certificates/Test Report



## Marine / Shipping













other

Confirmation



Confirmation

## **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=3RT2018-1AB02

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2018-1AB02

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-1AB02

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2018-1AB02&lang=en

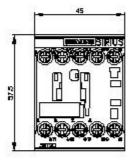
Characteristic: Tripping characteristics, I2t, Let-through current

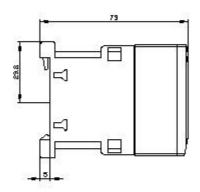
https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-1AB02/char

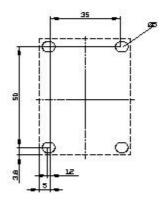
Further characteristics (e.g. electrical endurance, switching frequency)

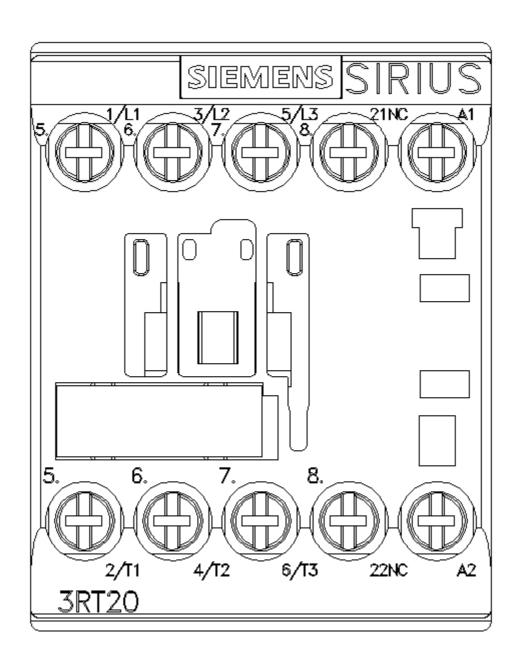
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2018-1AB02&objecttype=14&gridview=view1

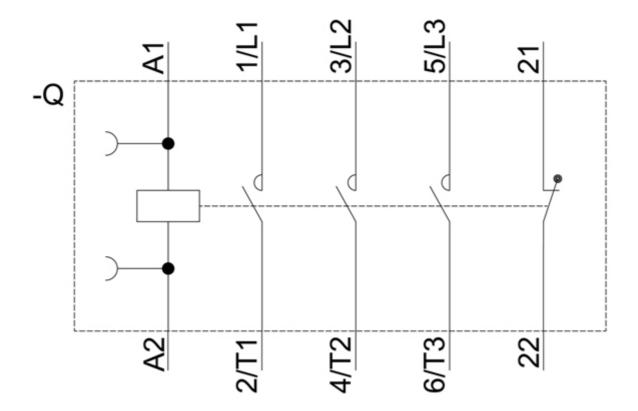












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