## SIEMENS

## Data sheet

## 3RT2017-2BB42



power contactor, AC-3e/AC-3, 12 A, 5.5 kW / 400 V, 3-pole, 24 V DC, auxiliary contacts: 1 NC, spring-loaded terminal, size: S00  $\,$ 

product brand name         SIRUS           product brand data         Power contactor           size of contactor         S00           product stension         S00           • function module for communication         No           • auxiliary switch         Yes           power loss [V] for rated value of the current         1.5 W           • at AC in hot operating state         1.5 W           • at AC in hot operating state per pole         0.5 W           • without load current share typical         4 W           insultation voltage         680 V           • of main circuit with degree of pollution 3 rated value         680 V           • of auxiliary circuit with degree of pollution 3 rated value         680 V           • of auxiliary circuit with degree of pollution 3 rated value         600 V           • of auxiliary circuit rated value         6 kV           • of auxiliary circuit rated value         6 kV           • of auxiliary circuit rated value         6 kV           • of contactor with sine pulse         7.3g / 5 ms, 4.7g / 10 ms           • at DC         7.3g / 5 ms, 7.3g / 10 ms           mechanical service life (operating cycles)         5 000 0000           • of the contactor with added auxiliary switch block typical         10 000 000           • of th		
product type designation         3RT2           General technical data         S00           size of contactor         S00           product extension         No           • auxilary switch         Yes           power loss [W] for rated value of the current         1.5 W           • at AC in hot operating state         1.5 W           • at AC in hot operating state per pole         0.5 W           • without load current share typical         4 W           insultation voltage         600 V           • of main circuit with degree of pollution 3 rated value         600 V           • of auxiliary circuit value         600 V           • of auxiliary circuit rated value         64 KV           • of auxiliary circuit rated value         64 V           • of auxiliary switch         7.3g / 5 ms, 4.7g / 10 ms           shock resistance at rectangular impulse         7.3g / 5 ms, 7.3g / 10 ms           • at DC         7.3g / 5 ms, 7.3g / 10 ms           mechanical service life (operating cycles)         9000000           • of contactor typical         30 000 000 <t< th=""><th>product brand name</th><th>SIRIUS</th></t<>	product brand name	SIRIUS
General technical data     S00       size of contactor     S00       product extension     • function module for communication     No       • auxiliary switch     Yes       power loss [W] for rated value of the current     • at AC in hot operating state     1.5 W       • at AC in hot operating state     0.5 W       • without load current share typical     0.5 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 with degree of pollution 3 rated value     690 V       • of auxiliary circuit with degree of pollution 3 rated value     64V       • of auxiliary circuit rated value     64V       • of auxiliary circuit rated value     64V       • of auxiliary circuit rated value     64V       • at DC     7.3g / 5 ms, 4.7g / 10 ms       mechanical service life (operating cycles)     30 000 000       • of the contactor with added acternically optimized auxiliary switch block typical     30 000 000       • of the contactor with added acternically optimized auxiliary switch block typical     10000 000       • of the contactor with added acternically optimized auxiliary switch block typical     10000 000       • of the contactor with added acternically optimized auxiliary switch block typical     10000 000       • of the contactor with added acternically o	product designation	Power contactor
size of contactor     S00       product extension     • function module for communication     No       • auxilary switch     Yes       power loss [W] for rated value of the current     • 1.5 W       • at AC in hot operating state per pole     0.5 W       • without load current share typical     4 W       Insulation 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     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 auxillary circuit rated value     6 kV       • of auxillary circuit rated value     6 kV       • of auxillary sitch block typical     400 V       shock resistance with sine pulse     11.4g / 5 ms, 7.3g / 10 ms       • of the contactor with added electronically optimized     30 000 000       • of the contactor with added electronically optimized     10 00 000       • of the contactor with added electronically optimized     0000 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     1.5 W       • at AC in hot operating state     1.5 W       • at AC in hot operating state per pole     0.5 W       • withoot load current share typical     4 W       Insulation voltage     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of analizing vicruit with degree of pollution 3 rated value     690 V       • of analizing vicruit with degree of pollution 3 rated value     690 V       • of analizing vicruit rated value     6 kV       • of main circuit rated value     6 kV       • of main circuit rated value     6 kV       • of analizing vicruit rated value     6 kV       • at DC     1.4(g / 5 ms, 7.3g / 10 ms       shock resistance are texting user     30 000 000       • of the contactor with added electronically optimized     30 000 000       • of the contactor with added electronically optimized     10 00 000       • of the contactor with added electronically optimized     00 Q       sublarue conditions     2000 m	General technical data	
• function module for communication       No         • auxillary switch       Yes         power loss [W] for rated value of the current       -         • at AC in hot operating state       1.5 W         • at AC in hot operating state per pole       0.5 W         • without load current share typical       4 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 rated value       6 kV         • of main circuit rated value       6 kV         • of auxiliary circuit rated value       6 kV         • at DC       7.3g / 5 ms, 4.7g / 10 ms         shock resistance with sine pulse       30 000 000         • at DC       11.4g / 5 ms, 7.3g / 10 ms         mechanical service life (operating switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000	size of contactor	S00
• auxiliary switch     Yes       power loss [W] for rated value of the current     1.5 W       • at AC in hot operating state     1.5 W       • at AC in hot operating state per pole     0.5 W       • without load current share typical     4 W       insuliary circuit with degree of pollution 3 rated value     690 V       • of main circuit rated value     690 V       • of main circuit rated value     690 V       • of main circuit rated value     64V       • of auxiliary circuit with degree of pollution 3 rated value     64V       • of auxiliary circuit value     64V       • of auxiliary circuit value     64V       • of auxiliary circuit rated value     64V       • at DC     7.3g / 5 ms, 4.7g / 10 ms       shock resistance at rectangular impulse     11.4g / 5 ms, 7.3g / 10 ms       • at DC     11.4g / 5 ms, 7.3g / 10 ms       • 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       • of the contactor	product extension	
power loss [W] for rated value of the current     1.5 W       • at AC in hot operating state per pole     0.5 W       • without load current share typical     4 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 main circuit rated value     6 kV       • of auxiliary circuit rated value     6 kV       • at DC     7.3g / 5 ms, 4.7g / 10 ms       shock resistance with sine pulse     11.4g / 5 ms, 7.3g / 10 ms       • at DC     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       restance of auxiliary switch block typical     10/01/2009       Ambient conditions	<ul> <li>function module for communication</li> </ul>	No
• at AC in hot operating state       1.5 W         • at AC in hot operating state per pole       0.5 W         • without load current share typical       4 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       680 V         • of auxiliary circuit rated value       6 kV         • at DC       7.3g / 5 ms, 4.7g / 10 ms         shock resistance with sine pulse       30 000 000         • at DC       11.4g / 5 ms, 7.3g / 10 ms         • of the contactor with added electronically optimized       30 000 000         • of the contactor with added electronically optimized       10 000 000	<ul> <li>auxiliary switch</li> </ul>	Yes
• at AC in hot operating state per pole     0.5 W       • without load current share typical     4 W       insulation voltage     6       • 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 auxiliary circuit rated value     6 kV       • of contactor at rectangular impulse     400 V       • at DC     7.3g / 5 ms, 4.7g / 10 ms       mechanical service life (operating cycles)     11.4g / 5 ms, 7.3g / 10 ms       • 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       • of the contactor with added auxiliary switch block typical     10 000 000       reference	power loss [W] for rated value of the current	
• without load current share typical     4 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       surge voltage resistance     690 V       • of main circuit rated value     6 kV       • of auxiliary circuit rated value     6 kV       • at DC     7.3g / 5 ms, 4.7g / 10 ms       • at DC     11.4g / 5 ms, 7.3g / 10 ms       • of contactor 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     10 000 000       reference code according to IEC 81346-2     Q       Substance Prohibitance (Date)     1001/2009       Ambient conditions     -       installation altitude at height above sea level maximum     2 000 m       ambient temperature     -	<ul> <li>at AC in hot operating state</li> </ul>	1.5 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         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 DC       7.3g / 5 ms, 4.7g / 10 ms         shock resistance with sine pulse       - at DC       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       10 000 000         reference code according to IEC 8136-2       Q       Q         Substance Prohibitance (Date)       10/01/2009       Ambient temperature         <	<ul> <li>at AC in hot operating state per pole</li> </ul>	0.5 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         surge voltage resistance       680 V         • 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       7.3g / 5 ms, 4.7g / 10 ms         • at DC       7.3g / 5 ms, 7.3g / 10 ms         shock resistance with sine pulse       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         • 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       -25 +60 °C         • during operation       -25 +60 °C         • during storage       -55 +60 °C <t< th=""><th><ul> <li>without load current share typical</li> </ul></th><th>4 W</th></t<>	<ul> <li>without load current share typical</li> </ul>	4 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         • of auxiliary circuit rated value       6 kV         • of auxiliary circuit rated value       6 kV         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       -         • at DC       7.3g / 5 ms, 4.7g / 10 ms         shock resistance with sine pulse       -         • at DC       11.4g / 5 ms, 7.3g / 10 ms         mechanical service life (operating cycles)       -         • 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       2000 m         installation altitude at height above sea level maximum       2000 m         ambient temperature       -25 +60 °C         • during st	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 DC       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 coll and main contacts according to EN 60947-1       400 V         shock resistance at rectangular impulse       400 V         • at DC       7.3g / 5 ms, 4.7g / 10 ms         shock resistance with sine pulse       7.3g / 5 ms, 7.3g / 10 ms         • at DC       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       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 DC       7.3g / 5 ms, 4.7g / 10 ms         shock resistance with sine pulse       -         • at DC       11.4g / 5 ms, 7.3g / 10 ms         mechanical service life (operating cycles)       -         • 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         ambient temperature       -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       95 %	surge voltage resistance	
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1       400 V         shock resistance at rectangular impulse <ul> <li>at DC</li> <li>7.3g / 5 ms, 4.7g / 10 ms</li> </ul> shock resistance at rectangular impulse <ul> <li>at DC</li> <li>7.3g / 5 ms, 7.3g / 10 ms</li> </ul> mechanical service life (operating cycles) <ul> <li>of contactor typical</li> <li>30 000 000</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 othe contactor with added auxiliary switch block typical</li> <li>10 000 000</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 <ul> <li>during operation</li> <li>-25 +60 °C</li> <li>elative humidity minimum</li> <li>10 %</li> <li>95 %</li> </ul>	<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 DC       7.3g / 5 ms, 4.7g / 10 ms         shock resistance with sine pulse         • at DC       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       -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 DC       7.3g / 5 ms, 4.7g / 10 ms         shock resistance with sine pulse       11,4g / 5 ms, 7,3g / 10 ms         • at DC       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       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       11,4g / 5 ms, 7,3g / 10 ms         mechanical service life (operating cycles)       11,4g / 5 ms, 7,3g / 10 ms         • 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 +80 °C         relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30       95 %         Main circuit       40 mino circuit	shock resistance at rectangular impulse	
• at DC11,4g / 5 ms, 7,3g / 10 msmechanical service life (operating cycles)30 000 000• of contactor typical30 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 DC	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>of the conditions</li> <li>auxiliary states</li> <li>of the conditions</li> <li>auxiliary states</li> <li>the typical</li> <li>the typical</li> <li>the typical</li> <li>the typical</li> <li>the typical</li> <li>the typical</li> <li>the typi</li></ul>	● at DC	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       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	
<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 g5 %</li> <li>Main circuit</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 maximum     95 %       Main circuit     10 %	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 %         maximum       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	22 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	22 A
— up to 690 V at ambient temperature 60 °C rated	20 A
value	
• at AC-3	
— at 400 V rated value	12 A
— at 500 V rated value	9.2 A
— at 690 V rated value	6.7 A
● at AC-3e	
— at 400 V rated value	12 A
— at 500 V rated value	9.2 A
— at 690 V rated value	6.7 A
• at AC-4 at 400 V rated value	8.5 A
• at AC-5a up to 690 V rated value	19.4 A
• at AC-5b up to 400 V rated value	9.9 A
● at AC-6a	
<ul> <li>— up to 230 V for current peak value n=20 rated value</li> </ul>	7.2 A
<ul> <li>— up to 400 V for current peak value n=20 rated value</li> </ul>	7.2 A
<ul> <li>— up to 500 V for current peak value n=20 rated value</li> </ul>	7.2 A
— up to 690 V for current peak value n=20 rated value	6.7 A
● at AC-6a	
<ul> <li>— up to 230 V for current peak value n=30 rated value</li> </ul>	4.8 A
<ul> <li>— up to 400 V for current peak value n=30 rated value</li> </ul>	4.8 A
<ul> <li>— up to 500 V for current peak value n=30 rated value</li> </ul>	4.8 A
<ul> <li>— up to 690 V for current peak value n=30 rated value</li> </ul>	4.8 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	4.1 A
at 690 V rated value	3.3 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
• 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 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
• at 1 current path at DC-3 at DC-5	

— 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	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	5.5 kW
• at AC-3e	
- at 230 V rated value	3 kW
— at 200 V rated value	5.5 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	5.5 kW
operating power for approx. 200000 operating cycles at AC-	5.5 KW
4	
<ul> <li>at 400 V rated value</li> </ul>	2 kW
<ul> <li>at 690 V rated value</li> </ul>	2.5 kW
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	2.8 kVA
• up to 400 V for current peak value n=20 rated value	4.9 kVA
• up to 500 V for current peak value n=20 rated value	6.2 kVA
• up to 690 V for current peak value n=20 rated value	8 kVA
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	1.9 kVA
• up to 400 V for current peak value n=30 rated value	3.3 kVA
• up to 500 V for current peak value n=30 rated value	4.1 kVA
• up to 690 V for current peak value n=30 rated value	5.7 KVA
short-time withstand current in cold operating state up to	5.7 KVA
40 °C	
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	200 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	123 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	96 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	74 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	61 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at DC	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	
	DC
type of voltage of the control supply voltage	
control supply voltage at DC	24.1/
rated value	24 V
operating range factor control supply voltage rated value of magnet coil at DC	
initial value	0.8
• full-scale value	1.1

closing power of magnet coil at DC	4 W
holding power of magnet coil at DC	4 W
closing delay	
• at DC	30 100 ms
opening delay	
• at DC	7 13 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
• at 500 V rated value	2 A
• at 690 V rated value	1 A
operational current at DC-12	
at 24 V rated value	10 A
at 48 V rated value	6 A
at 60 V rated value	6 A
at 100 V rated value	3 A
at 125 V rated value	2 A
at 123 V rated value     at 220 V rated value	1A
at 600 V rated value	0.15 A
operational current at DC-13	0.13 A
at 24 V rated value	10 A
at 24 V fated value     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	11 A
at 600 V rated value	11 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	0.5 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	3 hp
— at 460/480 V rated value	7.5 hp
— at 575/600 V rated value	10 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
<ul> <li>for short-circuit protection of the main circuit</li> </ul>	
<ul> <li>— with type of coordination 1 required</li> </ul>	gG: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)
<ul> <li>— with type of assignment 2 required</li> </ul>	gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (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
-	
side-by-side mounting	Yes 70 mm
height	
width	45 mm

donth	73 mm
depth required spacing	73 mm
with side-by-side mounting	10
— forwards	10 mm 10 mm
— upwards	
— downwards	10 mm
— at the side	0 mm
for grounded parts	40
— forwards	10 mm
— upwards	10 mm
— at the side	6 mm
— downwards	10 mm
• for live parts	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	6 mm
Connections/ Terminals	
type of electrical connection	
for main current circuit	spring-loaded terminals
for auxiliary and control circuit	spring-loaded terminals
at contactor for auxiliary contacts	Spring-type terminals
of magnet coil	Spring-type terminals
type of connectable conductor cross-sections for main contacts	
• solid	2x (0.5 4 mm <sup>2</sup> )
solid or stranded	2x (0,5 4 mm <sup>2</sup> )
finely stranded with core end processing	2x (0.5 2.5 mm <sup>2</sup> )
finely stranded without core end processing	2x (0.5 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 mm <sup>2</sup>
finely stranded without core end processing	0.5 2.5 mm²
connectable conductor cross-section for auxiliary contacts	
solid or stranded	0.5 4 mm <sup>2</sup>
finely stranded with core end processing	0.5 2.5 mm <sup>2</sup>
finely stranded without core end processing	0.5 2.5 mm <sup>2</sup>
type of connectable conductor cross-sections	
for auxiliary contacts	$\Omega_{\rm rel}(0.5-4{\rm mm}^2)$
— solid or stranded	2x (0,5 4 mm <sup>2</sup> )
— finely stranded with core end processing	2x (0.5 2.5 mm <sup>2</sup> )
<ul> <li>finely stranded without core end processing</li> <li>for AWG cables for auxiliary contacts</li> </ul>	2x (0.5 2.5 mm <sup>2</sup> )
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross	2x (20 12)
AWG number as coded connectable conductor cross section	
<ul> <li>for main contacts</li> </ul>	20 12
<ul> <li>for auxiliary contacts</li> </ul>	20 12
Safety related data	
product function	
<ul> <li>mirror contact according to IEC 60947-4-1</li> </ul>	Yes
suitability for use safety-related switching OFF	Yes
B10 value with high demand rate according to SN 31920	1 000 000
proportion of dangerous failures	
with low demand rate according to SN 31920	40 %
<ul> <li>with high demand rate according to SN 31920</li> </ul>	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
Certificates/ approvals	

General Product App	proval				
		<u>Confirmation</u>	(UL)	<u>KC</u>	EHC
EMC	Functional Safety/Safety of Ma- chinery	Declaration of Conform	nity	Test Certificates	
RCM	<u>Type Examination Cer-</u> <u>tificate</u>	CE EG-Konf.	UK CA	<u>Type Test Certific-</u> ates/Test Report	Special Test Certific- ate
Marine / Shipping					
ABS	BUREAU VERITAS		Lloyd's Register urs	PRS	RINA
Marine / Shipping	other		Railway	Dangerous Good	Environment
RMRS	<u>Confirmation</u>	UDE VDE	Vibration and Shock	Transport Information	Environmental Con- firmations
urther information		· · ·			
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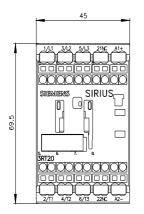
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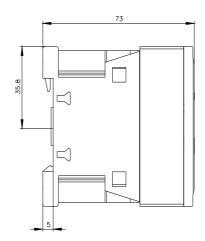
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

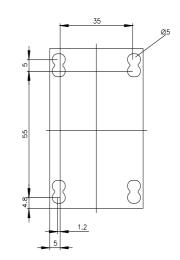
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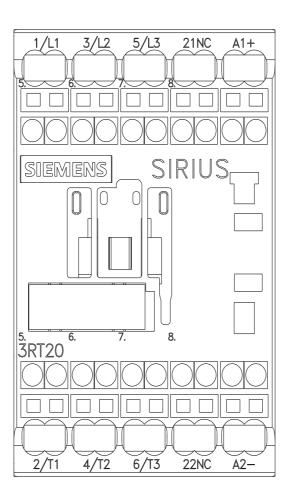
 Further characteristics (e.g. electrical endurance, switching frequency)

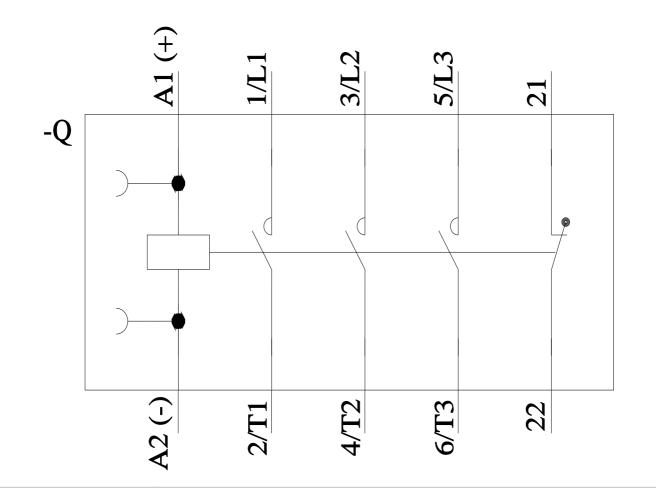
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