## SIEMENS

## Data sheet

## 3RT2018-1AR61



power contactor, AC-3e/AC-3, 16 A, 7.5 kW / 400 V, 3-pole, 400 V AC, 50 Hz / 400-440 V, 60 Hz, auxiliary contacts: 1 NO, screw terminal, size: S00

product brand name         SIRUS           product designation         Power contactor           product type designation         3RT2           Central technical data         S00           size of contactor         S00           product stension         No           • auxilary switch         Yes           power loss [W] for rated value of the current         3 W           • at AC in hot operating state         3 W           • at AC in hot operating state per pole         1 W           • without load current share typical         6.5 W           insulation voltage         690 V           • of auxilary circuit with degree of pollution 3 rated value         690 V           • of auxilary circuit rated value         64 kV           • of auxilary circuit rated value         64 kV           • of auxilary circuit rated value         64 kV           • of auxilary circuit rated value         64 V           • of auxilary circuit rated value         64 V           • of cauxilary circuit rated value         64 V           • of auxilary circuit rated value         73g / 5 ms, 4.7g / 10 ms           et a AC         7.3g / 5 ms, 7.3g / 10 ms           mechanical service life (operating cycles)         5000 0000           • of the contactor with add		
product type designation         3RT2           General technical data	product brand name	SIRIUS
Contract to childed data       S00         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       3 W         • at AC in hot operating state       3 W       • at AC in hot operating state       0 W         • of main circuit with degree of pollution 3 rated value       690 V       • 0 of auxiliary circuit with degree of pollution 3 rated value       690 V         • of main circuit with degree of pollution 3 rated value       690 V       • 0 of auxiliary circuit with degree of pollution 3 rated value       690 V         • of main circuit rated value       6 kV       6 kV       6 kV         • of main circuit rated value       6 kV       6 kV       6 kV         • of auxiliary circuit rated value       6 kV       6 kV       6 kV         • of auxiliary circuit rated value       6 kV       6 kV       6 kV         • of the contactor with added electronically optimized auxiliary switch bioke typical       30 000 000       5 000 000         • of the contactor with added auxiliary switch bioke typical       10 000 000       6 000 00         • of the contactor with added auxiliary switch bioke typical       10 000 000       6 000 00         • of the contactor with added auxiliary	product designation	Power contactor
size of contactor         \$00           product extension         • function module for communication         No           • auxiliary switch         Yes           power loss [W] for rated value of the current         3 W           • at AC in hot operating state per pole         1 W           • without load current share typical         6.5 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 main circuit with degree of pollution 3 rated value         690 V           • of main circuit rated value         64V           • of auxiliary circuit rated value         64V           • of auxiliary circuit rated value         64V           • of auxiliary suitage top protective separation between         6100 V           shock resistance with sine pulse         11.4g / 5 ms, 7.3g / 10 ms           mechanical service life (operating cycles)         30 000 000           • of the contactor with added electronically optimized         300 0000           • of the contactor with added el	product type designation	3RT2
product extension     No       • function module for communication     No       • auxiliary switch     Yes       power loss [W] for rated value of the current     3 W       • at AC in hot operating state     3 W       • at AC in hot operating state pole     1 W       • without load current share typical     6.5 W       insulation voltage     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of analing vicruit with degree of pollution 3 rated value     690 V       • of analing vicruit with degree of pollution 3 rated value     690 V       • of analing vicruit with degree of pollution 3 rated value     64 V       • of analing vicruit with degree of pollution 3 rated value     64 V       • of analing vicruit rated value     64 V       • at AC     7.3g / 5 ms, 4.7g / 10 ms       shock resistance at rectangular impulse     7.3g / 5 ms, 7.3g / 10 ms       • at AC     11.4g / 5 ms, 7.3g / 10 ms       machineal service life (operating cycles)     30 000 000       • of the contactor with added electronically optimized     30 000 000       awiliary switch block typical     10 00 000       reference code according to IEC 81346-2	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         • at AC in hot operating state per pole       1 W         • without load current share typical       6.5 W         Insultation voltage       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       64 kV         • of main circuit and value       6 kV         • of auxiliary circuit rated value       6 kV         • at AC       7,3g / 5 ms, 4,7g / 10 ms         shock resistance at rectangular impulse       7,3g / 5 ms, 7,3g / 10 ms         • at AC       11,4g / 5 ms, 7,3g / 10 ms         mechanical service life (operating cycles)       30 000 000         • of the contactor typical       30 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         reference code	size of contactor	S00
• auxiliary switch     Yes       power loss [W] for rated value of the current     3       • at AC in hot operating state per pole     1       • at AC in hot operating state per pole     1       • without load current share typical     6.5 W       insulation voltage     690 V       • of anal incircuit with degree of pollution 3 rated value     690 V       • of anal incircuit with degree of pollution 3 rated value     690 V       • of anal in circuit rated value     6 kV       • of auxiliary circuit rated value     6 kV       • of contactor with sine pulse     -       • at AC     11.4g / 5 ms, 7,3g / 10 ms       mechanical service life (operating cycles)     30 000 000       • of the contactor with added electronically optimized auxiliary switch block typical     10 000 000       • of the contactor with added auxiliary switch block typical     10	product extension	
power loss [W] for rated value of the current     3 W       • at AC in hot operating state per pole     1 W       • without load current share typical     6.5 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       • 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     7.3g / 5 ms, 4.7g / 10 ms       shock resistance with sine pulse     11.4g / 5 ms, 7.3g / 10 ms       • at AC     11.4g / 5 ms, 7.3g / 10 ms       mechanical service life (operating cycles)     0 000 000       • of the contactor with added auxiliary switch block typical     10 000 000       • of the contactor with added auxiliary switch block typical     10/00 1/2009       Ambient conditions     10/0	<ul> <li>function module for communication</li> </ul>	No
• at AC in hot operating state       3 W         • at AC in hot operating state price       1 W         • without load current share typical       6.5 W         insultation voltage       6.5 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         • of auxiliary circuit rated value       6 kV         • at AC       7.3g / 5 ms, 4.7g / 10 ms         shock resistance with sine pulse       11.4g / 5 ms, 7.3g / 10 ms         • at AC       11.4g / 5 ms, 7.3g / 10 ms         mechanical service life (operating cycles)       5 000 000         • of the contactor with added electronically optimized       200 00         • auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical </th <th>auxiliary switch</th> <th>Yes</th>	auxiliary switch	Yes
• at AC in hot operating state per pole       1 W         • without load current share typical       6.5 W         insulation voltage       6.5 W         • of main circuit with degree of pollution 3 rated value       690 V         • surge voltage resistance       690 V         • of auxiliary circuit rated value       68 V         • of auxiliary circuit rated value       6 kV         • at AC       7.3g / 5 ms, 4.7g / 10 ms         shock resistance with sine pulse       11.4g / 5 ms, 7.3g / 10 ms         • at AC       11.4g / 5 ms, 7.3g / 10 ms         mechanical service life (operating cycles)       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         reference code according to IEC 81346-2       Q	power loss [W] for rated value of the current	
• without load current share typical       6.5 W         Insulation voltage       690 V         • of auxiliary circuit with degree of pollution 3 rated value       690 V         surge voltage resistance       690 V         • of auxiliary circuit with degree of pollution 3 rated value       690 V         surge voltage resistance       690 V         • of auxiliary circuit rated value       6 kV         • at AC       7,3g / 5 ms, 4,7g / 10 ms         • at AC       11,4g / 5 ms, 7,3g / 10 ms         • of contactor typical       30 000 000         • of the contactor with added electronically optimized       30 000 000         • 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)	<ul> <li>at AC in hot operating state</li> </ul>	3 W
Insulation voltage       600 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         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       6 kV         • at AC       7,3g / 5 ms, 4,7g / 10 ms         shock resistance with sine pulse       11.4g / 5 ms, 7,3g / 10 ms         • of contactor with added electronically optimized auxiliary switch block typical       30 000 000         • 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 temperature       -         • during storage       -25 +60 °C         • during storage       -25 +60 °C     <	<ul> <li>at AC in hot operating state per pole</li> </ul>	1 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       6         • of main 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       7,3g / 5 ms, 4,7g / 10 ms         shock resistance with sine pulse       -         • at AC       11,4g / 5 ms, 7,3g / 10 ms         mechanical service life (operating cycles)       -         • 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 speration       -25 +60 °C         • during storage       -55 +60 °C         • falti	<ul> <li>without load current share typical</li> </ul>	6.5 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         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       7,3g / 5 ms, 4,7g / 10 ms         shock resistance with sine pulse       11,4g / 5 ms, 7,3g / 10 ms         • of contactor typical       30 000 000         • of the contactor with added electronically optimized auxiliary witch block typical       5 000 000         • 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         installation altitude at height above sea level maximum       2 000 m         amblemit temperature       -25 +60 °C         • during storage       -55 +60 °C <t< th=""><th>insulation voltage</th><th></th></t<>	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       6 kV         • at AC       7,3g / 5 ms, 4,7g / 10 ms         shock resistance with sine pulse       30 000 000         • of the contactor with added electronically optimized auxiliary switch block typical       30 000 000         • of the contactor with added electronically optimized auxiliary switch block typical       10 000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10//1/2009         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 maximum       95 %	<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 coil and main contacts according to EN 60947-1       400 V         shock resistance at rectangular impulse       400 V         • at AC       7,3g / 5 ms, 4,7g / 10 ms         shock resistance with sine pulse       11,4g / 5 ms, 7,3g / 10 ms         • at AC       11,4g / 5 ms, 7,3g / 10 ms         mechanical service life (operating cycles)       30 000 000         • of the contactor typical       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       2000 m         ambient temperature       -         • during operation       -25 +60 °C         • during storage       -55 +80 °C         relative humidity minimum       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       7,3g / 5 ms, 4,7g / 10 ms         shock resistance with sine pulse       • at AC         • 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       5 000 000         • 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         aubient temperature       -25 +60 °C         • during operation       -25 +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       7,3g / 5 ms, 4,7g / 10 ms         • at AC       7,3g / 5 ms, 7,3g / 10 ms         shock resistance with sine pulse       11,4g / 5 ms, 7,3g / 10 ms         • at AC       11,4g / 5 ms, 7,3g / 10 ms         mechanical service life (operating cycles)       30 000 000         • of contactor typical       30 000 000         • 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         Amblent conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m         amblent 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       7,3g / 5 ms, 4,7g / 10 ms         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 is according to IEC 81346-2         Q         Substance Prohibitance (Date)         Installation altitude at height above sea level maximum         aduing operation         • during operation         • during storage         • during storage         relative humidity minimum         10 %         relative humidity at 55 °C according to IEC 60068-2-30         maximum	<ul> <li>of auxiliary circuit rated value</li> </ul>	6 kV
• at AC       7,3g / 5 ms, 4,7g / 10 ms         shock resistance with sine pulse       11,4g / 5 ms, 7,3g / 10 ms         • at AC       11,4g / 5 ms, 7,3g / 10 ms         mechanical service life (operating cycles)       30 000 000         • of contactor typical       30 000 000         • 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         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       95 %         Main circuit		400 V
shock resistance with sine pulse       11,4g / 5 ms, 7,3g / 10 ms         mechanical service life (operating cycles)       0 of contactor typical         o of contactor typical       30 000 000         o f 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         of 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 AC       11,4g / 5 ms, 7,3g / 10 ms         mechanical service life (operating cycles)       30 000 000         • of contactor typical       30 000 000         • 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 +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       Main circuit	• at AC	7,3g / 5 ms, 4,7g / 10 ms
mechanical service life (operating cycles)       30 000 000         • of contactor typical       30 000 000         • 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 +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       Main circuit	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>of the contactor with added 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>of the contactor with added 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>of the contactor with added 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>of the contactor with added 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>of the contactor with added 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>of the contactor with added 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>of the contactor with added 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>of the contactor typical</li> <li>the contactor typical</li> <li>of the contactor</li></ul>	• at AC	11,4g / 5 ms, 7,3g / 10 ms
<ul> <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>10 000 000</li> <li>reference code according to IEC 81346-2</li> <li>Q</li> <li>Substance Prohibitance (Date)</li> <li>10/01/2009</li> <li>Ambient conditions</li> <li>installation altitude at height above sea level maximum</li> <li>2 000 m</li> <li>ambient temperature         <ul> <li>during operation</li> <li>-25 +60 °C</li> <li>-55 +80 °C</li> </ul> </li> <li>relative humidity minimum</li> <li>10 %</li> <li>relative humidity at 55 °C according to IEC 60068-2-30 maximum</li> <li>Main circuit</li> </ul>	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>	30 000 000
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       0 00 m       000 m         • during operation       -25 +60 °C       000 m         • during storage       -55 +80 °C       000 m         relative humidity minimum       10 %       000 m         Main circuit       95 %       000 m	<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       4	Substance Prohibitance (Date)	10/01/2009
ambient temperature         • during operation         • during storage         -25 +60 °C         • during storage         -55 +80 °C         relative humidity minimum         10 %         relative humidity at 55 °C according to IEC 60068-2-30 maximum         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       95 %         Main circuit       95 %	during operation	-25 +60 °C
relative humidity at 55 °C according to IEC 60068-2-30 95 % Main circuit	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	22 A			
value				
• at AC-1				
<ul> <li>— up to 690 V at ambient temperature 40 °C rated value</li> </ul>	22 A			
— up to 690 V at ambient temperature 60 °C rated	20 A			
value				
• 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				
— at 400 V rated value	16 A			
— at 500 V rated value	12.4 A			
— at 690 V rated value	8.9 A			
• at AC-4 at 400 V rated value	11.5 A			
• at AC-5a up to 690 V rated value	19.4 A			
at AC-5b up to 400 V rated value	13.2 A			
• at AC-6a				
<ul> <li>— up to 230 V for current peak value n=20 rated value</li> </ul>	9.6 A			
<ul> <li>— up to 400 V for current peak value n=20 rated value</li> </ul>	9.6 A			
<ul> <li>— up to 500 V for current peak value n=20 rated value</li> </ul>	9.6 A			
— up to 690 V for current peak value n=20 rated value	8.9 A			
• at AC-6a				
— up to 230 V for current peak value n=30 rated value	6.6 A			
— up to 400 V for current peak value n=30 rated value	6.4 A			
— up to 500 V for current peak value n=30 rated value	6.4 A			
— up to 690 V for current peak value n=30 rated value	6.4 A			
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm <sup>2</sup>			
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				
<ul> <li>at 1 current path at DC-1</li> </ul>				
— 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			
<ul> <li>with 2 current paths in series at DC-1</li> </ul>				
— at 24 V rated value	20 A			
— at 60 V rated value	20 A			
— at 110 V rated value	12 A			
— at 220 V rated value	1.6 A			
— at 440 V rated value	0.8 A			
— at 600 V rated value	0.7 A			
<ul> <li>with 3 current paths in series at DC-1</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	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>				

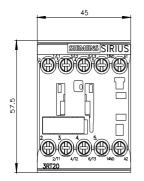
— at 24 V rated value	20 A
— at 60 V rated value	0.5 A
— at 110 V rated value	0.15 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	20 A
— at 60 V rated value	5 A
— at 110 V rated value	0.35 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
— 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
operating power	
• at AC-3	
— 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
<ul> <li>at 690 V rated value</li> </ul>	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
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	92 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	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	
• at 50 Hz rated value	400 V
at 60 Hz rated value	400 V 440 V
operating range factor control supply voltage rated value of	
magnet coil at AC	
• at 50 Hz	0.8 1.1

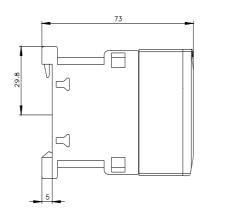
• at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	36 VA
• at 60 Hz	43 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.8
• at 60 Hz	0.8
apparent holding power of magnet coil at AC	
• at 50 Hz	5.9 VA
• at 60 Hz	6.5 VA
inductive power factor with the holding power of the coil	
● at 50 Hz	0.24
• 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 NO contacts for auxiliary contacts instantaneous	1
contact	
operational current at AC-12 maximum	10 A
operational current at AC-15	
• at 230 V rated value	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
<ul> <li>at 125 V rated value</li> </ul>	2 A
<ul> <li>at 220 V rated value</li> </ul>	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	

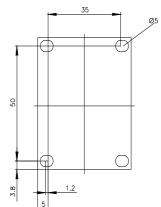
<ul> <li>for short-circuit protection of the main circuit</li> </ul>				
<ul> <li>with type of coordination 1 required</li> </ul>				
- with type of assignment 2 required	gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80kA)			
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	gG: 10 A (500 V, 1 kA)			
Installation/ mounting/ dimensions				
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface			
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715			
<ul> <li>side-by-side mounting</li> </ul>	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			
— 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				
<ul> <li>for main current circuit</li> </ul>	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 (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²			
<ul> <li>solid or stranded</li> </ul>	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)			
connectable conductor cross-section for main contacts				
• solid	0.5 4 mm <sup>2</sup>			
• stranded	0.5 4 mm <sup>2</sup>			
finely stranded with core end processing	0.5 2.5 mm²			
connectable conductor cross-section for auxiliary contacts <ul> <li>solid or stranded</li> </ul>	0.5 4 mm <sup>2</sup>			
<ul> <li>solid or stranded</li> <li>finely stranded with core end processing</li> </ul>	0.5 4 mm² 0.5 2.5 mm²			
type of connectable conductor cross-sections	0.0 2.0 mm			
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 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> )			
for AWG cables for auxiliary contacts	2x (2016), 2x (1814), 2x 12			
AWG number as coded connectable conductor cross section				
for main contacts	20 12			
for auxiliary contacts	20 12			
Safety related data				
product function				
<ul> <li>mirror contact according to IEC 60947-4-1</li> </ul>	Yes; with 3RH29			
B10 value with high demand rate according to SN 31920	1 000 000			
proportion of dangerous failures				
<ul> <li>with low demand rate according to SN 31920</li> </ul>	40 %			

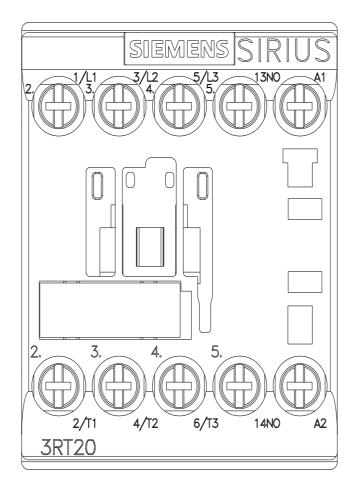
failure rate [FIT] with lo	ow demand rate according	to SN 31920	100 FIT			
T1 value for proof test 61508	value for proof test interval or service life according to IEC		20 a			
protection class IP o	n the front according to II	EC 60529	IP20			
touch protection on	the front according to IEC	60529	finger-safe, for	vertical contac	ct from the front	
suitability for use						
<ul> <li>safety-related st</li> </ul>	witching OFF		Yes			
ertificates/ approvals	;					
General Product App	proval					
(SP)		<u>Confirmatio</u>	n	(Ψ	KC	EHC
EMC	Functional Safety/Safety of Ma- chinery	Declaration of	Conformity		Test Certificates	
RCM	Type Examination Cer- tificate	CE EG-Konf.	l	JK	Special Test Certific- ate	Type Test Certific- ates/Test Report
Marine / Shipping						
ABS	BUREAU VERITAS		Ē	Lloyd's Kegister uts	PRS	RINA
Marine / Shipping	other				Railway	Environment
RMRS	<u>Confirmation</u>	DE	Cc	nfirmation	Vibration and Shock	Environmental Con- firmations
urther information	d to ovit the Pussion mark					

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=3RT2018-1AR61
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2018-1AR61
Service&Support (Manuals, Certificates, Characteristics, FAQs,)
https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-1AR61
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2018-1AR61⟨=en
Characteristic: Tripping characteristics, I <sup>2</sup> t, Let-through current
https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-1AR61/char
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2018-1AR61&objecttype=14&gridview=view1

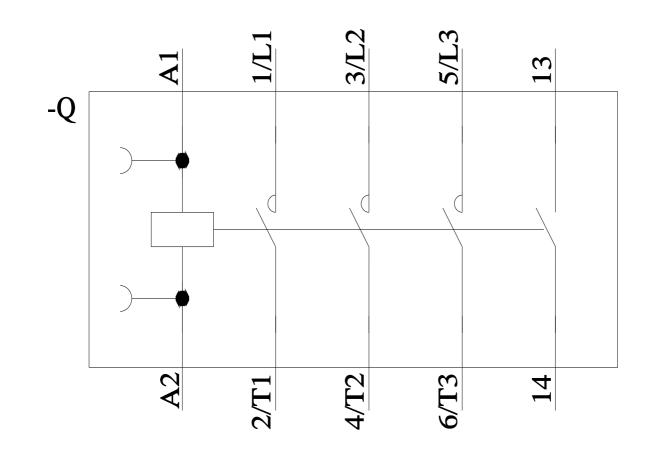








Subject to change without notice © Copyright Siemens



last modified:

2/10/2023 🖸