## SIEMENS

## Data sheet

## 3RT2024-1AG20



power contactor, AC-3e/AC-3, 12 A, 5.5 kW / 400 V, 3-pole, 110 V AC, 50/60 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S0

product brand name         SIRUS           product designation         Power contactor           product steps designation         SIRT2           Canarat technical data         Size of contactor           size of contactor         SO           product stension         No           • function module for communication         No           • auxiliary switch         Yes           power loss [VM] for rated value of the current		
product type designation         3RT2           General tachnical data	product brand name	SIRIUS
General technical data     S0       size of contactor     S0       product extension     • function module for communication     No       • auxiliary switch     Yes       power loss [W] for rated value of the current     0.9 W       • at AC in hot operating state     0.9 W       • without load current share typical     0.3 W       • without load current share typical     800 V       • of main circuit with degree of pollution 3 rated value     690 V       • of auxiliary circuit with degree of pollution 3 rated value     690 V       • of auxiliary circuit rated value     6 kV       • of main circuit rated value     6 kV       • of auxiliary circuit rated value     6 kV       • at AC     7.5g / 5 ms, 4.7g / 10 ms       mechanical service life (operating cycles)     10 000 000       • of the contactor with added acternnically optimized auxiliary switch block typical     5000 000       • of the contactor with added acternnically optimized auxiliary switch block typical     10 000 000       • of the contactor with added acternnically optimized auxiliary switch block typical     10 000 000       • of the contactor with added ac	product designation	Power contactor
size of contactor     S0       product extension     No       • function module for communication     No       • auxilary switch     Yes       power loss [W] for rated value of the current     0.9 W       • at AC in hot operating state per pole     0.3 W       • at AC in hot operating state per pole     0.3 W       • without load current share typical     2 W       Insulation voltage     680 V       • of main circult with degree of pollution 3 rated value     690 V       • of main circult with degree of pollution 3 rated value     690 V       • of main circult rated value     64 V       • of auxiliary circuit rated value     64 V       • of auxiliary circult rated value     10.00 V       • of auxiliary site block typical     10.00 000       • of contactor with added electronically optimized auxiliary switch block typical     10.000 000 <th>product type designation</th> <th>3RT2</th>	product type designation	3RT2
product extension     No       • function module for communication     No       • auxiliary switch     Yes       power loss [W] for rated value of the current     0.9 W       • at AC in hot operating state     0.9 W       • at AC in hot operating state prole     0.3 W       • without load current share typical     2 W       insulation voltage     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of main circuit rated value     690 V       • of main circuit rated value     6 kV       • of main contacts according to EN 00947-1     6 kV       • at AC     7,5g / 5 ms, 4,7g / 10 ms       * at AC     11.8g / 5 ms, 7,4g / 10 ms       * at AC     10 000 000       • of contactor with added electronically optimized     10 000 000       • of the contactor with added electronically optimized     10 000 000       • of the contactor with added auxiliary switch block typical     10 000 000       • of the contactor with added auxiliary switch block typical     0 00 000       • of the contactor with added auxiliary switch block typical     0 00 000       • of the conta	General technical data	
• function module for communication     No       • auxiliary switch     Yes       power loss [W] for rated value of the current     • at AC in hot operating state     0.9 W       • at AC in hot operating state per pole     0.3 W       • without load current share typical     2 W       insultation voitage     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of main circuit ated value     6 kV       • of main circuit rated value     6 kV       • of main circuit rated value     6 kV       • of auxiliary circuit rated value     10 0 V       • ot auxiliary switch biore bypeal     10 000 V       • at AC     7,5g / 5 ms, 7,4g / 10 ms       shock resistance with sine pulse     5 000 000       • at AC     11.8g / 5 ms, 7,4g / 10 ms       mechanical service life (operating cycles)     10 000 000       • of the contactor which aded auxiliary switch block typical     10 000 000   <	size of contactor	S0
• auxiliary switch     Yes       power loss [W] for rated value of the current     0.9 W       • at AC in hot operating state per pole     0.3 W       • without load current share typical     2 W       insulation voltage     90 V       • of main circuit with degree of pollution 3 rated value     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of main circuit rated value     6 kV       • of main circuit rated value     6 kV       • of auxiliary suitch bioles typical     1000 V       shock resistance with sine pulse     11.8g / 5 ms, 7.4g / 10 ms       • at AC     11.8g / 5 ms, 7.4g / 10 ms       • of the contactor with added electronically optimized auxiliary switch block typical     10 000 000       • of the contactor with added auxiliary switch block typi	product extension	
power loss [W] for rated value of the current     0.9 W       • at AC in hot operating state per pole     0.3 W       • at AC in hot operating state per pole     0.3 W       • without to dad current share typical     2 W       insulation voltage     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of auxiliary circuit with degree of pollution 3 rated value     690 V       • of auxiliary circuit with degree of pollution 3 rated value     690 V       • of auxiliary circuit rated value     6 kV       • of auxiliary circuit rated value     7.5g / 5 ms, 4.7g / 10 ms       mechanical service life (operating cycles)     10 000 000       • of the contactor with added auxiliary	<ul> <li>function module for communication</li> </ul>	No
• at AC in hot operating state     0.9 W       • at AC in hot operating state price     0.3 W       • without load current share typical     2 W       insultation voltage     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of auxiliary circuit with degree of pollution 3 rated value     690 V       • of main circuit rated value     690 V       • of main circuit rated value     64 V       • of auxiliary circuit rated value     6 kV       • of auxiliary circuit rated value     100 V       • at AC     7.5g / 5 ms, 4.7g / 10 ms       shock resistance with sine pulse     11.8g / 5 ms, 7.4g / 10 ms       • at AC     11.8g / 5 ms, 7.4g / 10 ms       • of the contactor with added electronically optimized     10 000 000       • of the contactor with added electronically optimized     10 000 000       • of the contactor with added auxiliary switch block typical     1	auxiliary switch	Yes
• at AC in hot operating state per pole         0.3 W           • without load current share typical         2 W           insulation voltage         60 min circuit with degree of pollution 3 rated value         690 V           • of main circuit with degree of pollution 3 rated value         690 V           • of main circuit with degree of pollution 3 rated value         690 V           • of main circuit with degree of pollution 3 rated value         690 V           • of auxiliary circuit rated value         6 kV           • of anal main contacts according to EN 60947-1         600 V           • at AC         7,5g / 5 ms, 4,7g / 10 ms           • at AC         7,5g / 5 ms, 7,4g / 10 ms           • at AC         11,8g / 5 ms, 7,4g / 10 ms           • at AC         10 000 000           • of contactor typical         10 000 000           • 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           reference code according to IEC 81346-2         Q	power loss [W] for rated value of the current	
• without load current share typical       2 W         insulation voltage       690 V         • of main circuit with degree of pollution 3 rated value       690 V         surge voltage resistance       690 V         • of main circuit with degree of pollution 3 rated value       690 V         surge voltage resistance       64 V         • of main circuit rated value       6 kV         • of auxiliary circuit rated value       6 kV         • of main circuit rated value       6 kV         • of auxiliary circuit rated value       6 kV         • at AC       7,5g / 5 ms, 4,7g / 10 ms         • at AC       11,8g / 5 ms, 7,4g / 10 ms         • of contactor typical       10 000 000         • 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         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       1001/2009         Ambient conditions       -25 +60 °C	<ul> <li>at AC in hot operating state</li> </ul>	0.9 W
Insulation voltage       690 V         • of main circuit with degree of pollution 3 rated value       690 V         surge voltage resistance       690 V         • of main 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       400 V         shock resistance at rectangular impulse       -         • at AC       7,5g / 5 ms, 4,7g / 10 ms         shock resistance with sine pulse       -         • at AC       11.8g / 5 ms, 7,4g / 10 ms         mechanical service life (operating cycles)       10 000 000         • 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         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/12009         Ambient temperature       -       -         • during storage       -25 +60 °C         • during storage       -25 +60 °C         • d	<ul> <li>at AC in hot operating state per pole</li> </ul>	0.3 W
• 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       680 V         • of main circuit rated value       6 kV         • of auxiliary circuit with degree of pollution 3 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       400 V         shock resistance at rectangular impulse       400 V         • at AC       7.5g / 5 ms, 4.7g / 10 ms         shock resistance with sine pulse       10 000 000         • at AC       11.8g / 5 ms, 7.4g / 10 ms         mechanical service life (operating cycles)       10 000 000         • of the contactor with added electronically optimized       5 000 000         auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2009         Ambient conditions       -25 +60 °C         • during storage       -25 +60 °C         • during storage       -25 +60 °C	<ul> <li>without load current share typical</li> </ul>	2 W
• of auxiliary circuit with degree of pollution 3 rated value       690 V         surge voltage resistance       6 kV         • of main circuit rated value       6 kV         • of auxiliary circuit rated value       6 kV         • at AC       7,5g / 5 ms, 4,7g / 10 ms         • at AC       11.8g / 5 ms, 7,4g / 10 ms         • of contactor typical       10 000 000         • of contactor typical       10 000 000         • 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         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10001/2009         Ambient conditions       2000 m         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -25 +60 °C         • during storage       -25 +60 °C <th>insulation voltage</th> <th></th>	insulation voltage	
surge voltage resistance       6 kV         • of main 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       400 V         shock resistance at rectangular impulse       7,5g / 5 ms, 4,7g / 10 ms         • at AC       7,5g / 5 ms, 7,4g / 10 ms         shock resistance with sine pulse       000000         • at AC       11,8g / 5 ms, 7,4g / 10 ms         mechanical service life (operating cycles)       0000000         • 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         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2009         Ambient conditions       -25 +60 °C         • during operation       -25 +60 °C         • during storage       -55 +80 °C         relative humidity at 55 °C according to IEC 60068-2-30       95 %         Main circuit       Main circuit	<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 V
• of main circuit rated value       6 kV         • of auxiliary circuit rated value       6 kV         maximum permissible voltage for protective separation between coll and main contacts according to EN 60947-1       400 V         shock resistance at rectangular impulse       400 V         • at AC       7,5g / 5 ms, 4,7g / 10 ms         shock resistance with sine pulse       7,5g / 5 ms, 7,4g / 10 ms         • at AC       11.8g / 5 ms, 7,4g / 10 ms         mechanical service life (operating cycles)       10 000 000         • of the contactor rypical       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         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2009         Ambient conditions       2 000 m         ambient temperature       -25 +60 °C         • during operation       -25 +60 °C         • during storage       -55 +80 °C         relative humidity minum       10 %         95 %       95 %	<ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul>	690 V
• of auxiliary circuit rated value       6 kV         maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1       400 V         shock resistance at rectangular impulse       400 V         • at AC       7,5g / 5 ms, 4,7g / 10 ms         shock resistance with sine pulse       -         • at AC       11,8g / 5 ms, 7,4g / 10 ms         mechanical service life (operating cycles)       -         • of contactor typical       10 000 000         • 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         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2009         Amblent conditions       2 000 m         ambient temperature       -25 +60 °C         • during operation       -25 +60 °C         • during storage       -55 +80 °C         relative humidity minimum       10 %         95 %       95 %	surge voltage resistance	
maximum permissible voltage for protective separation between       400 V         coil and main contacts according to EN 60947-1       400 V         shock resistance at rectangular impulse       7,5g / 5 ms, 4,7g / 10 ms         • at AC       7,5g / 5 ms, 7,4g / 10 ms         shock resistance with sine pulse       11,8g / 5 ms, 7,4g / 10 ms         • at AC       11,8g / 5 ms, 7,4g / 10 ms         mechanical service life (operating cycles)       0000 000         • of contactor typical       10 000 000         • 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         efference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2009         Ambient conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -55 +60 °C         • during operation       -25 +60 °C         • during storage       -55 +80 °C         relative humidity minimum       10 %         95 %       95 %	<ul> <li>of main circuit rated value</li> </ul>	6 kV
coil and main contacts according to EN 60947-1         shock resistance at rectangular impulse         • at AC       7,5g / 5 ms, 4,7g / 10 ms         shock resistance with sine pulse         • at AC       11,8g / 5 ms, 7,4g / 10 ms         mechanical service life (operating cycles)       0 000 000         • of contactor typical       10 000 000         • 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         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2009         Ambient conditions       2000 m         ambient temperature       -25 +60 °C         • during operation       -25 +60 °C         • during storage       -55 +80 °C         relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30       95 %         Main circuit	<ul> <li>of auxiliary circuit rated value</li> </ul>	6 kV
• at AC       7,5g / 5 ms, 4,7g / 10 ms         shock resistance with sine pulse       11,8g / 5 ms, 7,4g / 10 ms         • at AC       11,8g / 5 ms, 7,4g / 10 ms         mechanical service life (operating cycles)       0 000 000         • of contactor typical       10 000 000         • of the contactor with added electronically optimized auxiliary switch block typical       5 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2009         Ambient conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -25 +60 °C         • during operation       -25 +80 °C         relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30       95 %         Main circuit       40 min circuit		400 V
shock resistance with sine pulse       11,8g / 5 ms, 7,4g / 10 ms         mechanical service life (operating cycles)       10 000 000         • of contactor typical       10 000 000         • 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         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2009         Ambient conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -25 +60 °C         • during operation       -25 +80 °C         relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30       95 %         Main circuit	shock resistance at rectangular impulse	
• at AC11,8g / 5 ms, 7,4g / 10 msmechanical service life (operating cycles)0• of contactor typical10 000 000• of the contactor with added electronically optimized auxiliary switch block typical5 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000reference code according to IEC 81346-2QSubstance Prohibitance (Date)10/01/2009Ambient conditions2 000 minstallation altitude at height above sea level maximum2 000 mambient temperature-25 +60 °C• during operation-25 +60 °C• during storage-55 +80 °Crelative humidity minimum10 %relative humidity at 55 °C according to IEC 60068-2-30 maximum95 %	• at AC	7,5g / 5 ms, 4,7g / 10 ms
mechanical service life (operating cycles)       in the contactor typical       10 000 000         • of contactor with added electronically optimized auxiliary switch block typical       5 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2009         Ambient conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -25 +60 °C         • during operation       -25 +80 °C         relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30       95 %         Main circuit       4000	shock resistance with sine pulse	
• of contactor typical10 000 000• of the contactor with added electronically optimized auxiliary switch block typical5 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000reference code according to IEC 81346-2QSubstance Prohibitance (Date)10/01/2009Ambient conditions2 000 minstallation altitude at height above sea level maximum2 000 mambient temperature • during operation • during storage-25 +60 °C• during storage-55 +80 °Crelative humidity minimum10 %relative humidity at 55 °C according to IEC 60068-2-30 maximum95 %	• at AC	11,8g / 5 ms, 7,4g / 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     10 000 000     reference code according to IEC 81346-2     Q     Substance Prohibitance (Date)     10/01/2009     Ambient conditions     installation altitude at height above sea level maximum     2 000 m     ambient temperature     oduring operation         -25 +60 °C         relative humidity minimum     10 %     relative humidity at 55 °C according to IEC 60068-2-30     maximum     Main circuit	mechanical service life (operating cycles)	
auxiliary switch block typical       10 000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2009         Ambient conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -25 +60 °C         • during operation       -25 +60 °C         • during storage       -55 +80 °C         relative humidity minimum       10 %         Main circuit       95 %	<ul> <li>of contactor typical</li> </ul>	10 000 000
reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2009         Ambient conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -25 +60 °C         • during operation       -25 +60 °C         • during storage       -55 +80 °C         relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30 maximum       95 %		5 000 000
Substance Prohibitance (Date)       10/01/2009         Ambient conditions       installation altitude at height above sea level maximum       2 000 m         ambient temperature       2 000 m         • during operation       -25 +60 °C         • during storage       -55 +80 °C         relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30 maximum       95 %	<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000
Ambient conditions         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -25 +60 °C         • during operation       -25 +60 °C         • during storage       -55 +80 °C         relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30 maximum       95 %         Main circuit	reference code according to IEC 81346-2	Q
installation altitude at height above sea level maximum       2 000 m         ambient temperature <ul> <li>during operation</li> <li>-25 +60 °C</li> <li>during storage</li> <li>-55 +80 °C</li> </ul> relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30 maximum       95 %         Main circuit       400 m	Substance Prohibitance (Date)	10/01/2009
ambient temperature     -25 +60 °C       • during operation     -25 +60 °C       • during storage     -55 +80 °C       relative humidity minimum     10 %       relative humidity at 55 °C according to IEC 60068-2-30 maximum     95 %       Main circuit	Ambient conditions	
• during operation       -25 +60 °C         • during storage       -55 +80 °C         relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30 maximum       95 %         Main circuit	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 maximum     95 %       Main circuit	ambient temperature	
relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30 maximum       95 %         Main circuit       10 %	during operation	-25 +60 °C
relative humidity at 55 °C according to IEC 60068-2-30       95 %         Main circuit       95 %	during storage	-55 +80 °C
maximum Main circuit	relative humidity minimum	10 %
		95 %
number of poles for main current circuit 3	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
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated	40 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	40 A
— up to 690 V at ambient temperature 60 °C rated	35 A
value	
• at AC-3	
— at 400 V rated value	12 A
— at 500 V rated value	12 A
— at 690 V rated value	9 A
• at AC-3e	
— at 400 V rated value	12 A
— at 500 V rated value	12 A
— at 690 V rated value	9 A 10 5 A
at AC-4 at 400 V rated value	12.5 A
• at AC-5a up to 690 V rated value	35.2 A
<ul> <li>at AC-5b up to 400 V rated value</li> <li>at AC-6a</li> </ul>	9.9 A
	44.4.4
— up to 230 V for current peak value n=20 rated value	11.4 A 11.4 A
<ul> <li>— up to 400 V for current peak value n=20 rated value</li> <li>— up to 500 V for current peak value n=20 rated value</li> </ul>	11.3 A
— up to 690 V for current peak value n=20 rated value	9A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	7.6 A
— up to 400 V for current peak value n=30 rated value	7.6 A
— up to 500 V for current peak value n=30 rated value	7.6 A
— up to 690 V for current peak value n=30 rated value	7.6 A
minimum cross-section in main circuit at maximum AC-1 rated	10 mm <sup>2</sup>
value	
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	5.5 A
at 690 V rated value	5.5 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 60 V rated value	20 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
• with 3 current paths in series at DC-1	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	35 A
— at 440 V rated value	2.9 A
— at 600 V rated value	1.4 A
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	

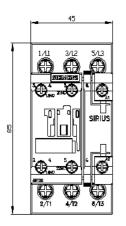
— at 24 V rated value	20 A
— at 60 V rated value	5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.09 A
— at 600 V rated value	0.06 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	15 A
— at 220 V rated value	3 A
— at 440 V rated value	0.27 A
— at 600 V rated value	0.16 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	10 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 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	7.5 kW
• at AC-3e	
— 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	7.5 kW
operating power for approx. 200000 operating cycles at AC-	
4	
• at 400 V rated value	2.6 kW
● at 690 V rated value	4.6 kW
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	4.5 kVA
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	7.8 kVA
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	9.8 kVA
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	10.7 kVA
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	3 kVA
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	5.2 kVA
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	6.5 kVA
<ul> <li>up to 690 V for current peak value n=30 rated value</li> </ul>	9 kVA
short-time withstand current in cold operating state up to	
40 °C	
Imited to 1 s switching at zero current maximum	210 A; Use minimum cross-section acc. to AC-1 rated value
Imited to 5 s switching at zero current maximum	210 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	170 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	126 A; Use minimum cross-section acc. to AC-1 rated value
Imited to 60 s switching at zero current maximum	105 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	5 000 4/h
• at AC	5 000 1/h
operating frequency	1 000 1/b
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	1 000 1/h
• at AC-3 maximum	1 000 1/h
• at AC-3e maximum	1 000 1/h
at AC-4 maximum Control circuit/ Control	300 1/h
type of voltage of the control supply voltage	AC

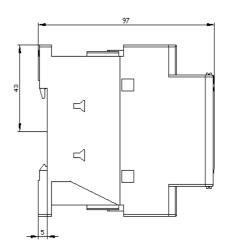
control supply voltage at AC	
• at 50 Hz rated value	110 V
• at 60 Hz rated value	110 V
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	68 VA
• at 60 Hz	67 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.72
• at 60 Hz	0.74
apparent holding power of magnet coil at AC	
● at 50 Hz	7.9 VA
• at 60 Hz	6.5 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.25
• at 60 Hz	0.28
closing delay	
• at AC	8 40 ms
opening delay	
• at AC	4 16 ms
arcing time	10 10 ms
control version of the switch operating mechanism	Standard A1 - A2
	Standard AT - Az
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	1
number of NO 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	
<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 24 V rated value</li> <li>at 48 V rated value</li> </ul>	10 A 2 A
• at 48 V rated value	2 A
<ul><li>at 48 V rated value</li><li>at 60 V rated value</li></ul>	2 A 2 A 1 A
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> </ul>	2 A 2 A 1 A 0.9 A
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> <li>UL/CSA ratings</li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor</li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor</li> <li>at 480 V rated value</li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> </ul> UL/CSA ratings full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> </ul> </li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>for single-phase AC motor</li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> </ul> </li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)

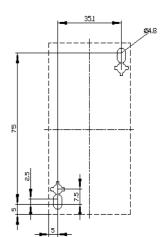
• for 3-phase AC motor			
- at 200/208 V rated value	3 hp		
— at 220/230 V rated value	3 hp		
- at 460/480 V rated value			
— at 575/600 V rated value	7.5 hp 10 hp		
contact rating of auxiliary contacts according to UL	A600 / P600		
Short-circuit protection	A000 / F000		
design of the fuse link			
5			
for short-circuit protection of the main circuit     with time of coordination 1 required	gG: 63A (690V,100kA), aM: 32A (690V,100kA), BS88: 63A (415V,80kA)		
<ul> <li>— with type of coordination 1 required</li> <li>— with type of assignment 2 required</li> </ul>			
	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		
<ul> <li>side-by-side mounting</li> </ul>	Yes		
height	85 mm		
width	45 mm		
depth	97 mm		
required spacing			
<ul> <li>with side-by-side mounting</li> </ul>			
— forwards	10 mm		
— upwards	10 mm		
— downwards	10 mm		
— at the side	0 mm		
<ul> <li>for grounded parts</li> </ul>			
— forwards	10 mm		
— upwards	10 mm		
— at the side	6 mm		
— downwards	10 mm		
<ul> <li>for live parts</li> </ul>			
— forwards	10 mm		
— upwards	10 mm		
— downwards	10 mm		
— at the side	6 mm		
Connections/ Terminals			
type of electrical connection			
for main current circuit	screw-type terminals		
<ul> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals		
<ul> <li>at contactor for auxiliary contacts</li> </ul>	Screw-type terminals		
of magnet coil	Screw-type terminals		
type of connectable conductor cross-sections for main contacts			
solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)		
solid     solid     or stranded	2x (1 2.5 mm <sup>2</sup> ), 2x (2.5 10 mm <sup>2</sup> )		
<ul> <li>finely stranded with core end processing</li> </ul>	2x (1 2.5 mm <sup>2</sup> ), 2x (2.5 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup>		
connectable conductor cross-section for main contacts			
• solid	1 10 mm²		
• stranded	1 10 mm²		
<ul> <li>finely stranded with core end processing</li> </ul>	1 10 mm²		
connectable conductor cross-section for auxiliary contacts			
solid or stranded	0.5 2.5 mm²		
<ul> <li>finely stranded with core end processing</li> </ul>	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)		
<ul> <li>finely stranded with core end processing</li> <li>for AWG cables for auxiliary contacts</li> </ul>	2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> )		
for AWG cables for auxiliary contacts	2x (20 16), 2x (18 14)		
AWG number as coded connectable conductor cross section			
for main contacts	16 8		
· · · ·····			

<ul> <li>for auxiliary co</li> </ul>	ontacts		20 14			
Safety related data						
product function						
	according to IEC 60947-4-1		Yes			
suitability for use safety-related switching OFF		Yes				
B10 value with high	demand rate according to SN	31920	450 000			
proportion of dang						
with low dema	and rate according to SN 319	20	40 %			
<ul> <li>with high dem</li> </ul>	and rate according to SN 319	020	73 %			
failure rate [FIT] with	n low demand rate according	o SN 31920	100 FIT			
T1 value for proof te	st interval or service life acco	rding to IEC	20 a			
61508						
protection class IP	on the front according to II	EC 60529	IP20			
•	n the front according to IEC	60529	finger-safe, for vertical conta	ct from the front		
Certificates/ approva	ls					
General Product A	pproval					
6		<b>Confirmation</b>		KC		
(SP)	(		(ዚ)		EHL	
CSA	ccc		UL			
EMC	Functional Safety/Safety of Ma-	Declaration of	Conformity	Test Certificates		
	chinery					
A	Type Examination Cer-	~ ~ ~	UK CA	Type Test Certific-	Special Test Certific-	
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<b>Confirmation</b>		<b>Confirmation</b>	<u>Vibration and Shock</u>	Environmental Con-		
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Further information	ed to exit the Russian mark	et (see hero)				
	s.com/global/en/pressrelease		wn-russian-business			
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	Manuals, Certificates, Chara					
https://support.indus	try.siemens.com/cs/ww/en/ps	/3RT2024-1AG20				
			nodels, device circuit diagra	ms, EPLAN macros,)		
	on.siemens.com/bilddb/cax_c oping characteristics, I <sup>2</sup> t, Le					
	stry.siemens.com/cs/ww/en/ps					
Further characteris	stics (e.g. electrical endurar	ice, switching fre	quency)			
3RT20241AG20				Subject to	change without notice	

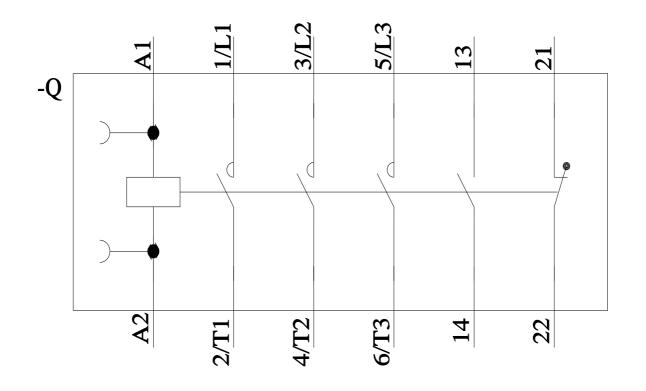
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