## SIEMENS

## Data sheet

## 3RT2023-1AC20



power contactor, AC-3e/AC-3, 9 A, 4 kW / 400 V, 3-pole, 24 V AC, 50/60 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S0

product brand name         SIRUS           product brand designation         Power contactor           product type designation         SRT2           Canazi technical data         So           size of contactor         So           product stension         No           • function module for communication         No           • auxiliary switch         Yes           power loss [VI] for rated value of the current         0.6 W           • at AC in hot operating state         0.6 W           • at AC in hot operating state per pole         0.2 W           • without load current share typical         2 W           • of main circult with degree of pollution 3 rated value         680 V           • of auxiliary circuit with degree of pollution 3 rated value         680 V           • of auxiliary circuit rated value         6 kV           • of auxiliary circuit rated value         10 V           • of auxiliary circuit rated value         6 kV           • of auxiliary circuit rated value         10 00 V           •		
product type designation         3RT2           Caneral technical 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     • at AC in hot operating state     0.6 W       • at AC in hot operating state proje     0.2 W       • without load current share typical     0.9 V       • of main circuit with degree of pollution 3 rated value     680 V       • of main 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       • at AC     7.5g / 5 ms, 4.7g / 10 ms       mechanical service life (operating cycles)     10 000 000       • of the contactor with added auxiliary switch block typical     500 000       • 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	product designation	Power contactor
size of contactor     S0       product extension     No       • function module for communication     No       • auxiliary switch     Yes       power loss [W] for rated value of the current     0.6 W       • at AC in hot operating state per pole     0.2 W       • without load current share typical     2 W       Insulation voltage     680 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     64V       • of auxiliary siture biologies     7,5g / 5 ms, 4,7g / 10 ms       shock resistance at rectangular impulse     11.8g / 5 ms, 7,4g / 10 ms       mechanical service life (operating cycles)     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       reference code according to EC 81346-2     Q </th <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     0.6 W       • at AC in hot operating state     0.6 W       • at AC in hot operating state per pole     0.2 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 an in circuit rated value     690 V       • of main is circuit rated value     64V       • of main is circuit rated value     64V       • of main is cruit rated value     64V       • of an in circuit rated value     64V       • of main is cruit rated value     64V       • of an in circuit rated value     64V       • of an AC     7,5g / 5 ms, 4,7g / 10 ms       shock resistance at rectangular impulse     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 with added electronically optimized     5000 000       awiliary switch block typical     10 000 000       • of	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     0.6 W       • at AC in hot operating state per pole     0.2 W       • without load current share typical     2 W       Insulation 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 atter dvalue     6 kV       • of main circuit atter dvalue     6 kV       • of main circuit rated value     6 kV       • of main circuit rated value     6 kV       • of auxiliary circuit go te N 004P7-1     400 V       shock resistance at rectangular impulse     7,5g / 5 ms, 4,7g / 10 ms       • at AC     11.8g / 5 ms, 7,4g / 10 ms       shock resistance with sine pulse     10 000 000       • at AC     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 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	size of contactor	S0
• auxiliary switch       Yes         power loss [W] for rated value of the current       0.6 W         • at AC in hot operating state per pole       0.2 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       690 V         • of main circuit rated value       64 V         • of main circuit rated value       6 kV         • of main circuit rated value       6 kV         • of main circuit rated value       6 kV         • of auxiliary circuit with degree of poletive separation between col 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 at rectangular impulse       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	product extension	
power loss [W] for rated value of the current     0.6 W       e at AC in hot operating state per pole     0.2 W       e without load current share typical     2W       Insulation voltage     690 V       e of main circuit with degree of pollution 3 rated value     690 V       e of auxiliary circuit with degree of pollution 3 rated value     690 V       surge voltage resistance     64 V       e of main circuit with degree of pollution 3 rated value     64 V       e of auxiliary circuit rated value     6 kV       e at AC     7.5g / 5 ms, 4.7g / 10 ms       shock resistance with sine pulse     10 000 000       e at AC     11.8g / 5 ms, 7.4g / 10 ms       mechanical service life (operating cycles)     10 000 000       e of the contactor with added auxiliary switch block typical     10 000 000       e of the contactor with added auxiliary switch block typical<	<ul> <li>function module for communication</li> </ul>	No
• at AC in hot operating state     0.6 W       • at AC in hot operating state price     0.2 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 auxiliary circuit rated value     6 kV       • of auxiliary site block to 80947-1     400 V       shock resistance at rectangular inpulse     400 V       • 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       • of the contactor with added auxiliary switch block typical     10 000 000       • of the contactor with added auxiliary swither block typ	auxiliary switch	Yes
• at AC in hot operating state per pole         0.2 W           • without bad current share typical         2 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 auxiliary circuit rated value         6 kV           • at AC         7,5g / 5 ms, 4,7g / 10 ms           shock resistance at rectangular impulse         11,8g / 5 ms, 7,4g / 10 ms           • at AC         11,8g / 5 ms, 7,4g / 10 ms           mechanical service life (operating cycles)         5 000 000           • 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         <	power loss [W] for rated value of the current	
• without load current share typical       2 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       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         • at AC       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         • during storage       -25 +60 °C <td< th=""><th><ul> <li>at AC in hot operating state</li> </ul></th><th>0.6 W</th></td<>	<ul> <li>at AC in hot operating state</li> </ul>	0.6 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       680 V         • of main circuit rated value       6 kV         • of auxiliary circuit rated value       6 kV         • of auxiliary circuit rated value       6 kV         • of auxiliary circuit rated value       6 kV         maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1       400 V         shock resistance at rectangular impulse       + at AC         • 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)       10 000 000         • 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)       10/01/2009         Ambient temperature       - 400 °C         • during storage       - 25 +60 °C         • during storage       - 25 +60 °C         • during storage       - 25 +60 °C	<ul> <li>at AC in hot operating state per pole</li> </ul>	0.2 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 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     7.5g / 5 ms, 4.7g / 10 ms       • at AC     7.5g / 5 ms, 7.4g / 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 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 +60 °C       • during storag	<ul> <li>without load current share typical</li> </ul>	2 W
• of auxillary circuit with degree of pollution 3 rated value       690 V         surge voltage resistance       6 kV         • of main circuit rated value       6 kV         • of auxillary circuit rated value       6 kV         • of auxillary circuit rated value       6 kV         • of auxillary circuit rated value       6 kV         • at AC       400 V         • 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 witch 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         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 storage       -25 +60 °C	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       400 V         • at AC       7,5g / 5 ms, 4,7g / 10 ms         shock resistance with sine pulse       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 electronically optimized auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10/001/2009         Ambient conditions       10/01/2009         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 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         • ad AC       400 V         • at AC       7,5g / 5 ms, 4,7g / 10 ms         • at AC       11.8g / 5 ms, 7,4g / 10 ms         • at AC       11.8g / 5 ms, 7,4g / 10 ms         • at AC       10 000 000         • of the 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         • 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       0 000 n         ambient conditions	<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 storage       -55 +60 °C         • during storage       -55 +60 °C         • during storage       55 %         #10 %       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 AC</li> <li>at AC</li> <li>at AC</li> <li>at AC</li> <li>at AC</li> <li>itag / 5 ms, 4,7g / 10 ms</li> </ul> mechanical service life (operating cycles) <ul> <li>of contactor typical</li> <li>10 000 000</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>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 <li>2 000 m</li> <li>ambient temperature             <ul> <li>during operation</li> <li>-25 +60 °C</li> <li>etative humidity minimum</li> <li>10 %</li> <li>95 %</li> </ul></li>	<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 AC7,5g / 5 ms, 4,7g / 10 msshock resistance with sine pulse11,8g / 5 ms, 7,4g / 10 ms• at AC11,8g / 5 ms, 7,4g / 10 msmechanical service life (operating cycles)000 000• of contactor typical10 000 000• of the contactor with added electronically optimized auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical0000 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-25 +60 °C• during storage-55 +80 °Crelative humidity minimum10 %relative humidity at 55 °C according to IEC 60068-2-30 maximum95 %		400 V
shock resistance with sine pulse       if is the isstance with sine pulse         • at AC       11,8g / 5 ms, 7,4g / 10 ms         mechanical service life (operating cycles)       i         • 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 +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	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 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 %maximum95 %	• at AC	7,5g / 5 ms, 4,7g / 10 ms
mechanical service life (operating cycles)       in 000000         • 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	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     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     installation attice (Date)     10/01/2009     Ambient conditions     installation altitude at height above sea level maximum         2 000 m     ambient temperature         during 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 %         Main circuit       95 %		5 000 000
Substance Prohibitance (Date)       10/01/2009         Ambient conditions       installation altitude at height above sea level maximum         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	<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     -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       40 %	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
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

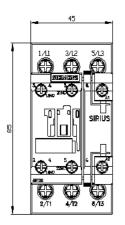
number of NO contacts for main contacts	3
operating voltage	
at AC-3 rated value maximum	690 V
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated	40 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	40 A
— up to 690 V at ambient temperature 60 °C rated	35 A
value	
• at AC-3	
— at 400 V rated value	9 A
— at 500 V rated value	9 A
— at 690 V rated value	9 A
• at AC-3e	
— at 400 V rated value	9 A
— at 500 V rated value	9 A
— at 690 V rated value	9 A 0 5 A
at AC-4 at 400 V rated value	8.5 A
at AC-5a up to 690 V rated value	35.2 A
• at AC-5b up to 400 V rated value	7.4 A
• at AC-6a	44.4.4
— up to 230 V for current peak value n=20 rated value	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>	11.4 A 9.1 A
— up to 500 V for current peak value n=20 rated value	9A
• at AC-6a	SA .
<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	7.6 A
— up to 200 V for current peak value n=30 rated value	7.6 A
— up to 500 V for current peak value n=30 rated value	6.1 A
— up to 690 V for current peak value n=30 rated value	6.1 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	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	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
• with 2 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	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
<ul> <li>with 3 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	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>	

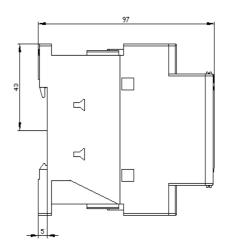
— at 24 V rated value	20 A
— at 60 V rated value	5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.09 A
— at 600 V rated value	0.06 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	15 A
— at 220 V 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	2.2 kW
— at 400 V rated value	4 kW
— at 500 V rated value	4 kW
— at 690 V rated value	7.5 kW
• at AC-3e	
— at 230 V rated value	2.2 kW
— at 400 V rated value	4 kW
— at 500 V rated value	4 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 kW
at 400 V rated value     at 690 V rated value	2.5 kW
operating apparent power at AC-6a	2.5 KW
up to 230 V for current peak value n=20 rated value	4.5 kVA
• up to 400 V for current peak value n=20 rated value	7.8 kVA
• up to 500 V for current peak value n=20 rated value	7.8 KVA
• up to 690 V for current peak value n=20 rated value	10.7 kVA
operating apparent power at AC-6a	
up to 230 V for current peak value n=30 rated value	3 kVA
• up to 400 V for current peak value n=30 rated value	5.2 kVA
• up to 500 V for current peak value n=30 rated value	5.2 KVA
• up to 690 V for current peak value n=30 rated value	7.2 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>	170 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	170 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	140 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	104 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	88 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	5 000 1/h
operating frequency	
• 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	300 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
- • • • •	

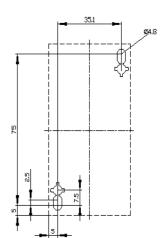
control supply voltage at AC	
• at 50 Hz rated value	24 V
at 60 Hz rated value	24 V
operating range factor control supply voltage rated value of magnet coil at AC	
● at 50 Hz	0.8 1.1
• at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	
● at 50 Hz	68 VA
• at 60 Hz	67 VA
inductive power factor 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
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
• at 400 V rated value	3 A
<ul> <li>at 500 V rated value</li> </ul>	2 A
• at 690 V rated value	1A
operational current at DC-12	
at 24 V rated value	10 A
at 48 V rated value	6 A
at 60 V rated value	6 A
at 110 V rated value	3 A
at 125 V rated value	2 A
at 220 V rated value	1A
at 600 V rated value	0.15 A
operational current at DC-13	
• at 24 V rated value	10 A
at 24 V rated value     at 48 V rated value	2 A
at 40 V rated value     at 60 V rated value	2 A 2 A
at 60 V rated value     at 110 V rated value	1 A
at 110 V rated value     at 125 V rated value	0.9 A
at 125 V rated value     at 220 V rated value	0.3 A
	0.3 A 0.1 A
at 600 V rated value	
contact reliability of auxiliary contacts UL/CSA ratings	1 faulty switching per 100 million (17 V, 1 mA)
full-load current (FLA) for 3-phase AC motor	7.0.4
<ul> <li>at 480 V rated value</li> </ul>	7.6 A
at 600 V rated value	9 A
yielded mechanical performance [hp]	SA
yielded mechanical performance [hp] • for single-phase AC motor	
yielded mechanical performance [hp]	1 hp 1 hp

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

<ul> <li>for auxiliary cor</li> </ul>	ntacts	20	14		
afety related data					
product function					
	according to IEC 60947-4-1	Yes			
•	ety-related switching OFF	Yes			
	lemand rate according to SN	31920 450	000		
proportion of dange			,		
	nd rate according to SN 3192				
	and rate according to SN 319				
	low demand rate according t				
T1 value for proof tes 61508	t interval or service life accor	rding to IEC 20 a	1		
	on the front according to IE	EC 60529	)		
	the front according to IEC		er-safe, for vertical contact	from the front	
ertificates/ approval	-				
General Product Ap					
	-	Confirmation	•	KC	
(SF)		Commation	Ű		EHC
EMC	Functional Safety/Safety of Ma- chinery	Declaration of Confo	ormity	Test Certificates	
RCM	Type Examination Cer- tificate	UK CA	C C EG-Konf.	<u>Special Test Certific-</u> <u>ate</u>	Type Test Certific- ates/Test Report
Marine / Shipping					
Marine / Shipping	BUREAU VERITAS		Llovds Register urs	RINA	RMRS
Marine / Shipping	BUREAU VERITAS	<b>ČŠ</b> DNV DNV	Liks Railway	<b>Environment</b>	<b>EXAMPLE</b>
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