## SIEMENS

## Data sheet

## 3RT2038-1AK64-3MA0



power contactor, AC-3e/AC-3, 80 A, 37 kW / 400 V, 3-pole, 110 V AC, 50 Hz / 120 V, 60 Hz, auxiliary contacts: 2 NO + 2 NC, screw terminal, size: S2, captive auxiliary switch

product brand name         SIRIUS           product designation         Power contactor           product type designation         SRT2           Canceral technical data         S2           product extension         S2           i.function module for communication         No           a.axidiary switch         No           power loss [W] for rated value of the current         Final AC in hot operating state           a.t AC in hot operating state per pole         5.7 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 anal riccuit atted value         6 kV           of auxilary circuit rated value         6 kV           of contactor kpisel         9.8g / 5 ms, 6.5g / 10 ms           shock resistance at rectangular impulse         15.3g / 5 ms, 10.1g / 10 ms           et AC         9.8g / 5 ms, 6.5g / 10 ms           shock resistance with sine pulse         10 000 000 <t< th=""><th></th><th></th></t<>		
product type designation         3RT2           General tachnical data	product brand name	SIRIUS
General technical data     S2       product extension     No       • function module for communication     No       • auxiliary switch     No       power loss [W] for rated value of the current     • at AC in hot operating state       • at AC in hot operating state     7.1 W       • at AC in hot operating state     7.7 W       • without load current share typical     65 W       insulation voltage     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of main circuit rated value     64 V       • of main circuit rated value     64 V       • of auxiliary circuit rated value     64 V       • at AC     9.8g / 5 ms, 6.5g / 10 ms       • at AC     15.3g / 5 ms, 10.1g / 10 ms       mechanical service life (operating cycles)     10 000 000       • of the contactor with added acternically optimized auxiliary switch block typical     10 000 000       • of the contactor with added acternically optimized auxiliary switch block typical     10 000 000       • of the contactor with added acternically optimized auxiliary switch blo	product designation	Power contactor
size of contactor     §2       product extension     No       • function module for communication     No       • auxilary switch     No       power loss [W] for rated value of the current     17.1 W       • at AC in hot operating state per pole     5.7 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 main circuit with degree of pollution 3 rated value     690 V       • of auxillary circuit rated value     64 V       • of main circuit with degree of pollution 3 rated value     690 V       • of auxillary circuit rated value     64 V       • of main circuit rated value     64 V       • of auxillary circuit rated value     9.8g / 5 ms, 6.5g / 10 ms       shock resistance with sine pulse     15.3g / 5 ms, 10.1g / 10 ms       • of the contactor with added electronically optimized     10 000 000       • of the contactor with added auxillary switch block typical     10 000 000<	product type designation	3RT2
product extension     No       • function module for communication     No       • auxiliary switch     No       opwer loss [W] for rated value of the current     17.1 W       • at AC in hot operating state     17.1 W       • at AC in hot operating state pape     5.7 W       • withoot load current share typical     6.5 W       insulation voltage     690 V       • of main circui with degree of pollution 3 rated value     690 V       • of main circui trated value     690 V       • of main circui trated value     64 V       • of main circuit rated value     64 V       • of main circuit rated value     64 V       • of main circuit rated value     64 V       • of main contacts according to EN 00947-1     54 V       shock resistance at rectangular impulse     64 V       • at AC     15.3g / 5 ms, 10.1g / 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 electronically optimized auxiliary switch block typical     0 Q       Substance Prohibitance (Date)     10 000 000       • of the contactor with added electronically optimized auxiliary switch block typical     0 Q       Substance Prohibitance (Date)     10 000 000       • of the contactor with	General technical data	
	size of contactor	S2
• auxiliary switch         No           power loss [W] for rated value of the current         7.1 W           • at AC in hot operating state per pole         5.7 W           • without load current share typical         6.5 W           insuliary circuit with degree of pollution 3 rated value         690 V           • of main circuit rated value         64 V           • of dauxiliary circuit with degree of pollution 3 rated value         64 V           • of main circuit rated value         64 V           • of auxiliary circuit with degree of polletive separation between coli and main contacts according to EN 60947-1         400 V           shock resistance at rectangular impulse         9.8g / 5 ms, 0.5g / 10 ms           • at AC         9.8g / 5 ms, 10.1g / 10 ms           mechanical service life (operating cycles)         10 000 000           • of contactor typical         10 000 000           • of the contactor with added electronically optimized auxiliary switch block typical         10 000 000           • of the contactor with added auxiliary switch block typical         10 000 000           • of the contactor with added auxiliary switch block typical         10 000 000	product extension	
power loss [W] for rated value of the current        i. at AC in hot operating state prole <ul> <li>at AC in hot operating state prole</li> <li>5.7 W</li> <li>without load current share typical</li> <li>6.5 W</li> </ul> insulation voltage <ul> <li>of main circuit with degree of pollution 3 rated value</li> <li>690 V</li> <li>of auxiliary circuit with degree of pollution 3 rated value</li> <li>690 V</li> <li>surge voltage resistance</li> <li>of main circuit rated value</li> <li>6 kV</li> <li>of auxiliary circuit rated value</li> <li>6 kV</li> <li>maximum premissible voltage for protective separation between coll and main contacts according to EN 60947-1</li> <li>shock resistance at rectangular impulse</li> <li>at AC</li> <li>9.8g / 5 ms, 6.5g / 10 ms</li> </ul> <li>shock resistance with sine pulse         <ul> <li>at AC</li> <li>15.3g / 5 ms, 10.1g / 10 ms</li> </ul> </li> <li>mechanical service life (operating cycles)</li> <li>of contactor typical</li> <li>10 000 000</li> <li>of the contactor with added duxiliary switch block typical</li> <li>10 000 000</li> <li>of the contactor with added auxiliary switch block typical</li> <li>10 001/2014</li> <li>Ambient conditions</li> <li>installation altitude at height above sea level maximum</li> <li>2 000 m</li> <li>ambient temporature</li> <li>during operation</li> <li>-25 +60 °C</li> <li>during operation</li> <li>-25</li>	<ul> <li>function module for communication</li> </ul>	No
• at AC in hot operating state prote       17.1 W         • at AC in hot operating state per pole       5.7 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 main circuit rated value       680 V         • of auxiliary circuit rated value       6 kV         • at AC       9.8g / 5 ms, 6.5g / 10 ms         shock resistance with sine pulse       • at AC         • at AC       15.3g / 5 ms, 10.1g / 10 ms         mechanical service life (operating cycles)       10 000 000         • of the contactor with added electronically optimized       2000 00         auxiliary switch block typical       10 000 000	auxiliary switch	No
• at AC in hot operating state per pole       5.7 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         • of auxiliary circuit with degree of pollution 3 rated value       690 V         • of auxiliary circuit rated value       690 V         • of auxiliary circuit rated value       6 kV         • at AC       9.8g / 5 ms, 6.5g / 10 ms         • at AC       9.8g / 5 ms, 10.1g / 10 ms         mechanical service life (operating cycles)       10 000 000         • at AC       15.3g / 5 ms, 10.1g / 10 ms         mechanical service life (operating cycles)       10 000 000         • of contactor 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	power loss [W] for rated value of the current	
• without load current share typical       6.5 W         insulation voltage       690 V         • of main circuit with degree of pollution 3 rated value       690 V         surge voltage resistance       690 V         • of main circuit with degree of pollution 3 rated value       690 V         surge voltage resistance       640 V         • of main circuit rated value       6 kV         • of auxiliary circuit rated value       6 kV         • at AC       9.8g / 5 ms, 6.5g / 10 ms         • at AC       15.3g / 5 ms, 10.1g / 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         • of the contactor with added auxiliary switch block typical       10 000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       1001/2014         Ambient conditions       -25 +60 °C         • during storage       -55 +80 °C         • during storage <th><ul> <li>at AC in hot operating state</li> </ul></th> <th>17.1 W</th>	<ul> <li>at AC in hot operating state</li> </ul>	17.1 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       9.8g / 5 ms, 6.5g / 10 ms         • at AC       9.8g / 5 ms, 10.1g / 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 8136-2       Q         Substance Prohibitance (Date)       10/01/2014         Antient conditions       2 000 m         ambient temperature       -55 +60 °C         • during storage       -55 +60 °C         • during storage       -55 +80 °C	<ul> <li>at AC in hot operating state per pole</li> </ul>	5.7 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 kV       • 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     9.8 / 5 ms, 6.5g / 10 ms       • at AC     9.8 / 5 ms, 6.5g / 10 ms       shock resistance with sine pulse     10 000 000       • of contactor typical     10 000 000       • of the contactor with added electronically optimized auxiliary switch block typical     10 000 000       • of the contactor with added auxiliary switch block typical     10 000 000       reference code according to IEC 81346-2     Q       Substance Prohibitance (Date)     10/01/2014       Ambient conditions     -25 +60 °C       • during sprage     -55 +60 °C       • during storage     -55 +60 °C       • during storage     -55 +60 °C       • during storage     95 %       Main circuit     95 %	<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       9.8g / 5 ms, 6.5g / 10 ms         shock resistance with sine pulse       15.3g / 5 ms, 10.1g / 10 ms         • of contactor typical       10 000 000         • 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         • 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)       10/01/2014         Ambient conditions       2000 m         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -55 +60 °C         • during storage       -55 +60 °C         • during storage       -55 +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       9.8g / 5 ms, 6.5g / 10 ms         • at AC       9.8g / 5 ms, 10.1g / 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         • 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)       10/01/2014         Ambient conditions       -25 +60 °C         • during operation       -25 +60 °C         • during storage       -55 +80 °C         relative humidity at 55 °C according to IEC 60068-2-30       95 %         Main circuit       Main circuit	<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 V
• of main circuit rated value       6 kV         • of auxiliary circuit rated value       6 kV         maximum permissible voltage for protective separation between coll and main contacts according to EN 60947-1       400 V         shock resistance at rectangular impulse       400 V         • at AC       9.8g / 5 ms, 6.5g / 10 ms         shock resistance with sine pulse       9.8g / 5 ms, 10.1g / 10 ms         • at AC       15.3g / 5 ms, 10.1g / 10 ms         mechanical service life (operating cycles)       10 000 000         • of the contactor rypical       5 000 000         • of the contactor with added electronically optimized auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2014         Ambient conditions       2 000 m         ambient temperature       -25 +60 °C         • during operation       -25 +60 °C         • during storage       -55 +80 °C         relative humidity minum       10 %         95 %       95 %	<ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul>	690 V
• of auxiliary circuit rated value       6 kV         maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1       400 V         shock resistance at rectangular impulse       400 V         • at AC       9.8g / 5 ms, 6.5g / 10 ms         shock resistance with sine pulse       -         • at AC       15.3g / 5 ms, 10.1g / 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         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2014         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       400 V         shock resistance at rectangular impulse       9.8g / 5 ms, 6.5g / 10 ms         • at AC       9.8g / 5 ms, 6.5g / 10 ms         shock resistance at rectangular impulse       9.8g / 5 ms, 6.5g / 10 ms         • at AC       15.3g / 5 ms, 10.1g / 10 ms         mechanical service life (operating cycles)       000000         • 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)       10/01/2014         Ambient conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -55 +60 °C         • during operation       -25 +60 °C         • during storage       -55 +80 °C         relative humidity minimum       10 %         95 %       95 %	<ul> <li>of main circuit rated value</li> </ul>	6 kV
coil and main contacts according to EN 60947-1         shock resistance at rectangular impulse         • at AC       9.8g / 5 ms, 6.5g / 10 ms         shock resistance with sine pulse         • at AC       15.3g / 5 ms, 10.1g / 10 ms         mechanical service life (operating cycles)       10 000 000         • of 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)       10/01/2014         Ambient conditions       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	<ul> <li>of auxiliary circuit rated value</li> </ul>	6 kV
• at AC       9.8g / 5 ms, 6.5g / 10 ms         shock resistance with sine pulse       15.3g / 5 ms, 10.1g / 10 ms         • at AC       15.3g / 5 ms, 10.1g / 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         • of the contactor with added auxiliary switch block typical       10 000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2014         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       4000000000000000000000000000000000000		400 V
shock resistance with sine pulse       15.3g / 5 ms, 10.1g / 10 ms         e at AC       15.3g / 5 ms, 10.1g / 10 ms         mechanical service life (operating cycles)       0 000 000         • of contactor typical       10 000 000         • of the contactor with added electronically optimized auxiliary switch block typical       5 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       10/01/2014         Ambient conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -25 +60 °C         • during operation       -25 +80 °C         relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30       95 %         Main circuit	shock resistance at rectangular impulse	
• at AC15.3g / 5 ms, 10.1g / 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)10/01/2014Ambient 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 %Main circuitJ	• at AC	9.8g / 5 ms, 6.5g / 10 ms
mechanical service life (operating cycles)       10 000 000         • of contactor typical       10 000 000         • of the contactor with added electronically optimized auxiliary switch block typical       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)       10/01/2014         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       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)10/01/2014Ambient 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	15.3g / 5 ms, 10.1g / 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>10/01/2014</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)       10/01/2014         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)       10/01/2014         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)       10/01/2014         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)	10/01/2014
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	ambient temperature	
relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30       95 %         Main circuit       95 %	<ul> <li>during operation</li> </ul>	-25 +60 °C
relative humidity at 55 °C according to IEC 60068-2-30       95 %         Main circuit       95 %	during storage	-55 +80 °C
maximum Main circuit	relative humidity minimum	10 %
		95 %
number of poles for main current circuit 3	Main circuit	
	number of poles for main current circuit	3

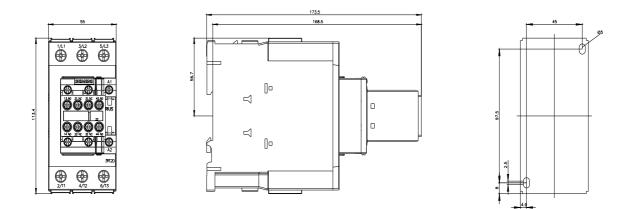
number of NO contacts for main contacts	3
operating voltage	
at AC-3 rated value maximum	690 V
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated	90 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	90 A
— up to 690 V at ambient temperature 60 °C rated	80 A
value	
• at AC-3	
— at 400 V rated value	80 A
— at 500 V rated value	80 A
— at 690 V rated value	58 A
• at AC-3e	
— at 400 V rated value	80 A
— at 500 V rated value	80 A
— at 690 V rated value	58 A
at AC-4 at 400 V rated value	55 A
at AC-5a up to 690 V rated value	79.2 A
<ul> <li>at AC-5b up to 400 V rated value</li> <li>at AC-6a</li> </ul>	66.4 A
	70 A
— up to 230 V for current peak value n=20 rated value	
<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>	70 A 70 A
— up to 500 V for current peak value n=20 rated value	58 A
• at AC-6a	50 A
<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	46.7 A
— up to 200 V for current peak value n=30 rated value	46.7 A
— up to 500 V for current peak value n=30 rated value	46.7 A
— up to 690 V for current peak value n=30 rated value	46.7 A
minimum cross-section in main circuit at maximum AC-1 rated	35 mm <sup>2</sup>
value	
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	30 A
at 690 V rated value	24 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	55 A
— at 60 V rated value	23 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	55 A
— at 60 V rated value	45 A
— at 110 V rated value	45 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	55 A
— at 60 V rated value	55 A
— at 110 V rated value	55 A
— at 220 V rated value	45 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>	

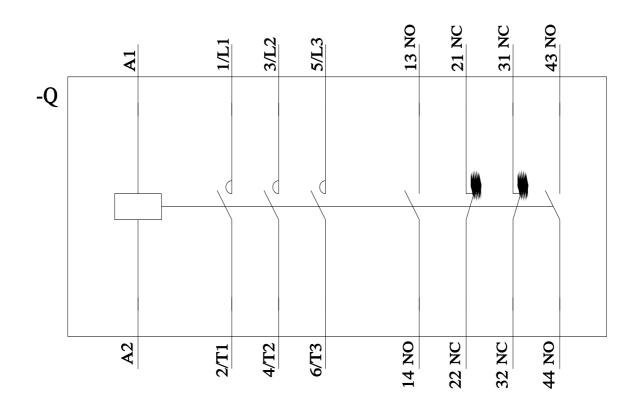
— at 24 V rated value	35 A
— at 60 V rated value	6 A
— at 220 V rated value	1 A
— at 440 V rated value	0.1 A
— at 600 V rated value	0.06 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	55 A
— at 60 V rated value	45 A
— at 110 V rated value	25 A
— at 220 V rated value	5 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	55 A
— at 60 V rated value	55 A
— at 110 V rated value	55 A
— at 220 V rated value	25 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.35 A
operating power	
at AC-2 at 400 V rated value	37 kW
• at AC-3	
- at 230 V rated value	22 kW
— at 200 V rated value	37 kW
	37 KW
— at 500 V rated value	
<ul> <li>— at 690 V rated value</li> <li>● at AC-3e</li> </ul>	45 kW
— at 230 V rated value	22 kW
— at 400 V rated value	37 kW
— at 500 V rated value	37 kW
— at 690 V rated value	45 kW
operating power for approx. 200000 operating cycles at AC- 4	
at 400 V rated value	15.8 kW
at 690 V rated value	21.8 kW
operating apparent power at AC-6a	
• up to 230 V for current peak value n=20 rated value	27.8 kVA
• up to 400 V for current peak value n=20 rated value	48.4 kVA
• up to 500 V for current peak value n=20 rated value	60.6 kVA
up to 690 V for current peak value n=20 rated value     operating apparent power at AC-6a	69.3 kVA
	18.6 1//
• up to 230 V for current peak value n=30 rated value	18.6 kVA
up to 400 V for current peak value n=30 rated value	32.3 kVA
• up to 500 V for current peak value n=30 rated value	40.4 kVA
up to 690 V for current peak value n=30 rated value	55.8 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>	1 298 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	898 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	640 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	414 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 50 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> </ul>	333 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	700 1/h
• at AC-1 maximum • at AC-2 maximum	350 1/h
• at AC-3 maximum	500 1/h
• at AC-3e maximum	500 1/h
at AC-4 maximum	150 1/h
Control circuit/ Control	

type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz rated value	110 V
• at 60 Hz rated value	120 V
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	212 VA
• at 60 Hz	188 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.69
• at 60 Hz	0.65
apparent holding power of magnet coil at AC	
• at 50 Hz	18.5 VA
• at 60 Hz	16.5 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.36
• at 60 Hz	0.39
closing delay	
• at AC	10 80 ms
opening delay	
• at AC	10 18 ms
arcing time	10 20 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous	2
contact number of NO contacts for auxiliary contacts instantaneous	2
contact	
operational current at AC-12 maximum	10 A
operational current at AC-15	
• at 230 V rated value	6 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
<ul> <li>at 60 V rated value</li> </ul>	6 A
• at 110 V rated value	3 A
• at 125 V rated value	2 A
• at 220 V rated value	1 A
• at 600 V rated value	0.15 A
operational current at DC-13	
• at 24 V rated value	6 A
-	6 A 2 A
• at 24 V rated value	
<ul><li>at 24 V rated value</li><li>at 48 V rated value</li></ul>	2 A
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> </ul>	2 A 2 A
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> </ul>	2 A 2 A 1 A
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> </ul>	2 A 2 A 1 A 0.9 A
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>UL/CSA ratings</li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> </ul> UL/CSA ratings full-load current (FLA) for 3-phase AC motor	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> </ul> </li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA) 65 A
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> </ul> UL/CSA ratings full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA) 65 A
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> </ul> </li> </ul>	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA) 65 A

<ul> <li>at 230 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>bp</li> <li>at 220/230 V rated value</li> <li>bp</li> <li>at 460/480 V rated value</li> <li>bp</li> <li>at 460/480 V rated value</li> <li>bp</li> <li>at 575/600 V rated value</li> <li>bp</li> <li>contact rating of auxiliary contacts according to UL</li> <li>A600 / Q600</li> <li>Short-circuit protection</li> <li>design of the fuse link</li> <li>for short-circuit protection of the main circuit</li> <li>with type of coordination 1 required</li> <li>gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 kA)</li> <li>with type of assignment 2 required</li> <li>gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)</li> <li>for short-circuit protection of the auxiliary switch required</li> <li>gG: 10 A (500 V, 1 kA)</li> </ul>	
at 200/208 V rated value20 hp at 220/230 V rated value25 hp at 460/480 V rated value50 hp at 575/600 V rated value60 hpcontact rating of auxiliary contacts according to ULA600 / Q600Short-circuit protectiondesign of the fuse link• for short-circuit protection of the main circuit with type of coordination 1 requiredgG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 kA) with type of assignment 2 requiredgG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)	
— at 575/600 V rated value       60 hp         contact rating of auxiliary contacts according to UL       A600 / Q600         Short-circuit protection       design of the fuse link         • for short-circuit protection of the main circuit       - with type of coordination 1 required         — with type of assignment 2 required       gG: 160A (690V, 100kA), aM: 80A (690V, 100kA), BS88: 125A (415V,80kA)	
contact rating of auxiliary contacts according to UL       A600 / Q600         Short-circuit protection       design of the fuse link         • for short-circuit protection of the main circuit	
Short-circuit protection         design of the fuse link         • for short-circuit protection of the main circuit         — with type of coordination 1 required         gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 kA)         — with type of assignment 2 required         gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)	
design of the fuse link         • for short-circuit protection of the main circuit         — with type of coordination 1 required         gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 kA)         — with type of assignment 2 required         gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)	
for short-circuit protection of the main circuit         — with type of coordination 1 required         gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 kA)         — with type of assignment 2 required         gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)	
— with type of coordination 1 required       gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 kA)         — with type of assignment 2 required       gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)	
kA)           — with type of assignment 2 required         gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)	
	V, 80
<ul> <li>for short-circuit protection of the auxiliary switch required αG: 10 A (500 V, 1 kA)</li> </ul>	)
Installation/ mounting/ dimensions	
mounting position         +/-180° rotation possible on vertical mounting surface; can be tilted forwar           backward by +/- 22.5° on vertical mounting surface	d and
fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60	715
• side-by-side mounting Yes	
height 114 mm	
width 55 mm	
depth 174 mm	
required spacing	
with side-by-side mounting	
— forwards 10 mm	
— upwards 10 mm	
— downwards 10 mm	
— at the side 0 mm	
for grounded parts	
— 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 auxiliary and control circuit screw-type terminals     at contactor for auxiliary contacts Screw-type terminals	
of magnet coil     Screw-type terminals	
type of connectable conductor cross-sections for main contacts	
• solid or stranded 2x (1 35 mm <sup>2</sup> ), 1x (1 50 mm <sup>2</sup> )	
finely stranded with core end processing     2x (1 25 mm <sup>2</sup> ), 1x (1 35 mm <sup>2</sup> )	
connectable conductor cross-section for main contacts	
finely stranded with core end processing     1 35 mm <sup>2</sup>	
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 mm <sup>2</sup>	
type of connectable conductor cross-sections	
• for auxiliary contacts	
- solid or stranded 2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> )	
- finely stranded with core end processing 2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> )	
• for AWG cables for auxiliary contacts 2x (20 16), 2x (18 14)	
AWG number as coded connectable conductor cross section	
• for main contacts 18 1	
• for auxiliary contacts 20 14	

Safoty rolated data					
afety related data					
product function	populate IEC CODAT 1 1		Vaa		
	according to IEC 60947-4-1	0004754	Yes		
<ul> <li>positively driven operation according to IEC 60947-5-1</li> </ul>		No			
suitability for use safety-related switching OFF		04000	Yes		
	emand rate according to SN	31920	1 000 000		
proportion of danger					
	id rate according to SN 319		40 %		
	nd rate according to SN 319		73 %		
	ow demand rate according		100 FIT		
T1 value for proof test 61508	interval or service life acco	rding to IEC	20 a		
	on the front according to II	C 60529	IP20		
-	the front according to IEC		finger-safe, for vertical conta	ct from the front	
Certificates/ approvals		00020	inger care, for vertical conta		
General Product Ap					
General Product Ap	provai				
	$\frown$	Confirmation	$\sim$	KC	
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EMC	Functional Safety/Safety of Ma-	Declaration of	Conformity	Test Certificates	
	chinery		•		
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A	<u>Type Examination Cer-</u> tificate	~ ~ ~	UK	<u>Type Test Certific-</u> ates/Test Report	Special Test Certific- ate
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RCM		EG-Konf.	СН		
			Register		
AB3	VERITAS	Div	643	Ph3	NRO
Marine / Shipping	other		Railway	Dangerous Good	
	Confirmation	<b>Confirmatior</b>	<u>Vibration and Shock</u>	Transport Information	
RMRS					
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	d to exit the Russian mark com/global/en/pressrelease		<u>wn-russian-</u> business		
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