## SIEMENS

## Data sheet

## 3RT2045-1AL00



power contactor, AC-3e/AC-3, 80 A, 37 kW / 400 V, 3-pole, 125 V AC, 50 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S3

product brand name         SIRIUS           product designation         Power contactor           product type designation         SRT2           Canazal technical data         S3           size of contactor         S3           product extension         No           • auxiliary switch         Yes           power loss [W] for rated value of the current         5.9 W           • at AC in hot operating state         5.9 W           • at AC in hot operating state per pole         5.3 W           • without load current share typical         7.3 W           insulation voitage         1000 V           • of main circult with degree of pollution 3 rated value         690 V           • of auxiliary circult with degree of pollution 3 rated value         690 V           • of auxiliary circult rated value         8 kV           • of auxiliary circult rated value         8 kV           • of auxiliary circult rated value         8 kV           • of auxiliary circult rated value         90 V           • of auxiliary circult rated value         8 kV           • of auxiliary circult rated value         90 V           • of auxiliary circult rated value         10.3g / 5 ms, 6.g / 10 ms           machiner protactive separation betweent contactor with added auxiliary switch block typical	40 40	
product type designation         3RT2           Canoral technical data         S3           groduct extension         S3           • function module for communication         No           • auxilary switch         Yes           power loss [W] for rated value of the current         15.9 W           • at AC in hot operating state         15.9 W           • at AC in hot operating state per pole         5.3 W           • without load current share typical         7.3 W           Insulation voltage         60 main circult with degree of pollution 3 rated value           • of main circult with degree of pollution 3 rated value         600 V           surge voltage resistance         64V           • of auxiliary circult rated value         8 kV           • of auxiliary circult rated value         600 V           surge voltage resistance         64V           • of auxiliary circult rated value         8 kV           • of auxiliary circult rated value         600 V           • of auxiliary switch         6100 V           • of consin contrads according to EN 00347-1         600 V           • of contrads according to protective separation betweent         610 / go 000 V           • of contrads the protective separation betweent         610.3g / 5 ms, 6g / 10 ms           • of	product brand name	SIRIUS
General technical data     S3       size of contactor     S3       product extension     No       • function module for communication     No       • auxiliary switch     Yes       power loss [W] for rated value of the current     5.3 W       • at AC in hot operating state     15.9 W       • without load current share typical     7.3 W       insulation voltage     1000 V       • of main circuit with degree of pollution 3 rated value     900 V       surge voltage resistance     8 kV       • of main circuit with degree of pollution 3 rated value     8 kV       • of main circuit with degree of pollution 3 rated value     8 kV       • of auxiliary circuit rated value     8 kV       • of contactor typical     10.3g / 5 ms, 6, g / 10 ms       mechanical service life (operating cycles)     1000 000       • of the contactor with added auxiliary switch block typical     10000 000       • of the contactor with added auxiliary switch block typical     10000 000       • of the contactor with added auxiliary switch block typical     10000 000       • of the contactor with added auxiliary switch block typical	product designation	Power contactor
size of contactor         S3           product extension         No           • function module for communication         No           • auxiliary switch         Yes           power loss [W] for rated value of the current         5.3 W           • at AC in hot operating state per pole         5.3 W           • without load current share typical         7.3 W           insulation voltage         1 000 V           • of main circuit with degree of pollution 3 rated value         690 V           surger voltage resistance         6 kV           • of main circuit with degree of pollution 3 rated value         690 V           surger voltage resistance         6 kV           • of main circuit with degree of pollution 3 rated value         600 V           of main circuit rated value         6 kV           e of auxiliary circuit rated value         6 kV           shock resistance at rectangular impulse         600 V           • of contactor with sine pulse         10.3g / 5 ms, 6, g / 10 ms           shock resistance withs ine pulse         10.3g / 5 ms, 10.g / 10 ms           • of contactor with added electronically optimized         100 00000           • of the contactor with added auxiliary switch block typical         10 000 000           of the contactor with added auxiliary switch block typical	product type designation	3RT2
product extension     No       • function module for communication     No       • auxiliary switch     Yes       power loss [W] for rated value of the current     15.9 W       • at AC in hot operating state     15.9 W       • at AC in hot operating state prole     5.3 W       • without load current share typical     7.3 W       insulation voltage     600 V       • of main circuit with degree of pollution 3 rated value     600 V       surge voltage resistance     600 V       • of main ling vicinit rated value     8 kV       • of main ling vicinit rated value     8 kV       • of main ling vicinit rated value     600 V       surge voltage resistance     600 V       • of main ling vicinit rated value     8 kV       • of main ling vicinit rated value     8 kV       • of analizing vicinit rated value     8 kV       • of analizing vicinit rated value     8 kV       • of analizing vicinit rated value     10.3g / 5 ms, 6, g / 10 ms       shock resistance with sine pulse     10.3g / 5 ms, 10.g / 10 ms       • at AC     16.3g / 5 ms, 10.g / 10 ms       mechanical service life (operating cycles)     10 000 000       • of the contractor with added electronically optimized auxiliary switch block typical     10 000 000       reference code according to IEC 81346-2     Q       Sub	General technical data	
• function module for communication     No       • auxiliary switch     Yes       power loss [W] for rated value of the current     5.9 W       • at AC in hot operating state     15.9 W       • at AC in hot operating state per pole     5.3 W       • of main circuit with degree of pollution 3 rated value     1000 V       • of main circuit with degree of pollution 3 rated value     600 V       • of main circuit with degree of pollution 3 rated value     8kV       • of main circuit with degree of pollution 3 rated value     8kV       • of main circuit and value     8kV       • of auxiliary circuit rated value     10.3g / 5 ms, 6, g / 10 ms       shock resistance at rectangular impulse     10.3g / 5 ms, 10.g / 10 ms       • at AC     16.3g / 5 ms, 10.g / 10 ms       mechanical service life (operating cycles)     10 000 000       • of the contactor which added auxiliary switch block typical     10 000 000       • of the contactor which added auxiliary switch block typical     10 000 000       reference code according to IEX 6046-2 <t< th=""><th>size of contactor</th><th>S3</th></t<>	size of contactor	S3
• auxiliary switch     Yes       power loss [W] for rated value of the current     15.9 W       • at AC in hot operating state     15.9 W       • at AC in hot operating state per pole     5.3 W       • without load current share typical     7.3 W       insulation voltage     1000 V       • of main circuit with degree of pollution 3 rated value     600 V       surge voltage resistance     600 V       • of auxiliary circuit with degree of pollution 3 rated value     8 kV       • of auxiliary circuit with degree of pollution 3 rated value     8 kV       • of auxiliary circuit with degree of pollution 3 rated value     8 kV       • of auxiliary circuit with degree of pollution 3 rated value     8 kV       • of auxiliary circuit rated value     8 kV       • at AC     10.3g /5 ms, 6, g / 10 ms       shock resistance with sine pulse     10.3g /5 ms, 10 g / 10 ms       • at AC     10.3g /5 ms, 10 g / 10 ms       • at AC     10.3g /5 ms, 10 g / 10 ms       • of contactor typical     10 000 000       • of the contactor with added electronically optimized auxiliary switch block typical     10 000 000       • of the contactor with added auxiliary switch block typical     10 000 000	product extension	
power loss [W] for rated value of the current     1000       • at AC in hot operating state     15.9 W       • at AC in hot operating state prole     5.3 W       • without load current share typical     7.3 W       insulation voltage     1000 V       • of main circuit with degree of pollution 3 rated value     690 V       surge voltage resistance     6100 V       • of main circuit with degree of pollution 3 rated value     84V       • of auxiliary circuit rated value     840 V       • at AC     10.3g / 5 ms, 6.g / 10 ms       shock resistance at rectangular impulse     10.3g / 5 ms, 10.g / 10 ms       • at AC     10.3g / 5 ms, 10.g / 10 ms       mechanical service life (operating cycles)     10 000 000       • of the contactor with added auxiliary switch block typical     10 000 000	<ul> <li>function module for communication</li> </ul>	No
• at AC in hot operating state       15.9 W         • at AC in hot operating state per pole       5.3 W         • without load current share typical       7.3 W         insultation voltage       7.3 W         • of main circuit with degree of pollution 3 rated value       1000 V         • of auxiliary circuit with degree of pollution 3 rated value       690 V         surge voltage resistance       680 V         • of auxiliary circuit rated value       6 kV         shock resistance at rectangular impulse       690 V         • at AC       10.3g / 5 ms, 6.g / 10 ms         shock resistance with sine pulse       10.3g / 5 ms, 10.g / 10 ms         • at AC       10 000 000         • of the contactor with added electronically optimized       2000 00         • auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       0000 000	auxiliary switch	Yes
• at AC in hot operating state per pole       5.3 W         • withbut load current share typical       7.3 W         insulation voltage       1000 V         • of main circuit with degree of pollution 3 rated value       600 V         surge voltage resistance       600 V         • of main circuit with degree of pollution 3 rated value       600 V         • of auxiliary circuit rated value       8 kV         • at AC       10.3g / 5 ms, 6, g / 10 ms         shock resistance with sine pulse       10.3g / 5 ms, 10.g / 10 ms         • at AC       10.3g / 5 ms, 10.g / 10 ms         • of contactor typical       10 000 000         • of the contactor with added electronically optimized auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         reference code according to IEC 81346-2       Q <t< th=""><td>power loss [W] for rated value of the current</td><td></td></t<>	power loss [W] for rated value of the current	
• without load current share typical       7.3 W         Insulation voltage       • of main circuit with degree of pollution 3 rated value       1000 V         • of auxiliary circuit with degree of pollution 3 rated value       690 V         surge voltage resistance       690 V         • of main circuit rated value       8 kV         • of auxiliary circuit rated value       8 kV         • of auxiliary circuit rated value       6 kV         maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1       690 V         shock resistance at rectangular impulse       690 V         • at AC       10.3g / 5 ms, 6.g / 10 ms         shock resistance with sine pulse       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       0 000 000         • of the contactor with added auxiliary switch block typical       0 000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       0 301/2017         Ambient conditions       -25 +60 °C         • during storage       -55 +80 °C         relative humidity minimum <td><ul> <li>at AC in hot operating state</li> </ul></td> <td>15.9 W</td>	<ul> <li>at AC in hot operating state</li> </ul>	15.9 W
insulation voltage <ul> <li>of main circuit with degree of pollution 3 rated value</li> <li>of auxiliary circuit with degree of pollution 3 rated value</li> <li>of auxiliary circuit with degree of pollution 3 rated value</li> <li>of auxiliary circuit with degree of pollution 3 rated value</li> <li>of auxiliary circuit with degree of pollution 3 rated value</li> <li>of auxiliary circuit rated value</li> <li>of auxiliary circuit rated value</li> <li>a KV</li> <li>of auxiliary circuit rated value</li> <li>a KV</li> <li>of auxiliary circuit rated value</li> <li>a KV</li> <li>of auxiliary circuit rated value</li> <li>b KV</li> <li>at AC</li> <li>b cock resistance at rectangular impulse</li> <li>at AC</li> <li>b cock resistance with sine pulse</li> <li>at AC</li> <li>b cock resistance tife (operating cycles)</li> <li>of contactor with added electronically optimized</li> <li>a 000 000</li> <li>contactor with added auxiliary switch block typical</li> <li>b 000 000</li> </ul> <ul> <li>of the contactor with added auxiliary switch block typical</li> <li>b 000 000</li> <li>contactor with added subset auxiliary switch block typical</li> <li>b 000 000</li> </ul> <ul> <li>contactor with added subset auxiliary switch block typical</li> <li>b 000 000</li> <li>cof</li></ul>	<ul> <li>at AC in hot operating state per pole</li> </ul>	5.3 W
• of main circuit with degree of pollution 3 rated value       1 000 V         • of auxiliary circuit with degree of pollution 3 rated value       690 V         surge voltage resistance       8 kV         • of auxiliary circuit rated value       8 kV         maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1       690 V         shock resistance at rectangular impulse       690 V         • at AC       10.3g / 5 ms, 6.g / 10 ms         shock resistance with sine pulse       10 000 000         • at AC       16.3g / 5 ms, 10.g / 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)       03/01/2017         Ambient conditions       -25 +60 °C         • during operation       -25 +60 °C         • during storage       -55 +60 °C         • during storage       -55 +60 °C         • during storage       -55 +60 °C         • during storage	<ul> <li>without load current share typical</li> </ul>	7.3 W
• of auxiliary circuit with degree of pollution 3 rated value       690 V         surge voltage resistance       8 kV         • of main circuit rated value       8 kV         • of auxiliary circuit rated value       6 kV         maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1       690 V         shock resistance at rectangular impulse       690 V         • at AC       10.3g / 5 ms, 6, g / 10 ms         shock resistance with sine pulse       10.3g / 5 ms, 10.g / 10 ms         • at AC       16.3g / 5 ms, 10.g / 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         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       03/01/2017         Ambient conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -25 +60 °C         • during storage       -55 +80 °C     <	insulation voltage	
surge voltage resistance <ul> <li>of main circuit rated value</li> <li>of auxiliary circuit rated value</li> <li>of auxiliary circuit rated value</li> <li>fkV</li> </ul> e of auxiliary circuit rated value         6 kV           maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1             shock resistance at rectangular impulse <ul> <li>at AC</li> <li>10.3g / 5 ms, 6, g / 10 ms</li> </ul> shock resistance with sine pulse <ul> <li>at AC</li> <li>16.3g / 5 ms, 10.g / 10 ms</li> </ul> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <ul> <li>10 000 000</li> </ul> <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>03/01/2017</li> <li>Ambient conditions</li> <li>installation altitude at height above sea level maximum</li> <li>2000 m</li> <li>ambient temperature</li>	<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	1 000 V
• of main circuit rated value       8 kV         • of auxiliary circuit rated value       6 kV         maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1       690 V         shock resistance at rectangular impulse       690 V         • at AC       10.3g / 5 ms, 6, g / 10 ms         shock resistance with sine pulse       16.3g / 5 ms, 10.g / 10 ms         • at AC       16.3g / 5 ms, 10.g / 10 ms         mechanical service life (operating cycles)       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         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       03/01/2017         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 %	of auxiliary circuit with degree of pollution 3 rated value	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       690 V         shock resistance at rectangular impulse       690 V         • at AC       10.3g / 5 ms, 6,.g / 10 ms         shock resistance with sine pulse       16.3g / 5 ms, 10.g / 10 ms         • at AC       16.3g / 5 ms, 10.g / 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)       03/01/2017         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 at 55 °C according to IEC 60068-2-30       95 %         Main circuit       95 %	surge voltage resistance	
maximum permissible voltage for protective separation between       690 V         coil and main contacts according to EN 60947-1       690 V         shock resistance at rectangular impulse       630 V         • at AC       10.3g / 5 ms, 6, g / 10 ms         shock resistance with sine pulse       16.3g / 5 ms, 10.g / 10 ms         • at AC       16.3g / 5 ms, 10.g / 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)       03/01/2017         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 %         95 %       95 %	<ul> <li>of main circuit rated value</li> </ul>	8 kV
coil and main contacts according to EN 60947-1         shock resistance at rectangular impulse         • at AC       10.3g / 5 ms, 6, g / 10 ms         shock resistance with sine pulse         • at AC       16.3g / 5 ms, 10.g / 10 ms         mechanical service life (operating cycles)         • of contactor typical         • of the contactor with added electronically optimized auxiliary switch block typical         • of the contactor with added auxiliary switch block typical         • of the contactor is according to IEC 81346-2         Q         Substance Prohibitance (Date)         03/01/2017         Ambient conditions         installation altitude at height above sea level maximum       2 000 m         ambient temperature         • 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	<ul> <li>of auxiliary circuit rated value</li> </ul>	6 kV
• at AC       10.3g / 5 ms, 6, g / 10 ms         shock resistance with sine pulse       6.3g / 5 ms, 10.g / 10 ms         • at AC       16.3g / 5 ms, 10.g / 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)       03/01/2017         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		690 V
shock resistance with sine pulse       16.3g / 5 ms, 10.g / 10 ms         e at AC       16.3g / 5 ms, 10.g / 10 ms         mechanical service life (operating cycles)       10 000 000         • of contactor typical       10 000 000         • of the contactor with added electronically optimized auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       03/01/2017         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 AC16.3g / 5 ms, 10.g / 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 typical0 000 000• of the contactor with added auxiliary switch block typical0 000 000reference code according to IEC 81346-2QSubstance Prohibitance (Date)03/01/2017Ambient 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 %Main circuít95 %	• at AC	10.3g / 5 ms, 6,.g / 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)       03/01/2017         Ambient conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -25 +60 °C         • during operation       -25 +60 °C         • during storage       -55 +80 °C         relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30       95 %         Main circuit       Main circuit	shock resistance with sine pulse	
<ul> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor typical</li> <li>the contactor</li></ul>	• at AC	16.3g / 5 ms, 10.g / 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>03/01/2017</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>etative humidity minimum</li> <li>10 %</li> </ul> </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)       03/01/2017         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)       03/01/2017         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)       03/01/2017         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       4	Substance Prohibitance (Date)	03/01/2017
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       95 %         Main circuit       95 %	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

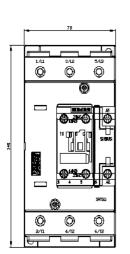
number of NO contacts for main contacts	3
operating voltage	
• at AC-3 rated value maximum	1 000 V
<ul> <li>at AC-3e rated value maximum</li> </ul>	1 000 V
operational current	
<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated</li> </ul>	125 A
value	
• at AC-1	
<ul> <li>— up to 690 V at ambient temperature 40 °C rated value</li> </ul>	125 A
— up to 690 V at ambient temperature 60 °C rated	105 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 1000 V rated value	30 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 1000 V rated value	30 A
<ul> <li>at AC-4 at 400 V rated value</li> </ul>	66 A
• at AC-5a up to 690 V rated value	110 A
<ul> <li>at AC-5b up to 400 V rated value</li> </ul>	80 A
• at AC-6a	
<ul> <li>— up to 230 V for current peak value n=20 rated value</li> </ul>	80 A
<ul> <li>— up to 400 V for current peak value n=20 rated value</li> </ul>	80 A
<ul> <li>— up to 500 V for current peak value n=20 rated value</li> </ul>	80 A
<ul> <li>— up to 690 V for current peak value n=20 rated value</li> </ul>	58 A
● at AC-6a	
<ul> <li>— up to 230 V for current peak value n=30 rated value</li> </ul>	54 A
<ul> <li>— up to 400 V for current peak value n=30 rated value</li> </ul>	54 A
<ul> <li>— up to 500 V for current peak value n=30 rated value</li> </ul>	54 A
<ul> <li>— up to 690 V for current peak value n=30 rated value</li> </ul>	54 A
minimum cross-section in main circuit at maximum AC-1 rated value	50 mm <sup>2</sup>
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	34 A
at 690 V rated value	24 A
operational current	2.77
• at 1 current path at DC-1	
— at 24 V rated value	100 A
— at 60 V rated value	60 A
— at 110 V rated value	9 A
— at 220 V rated value	2 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.4 A
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	100 A
— at 60 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	10 A
— at 440 V rated value	1.8 A
— at 600 V rated value	1 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	100 A
— at 60 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	80 A
— at 440 V rated value	4.5 A

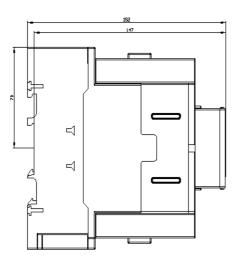
— at 600 V rated value	2.6 A
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	40 A
— at 60 V rated value	6 A
— at 110 V rated value	2.5 A
— at 220 V rated value	1A
— at 440 V rated value	0.15 A
— at 600 V rated value	0.06 A
• with 2 current paths in series at DC-3 at DC-5	400 A
— at 24 V rated value — at 60 V rated value	100 A
	100 A 100 A
— at 110 V rated value — at 220 V rated value	7 A
— at 440 V rated value	0.42 A
— at 600 V rated value	0.42 A
with 3 current paths in series at DC-3 at DC-5	0.10 A
- at 24 V rated value	100 A
— at 60 V rated value	100 A
— at 100 V rated value	100 A
— at 220 V rated value	35 A
— at 440 V rated value	0.8 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 400 V rated value	37 kW
— at 500 V rated value	45 kW
— at 690 V rated value	55 kW
— at 1000 V rated value	37 kW
• at AC-3e	
— at 230 V rated value	22 kW
— at 400 V rated value	37 kW
— at 500 V rated value	45 kW
— at 690 V rated value	55 kW
— at 1000 V rated value	37 kW
operating power for approx. 200000 operating cycles at AC-	
at 400 V rated value	17.9 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	31 kVA
• up to 400 V for current peak value n=20 rated value	55 kVA
• up to 500 V for current peak value n=20 rated value	69 kVA
• up to 690 V for current peak value n=20 rated value	69 kVA
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	21.5 kVA
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	37.4 kVA
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	46.7 kVA
<ul> <li>up to 690 V for current peak value n=30 rated value</li> </ul>	64.5 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>	1 500 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	1 186 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	851 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	538 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	423 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	900 1/h

• at AC-2 maximum	400 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	125 V
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 1.1
<ul> <li>apparent pick-up power of magnet coil at AC</li> <li>at 50 Hz</li> </ul>	296 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.61
apparent holding power of magnet coil at AC	
• at 50 Hz	19 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.38
closing delay	
• at AC	13 50 ms
opening delay	
• at AC	10 21 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 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	
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	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
<ul> <li>at 125 V rated value</li> </ul>	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	10 A
at 48 V rated value	2 A
at 60 V rated value	2 A
• at 110 V rated value	1 A
• at 125 V rated value	0.9 A
at 220 V rated value	0.3 A
at 600 V rated value	0.1 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	77 A
at 600 V rated value	62 A
yielded mechanical performance [hp]	
for single-phase AC motor	
- at 110/120 V rated value	7.5 hp
— at 230 V rated value	15 hp

e for 3-phase AC motor	
<ul> <li>for 3-phase AC motor</li> <li>— at 200/208 V rated value</li> </ul>	25 hp
— at 200/208 V rated value	30 hp
- at 460/480 V rated value	60 hp
- at 575/600 V rated value	60 hp
contact rating of auxiliary contacts according to UL	A600 / P600
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: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA)
<ul> <li>— with type of assignment 2 required</li> </ul>	gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and
	backward by +/- 22.5° on vertical mounting surface
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
<ul> <li>side-by-side mounting</li> </ul>	Yes
height	140 mm
width	70 mm
depth	152 mm
required spacing	
<ul> <li>with side-by-side mounting</li> </ul>	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
<ul> <li>for grounded parts</li> </ul>	
— forwards	20 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
<ul> <li>for live parts</li> </ul>	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 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	
<ul> <li>finely stranded with core end processing</li> </ul>	2x (2.5 35 mm²), 1x (2.5 50 mm²)
connectable conductor cross-section for main contacts	
• solid	2.5 16 mm <sup>2</sup>
stranded	6 70 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	2.5 50 mm <sup>2</sup>
connectable conductor cross-section for auxiliary contacts	
<ul> <li>solid or stranded</li> </ul>	0.5 2.5 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm²
type of connectable conductor cross-sections	
<ul> <li>for auxiliary contacts</li> </ul>	
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>for AWG cables for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14)
AWG number as coded connectable conductor cross section	
<ul> <li>for main contacts</li> </ul>	10 2
<ul> <li>for auxiliary contacts</li> </ul>	20 14

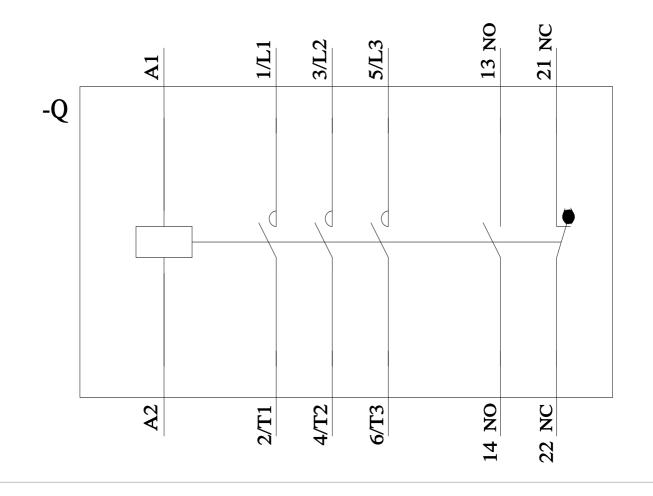
afety related data					
product function					
	according to IEC 60947-4-1	Yes	3		
. ,	n operation according to IEC				
-	ety-related switching OFF	Yes			
¥	lemand rate according to SN	1 31920 1 0	00 000		
proportion of dange					
	nd rate according to SN 319				
	and rate according to SN 319				
	low demand rate according		) FIT		
T1 value for proof tes 61508	t interval or service life acco	ording to IEC 20	а		
	on the front according to I	EC 60529 IP2	0		
•	the front according to IEC		er-safe, for vertical conta	act from the front	
ertificates/ approval					
General Product Ap					
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(Ste	<u>Confirmation</u>		(ŲL) u	KC	EHC
EMC	Functional Safety/Safety of Ma- chinery	Declaration of Conf	ormity	Test Certificates	
			EG-Konf.		
Marine / Shipping	ĴÅ	Lloyds Register	6		
Marine / Shipping	Railway	Lloyds Register URS	PRS Environment	RINA	<b>KMRS</b>
ABS	Railway Vibration and Shock		PRS	RINA	<b>EXAMPLE</b>
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