# SIEMENS

## Data sheet

## 3RT2047-1AF04



Contactor, AC-3, 55 kW/400 V 2 NO+2 NC, 110 V AC 50 Hz 3-pole, 3 NO, Size S3 Screw terminal

product designation         Power contactor           graduct type designation         3RT2           Ceneral technical data         3           size of contactor         S3           product extension         No           • 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           • per pole         7.9 W           power loss [W] for rated value of the current without load current share typical         19 W           surge voltage resistance         8 kV           • of auxiliary circuit rated value         6 kV           exitiary circuit rated value         6 kV           exit AC         6.7 g / 5 ms, 4.0 g / 10 ms           shock resistance at rectangular impulse         e.1 AC           e.1 AC         10.6 g / 5 ms, 6.3 g / 10 ms           mechanical service life (switching 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           typical         reference code acc. to IEC 81346-2		
product type designation     3RT2       General tochnical data     size of contactor       size of contactor     S3       product extension     No       • auxiliary switch     Yes       opwer loss [W] for rated value of the current at AC in hot operating state     7.9 W       • per pole     7.9 W       opwer loss [W] for rated value of the current without load current share typical     8 kV       surge voltage resistance     8 kV       • of main circuit rated value     6 kV       • of main circuit rated value     6 kV       • of auxiliary circuit rated value     6 kV       • at AC     6.7 g / 5 ms, 4.0 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 electronically optimized auxiliary switch block typical     10 000 000       • of the contactor with added electronically optimized auxiliary switch block typical     10 000 000       • of the contac	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 at AC in hot operating state     23.7 W       • per pole     7.9 W       power loss [W] for rated value of the current without load current share typical     19 W       surge voltage resistance     6 kV       • of auxiliary circuit rated value     6 kV       maximum permissible voltage for safe isolation between coll and main contacts acc. to EN 60947-1     680 V       shock resistance at rectangular impulse     6.7 g / 5 ms, 4.0 g / 10 ms       • at AC     10.6 g / 5 ms, 6.3 g / 10 ms       mechanical service life (switching 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     2000 m       mabient conditions     2000 m       installation altitude at height above sea level maximum     2000 m       ambient conditions     -25 +60 °C       • during geration     -25 +60 °C       • during storag	· · · · · · · · · · · · · · · · · · ·	
size of contactor         §3           product extension         No           • Lunction 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           • per pole         7.9 W           power loss [W] for rated value of the current without load current share typical         19 W           surge voltage resistance         8 kV           • of main circuit rated value         6 kV           maximum permissible voltage for safe isolation between coil and main contacts ac. to EN 80947-1         800 V           shock resistance at rectangular impulse         6.7 g / 5 ms, 4.0 g / 10 ms           • at AC         6.7 g / 5 ms, 6.3 g / 10 ms           mechanical service life (switching cycles)         10 600 000           • 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         2 000 m           installation altitude at height above sea level maximum         2 000 m           ambient temperature         -40 °C           • during storage         -55 +60 °C           • during storage         -55		3R12
product extension     No       • 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       • per pole     7.9 W       power loss [W] for rated value of the current without load current share typical     19 W       surge voltage resistance     6 kV       • of main circuit rated value     8 kV       • of auxiliary circuit rated value     6 kV       maximum permissible voltage for safe isolation between coil and main contacts ac. to EN 80947-1     680 V       shock resistance at rectangular impulse     6.7 g / 5 ms, 4.0 g / 10 ms       • at AC     10.6 g / 5 ms, 6.3 g / 10 ms       mechanical service life (switching 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     10 1000 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 sustiliary switch block typical     10 000 000       • of the contactor with addee auxiliary switch block typical     10 000 000       • of the contactor with addee sustiliary switch block typical     10 000 000       • of the contactor	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         • per pole       7.9 W         power loss [W] for rated value of the current without load current share typical       19 W         surge voltage resistance       8 kV         • of main circuit rated value       6 kV         maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1       680 V         shock resistance at rectangular impulse       6.7 g / 5 ms, 4.0 g / 10 ms         • at AC       6.6 g / 5 ms, 6.3 g / 10 ms         mechanical service life (switching 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 for safe solation block typical       10 000 000         • of the contactor with added electronically optimized for safe solation block typical       10 000 000         • of the contactor with added electronically optimized for safe solation electronically optimized for safe solation electronically optimized for safe solation altitude at height above sea level maximum for advect at height above sea level maximum for advec at height above sea level	size of contactor	S3
• auxiliary switch     Yes       power loss [W] for rated value of the current at AC in hot operating state     23.7 W       • per pole     7.9 W       power loss [W] for rated value of the current without load current share typical     19 W       surge voltage resistance     8 kV       • of main circuit rated value     8 kV       • of auxiliary circuit rated value     6 kV       maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1     609 V       shock resistance at rectangular impulse     6.7 g / 5 ms, 4.0 g / 10 ms       • at AC     10.6 g / 5 ms, 6.3 g / 10 ms       mechanical service life (switching 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 acc. to IEC 81346-2     Q       Substance Prohibitance (Date)     01.03.2017 00:00:00       Ambient conditions     2000 m       ambient temperature     -25 +60 °C       • during storage     -25 +80 °C       Main circuit     3	product extension	
power loss [W] for rated value of the current at AC in hot operating state       23.7 W         • per pole       7.9 W         power loss [W] for rated value of the current without load current share typical       19 W         surge voltage resistance       8 kV         • of main circuit rated value       6 kV         maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1       690 V         shock resistance at rectangular impulse       6.7 g / 5 ms, 4.0 g / 10 ms         • at AC       6.7 g / 5 ms, 6.3 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       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       0 1.03.2017 00:00:00         Ambient conditions       2000 m	<ul> <li>function module for communication</li> </ul>	No
operating state       7.9 W         power loss [W] for rated value of the current without load current share typical       19 W         surge voltage resistance       8 KV         • of main circuit rated value       8 kV         • of auxiliary circuit rated value       6 kV         maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1       690 V         shock resistance at rectangular impulse       6.7 g / 5 ms, 4.0 g / 10 ms         shock resistance at rectangular impulse       6.7 g / 5 ms, 6.3 g / 10 ms         • at AC       10.6 g / 5 ms, 6.3 g / 10 ms         mechanical service life (switching 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       01.03.2017 00:00:00         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	auxiliary switch	Yes
power loss [W] for rated value of the current without load current share typical       19 W         surge voltage resistance <ul> <li>of main circuit rated value</li> <li>6 kV</li> <li>maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1</li> <li>shock resistance at rectangular impulse       <ul> <li>at AC</li> <li>6.7 g / 5 ms, 4.0 g / 10 ms</li> </ul> </li> <li>shock resistance with sine pulse       <ul> <li>at AC</li> <li>for the contactor with added electronically optimized auxiliary switch block 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>reference code acc. to IEC 81346-2</li> <li>Q</li> <li>Substance Prohibitance (Date)</li> <li>Ambient temperature         <ul> <li>during operation</li> <li>-25 +60 °C</li> <li>-during operation</li> <li>-25 +80 °C</li> </ul> </li> <li>Main circuit</li> <li>Main circuit</li> <li>3</li> </ul></li></ul>		23.7 W
ioad current share typical         surge voltage resistance         • of main circuit rated value       8 kV         • of auxiliary circuit rated value       6 kV         maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1       690 V         shock resistance at rectangular impulse       6.7 g / 5 ms, 4.0 g / 10 ms         • at AC       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 AC       10.6 g / 5 ms, 6.3 g / 10 ms         mechanical service life (switching 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 acc. to IEC 81346-2       Q         Substance Prohibitance (Date)       01.03.2017 00:00:00         Ambient conditions       2 000 m         installation allitude at height above sea level maximum       2 000 m         aubient temperature       -55 +80 °C         • during storage       -55 +80 °C         Main circuit       3	• per pole	7.9 W
• of main circuit rated value       8 kV         • of auxiliary circuit rated value       6 kV         maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1       690 V         shock resistance at rectangular impulse       6.7 g / 5 ms, 4.0 g / 10 ms         • at AC       6.7 g / 5 ms, 6.3 g / 10 ms         shock resistance with sine pulse       00 00         • at AC       10.6 g / 5 ms, 6.3 g / 10 ms         mechanical service life (switching 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       00 000         • of the contactor with added auxiliary switch block typical       10 000 000         reference code acc. to IEC 81346-2       Q         Substance Prohibitance (Date)       01.03.2017 00:00:00         Ambient tomperature       -25 +60 °C         • during operation       -25 +60 °C         • during storage       -55 +80 °C		19 W
• of auxiliary circuit rated value       6 kV         maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1       690 V         shock resistance at rectangular impulse       6.7 g / 5 ms, 4.0 g / 10 ms         • at AC       6.7 g / 5 ms, 6.3 g / 10 ms         shock resistance with sine pulse       6.7 g / 5 ms, 6.3 g / 10 ms         • at AC       10.6 g / 5 ms, 6.3 g / 10 ms         mechanical service life (switching 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         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       10 000 000         • of the contactor with added auxiliary switch block typical       0 1.03.2017 00:00:00         Ambient conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -         • during operation       -25 +60 °C         • during storage       -55 +80 °C         Main	surge voltage resistance	
maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1       690 V         shock resistance at rectangular impulse       6.7 g / 5 ms, 4.0 g / 10 ms         • at AC       6.7 g / 5 ms, 4.0 g / 10 ms         shock resistance with sine pulse       10.6 g / 5 ms, 6.3 g / 10 ms         • at AC       10.6 g / 5 ms, 6.3 g / 10 ms         mechanical service life (switching 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         • 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         • ference code acc. to IEC 81346-2       Q         Substance Prohibitance (Date)       01.03.2017 00:00:00         Ambient conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m         • during operation       -25 +60 °C         • during storage       -55 +80 °C	<ul> <li>of main circuit rated value</li> </ul>	8 kV
coil and main contacts acc. to EN 60947-1         shock resistance at rectangular impulse         • at AC         6.7 g / 5 ms, 4.0 g / 10 ms         shock resistance with sine pulse         • at AC         10.6 g / 5 ms, 6.3 g / 10 ms         mechanical service life (switching 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 with added auxiliary switch block typical         • of the contactor with added auxiliary switch block typical         • of the contactor with added auxiliary switch block typical         • of the contactor with added auxiliary switch block typical         • of the conditions         installation altitude at height above sea level maximum         2 000 m         ambient temperature         • during operation         - 25 +60 °C         • during storage         - 55 +80 °C         Main circuit         number of poles for main current circuit	<ul> <li>of auxiliary circuit rated value</li> </ul>	6 kV
• at AC       6.7 g / 5 ms, 4.0 g / 10 ms         shock resistance with sine pulse       10.6 g / 5 ms, 6.3 g / 10 ms         • at AC       10.6 g / 5 ms, 6.3 g / 10 ms         mechanical service life (switching 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         • of the contactor with added auxiliary switch block typical       0 000 000         • 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       10 000 000         • of the contactor with added auxiliary switch block typical       0 000 000         • of the contactor 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 auxiliary switch block typical       0 000 000         • of the contactor typical       0 1.03.2017 00:00:00         • of the		690 V
shock resistance with sine pulse       0.6 g / 5 ms, 6.3 g / 10 ms         e at AC       10.6 g / 5 ms, 6.3 g / 10 ms         mechanical service life (switching 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 acc. to IEC 81346-2       Q         Substance Prohibitance (Date)       01.03.2017 00:00:00         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         Main circuit       3	shock resistance at rectangular impulse	
• at AC       10.6 g / 5 ms, 6.3 g / 10 ms         mechanical service life (switching 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       0 000 000         reference code acc. to IEC 81346-2       Q         Substance Prohibitance (Date)       01.03.2017 00:00:00         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         Main circuit       3	• at AC	6.7 g / 5 ms, 4.0 g / 10 ms
mechanical service life (switching 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         reference code acc. to IEC 81346-2       Q         Substance Prohibitance (Date)       01.03.2017 00:00:00         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         Main circuit       3	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 acc. to IEC 81346-2QSubstance Prohibitance (Date)01.03.2017 00:00:00Ambient conditions2 000 minstallation altitude at height above sea level maximum e during operation2 000 m-25 +60 °C - 55 +80 °C-25 +80 °CMain circuit3	• at AC	10.6 g / 5 ms, 6.3 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>10 000 000</li> <li>01.03.2017 00:00:00</li> <li>Ambient conditions</li> <li>2 000 m</li> <li>ambient temperature</li> <li>of uring operation</li> <li>-25 +60 °C</li> <li>of uring storage</li> <li>-55 +80 °C</li> <li>Main circuit</li> <li>3</li> </ul>	mechanical service life (switching cycles)	
auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000reference code acc. to IEC 81346-2QSubstance Prohibitance (Date)01.03.2017 00:00:00Ambient conditions2 000 minstallation altitude at height above sea level maximum e during operation2 000 m-25 +60 °C -55 +80 °CMain circuit3	<ul> <li>of contactor typical</li> </ul>	10 000 000
typicalreference code acc. to IEC 81346-2QSubstance Prohibitance (Date)01.03.2017 00:00:00Ambient 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 °CMain circuit3		5 000 000
Substance Prohibitance (Date)       01.03.2017 00:00:00         Ambient conditions       100 m         installation altitude at height above sea level maximum       2 000 m         ambient temperature       -25 +60 °C         • during storage       -25 +80 °C         Main circuit       3		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         Main circuit       3	reference code acc. to IEC 81346-2	Q
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         Main circuit       3	Substance Prohibitance (Date)	01.03.2017 00:00:00
ambient temperature     -25 +60 °C       • during operation     -25 +60 °C       • during storage     -55 +80 °C       Main circuit     3	Ambient conditions	
• during operation     -25 +60 °C       • during storage     -55 +80 °C       Main circuit     3	installation altitude at height above sea level maximum	2 000 m
• during storage -55 +80 °C Main circuit number of poles for main current circuit 3	ambient temperature	
Main circuit     3	<ul> <li>during operation</li> </ul>	-25 +60 °C
number of poles for main current circuit 3	<ul> <li>during storage</li> </ul>	-55 +80 °C
	Main circuit	
	number of poles for main current circuit	3
number of NU contacts for main contacts 3	number of NO contacts for main contacts	3
operating voltage at AC-3 rated value maximum 1 000 V	operating voltage at AC-3 rated value maximum	1 000 V
operational current	operational current	

<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated value</li> <li>at AC-1</li> </ul>	130 A
— up to 690 V at ambient temperature 40 °C rated value	130 A
— up to 690 V at ambient temperature 60 °C rated value	110 A
— up to 1000 V at ambient temperature 40 °C rated value	70 A
— up to 1000 V at ambient temperature 60 °C rated value	60 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
<ul> <li>at AC-4 at 400 V rated value</li> </ul>	97 A
<ul> <li>at AC-5a up to 690 V rated value</li> </ul>	120 A
• at AC-5b up to 400 V rated value	110 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	98 A
— up to 400 V for current peak value n=20 rated value	98 A
<ul> <li>— up to 500 V for current peak value n=20 rated value</li> </ul>	98 A
<ul> <li>— up to 690 V for current peak value n=20 rated value</li> <li>at AC-6a</li> </ul>	98 A
<ul> <li>— up to 230 V for current peak value n=30 rated value</li> </ul>	65.3 A
<ul> <li>— up to 400 V for current peak value n=30 rated value</li> </ul>	65.3 A
— up to 500 V for current peak value n=30 rated value	65.3 A
<ul> <li>— up to 690 V for current peak value n=30 rated value</li> </ul>	65.3 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	
<ul> <li>at 400 V rated value</li> </ul>	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
operational current	
<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			
— 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	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				
at AC-2 at 400 V rated value	55 kW			
• at AC-3				
— 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				
<ul> <li>at 400 V rated value</li> </ul>	24.3 kW			
<ul> <li>at 690 V rated value</li> </ul>	32.9 kW			
operating apparent power at AC-6a				
• up to 230 V for current peak value n=20 rated value	39 kV·A			
• up to 400 V for current peak value n=20 rated value	67 kV·A			
• up to 500 V for current peak value n=20 rated value	84 kV·A			
• up to 690 V for current peak value n=20 rated value	117 kV·A			
operating apparent power at AC-6a				
• up to 230 V for current peak value n=30 rated value	26 kV·A			
• up to 400 V for current peak value n=30 rated value	45.2 kV·A			
• up to 500 V for current peak value n=30 rated value	56.5 kV·A			
• up to 690 V for current peak value n=30 rated value	78 kV·A			
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>	1 960 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 AC	5 000 1/h			
operating frequency				
• at AC-1 maximum	900 1/h			
● at AC-2 maximum	350 1/h			
• at AC-3 maximum	850 1/h			
• at AC-4 maximum	200 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			
operating range factor control supply voltage rated				
value of magnet coil at AC				
• at 50 Hz	0.8 1.1			
apparent pick-up power of magnet coil at AC				
The second secon				

• at 50 Hz	296 V·A
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 V·A
inductive power factor with the holding power of the	
o at 50 Hz	0.38
	0.30
elosing delay • at AC	13 50 ms
opening delay	13 30 ms
• 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	2
instantaneous contact	2
number of NO contacts for auxiliary contacts	2
instantaneous 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	
<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	6 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	96 A
at 600 V rated value	99 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	10 hp
— at 230 V rated value	20 hp
• for 3-phase AC motor	
— 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	
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 V, 80 kA)

### gG: 200A (690V,100kA), aM: 100A (690V,100kA), BS88: 160A - with type of assignment 2 required (415V,80kA) · for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) required 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 standard mounting rail according to DIN EN 60715 side-by-side mounting Yes height 140 mm width 70 mm depth 195 mm required spacing • with side-by-side mounting - forwards 20 mm - upwards 10 mm 10 mm downwards - at the side 0 mm · for grounded parts - forwards 20 mm 10 mm - upwards at the side 10 mm 10 mm downwards · for live parts - forwards 20 mm 10 mm - upwards - downwards 10 mm - at the side 10 mm

#### type of electrical connection for main current circuit screw-type terminals · 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 - finely stranded with core end processing 2x (2.5 ... 35 mm<sup>2</sup>), 1x (2.5 ... 50 mm<sup>2</sup>) at AWG cables for main contacts 2x (10 ... 1/0), 1x (10 ... 2) connectable conductor cross-section for main contacts solid 2.5 ... 16 mm<sup>2</sup> 6 ... 70 mm<sup>2</sup> stranded · finely stranded with core end processing 2.5 ... 50 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>) 2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>) - finely stranded with core end processing • at AWG cables for auxiliary contacts 2x (20 ... 16), 2x (18 ... 14) AWG number as coded connectable conductor cross section for main contacts 10 ... 2 20 ... 14 · for auxiliary contacts Safety related data product function mirror contact acc. to IEC 60947-4-1 Yes B10 value with high demand rate acc. to SN 31920 1 000 000 proportion of dangerous failures

<ul> <li>with low deman</li> </ul>	d rate acc. to SN 3192	20	40 %	, 1			
<ul> <li>with low demand rate acc. to SN 31920</li> <li>with high demand rate acc. to SN 31920</li> </ul>		40 % 73 %					
failure rate [FIT] with low demand rate acc. to SN 31920		100 FIT					
product function positively driven operation acc. to IEC 60947-5-1		No					
T1 value for proof te IEC 61508	T1 value for proof test interval or service life acc. to		20 у				
protection class IP of	on the front acc. to IE	C 60529	IP20				
touch protection on	the front acc. to IEC	60529	finger-safe, for vertical contact from the front				
suitability for use							
<ul> <li>safety-related s</li> </ul>	witching on		Yes				
<ul> <li>safety-related s</li> </ul>	witching OFF		Yes				
Certificates/ approval	S						
General Product Ap	oproval					EMC	
(SP)		(ل س		<u>KC</u>	EHC	RCM	
Functional Safety/Safety of Machinery	Declaration of Con	formity		Test Certificates	Marine / Shipping		
<u>Type Examination</u> <u>Certificate</u>	CE EG-Konf.	<u>UK Declaratic</u> Conformit		Special Test Certific- ate	ABS	Lloyds Register urs	
Marine / Shipping					other		
PRS	RINA	RMRS RMRS		DNV-GL	<u>Confirmation</u>		
https://www.siemens. Industry Mall (Online https://mall.industry.si	Further information Information- and Downloadcenter (Catalogs, Brochures,) https://www.siemens.com/ic10 Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2047-1AF04 Cax online generator						

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2047-1AF04

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

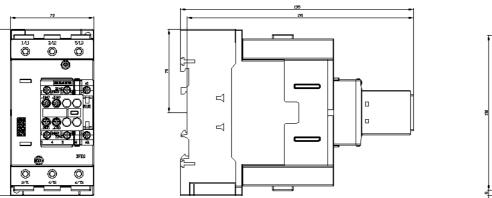
https://support.industry.siemens.com/cs/ww/en/ps/3RT2047-1AF04

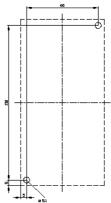
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2047-1AF04&lang=en

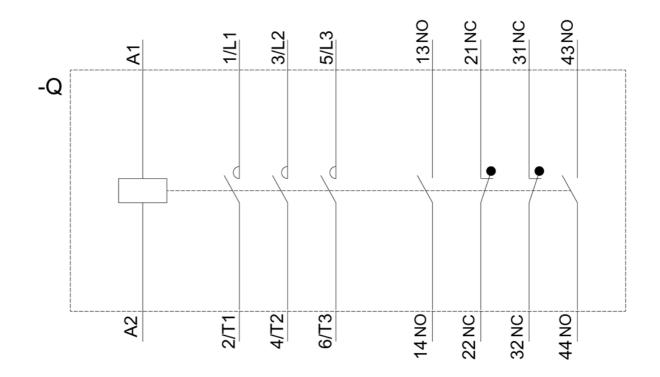
Characteristic: Tripping characteristics, I²t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT2047-1AF04/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2047-1AF04&objecttype=14&gridview=view1







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