## **SIEMENS**

Data sheet 3RT2018-1AD02



power contactor, AC-3e/AC-3, 16 A, 7.5 kW / 400 V, 3-pole, 42 V AC, 50/60 Hz, auxiliary contacts: 1 NC, screw terminal, size: S00  $\,$ 

product designation   Power contactor   SRT2    Size of contactor   S00    product extension   No    auxiliary switch   Yes    power loss [W] for rated value of the current    at AC in hot operating state per pole   1 W    • without load current share typical   57.7 W    insulation voltage    • of auxiliary circuit with degree of pollution 3 rated value    • of auxiliary circuit with degree of pollution 3 rated value    • of auxiliary circuit with degree of pollution 3 rated value    • of auxiliary circuit with degree of pollution 3 rated value    • of auxiliary circuit with degree of pollution 3 rated value    • of auxiliary circuit with degree of pollution 3 rated value    • of auxiliary circuit with degree of pollution 3 rated value    • of auxiliary circuit with degree of pollution 3 rated value    • of auxiliary circuit with degree of pollution 3 rated value    • of auxiliary circuit with degree of pollution 3 rated value    • of auxiliary circuit with degree of pollution 3 rated value    • of auxiliary circuit with degree of pollution 3 rated value    • of work of auxiliary circuit with degree of pollution 3 rated value    • of work of auxiliary circuit rated value    • of work of auxiliary circuit rated value    • of work resistance at rectangular impulse    • at AC   7,3g / 5 ms, 4,7g / 10 ms    shock resistance with sine pulse    • at AC   7,3g / 5 ms, 4,7g / 10 ms    mechanical service life (operating cycles)    • 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	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   3 W • at AC in hot operating state per pole • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of main circuit rated value • 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  shock resistance  shock resistance  shock resistance  shock resistan	product designation	Power contactor
size of contactor product extension  • function module for communication • function module for communication • auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state per pole • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit rated value • of auxiliary circuit rated value • of auxiliary circuit rated value • of main circuit rated value • of main circuit rated value • of auxiliary circuit rated value • of auxiliary circuit rated value • of auxiliary circuit rated value • of shock resistance • of main circuit rated value • of auxiliary circuit rated value • of the cottactor with sine pulse • at AC  shock resistance at rectangular impulse • at AC  at AC  11.4g / 5 ms, 7.3g / 10 ms  mechanical service life (operating cycles) • of contactor bypical • 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 add	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  • at AC in hot operating state per pole  • without load current share typical  • of main circuit with degree of pollution 3 rated value  • of auxiliary circuit with degree of pollution 3 rated value  • of auxiliary circuit with degree of pollution 3 rated value  • of main circuit with degree of pollution 3 rated value  • of main circuit rated value  • of with auxiliary circuit rated value  • of with contact and contacts according to EN 60947-1  shock resistance at rectangular impulse  • at AC  7,3g / 5 ms, 4,7g / 10 ms  shock resistance with sine pulse  • at AC  mechanical service life (operating 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  • 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 bloc	General technical data	
• function module for communication • auxillary switch  power loss [W] for rated value of the current • at AC in hot operating state per pole • without load current share typical • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxillary circuit with degree of pollution 3 rated value • of auxillary circuit with degree of pollution 3 rated value • of auxillary circuit with degree of pollution 3 rated value • of auxillary circuit rated value • of without contact according to EN 60947-1  shock resistance at rectangular impulse • at AC  shock resistance with sine pulse • at AC  portional 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 • 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 swi	size of contactor	S00
auxillary switch  power loss [W] for rated value of the current  at AC in hot operating state at AC in hot operating state per pole without load current share typical for main circuit with degree of pollution 3 rated value of auxillary circuit with degree of pollution 3 rated value for auxillary circuit with degree of pollution 3 rated value of auxillary circuit with degree of pollution 3 rated value for auxillary circuit rated value of the contactor at rectangular impulse of at AC r,3g / 5 ms, 4,7g / 10 ms  shock resistance at rectangular impulse of the contactor with sine pulse of the contactor with added electronically optimized auxillary switch block typical of the contactor with added auxillary switch block typical of the contactor with added auxillary switch block typical of the contactor with added auxillary switch block typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum ambient temperature of during storage of during storage of the condition at the condition auxillary switch blumidity at 55 °C according to IEC 60688-2-30  95 %	product extension	
power loss [W] for rated value of the current  • at AC in hot operating state • at AC in hot operating state per pole • without load current share typical  • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit rated value • of main circuit rated value • of auxiliary circuit rated value • of auxiliary circuit rated value  maximum permissible voltage for protective separation between coil and main contacts according 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  mechanical service life (operating 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 (Date)  Ambient conditions installation altitude at height above sea level maximum  ambient temperature • during operation • during storage  - 55 +60 °C - 26 +60 °C - 1040 v  relative humildity minimum  relative humildity at 55 °C according to IEC 60068-2-30  95 %	<ul> <li>function module for communication</li> </ul>	No
at AC in hot operating state per pole 1 W without load current share typical 5.7 W insulation voltage of main circuit with degree of pollution 3 rated value 690 V 690	auxiliary switch	Yes
at AC in hot operating state per pole without load current share typical insulation voltage of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value surge voltage resistance of main circuit rated value of auxiliary permissible voltage for protective separation between coll and main contacts according to EN 60947-1 shock resistance at rectangular impulse of at AC of the contactor with sine pulse of contactor typical 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 according to IEC 81346-2 Quud Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum ambient temperature of during speration of values of war of the contactor with added and auxiliary switch block typical reference was according to IEC 80068-2-30 of contactor with added at Neight above sea level maximum ambient temperature of during speration of war	power loss [W] for rated value of the current	
without load current share typical   5.7 W     insulation voltage   of main circuit with degree of pollution 3 rated value   690 V     of auxiliary circuit with degree of pollution 3 rated value   690 V     surge voltage resistance   of main circuit rated value   6 kV     of auxiliary circuit rated value   6 kV     of auxiliary circuit rated value   6 kV     of auxiliary circuit rated value   6 kV     maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1     shock resistance at rectangular impulse   0 at AC   7,3g / 5 ms, 4,7g / 10 ms     shock resistance with sine pulse   11,4g / 5 ms, 7,3g / 10 ms     of shock resistance with sine pulse   11,4g / 5 ms, 7,3g / 10 ms     of contactor typical   30 000 000   5 000 000     of the contactor with added electronically optimized auxiliary switch block typical   10 000 000     of the contactor with added auxiliary switch block typical   10 000 000     of the contactor with added auxiliary switch block typical   10 000 000     of the contactor with added auxiliary switch block typical   10 000 000     of the contactor with added auxiliary switch block typical   10 000 000     of the contactor with added auxiliary switch block typical   10 000 000     of the contactor with added auxiliary switch block typical   10 000 000     of the contactor with added auxiliary switch block typical   10 000 000     of the contactor with added auxiliary switch block typical   10 000 000     of the contactor with added auxiliary switch block typical   10 000 000     of the contactor with added auxiliary switch block typical   10 000 000     of the contactor with added auxiliary switch block typical   10 000 000     of the contactor with added auxiliary switch block typical   10 000 000     of the contactor with added auxiliary switch block typical   10 000 000     of the contactor with added auxiliary switch block typical   10 000 000     of the contactor with added auxiliary switch block typical   10 000 000     of the contactor	<ul> <li>at AC in hot operating state</li> </ul>	3 W
insulation voltage  • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value  • of main circuit rated value • of main circuit rated value • of main circuit rated value • of auxiliary circuit rated value • of work resistance at rectangular impulse • at AC  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 typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with adde	<ul> <li>at AC in hot operating state per pole</li> </ul>	1 W
of main circuit with degree of pollution 3 rated value     of auxiliary circuit with degree of pollution 3 rated value     surge voltage resistance     of main circuit rated value     of auxiliary circuit rated value     maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse     ot AC     7,3g / 5 ms, 4,7g / 10 ms  shock resistance with sine pulse     ot AC     11,4g / 5 ms, 7,3g / 10 ms  mechanical service life (operating 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 a	without load current share typical	5.7 W
of auxiliary circuit with degree of pollution 3 rated value     of main circuit rated value     of auxiliary circuit rated value     of kV  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse     ot AC     other can be at AC     of shock resistance with sine pulse     ot AC  mechanical service life (operating cycles)     of contactor typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical	insulation voltage	
surge voltage resistance  of main circuit rated value of auxiliary circuit rated value of kV  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse of at AC of the contact with sine pulse of contactor typical of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of	<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 V
of main circuit rated value     of auxiliary circuit rated value     of auxiliary circuit rated value     advision permissible voltage for protective separation between coll and main contacts according to EN 60947-1  shock resistance at rectangular impulse     ot AC     at AC     shock resistance with sine pulse     ot at AC	of auxiliary circuit with degree of pollution 3 rated value	690 V
of auxiliary circuit rated value     maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse     o at AC     or,3g / 5 ms, 4,7g / 10 ms  shock resistance with sine pulse     oat AC     or,3g / 5 ms, 4,7g / 10 ms  shock resistance with sine pulse     oat AC     or,3g / 5 ms, 7,3g / 10 ms  mechanical service life (operating 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 according to IEC 81346-2     Q Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum     our ambient temperature     our during operation     our during storage     of the contactor with added source and the contactor with added auxiliary switch block typical     or and the contactor with added auxiliary switch block typical     or and the contactor with added auxiliary switch block typical     or and the contactor with added auxiliary switch block typical     or and the contactor with added auxiliary switch block typical     or and the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     or and the contactor with added auxiliary switch block typical     or and the contactor with added auxiliary switch block typical     or and the contactor with added auxiliary switch block typical     or and the contactor with added auxiliary switch block typical     or and the contactor with added auxiliary switch block typical     or and the contactor with added auxiliary switch block typical     or and the contactor with added auxiliary switch block typical     or and the contactor with added auxiliary switch block typical     or and the contactor with added auxiliary s	surge voltage resistance	
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse  • at AC  shock resistance with sine pulse  • at AC  at AC  of contactor kylical  • 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  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  -55 +60 °C  relative humidity minimum  relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30  95 %	of main circuit rated value	6 kV
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 (operating cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added auxi	of auxiliary circuit rated value	6 kV
at AC  shock resistance with sine pulse  at AC  11,4g / 5 ms, 7,3g / 10 ms  mechanical service life (operating 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 according to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  of during operation  during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30  95 %		400 V
shock resistance with sine pulse  • at AC  11,4g / 5 ms, 7,3g / 10 ms  mechanical service life (operating 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 according to IEC 81346-2  Q  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  -25 +60 °C  • during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30  95 %	shock resistance at rectangular impulse	
at AC  mechanical service life (operating 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 according to IEC 81346-2  Q  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  of during operation  during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30  95 %	• at AC	7,3g / 5 ms, 4,7g / 10 ms
mechanical service life (operating 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 according to IEC 81346-2  Q Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  -25 +60 °C  • during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30  95 %	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 according to IEC 81346-2     Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum     ambient temperature     oduring operation     during storage     during storage     relative humidity minimum     10 %  relative humidity at 55 °C according to IEC 60068-2-30	• 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     of the contactor with added auxiliary switch block typical      reference code according to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature     oduring operation     oduring storage     relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30  5 000 000  10 000 000  Q  20  Substance Prohibitance (Date)  10 000 000  Q  20  Comment	mechanical service life (operating cycles)	
auxiliary switch block typical  of the contactor with added auxiliary switch block typical  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  of during operation  during storage  relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30  10 000 000  10 000 000  10 000 000  2 00  10 000 000  10 000 000  10 000 000  10 000 00	<ul> <li>of contactor typical</li> </ul>	30 000 000
reference code according to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30  95 %		5 000 000
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30  10/01/2009  2 000 m  2 000 m  -25 +60 °C  -55 +80 °C  relative humidity minimum  10 %	<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000
installation altitude at height above sea level maximum  ambient temperature  during operation  during storage  relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30  installation altitude at height above sea level maximum  2 000 m  -25 +60 °C  -55 +80 °C  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30  95 %	reference code according to IEC 81346-2	Q
installation altitude at height above sea level maximum  ambient temperature  ● during operation  • during storage  • during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30  95 %	Substance Prohibitance (Date)	10/01/2009
ambient temperature	Ambient conditions	
<ul> <li>◆ during operation</li> <li>-25 +60 °C</li> <li>◆ during storage</li> <li>-55 +80 °C</li> <li>relative humidity minimum</li> <li>10 %</li> <li>relative humidity at 55 °C according to IEC 60068-2-30</li> <li>95 %</li> </ul>	installation altitude at height above sea level maximum	2 000 m
● during storage -55 +80 °C  relative humidity minimum 10 %  relative humidity at 55 °C according to IEC 60068-2-30 95 %	ambient temperature	
relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30  95 %	during operation	-25 +60 °C
relative humidity at 55 °C according to IEC 60068-2-30 95 %	during storage	-55 +80 °C
	relative humidity minimum	10 %
		95 %
Main circuit	Main circuit	
number of poles for main current circuit 3	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
at AC-3e rated value maximum	690 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated	22 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated	22 A
value	00.4
<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-3e	0.571
— 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     at AC-5 aug to 600 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	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	9.6 A
— up to 400 V for current peak value n=20 rated value	9.6 A
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	9.6 A
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	8.9 A
• at AC-6a	
<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	6.6 A
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	6.4 A
<ul><li>up to 500 V for current peak value n=30 rated value</li></ul>	6.4 A
<ul> <li>up to 690 V for current peak value n=30 rated value</li> </ul>	6.4 A
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm²
operational current for approx. 200000 operating cycles at	
AC-4	
• at 400 V rated value	5.5 A
• at 690 V rated value	4.4 A
operational current	
at 1 current path at DC-1	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	2.1 A
— at 220 V rated value	0.8 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
with 2 current paths in series at DC-1	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	12 A
— at 110 v rated value  — at 220 V rated value	1.6 A
	0.8 A
— at 440 V rated value	
— at 600 V rated value	0.7 A
with 3 current paths in series at DC-1  at 24 V sets d valve.	20.4
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	20 A
— at 220 V rated value	20 A
— at 440 V rated value	1.3 A
— at 600 V rated value	1 A
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	

— at 24 V rated value	20 A
— at 60 V rated value	0.5 A
— at 110 V rated value	0.15 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 60 V rated value	5 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 60 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
	0.2 A
operating power	
• at AC-3	4100
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	7.5 kW
• at AC-3e	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	7.5 kW
operating power for approx. 200000 operating cycles at AC-	
4	
<ul> <li>at 400 V rated value</li> </ul>	2.5 kW
at 690 V rated value	3.5 kW
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	3.8 kVA
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	6.6 kVA
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	8.3 kVA
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	10.6 kVA
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	2.5 kVA
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	4.4 kVA
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	5.5 kVA
<ul> <li>up to 690 V for current peak value n=30 rated value</li> </ul>	7.6 kVA
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>	300 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	169 A; Use minimum cross-section acc. to AC-1 rated value
<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
• limited to 30 s switching at zero current maximum	92 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 60 s switching at zero current maximum	74 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-3e 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	, io
at 50 Hz rated value	42 V
at 60 Hz rated value	42 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 VA
● at 60 Hz	33 VA
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	
● at 50 Hz	5.7 VA
● at 60 Hz	4.4 VA
inductive power factor with the holding power of the coil	
● at 50 Hz	0.25
● at 60 Hz	0.25
closing delay	
• at AC	9 35 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	
• at 230 V rated value	10 A
• at 400 V rated value	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	
• at 24 V rated value	10 A
• at 48 V rated value	6 A
• at 60 V rated value	6 A
• at 110 V rated value	3 A
at 125 V rated value	2 A
at 220 V rated value	1 A
at 600 V rated value	0.15 A
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 rated value	1 hp
— at 230 V rated value	2 hp
• for 3-phase AC motor	
— at 200/208 V rated value	3 hp
— at 220/230 V rated value	5 hp
— at 460/480 V rated value	10 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	
<b>→</b>	

• for short-circuit protection of the main circuit	
— with type of coordination 1 required	gG: 50A (690V,100kA), aM: 25A (690V,100kA), BS88: 50A (415V,80kA)
— with type of assignment 2 required	gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80kA)
• for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
side-by-side mounting	Yes
height	58 mm
width	45 mm
depth	73 mm
required spacing	
with side-by-side mounting	40
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
<ul><li>for grounded parts</li><li>forwards</li></ul>	10 mm
	10 mm 10 mm
— upwards — at the side	6 mm
— at the side  — downwards	10 mm
for live parts	TV IIIII
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	6 mm
Connections/ Terminals	
type of electrical connection	
for main current circuit	screw-type terminals
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)
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 mm²
connectable conductor cross-section for auxiliary 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)
for AWG cables for auxiliary contacts	2x (20 16), 2x (18 14), 2x 12
AWG number as coded connectable conductor cross section	00 40
• for main contacts	20 12
for auxiliary contacts	20 12
Safety related data	
product function	
mirror contact according to IEC 60947-4-1  Page 15 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2	Yes
B10 value with high demand rate according to SN 31920	1 000 000
proportion of dangerous failures	40.07
with low demand rate according to SN 31920      with high demand rate according to SN 31920	40 %
with high demand rate according to SN 31920	73 %

failure rate [FIT] with low demand rate according to SN 31920	100 FIT
T1 value for proof test interval or service life according to IEC 61508	20 a
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
suitability for use	
<ul> <li>safety-related switching OFF</li> </ul>	Yes
Cartificated approvals	

Certificates/ approvals

## **General Product Approval**



Confirmation





<u>KC</u>



**EMC** 

Functional Safety/Safety of Machinery

**Declaration of Conformity** 

**Test Certificates** 



Type Examination Certificate





Special Test Certificate Type Test Certificates/Test Report

## Marine / Shipping





Confirmation









Marine / Shipping

other

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Confirmation

Vibration and Shock

Railway

Environmental Confirmations

**Environment** 

## Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2018-1AD02

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2018-1AD02

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

 $\underline{https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-1AD02}$ 

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

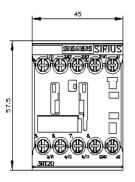
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2018-1AD02&lang=en

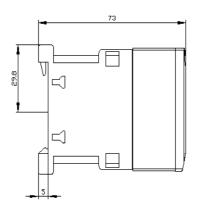
Characteristic: Tripping characteristics, I2t, Let-through current

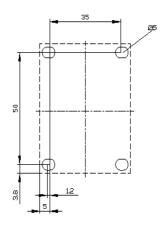
https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-1AD02/char

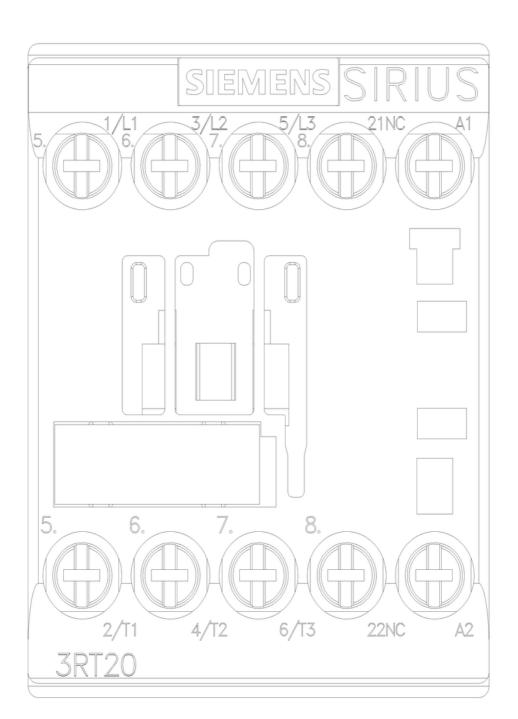
Further characteristics (e.g. electrical endurance, switching frequency)

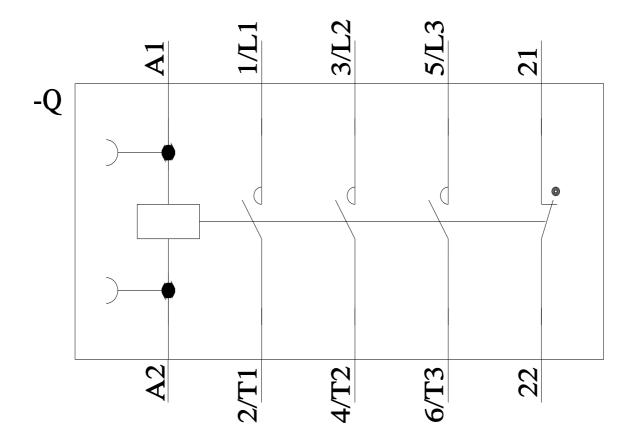
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2018-1AD02&objecttype=14&gridview=view1











last modified: 2/10/2023 🖸