# **SIEMENS**

Data sheet 3RT2017-1AF02



Power contactor, AC-3 12 A, 5.5 kW / 400 V 1 NC, 110 V AC, 50 / 60 Hz 3-pole, Size S00 screw terminal

product designation Power contactor product type designation SRT2  Size of contactor So0  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 suxiliary circuit rated value • of suxiliary circuit rated value • of auxiliary circuit rated value • of auxiliary circuit rated value • of auxiliary circuit rated value • of the contactor with sine pulse • at AC  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 • of the contactor with added dectronically optimized auxiliary switch block typical  reference code acc. to IEC 81346-2  Q  Ambient conditions  installation altitude at height above sea level maximum  • ambient temperature during operation • ambient temperature during storage  • of ond	product brand name	SIRIUS	
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 and for auxiliary circuit rated value of the contactor with sine pulse of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added 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 of more of No contacts for main current circuit on the foliar circuit number of poles for main current circuit number of No contacts for main contacts operating voltage at AC-3 rated value maximum	product designation	Power contactor	
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 • 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 • at AC  shock resistance at rectangular impulse • at AC  shock resistance with sine pulse • at AC  for contactor with sine pulse • at AC  shock resistance with sine pulse • at AC  for contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code acc. to IEC 81346-2  Q  Ambient conditions  installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during storage  • operating voltage at AC-3 rated value maximum  • operating voltage at AC-3 rated value maximum  operating voltage at AC-3 rated value maximum  operating voltage at AC-3 rated value maximum  should be current at AC  No  should reference code acc.  should reference code acc. should ref	product type designation	3RT2	
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 • of auxiliary circuit rated value  aximum 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 • of the contactor with added auxiliary switch block typical • of the contactor w	General technical data		
• 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 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 shock resistance with sine pulse • at AC shock resistance with sine pulse • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added electronically opt	size of contactor	S00	
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 at AC shock resistance at rectangular impulse at AC shock resistance with sine pulse at AC shock resistance with sine pulse of the contactor typical of the contactor with added electronically optimized 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  e ambient temperature during storage operating voltage for main current circuit number of poles for main current circuit source in the current at AC in hot operating and the current without load will an under the preature during storage operating voltage at AC-3 rated value maximum  3.6 W  5.7 W  6 kV  6 kV  400 V  7.3g / 5 ms, 4,7g / 10 ms  11.4g / 5 ms, 7,3g / 10 ms  11.4g / 5 ms, 4,7g / 10 ms  11.4g / 5 ms, 7,3g / 10 ms  11.4g / 5 ms, 7,7g / 10 ms  11.4g / 5 ms, 7,7g / 10 ms  11.4g / 5 ms, 7	product extension		
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  • of the contactor with added 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  • ambient temperature during operation  • ambient temperature during storage  • operating voltage at AC-3 rated value maximum  5.7 W  5.7 W  5.7 W  400 V  400 V  400 V  400 V  400 V  500 M  11,4g / 5 ms, 7,3g / 10 ms  11,4g / 5 ms, 4,7g / 10 ms  11,4g / 5 ms, 7,3g / 10 ms  11	<ul> <li>function module for communication</li> </ul>	No	
operating state     oper pole     power loss [M] 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 the contacts acc. to EN 60947-1  shock resistance at rectangular impulse     ot AC     shock resistance with sine pulse     of the contactor with sine pulse     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     reference code acc. to IEC 81346-2  Q Ambient conditions  installation altitude at height above sea level maximum     ombient temperature during operation     ombient temperature during storage  Main circuit  number of poles for main current circuit     number of poles for main current circuit     number of poles for main current circuit     number of NO contacts for main contacts  of the contacts of the contact of th	auxiliary switch	Yes	
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  • at AC  shock resistance at rectangular impulse  • at AC  shock resistance with sine pulse  • at AC  rocantactor with sine pulse  • of contactor vitin added electronically optimized auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of contactor with added auxiliary switch block typical  • of contactor with added au		3.6 W	
Surge voltage resistance   of main circuit rated value   6 kV   of auxiliary circuit rated value   6 kV   waximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1   shock resistance at rectangular impulse   other contacts acc. to EN 60947-1   shock resistance with sine pulse   other contacts acc. to EN 60947-1   shock resistance with sine pulse   other contactor with sine pulse   other contactor typical   30 000 000   other contactor with added electronically optimized auxiliary switch block typical   of the contactor with added auxiliary switch block typical   other contactor with added auxiliary switch block typical   other contactor with added auxiliary switch block typical   other conditions   other	• per pole	1.2 W	
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	power loss [W] for rated value of the current without load current share typical	5.7 W	
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     shock resistance with sine pulse     of contactor typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added 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      ambient temperature during operation     ambient temperature during storage  Ambient circuit  number of poles for main current circuit number of NO contacts for main contacts  or according to the volume and	surge voltage resistance		
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 • of the contactor with added 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  • ambient temperature during operation • ambient temperature during storage  Main circuit  number of poles for main current circuit number of NO contacts for main contacts • operating voltage at AC-3 rated value maximum  400 V  7,3g / 5 ms, 4,7g / 10 ms  11,4g / 5 ms, 7,3g / 10 ms  10,000 000  10,000 00		6 kV	
shock resistance at rectangular impulse  • at AC  shock resistance with sine pulse  • at AC  shock resistance with sine pulse  • 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  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  reference code acc. to IEC 81346-2  Q  Ambient conditions  installation altitude at height above sea level maximum  • ambient temperature during operation  • ambient temperature during storage  **ABO C**  Main circuit  number of NO contacts for main current circuit  number of NO contacts for main contacts  • operating voltage at AC-3 rated value maximum  690 V	·	6 kV	
• at AC  shock resistance with sine pulse  • at AC  nechanical service life (switching cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  reference code acc. to IEC 81346-2  Q  Ambient conditions  installation altitude at height above sea level maximum  • ambient temperature during operation  • ambient temperature during storage  Ain circuit  number of poles for main current circuit  number of NO contacts for main contacts  • operating voltage at AC-3 rated value maximum  7,3g / 5 ms, 4,7g / 10 ms  11,4g / 5 ms, 7,3g / 10 ms  10,000 000  5,000 000  10,000 000		400 V	
shock resistance with sine pulse  at AC  at AC  mechanical service life (switching cycles)  of contactor typical  of the contactor with added electronically optimized auxiliary switch block typical  of the contactor with added 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  ambient temperature during operation  ambient temperature during storage  -25 +60 °C  ambient temperature during storage  -55 +80 °C  Main circuit  number of poles for main current circuit  number of NO contacts for main contacts  operating voltage at AC-3 rated value maximum  690 V	shock resistance at rectangular impulse		
<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>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>reference code acc. to IEC 81346-2</li> <li>Q</li> <li>Ambient conditions</li> <li>installation altitude at height above sea level maximum</li> <li>ambient temperature during operation</li> <li>ambient temperature during storage</li> <li>-25 +60 °C</li> <li>ambient temperature during storage</li> <li>-55 +80 °C</li> </ul> Main circuit <ul> <li>number of poles for main current circuit</li> <li>number of NO contacts for main contacts</li> <li>operating voltage at AC-3 rated value maximum</li> <li>690 V</li> </ul>	• at AC	7,3g / 5 ms, 4,7g / 10 ms	
mechanical service life (switching cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added 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  • ambient temperature during operation  • ambient temperature during storage  Main circuit  number of poles for main current circuit  number of NO contacts for main contacts  • operating voltage at AC-3 rated value maximum  30 000 000  10 000 000  10 000 000  10 000 00	shock resistance with sine pulse		
<ul> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>reference code acc. to IEC 81346-2</li> <li>Q</li> <li>Ambient conditions</li> <li>installation altitude at height above sea level maximum</li> <li>ambient temperature during operation</li> <li>ambient temperature during storage</li> <li>-25 +60 °C</li> <li>ambient temperature during storage</li> <li>Main circuit</li> <li>number of poles for main current circuit</li> <li>number of NO contacts for main contacts</li> <li>operating voltage at AC-3 rated value maximum</li> <li>5 000 000</li> <li>10 000 00</li> <li>10 000</li></ul>	• at AC	11,4g / 5 ms, 7,3g / 10 ms	
of the contactor with added electronically optimized 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     o ambient temperature during operation     o ambient temperature during storage      Main circuit  number of poles for main current circuit number of NO contacts for main contacts     operating voltage at AC-3 rated value maximum      5 000 000  10 000 000  10 000 000  10 000 00	mechanical service life (switching cycles)		
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  ombient temperature during operation  ombient temperature during storage  ambient temperature during storage  -25 +60 °C  ombient temperature during storage  -55 +80 °C  Main circuit  number of poles for main current circuit  number of NO contacts for main contacts  operating voltage at AC-3 rated value maximum  690 V	<ul> <li>of contactor typical</li> </ul>	30 000 000	
reference code acc. to IEC 81346-2 Q  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		5 000 000	
Ambient conditions  installation altitude at height above sea level maximum  • ambient temperature during operation • ambient temperature during storage  -25 +60 °C  • ambient temperature during storage  -55 +80 °C  Main circuit  number of poles for main current circuit  number of NO contacts for main contacts  • operating voltage at AC-3 rated value maximum  690 V		10 000 000	
installation altitude at height above sea level maximum  • ambient temperature during operation  • ambient temperature during storage  -25 +60 °C  -55 +80 °C  Main circuit  number of poles for main current circuit  number of NO contacts for main contacts  • operating voltage at AC-3 rated value maximum  2 000 m  -25 +60 °C  -55 +80 °C  3  -600 V	reference code acc. to IEC 81346-2	Q	
<ul> <li>ambient temperature during operation</li> <li>ambient temperature during storage</li> <li>-55 +80 °C</li> <li>Main circuit</li> <li>number of poles for main current circuit</li> <li>number of NO contacts for main contacts</li> <li>operating voltage at AC-3 rated value maximum</li> <li>-25 +60 °C</li> <li>3</li> <li>690 V</li> </ul>	Ambient conditions		
ambient temperature during storage  -55 +80 °C  Main circuit  number of poles for main current circuit  number of NO contacts for main contacts  operating voltage at AC-3 rated value maximum  690 V	installation altitude at height above sea level maximum	2 000 m	
Main circuit  number of poles for main current circuit  number of NO contacts for main contacts  o operating voltage at AC-3 rated value maximum  690 V	<ul> <li>ambient temperature during operation</li> </ul>	-25 +60 °C	
number of poles for main current circuit  number of NO contacts for main contacts  operating voltage at AC-3 rated value maximum  690 V	<ul> <li>ambient temperature during storage</li> </ul>	-55 +80 °C	
number of NO contacts for main contacts     3       ● operating voltage at AC-3 rated value maximum     690 V	Main circuit		
operating voltage at AC-3 rated value maximum     690 V	number of poles for main current circuit	3	
	number of NO contacts for main contacts	3	
	<ul> <li>operating voltage at AC-3 rated value maximum</li> </ul>	690 V	

<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated value</li> <li>at AC-1</li> </ul>	22 A
— up to 690 V at ambient temperature 40 °C rated value	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	12 A
— at 500 V rated value	9.2 A
— at 690 V rated value	6.7 A
at AC-4 at 400 V rated value	8.5 A
at AC-5a up to 690 V rated value	19.4 A
at AC-5b up to 400 V rated value	9.9 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	7.2 A
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	7.2 A
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	7.2 A
— up to 690 V for current peak value n=20 rated value	6.7 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	4.8 A
— up to 400 V for current peak value n=30 rated value	4.8 A
— up to 500 V for current peak value n=30 rated value	4.8 A
<ul> <li>up to 690 V for current peak value n=30 rated value</li> </ul>	4.8 A
	A?
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm <sup>2</sup>
rated value operational current for approx. 200000 operating	4.1 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	4.1 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	4.1 A 3.3 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	4.1 A 3.3 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	4.1 A 3.3 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	4.1 A 3.3 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	4.1 A 3.3 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	4.1 A 3.3 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	4.1 A 3.3 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	4.1 A 3.3 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	4.1 A 3.3 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	4.1 A 3.3 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 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	4.1 A 3.3 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	4.1 A 3.3 A 20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 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	4.1 A 3.3 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	4.1 A 3.3 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	4.1 A 3.3 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 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	4.1 A 3.3 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	4.1 A 3.3 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 21 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	4.1 A 3.3 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	4.1 A 3.3 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 21 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	4.1 A 3.3 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 21 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	4.1 A 3.3 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 21 A 20 A 20 A 20 A 21 A 21 A 21 A 21 A 22 A 23 A 24 A 25 A 26 A 27 A 28 A 29 A 29 A 20 A 20 A 20 A 20 A 21 A 21 A 21 A 22 A 23 A 24 A 25 A 26 A 27 A 28 A 28 A 29 A 29 A 20 A 20 A 20 A 20 A 20 A 20 A



<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	20 A
— at 110 V rated value	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
— at 440 V rated value	0.2 A
— at 600 V rated value	0.2 A
operating power	
• at AC-3	
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	5.5 kW
operating power for approx. 200000 operating cycles at AC-4	
at 400 V rated value	2 kW
at 400 V rated value     at 690 V rated value	2.5 kW
operating apparent power at AC-6a	
• up to 230 V for current peak value n=20 rated value	2.8 kV·A
·	4.9 kV·A
• up to 400 V for current peak value n=20 rated value	
• up to 500 V for current peak value n=20 rated value	6.2 kV·A
• up to 690 V for current peak value n=20 rated value	8 kV·A
operating apparent power at AC-6a	4.0.137.4
• up to 230 V for current peak value n=30 rated value	1.9 kV·A
• up to 400 V for current peak value n=30 rated value	3.3 kV·A
• up to 500 V for current peak value n=30 rated value	4.1 kV·A
• up to 690 V for current peak value n=30 rated value	5.7 kV·A
short-time withstand current in cold operating state up to 40 °C	
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	200 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	123 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	96 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	74 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	61 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	10 000 1/h
operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	750 1/h
• 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	110 V
at 60 Hz rated value	110 V
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	37 V·A
• at 60 Hz	33 V·A
inductive power factor with closing power of the coil	
• at 50 Hz	0.8
• at 60 Hz	0.75
apparent holding power of magnet coil at AC	0.10
apparent notaniy power or maynet coll 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
<ul> <li>at 500 V rated value</li> </ul>	2 A
at 690 V rated value	1 A
operational current at DC-12	
<ul><li>at 24 V rated value</li></ul>	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	
<ul> <li>at 24 V rated value</li> </ul>	10 A
<ul> <li>at 48 V rated value</li> </ul>	2 A
<ul> <li>at 60 V rated value</li> </ul>	2 A
• at 110 V rated value	1 A
<ul> <li>at 125 V rated value</li> </ul>	0.9 A
<ul> <li>at 220 V rated value</li> </ul>	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	11 A
at 600 V rated value	11 A
yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
<ul> <li>— at 110/120 V rated value</li> </ul>	0.5 hp
— at 230 V rated value	2 hp
<ul> <li>for 3-phase AC motor</li> </ul>	
— at 200/208 V rated value	3 hp
<ul> <li>at 220/230 V rated value</li> </ul>	3 hp
— at 460/480 V rated value	7.5 hp
— at 575/600 V rated value	10 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
<ul> <li>for short-circuit protection of the main circuit</li> </ul>	
<ul> <li>— with type of coordination 1 required</li> </ul>	gG: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)
— with type of assignment 2 required	gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)
• for short-circuit protection of the auxiliary switch	gG: 10 A (500 V, 1 kA)



stallation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted
mounting position	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 73 mm
depth required spacing	75 111111
with side-by-side mounting	
— forwards	10 mm
— upwards	10 mm
— dpwards — downwards	10 mm
— at the side	0 mm
for grounded parts	O IIIIII
— forwards	10 mm
	10 mm
— upwards — at the side	6 mm
— at the side — downwards	10 mm
	10 111111
for live parts     — forwards	10 mm
	10 mm
— upwards	
— downwards	10 mm
— at the side	6 mm
onnections/ Terminals	
type of electrical connection	
for main current circuit	screw-type terminals
for auxiliary and control circuit	screw-type terminals
at contactor for auxiliary contacts	Screw-type terminals
of magnet coil	Screw-type terminals
type of connectable conductor cross-sections	
• for main contacts	
— 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
— finely stranded with core end processing	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 contacts	
• solid	0.5 4 mm²
stranded	0.5 4 mm²
finely stranded with core end processing	0.5 2.5 mm <sup>2</sup>
connectable conductor cross-section for auxiliary	0.0 2.0 111111
contacts	
solid or stranded	0.5 4 mm²
finely stranded with core end processing	0.5 2.5 mm²
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
<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 auxiliary contacts	2x (20 16), 2x (18 14), 2x 12
AWG number as coded connectable conductor cross section for main contacts	20 12
AWG number as coded connectable conductor cross section for auxiliary contacts	20 12
afety related data	
B10 value with high demand rate acc. to SN 31920	1 000 000
proportion of dangerous failures	



<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	40 %
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	73 %
failure rate [FIT] with low demand rate acc. to SN 31920	100 FIT
product function	
<ul> <li>mirror contact acc. to IEC 60947-4-1</li> </ul>	Yes
T1 value for proof test interval or service life acc. to 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=3RT2017-1AF02

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2017-1AF02

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2017-1AF02

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2017-1AF02&lang=en

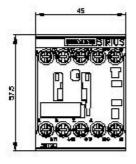
Characteristic: Tripping characteristics, I2t, Let-through current

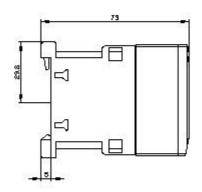
https://support.industry.siemens.com/cs/ww/en/ps/3RT2017-1AF02/char

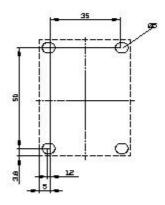
Further characteristics (e.g. electrical endurance, switching frequency)

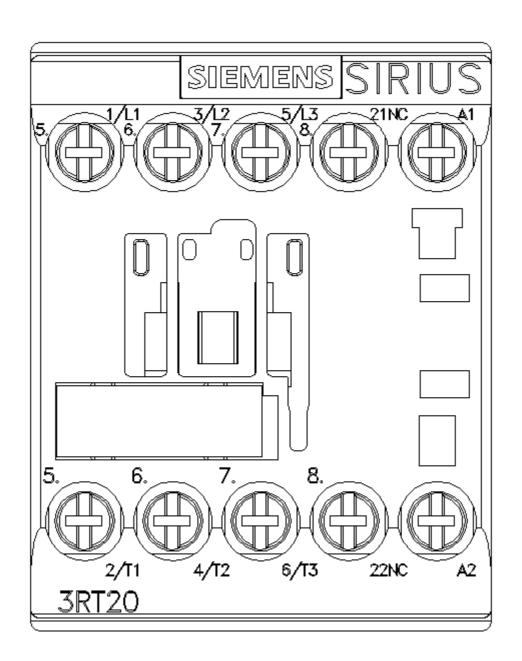
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2017-1AF02&objecttype=14&gridview=view1

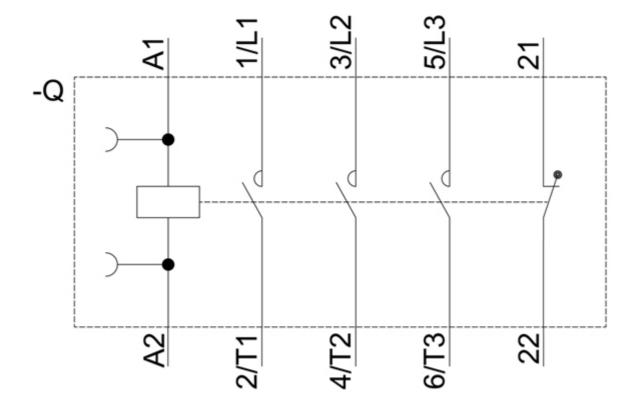












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