## SIEMENS

## Data sheet

## 3RT2047-1XB40-0LA2



traction contactor, AC-3e/AC-3, 110 A, 55 kW / 400 V, 3-pole, 24 V DC, 0.7-1.25\* Us, electronic drive, with integrated varistor, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S3

product brand name         SIRUS           product designation         Power contactor           design of the product         With extended operating range           product type designation         3RT2           Ceneral technical data         S3           size of contactor         S3           • function module for communication         No           • function module for communication         Yes           power loss [M] for rated value of the current         7.9 W           • at AC in hot operating state per pole         7.9 W           • of main circul with degree of pollution 3 rated value         600 V           • of auxiliary circult with degree of pollution 3 rated value         600 V           • of auxiliary circult rated value         8 kV           • at DC         6.7 g / 5 ms, 6.3 g / 10 ms           metatoDC         6.7 g / 5 ms, 6.3 g / 10 ms <th>64</th> <th></th>	64	
design of the product         With extended operating range           product type designation         3RT2           General technical data	product brand name	SIRIUS
product type designation         3RT2           General technical data	product designation	Power contactor
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	design of the product	With extended operating range
size of contactor     §3       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 per pole     7.9 W       insulation voltage     • of main circuit with degree of pollution 3 rated value     1000 V       • of main circuit with degree of pollution 3 rated value     680 V       surge voltage resistance     6 kV       • of main circuit rated value     8 kV       • of main circuit rated value     6 kV       • of analizing vicinuit rated value     6 kV       • of main circuit rated value     8 kV       • of main circuit rated value     6 kV       • of main circuit rated value     8 kV       • of auxiliary scinuct rated value     600 V       • at DC     6.7 g / 5 ms, 4g / 10 ms       maximum permissible voltage for protective separation between col and main contactor supical     10.00 000       • at DC     10.6 g / 5 ms, 6.3 g / 10 ms       mechanical service life (operating cycles)     1000 0000       • of the contactor with added electronically optimized auxiliary switch block typical     1000 0000       reference code according to IEC 81346-2     Q       Substance Prohibitance (Date)     3/01/2017       Ambient temperature     40 +70 °C       • during operation	product type designation	3RT2
product extension         No           • function module for communication         No           • auxiliary switch         Yes           • at AC in hot operating state         23.7 W           • at AC in hot operating state per pole         7.9 W           • at AC in hot operating state per pole         7.9 W           • of main circuit with degree of pollution 3 rated value         600 V           • of main circuit with degree of pollution 3 rated value         600 V           • of main circuit with degree of pollution 3 rated value         800 V           • of main circuit with degree of pollution 3 rated value         800 V           • of main circuit rated value         8 kV           • of auxiliary circuit rated value         10 000 V           • at DC         10.6 g / 5 ms, 6.3 g / 10 ms           mechanica	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         23.7 W           • at AC in hot operating state per pole         7.9 W           • of main circuit with degree of pollution 3 rated value         600 V           • of main circuit rated value         600 V           • of auxiliary circuit with degree of pollution 3 rated value         600 V           • of auxiliary circuit rated value         6 KV           • of auxiliary circuit rated value         6 KV           • of auxiliary witch block type         6 KV           maximum permissible voltage for protective separation between coll and main contacts according to EN 60947-1         6 KV           • at DC         6.7 g / 5 ms, 4g / 10 ms           • at DC         10.6 g / 5 ms, 6.3 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 value         2 000 m           ambiont conditions	size of contactor	S3
• auxiliary switch     Yes       power loss [W] for rated value of the current     2.3 r W       • at AC in hot operating state     2.3 r W       • at AC in hot operating state per pole     7.9 W       insulation voltage     1000 V       • of main circuit with degree of pollution 3 rated value     600 V       • of main circuit with degree of pollution 3 rated value     600 V       • of main circuit vith degree of pollution 3 rated value     6kV       • of main circuit rated value     6kV       • of auxiliary circuit rated value     6kV       • at DC     6.7 g / 5 ms, 4 g / 10 ms       • at DC     10.6 g / 5 ms, 6.3 g / 10 ms       • 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     10000 000       • of the c	product extension	
power loss [W] for rated value of the current         23.7 W           • at AC in hot operating state         23.7 W           • at AC in hot operating state per pole         7.9 W           Insulation voltage         7.9 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         6 k/V           • of auxiliary circuit rated value         6 k/V           of auxiliary circuit rated value         6 k/V           of auxiliary circuit rated value         6 k/V           maximum permissible voltage for protective separation between coll and main contacts according to Ek 60947-1         600 V           shock resistance at rectangular impulse         6.7 g / 5 ms, 4g / 10 ms           • at DC         10.6 g / 5 ms, 6.3 g / 10 ms           • at DC         10.6 g / 5 ms, 6.3 g / 10 ms           • of ontactor 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         030/01/2017           Ambient conditions         2000 m           installation alti	<ul> <li>function module for communication</li> </ul>	No
• at AC in hot operating state       23.7 W         • at AC in hot operating state per pole       7.9 W         insulation voltage       1000 V         • of main circuit with degree of pollution 3 rated value       1000 V         • of main circuit with degree of pollution 3 rated value       690 V         surge voltage resistance       8 kV         • of auxiliary circuit rated value       8 kV         • of auxiliary circuit rated value       6 kV         maximum permissible voltage for protective separation between coll and main contacts according to EN 60947-1       600 V         shock resistance at rectangular impulse       6.7 g / 5 ms, 4g / 10 ms         shock resistance with sine pulse       10 000 000         • at DC       10.6 g / 5 ms, 6.3 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         • 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 electronically optimized auxili	auxiliary switch	Yes
• at AC in hot operating state per pole       7.9 W         insulation voltage       1000 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       6 kV         • of auxiliary 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       690 V         shock resistance at rectangular impulse       6.7 g / 5 ms, 4g / 10 ms         • at DC       10.6 g / 5 ms, 6.3 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 electronically optimized auxiliary switch block typical       0 000 000         • of the contactor with added auxiliary switch block typical       0 000 000         • of the contactor with added auxiliary switch block typical       0 000 000         • of the contactor with added electronically optimized auxiliary switch block typical       0 000 000         • of the contactor with addee for elect maximum       2 000 m         ambient conditions       4	power loss [W] for rated value of the current	
insulation voltage       i out provide the second point of a state value       i 000 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 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 coll and main contacts according to EN 60947-1       690 V         shock resistance at rectangular impulse       630 V         • at DC       6.7 g / 5 ms, 4g / 10 ms         shock resistance with sine pulse       10.6 g / 5 ms, 6.3 g / 10 ms         e at DC       10.6 g / 5 ms, 6.3 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         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       03/01/2017         Ambient temperature       -40 +70 °C         • during storage       -55 +80 °C         relative humidity minimum       10 %         relative humidity minim	<ul> <li>at AC in hot operating state</li> </ul>	23.7 W
• of main circuit with degree of pollution 3 rated value1 000 V• of auxiliary circuit with degree of pollution 3 rated value690 Vsurge voltage resistance690 V• of main circuit rated value8 kV• of main circuit rated value6 kVmaximum permissible voltage for protective separation between coll and main contacts according to EN 60947-1690 Vshock resistance at rectangular impulse6.7 g / 5 ms, 4g / 10 ms• at DC6.7 g / 5 ms, 4g / 10 msshock resistance with sine pulse000 000• at DC10 000 000• of contactor with added electronically optimized auxiliary switch block typical10 000 000• of the contactor with added electronically optimized auxiliary switch block typical0 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 000 000• of the contactor with added electronically optimized auxiliary switch block typical0 000 000• of uning operation-40 +70 °C• of uning storage-55 +80 °Crelative humidity minimum10 %relative humidity minimum10 %relative humidity minimum95 %	<ul> <li>at AC in hot operating state per pole</li> </ul>	7.9 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       6.7 g / 5 ms, 4g / 10 ms         • at DC       6.7 g / 5 ms, 6.3 g / 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         • 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)       2 000 m         ambient conditions       2 000 m         • during operation       -40 +70 °C         • during storage       -55 +80 °C         relative humidity at 55 °C according to IEC 60068-2.30       95 %         Main circuit       95 %	insulation voltage	
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 coll and main contacts according to EN 60947-1       690 V         shock resistance at rectangular impulse       6.7 g / 5 ms, 4g / 10 ms         • at DC       6.7 g / 5 ms, 6.3 g / 10 ms         shock resistance with sine pulse       10.6 g / 5 ms, 6.3 g / 10 ms         • at DC       10.6 g / 5 ms, 6.3 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         • of the contactor with added auxiliary switch block typical       10 000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       30/12/017         Ambient conditions       2 000 m         ambient temperature       -40 +70 °C         • during operation       -40 +70 °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>	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       6.7 g / 5 ms, 4g / 10 ms         • at DC       6.7 g / 5 ms, 6.3 g / 10 ms         shock resistance with sine pulse       -         • at DC       10.6 g / 5 ms, 6.3 g / 10 ms         mechanical service life (operating cycles)       -         • 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       000 000         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       2000 m         ambient conditions       2000 m         ambient temperature       -         • during operation       40 +70 °C         • during storage       -55 +80 °C         relative humidity at 55 °C according to IEC 60068-2-30 maximum       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       6.7 g / 5 ms, 4g / 10 ms         • at DC       6.7 g / 5 ms, 4g / 10 ms         shock resistance with sine pulse       6.7 g / 5 ms, 6.3 g / 10 ms         • at DC       10.6 g / 5 ms, 6.3 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         • 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       -40 +70 °C         • during storage       -55 +80 °C         relative humidity at 55 °C according to IEC 60068-2-30       35 %         maximum       10 %	surge voltage resistance	
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1       690 V         shock resistance at rectangular impulse <ul> <li>at DC</li> <li>6.7 g / 5 ms, 4g / 10 ms</li> </ul> shock resistance with sine pulse <ul> <li>at DC</li> <li>10.6 g / 5 ms, 6.3 g / 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 is a coording to IEC 81346-2</li> <li>Q</li> </ul> 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 <ul> <li>during operation</li> <li>-40 +70 °C</li> <li>stallation altitude at 55 °C according to IEC 60068-2-30</li> <li>g5 %</li> </ul>	<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 DC       6.7 g / 5 ms, 4g / 10 ms         shock resistance with sine pulse       6.7 g / 5 ms, 6.3 g / 10 ms         • at DC       10.6 g / 5 ms, 6.3 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         ambient temperature       -40 +70 °C         • during operation       -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 DC6.7 g / 5 ms, 4g / 10 msshock resistance with sine pulse10.6 g / 5 ms, 6.3 g / 10 ms• at DC10.6 g / 5 ms, 6.3 g / 10 msmechanical service life (operating cycles)10 000 000• 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 typical10 000 000• of the contactor with added auxiliary switch block typical000 000• of the contactor with added auxiliary switch block typical10 000 000reference code according to IEC 81346-2QQQSubstance Prohibitance (Date)03/01/2017Ambient conditions2 000 m• during operation • during storage-40 +70 °C• during storage-55 +80 °C• relative humidity at 55 °C according to IEC 60068-2-30 maximum95 %		690 V
shock resistance with sine pulse       In 6 g / 5 ms, 6.3 g / 10 ms         e at DC       10.6 g / 5 ms, 6.3 g / 10 ms         mechanical service life (operating cycles)       In 0 000 000         o f contactor typical       10 000 000         o f the contactor with added electronically optimized auxiliary switch block typical       5 000 000         o f the contactor with added auxiliary switch block typical       10 000 000         o f 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       -40 +70 °C         o during operation       -40 +70 °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 DC10.6 g / 5 ms, 6.3 g / 10 msmechanical service life (operating cycles) • of contactor typical10 000 000• of contactor with added electronically optimized 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 000 000• of the contactor with added auxiliary switch block typical0 000 000• of the contactor with added auxiliary switch block typical0 000 000• of the contactor with added auxiliary switch block typical0 000 000• of the contactor with added auxiliary switch block typical0 000 000• of the contactor with added auxiliary switch block typical0 000 000• of the contactor with added auxiliary switch block typical0 000 000• of the contactor with added auxiliary switch block typical0 000 000• of the contactor with added auxiliary switch block typical0 000 000• of the contactor with added auxiliary switch block typical0 000 000• of the contactor with added auxiliary switch block typical0 0000 000• of the contactor during to the contactor with added auxiliary switch block typical0 000 000• of uring operation • during storage-40 +70 °C• of uring storage-55 +80 °C• relative humidity at 55 °C according to IEC 60068-2-30 maximum95 %• Main circuit	• at DC	6.7 g / 5 ms, 4g / 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         • 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       -40 +70 °C         • during operation       -55 +80 °C         relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30       95 %         Main circuit       -40 +70 °C	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 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 • during operation • during storage-40 +70 °Crelative humidity minimum10 %relative humidity at 55 °C according to IEC 60068-2-30 maximum95 %	• at DC	10.6 g / 5 ms, 6.3 g / 10 ms
• of the contactor with added electronically optimized auxiliary switch block typical5 000 000• of the contactor with added auxiliary switch block typical10 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 • during operation-40 +70 °C• during storage-55 +80 °Crelative humidity minimum10 %stalized burned	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       -40 +70 °C         • during operation       -40 +70 °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 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       -40 +70 °C         • during operation       -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       -40 +70 °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       -40 +70 °C         • during storage       -55 +80 °C         relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30 maximum       95 %	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>-40 +70 °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 %	Substance Prohibitance (Date)	03/01/2017
ambient temperature       -40 +70 °C         • during operation       -40 +70 °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     -40 +70 °C       • during storage     -55 +80 °C       relative humidity minimum     10 %       relative humidity at 55 °C according to IEC 60068-2-30 maximum     95 %	installation altitude at height above sea level maximum	2 000 m
	ambient temperature	
relative humidity minimum       10 %         relative humidity at 55 °C according to IEC 60068-2-30       95 %         Main circuit       95 %	during operation	-40 +70 °C
relative humidity at 55 °C according to IEC 60068-2-30 95 % Main circuit	during storage	-55 +80 °C
maximum Main circuit	relative humidity minimum	10 %
		95 %
number of poles for main current circuit 3	Main circuit	
	number of poles for main current circuit	3

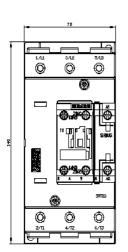
number of NO contacts for main contacts	3
operating voltage	
at AC-3 rated value maximum	1 000 V
• at AC-3e rated value maximum	1 000 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated	130 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	130 A
— up to 690 V at ambient temperature 60 °C rated	110 A
value	
• at AC-2 at 400 V rated value	110 A
• at AC-3	
— at 400 V rated value	110 A
— at 500 V rated value	110 A
— at 690 V rated value	98 A
— at 1000 V rated value	30 A
• at AC-3e	
— at 400 V rated value	110 A
— at 500 V rated value	110 A
— at 690 V rated value	98 A
— at 1000 V rated value	30 A
• at AC-4 at 400 V rated value	97 A
minimum cross-section in main circuit	
<ul> <li>at maximum AC-1 rated value</li> </ul>	50 mm²
at maximum Ith rated value	50 mm²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	46 A
• at 690 V rated value	36 A
operational current	
<ul> <li>at 1 current path at DC-1</li> </ul>	
— at 24 V rated value	100 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 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 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
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	40 A
— at 110 V rated value	2.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.15 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	100 A
— at 110 V rated value	100 A
— at 220 V rated value	7 A
— at 440 V rated value	0.42 A

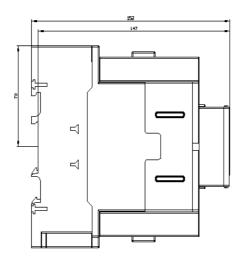
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
- at 24 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	35 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.35 A
operating power	0.55 A
at AC-2 at 400 V rated value	55 kW
• at AC-3	55 KW
- at 230 V rated value	30 kW
— at 400 V rated value	55 kW
— at 500 V rated value	75 kW
— at 600 V rated value	90 kW
— at 1000 V rated value	37 kW
• at AC-3e	57 KVV
	20 1/1/
— at 230 V rated value	30 kW
— at 400 V rated value	55 kW
— at 500 V rated value	75 kW
— at 690 V rated value	90 kW
at 1000 V rated value	37 kW
operating power for approx. 200000 operating cycles at AC- 4	
• at 400 V rated value	24.3 kW
• at 690 V rated value	32.9 kW
short-time withstand current in cold operating state up to 40 °C	
Imited to 1 s switching at zero current maximum	1 960 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	1 502 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	1 095 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	707 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	562 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at DC	1 000 1/h
operating frequency	
<ul> <li>at AC-2 at AC-3e maximum</li> </ul>	350 1/h
● at AC-4 maximum	200 1/h
Ratings for railway applications	
thermal current (Ith) up to 690 V	
<ul> <li>up to 40 °C according to IEC 60077 rated value</li> </ul>	130 A
<ul> <li>up to 70 °C according to IEC 60077 rated value</li> </ul>	95 A
Control circuit/ Control	
type of voltage	DC
type of voltage of the control supply voltage	DC
control supply voltage at DC	
rated value	24 V
operating range factor control supply voltage rated value of	
magnet coil at DC	0.7
initial value	0.7
• full-scale value	1.25
design of the surge suppressor	with varistor 6.5 A
inrush current peak	50 µs
duration of inrush current neak	
duration of inrush current peak	· ·
locked-rotor current mean value	3.2 A
locked-rotor current mean value locked-rotor current peak	3.2 A 6.5 A
locked-rotor current mean value locked-rotor current peak duration of locked-rotor current	3.2 A 6.5 A 150 ms
locked-rotor current mean value locked-rotor current peak duration of locked-rotor current holding current mean value	3.2 A 6.5 A 150 ms 75 mA
locked-rotor current mean value         locked-rotor current peak         duration of locked-rotor current         holding current mean value         closing power of magnet coil at DC	3.2 A 6.5 A 150 ms 75 mA 76 W
locked-rotor current mean value         locked-rotor current peak         duration of locked-rotor current         holding current mean value         closing power of magnet coil at DC         holding power of magnet coil at DC	3.2 A 6.5 A 150 ms 75 mA
locked-rotor current mean value         locked-rotor current peak         duration of locked-rotor current         holding current mean value         closing power of magnet coil at DC         holding power of magnet coil at DC         closing delay	3.2 A 6.5 A 150 ms 75 mA 76 W 1.8 W
locked-rotor current mean value         locked-rotor current peak         duration of locked-rotor current         holding current mean value         closing power of magnet coil at DC         holding power of magnet coil at DC	3.2 A 6.5 A 150 ms 75 mA 76 W

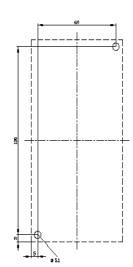
e at DC	29 57 mg
• at DC	38 57 ms 10 20 ms
arcing time	
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	4
number of NC contacts for auxiliary contacts	1
instantaneous contact	1
number of NO contacts for auxiliary contacts	1
instantaneous contact	1
operational current 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
<ul> <li>at 500 V rated value</li> </ul>	2 A
at 690 V rated value	1 A
operational current at DC-12	
<ul> <li>at 24 V rated value</li> </ul>	10 A
<ul> <li>at 48 V rated value</li> </ul>	6 A
• 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	1 A
• at 600 V rated value	0.15 A
operational current at DC-13	
• at 24 V rated value	10 A
<ul> <li>at 48 V rated value</li> </ul>	2 A
<ul> <li>at 60 V rated value</li> </ul>	2 A
<ul> <li>at 110 V rated value</li> </ul>	1 A
<ul> <li>at 125 V rated value</li> </ul>	0.9 A
<ul> <li>at 220 V rated value</li> </ul>	0.3 A
• at 600 V rated value	0.1 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
<ul> <li>at 480 V rated value</li> </ul>	96 A
<ul> <li>at 600 V rated value</li> </ul>	99 A
yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
— at 110/120 V rated value	10 hp
— at 230 V rated value	20 hp
<ul> <li>for 3-phase AC motor</li> </ul>	
— at 200/208 V rated value	30 hp
— at 220/230 V rated value	40 hp
— at 460/480 V rated value	75 hp
— at 575/600 V rated value	100 hp
contact rating of auxiliary contacts according to UL	A600 / P600
Short-circuit protection	
product function short circuit protection	No
design of the fuse link	
<ul> <li>for short-circuit protection of the main circuit</li> </ul>	
— with type of coordination 1 required	gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA)
- with type of assignment 2 required	gG: 200A (690V,100kA), aM: 100A (690V,100kA), BS88: 160A (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	
i serie v	

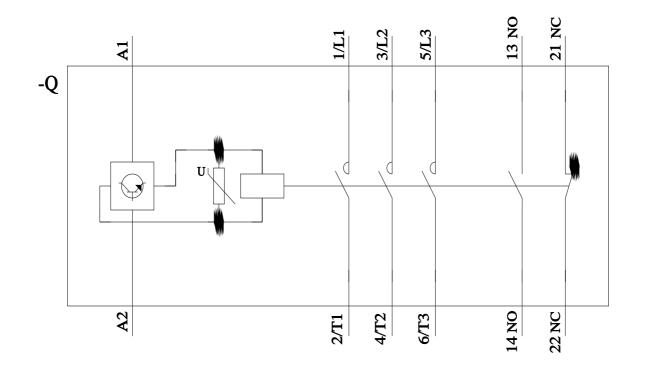
<ul> <li>with side-by-si</li> </ul>	ide mounting					
— forwards	<b>o</b>		20 mm			
— upwards			10 mm			
— downwar			10 mm			
— at the sic			0 mm			
			0 mm			
<ul> <li>for grounded p</li> </ul>			00			
— forwards			20 mm			
— upwards			10 mm			
— at the sid			10 mm			
— downwar	ds		10 mm			
<ul> <li>for live parts</li> </ul>						
— forwards			20 mm			
— upwards			10 mm			
— downwar			10 mm			
— at the sic			10 mm			
<b>Connections/ Termin</b>	als					
type of electrical co	onnection					
<ul> <li>for main current</li> </ul>	nt circuit		screw-type terminals			
<ul> <li>for auxiliary ar</li> </ul>	nd control circuit		screw-type terminals			
<ul> <li>at contactor for</li> </ul>	or auxiliary contacts		Screw-type terminals			
<ul> <li>of magnet coil</li> </ul>			Screw-type terminals			
type of connectable of	conductor cross-sections for	main contacts				
<ul> <li>finely stranded</li> </ul>	d with core end processing		2x (2.5 35 mm²), 1x	: (2.5 50 mm²)		
type of connectable	e conductor cross-sections	\$				
<ul> <li>for auxiliary co</li> </ul>	ontacts					
— solid or s	stranded		2x (0.5 1.5 mm²), 2x	x (0.75 2.5 mm²)		
- finely stra	anded with core end process	ing	2x (0.5 1.5 mm²), 2x			
	es for auxiliary contacts	C	2x (20 16), 2x (18			
	ded connectable conducto	or cross		,		
section						
<ul> <li>for main conta</li> </ul>	icts		10 2			
<ul> <li>for auxiliary co</li> </ul>	ontacts		20 14			
Safety related data						
product function	·					
<ul> <li>mirror contact</li> </ul>	according to IEC 60947-4-1		Yes			
<ul> <li>positively drive</li> </ul>	en operation according to IE0	C 60947-5-1	No			
B10 value with high of	demand rate according to SN	1 31920	1 000 000			
proportion of dange	erous failures					
	ind rate according to SN 319	20	40 %			
with high demand rate according to SN 31920		73 %				
failure rate [FIT] with low demand rate according to SN 31920		100 FIT				
	st interval or service life acco		20 a			
61508			200			
protection class IP	protection class IP on the front according to IEC 60529		IP20			
touch protection or	n the front according to IEC	60529	finger-safe, for vertical contact from the front			
Communication/ Prot	tocol					
product function bu	us communication		No			
Certificates/ approva						
General Product A						
Contrain Froduct A	-p. 0100					
	<b>Confirmation</b>	$\frown$	$\sim$	<u>KC</u>		
		())	(Ui)		FIIF	
(SD					LUI	
Ð					EHE	
<b>SP</b>					EHL	
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(SP)			UL		EHL	
EMC	Functional Safety/Safety of Ma		Conformity	Tost Cortificator	EHL	
EMC	Functional Safety/Safety of Ma- chinery	Declaration of	Conformity	Test Certificates	EHL	

RCM	Type Examination Cer- tificate	UK CA	CE EG-Konf.	<u>Special Test Certific-</u> <u>ate</u>	<u>Type Test Certific-</u> ates/Test Report
Marine / Shipping					other
ABS	Lloyd's Register urs	PRS	RINA	RMRS RMRS	<u>Confirmation</u>
Railway			Environment		
<u>Vibration and Shock</u>	Type Test Certific- ates/Test Report	Special Test Certific- ate	Environmental Con- firmations		
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