# SIEMENS

### Data sheet

## 3RT2046-1AG24



power contactor, AC-3e/AC-3, 95 A, 45 kW / 400 V, 3-pole, 110 V AC, 50/60 Hz, auxiliary contacts: 2 NO + 2 NC, screw terminal, size: S3, removable auxiliary switch

product designation         Power contactor           product type designation         3RT2           Coneral technical data		
product type designation         3RT2           General technical data	product brand name	SIRIUS
Genoral technical data           size of contactor         S3           size of contactor         No           • function module for communication         No           • auxiliary switch         Yes           power loss [W] for rated value of the current         19.8 W           • at AC in hot operating state         19.8 W           • at AC in hot operating state per pole         6.6 W           • without load current share typical         25 W           insulation voltage         1000 V           • of main circuit with degree of pollution 3 rated value         690 V           surge voltage resistance         61 kV           • of auxiliary circuit rated value         64 V           • of auxiliary circuit rated value         690 V           surge voltage for protective separation between collar duratio contage to R0047-1         690 V           reakiliary circuit rated value         64 V           • of auxiliary circuit mappeneeee         690 V           stock resistance at rectangular impulse         64 V           • at AC         10.3g / 5 ms, 6g / 10 ms           stock resistance with sine pulse         10 000 000           • at AC         10 000 000           • of the contactor with added electronically optimized auxiliary switch block typical         10 000 000	product designation	Power contactor
size of contactor     \$3       product extension     No       • function module for communication     No       • auxiliary switch     Yes       power loss [W] for rated value of the current     19.8 W       • at AC in hot operating state     19.8 W       • at AC in hot operating state typical     25 W       insulation voltage     1 000 V       • of main circuit with degree of pollution 3 rated value     690 V       • of auxiliary circuit with degree of pollution 3 rated value     690 V       • of main circuit rated value     6 kV       • of main circuit rated value     6 kV       • of auxiliary switch block typical     10.3g / 5 ms, 6, g / 10 ms       • at AC     16.3g / 5 ms, 10.g / 10 ms       mechanical service life (operating cycles)     10 000 000	product type designation	3RT2
product extension         No           • function module for communication         No           • auxiliary switch         Yes           power loss [W] for rated value of the current         Image: Communication of the current           • at AC in hot operating state per pole         6.6 W           • without load current share typical         25 W           • 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         6 kV           • of nain circuit rated value         6 kV           • of nain circuit rated value         6 kV           • of auxiliary circuit rated value         10.03 y 5 ms, 6, g / 10 ms           shock resistance at rectangular impulse         10.3g / 5 ms, 6, g / 10 ms           • at AC         10.300 000           • of the contactor typical         10 000 000           • of the contactor with added electronically optimized         2000 000           • of the contactor with added electronically optimized         2000 mol           • of the contactor with added electronically opti	General technical data	
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power loss [W] for rated value of the current           • at AC in hot operating state         19.8 W           • at AC in hot operating state per pole         6.6 W           • withbut load current share typical         25 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           • of main circuit rated value         690 V           • of main circuit rated value         690 V           • of auxiliary circuit rated value         690 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         10 000 000           • 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<	<ul> <li>function module for communication</li> </ul>	No
• at AC in hot operating state19.8 W• at AC in hot operating state per pole6.6 W• without load current share typical25 W• insultion voltage1000 V• of main circuit with degree of pollution 3 rated value690 V• of auxillary circuit with degree of pollution 3 rated value690 V• of auxillary circuit rated value690 V• at AC10.3g / 5 ms, 6.g / 10 ms• of contactor with sine pulse10.3g / 5 ms, 6.g / 10 ms• 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 typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000 <th>auxiliary switch</th> <th>Yes</th>	auxiliary switch	Yes
• at AC in hot operating state per pole6.6 W• without load current share typical25 Winsulation voltage1000 V• of main circuit with degree of pollution 3 rated value900 Vsurge voltage resistance680 V• of main circuit rated value8 kV• of main circuit rated value6 kVmaximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1600 Vshock resistance at rectangular impulse600 V• at AC10.3g / 5 ms, 6, g / 10 msshock resistance with sine pulse1000 000• at AC10.000 000• 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 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 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 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 auxili	power loss [W] for rated value of the current	
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insulation voltage       insulation voltage         • 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       690 V         • of main circuit rated value       8 kV         • of auxiliary circuit rated value       6 kV         • of auxiliary circuit rated value       6 kV         • of auxiliary circuit rated value       6 kV         maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1       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         • 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       03/01/2017	<ul> <li>at AC in hot operating state per pole</li> </ul>	6.6 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 resistance8 kV• of main circuit rated value8 kV• of auxiliary circuit rated value6 kVmaximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1600 Vshock resistance at rectangular impulse690 V• at AC10.3g / 5 ms, 6, g / 10 msshock resistance with sine pulse10 000 000• at AC10 000 000of 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 typical00 000• of the contactor with added auxiliary switch block typical00 000• of the contactor with added auxiliary switch block typical00 000• of the contactor with added auxiliary switch block typical00 000• of the contactor with added auxiliary switch block typical00 000• of the contactor with added auxiliary switch block typical00 000• of the contactor with added auxiliary switch block typical00 000• of the contactor with added auxiliary switch block typical00 000• of the contactor with added auxiliary switch block typical00 000 000• of the contactor with added auxiliary switch block typical00 000 000• of the contactor with added auxiliary switch block typical00 000 000• of the contactor with add	<ul> <li>without load current share typical</li> </ul>	25 W
• of auxiliary circuit with degree of pollution 3 rated value690 Vsurge voltage resistance8 kV• of main circuit rated value8 kV• of auxiliary circuit rated value6 kVmaximum permissible voltage for protective separation between coll and main contacts according to EN 60947-1690 Vshock resistance at rectangular impulse690 V• at AC10.3g / 5 ms, 6, g / 10 msshock resistance with sine pulse16.3g / 5 ms, 10. g / 10 ms• at AC10.3g / 5 ms, 10. g / 10 msmechanical service life (operating cycles)10 000 000• 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 typical0 30/1/2017Ambient conditions03/01/2017Installation altitude at height above sea level maximum2 000 m	insulation voltage	
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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 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> 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>10 000 000</li> <li>ference code according 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	<ul> <li>of main circuit rated value</li> </ul>	8 kV
coil and main contacts according to EN 60947-1shock resistance at rectangular impulse• at AC10.3g / 5 ms, 6, g / 10 msshock resistance with sine pulse• at AC16.3g / 5 ms, 10.g / 10 msmechanical service life (operating cycles)• 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 typical000 000• of the contactor with added auxiliary switch block typical000 000• of the contactor with added auxiliary switch block typical000 000• of the contactor with added auxiliary switch block typical000 000• of the contactor with added auxiliary switch block typical000 000• of the contactor with added auxiliary switch block typical03/01/2017• of the contactor with added auxiliary switch block typical03/01/2017• of the conditions2 000 m	<ul> <li>of auxiliary circuit rated value</li> </ul>	6 kV
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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 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 according to IEC 81346-2       Q         Substance Prohibitance (Date)       03/01/2017         Ambient conditions       2 000 m	shock resistance at rectangular impulse	
• 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       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         reference code according to IEC 81346-2       Q         Substance Prohibitance (Date)       03/01/2017         Ambient conditions       2 000 m	• at AC	10.3g / 5 ms, 6,.g / 10 ms
mechanical service life (operating cycles)       000000000000000000000000000000000000	shock resistance with sine pulse	
of contactor typical     of the contactor with added electronically optimized     auxiliary switch block typical     of the contactor with added auxili	• at AC	16.3g / 5 ms, 10.g / 10 ms
of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical 10 000 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) O3/01/2017 Ambient conditions installation altitude at height above sea level maximum 2 000 m	mechanical service life (operating cycles)	
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	<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		5 000 000
Substance Prohibitance (Date)       03/01/2017         Ambient conditions       2 000 m	<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	reference code according to IEC 81346-2	Q
installation altitude at height above sea level maximum 2 000 m	Substance Prohibitance (Date)	03/01/2017
	Ambient conditions	
ambiont tomporature	installation altitude at height above sea level maximum	2 000 m
	ambient temperature	
• during operation -25 +60 °C	during operation	-25 +60 °C
• during storage -55 +80 °C	during storage	-55 +80 °C
relative humidity minimum 10 %	relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 95 % 95 %		95 %
Main circuit	Main circuit	
number of poles for main current circuit 3	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>	130 A
value	
• at AC-1	
<ul> <li>— up to 690 V at ambient temperature 40 °C rated value</li> </ul>	130 A
— up to 690 V at ambient temperature 60 °C rated	110 A
value	
• at AC-3	
— at 400 V rated value	95 A
— at 500 V rated value	95 A
— at 690 V rated value	78 A
— at 1000 V rated value	30 A
• at AC-3e	
— at 400 V rated value	95 A
— at 500 V rated value	95 A
— at 690 V rated value	78 A
— at 1000 V rated value	30 A
• at AC-4 at 400 V rated value	80 A
<ul> <li>at AC-5a up to 690 V rated value</li> </ul>	114 A
• at AC-5b up to 400 V rated value	95 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	84.4 A
— up to 400 V for current peak value n=20 rated value	84.4 A
— up to 500 V for current peak value n=20 rated value	84.4 A
— up to 690 V for current peak value n=20 rated value	58 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	56.3 A
— up to 400 V for current peak value n=30 rated value	56.3 A
— up to 500 V for current peak value n=30 rated value	56.3 A
— up to 690 V for current peak value n=30 rated value	56.3 A 50 mm <sup>2</sup>
minimum cross-section in main circuit at maximum AC-1 rated value	50 mm-
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	42 A
at 690 V rated value	30 A
operational current	
• 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	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 60 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 60 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	45 kW
• at AC-3	
— at 230 V rated value	22 kW
— at 400 V rated value	45 kW
— at 500 V rated value	55 kW
— at 690 V rated value	75 kW
— at 1000 V rated value	37 kW
• at AC-3e	
— at 230 V rated value	22 kW
— at 400 V rated value	45 kW
— at 500 V rated value	55 kW
— at 690 V rated value	75 kW
— at 1000 V rated value	37 kW
operating power for approx. 200000 operating cycles at AC- 4	
at 400 V rated value	22 kW
at 690 V rated value	27.4 kW
operating apparent power at AC-6a	
• up to 230 V for current peak value n=20 rated value	33 kVA
• up to 400 V for current peak value n=20 rated value	58 kVA
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	73 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	22.4 kVA
• up to 400 V for current peak value n=30 rated value	39 kVA
• up to 500 V for current peak value n=30 rated value	48.7 kVA
• up to 690 V for current peak value n=30 rated value	67.3 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>	1 725 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	1 297 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	946 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	610 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	486 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-3e maximum	850 1/h
• at AC-4 maximum	250 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
● at 50 Hz rated value	110 V
● at 60 Hz rated value	110 V
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	348 VA
• at 60 Hz	296 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.62
• at 60 Hz	0.55
apparent holding power of magnet coil at AC	25.1/4
• at 50 Hz	25 VA
• at 60 Hz	18 VA
inductive power factor with the holding power of the coil	0.25
● at 50 Hz ● at 60 Hz	0.35 0.41
closing delay	0.41
• at AC	13 50 ms
opening delay	15 50 115
• 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	2
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous	
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous	2
Auxiliary circuit           number of NC contacts for auxiliary contacts instantaneous contact           number of NO contacts for auxiliary contacts instantaneous contact	2 2
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum	2 2
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15	2 2 10 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value	2 2 10 A 6 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 400 V rated value	2 2 10 A 6 A 3 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 400 V rated value         • at 500 V rated value	2 2 10 A 6 A 3 A 2 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 400 V rated value         • at 500 V rated value         • at 690 V rated value	2 2 10 A 6 A 3 A 2 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 500 V rated value         • at 690 V rated value         • at 690 V rated value	2 2 10 A 6 A 3 A 2 A 1 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 400 V rated value         • at 500 V rated value         • at 690 V rated value         • at 690 V rated value         • at 24 V rated value	2 2 10 A 6 A 3 A 2 A 1 A 10 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 400 V rated value         • at 500 V rated value         • at 690 V rated value         • at 24 V rated value         • at 24 V rated value         • at 48 V rated value	2 2 10 A 6 A 3 A 2 A 1 A 10 A 6 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 500 V rated value         • at 690 V rated value         • at 24 V rated value         • at 48 V rated value         • at 60 V rated value         • at 400 V rated value	2 2 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 3 A 2 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 400 V rated value         • at 500 V rated value         • at 690 V rated value         • at 690 V rated value         • at 60 V rated value         • at 24 V rated value         • at 110 V rated value         • at 125 V rated value         • at 220 V rated value	2 2 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 3 A 2 A 1 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 400 V rated value         • at 690 V rated value         • at 690 V rated value         • at 24 V rated value         • at 24 V rated value         • at 48 V rated value         • at 400 V rated value         • at 24 V rated value         • at 25 V rated value         • at 110 V rated value         • at 125 V rated value         • at 220 V rated value         • at 220 V rated value         • at 600 V rated value	2 2 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 3 A 2 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 400 V rated value         • at 500 V rated value         • at 690 V rated value         • at 48 V rated value         • at 48 V rated value         • at 48 V rated value         • at 60 V rated value         • at 220 V rated value         • at 600 V rated value	2 2 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 1 A 1 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 500 V rated value         • at 690 V rated value         • at 690 V rated value         • at 48 V rated value         • at 60 V rated value         • at 24 V rated value         • at 10 V rated value         • at 125 V rated value         • at 220 V rated value         • at 600 V rated value         • at 24 V rated value         • at 600 V rated value         • at 24 V rated value	2 2 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 500 V rated value         • at 690 V rated value         • at 690 V rated value         • at 48 V rated value         • at 60 V rated value         • at 22 V rated value         • at 600 V rated value         • at 600 V rated value         • at 24 V rated value         • at 48 V rated value <td>2 2 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A</td>	2 2 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 500 V rated value         • at 690 V rated value         • at 24 V rated value         • at 110 V rated value         • at 125 V rated value         • at 120 V rated value         • at 24 V rated value         • at 60 V rated value         • at 24 V rated value         • at 24 V rated value         • at 220 V rated value         • at 220 V rated value         • at 220 V rated value         • at 24 V rated value         • at 24 V rated value         • at 600 V rated value         • at 48 V rated value         • at 24 V rated value         • at 48 V rated value         • at 48 V rated value         • at 48 V rated value         • at 60 V rated value	2 2 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 6 A 6 A 2 A 2 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 400 V rated value         • at 500 V rated value         • at 690 V rated value         • at 400 V rated value         • at 220 V rated value         • at 110 V rated value         • at 220 V rated value         • at 220 V rated value         • at 600 V rated value         • at 220 V rated value         • at 220 V rated value         • at 24 V rated value         • at 600 V rated value         • at 600 V rated value         • at 24 V rated value         • at 60 V rated value	2 2 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A 6 A 6 A 2 A 2 A 1 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 400 V rated value         • at 500 V rated value         • at 690 V rated value         • at 48 V rated value         • at 48 V rated value         • at 60 V rated value         • at 220 V rated value         • at 60 V rated value         • at 220 V rated value         • at 220 V rated value         • at 24 V rated value         • at 24 V rated value         • at 600 V rated value         • at 60 V rated value         • at 60 V rated value         • at 24 V rated value         • at 24 V rated value         • at 10 V rated value         • at 10 V rated value         • at 110 V rated value         • at 110 V rated value      <	2 2 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 10 1
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         at 230 V rated value         at 400 V rated value         at 500 V rated value         at 690 V rated value         operational current at DC-12         at 48 V rated value         at 60 V rated value         at 110 V rated value         at 220 V rated value         at 220 V rated value         at 24 V rated value         at 60 V rated value         at 110 V rated value         at 600 V rated value         at 220 V rated value         at 600 V rated value         at 24 V rated value         at 600 V rated value         at 220 V rated value         at 24 V rated value         at 20 V rated value	2 2 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 1 A 0 5 A 1 A 0 5 A 0
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 500 V rated value         • at 690 V rated value         • at 690 V rated value         • at 48 V rated value         • at 24 V rated value         • at 25 V rated value         • at 220 V rated value         • at 600 V rated value         • at 220 V rated value         • at 600 V rated value         • at 600 V rated value         • at 220 V rated value         • at 600 V rated value         • at 24 V rated value         • at 25 V rated value         • at 24 V rated value         • at 100 V rated value      <	2 2 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A 6 A 2 A 1 A 0.15 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 500 V rated value         • at 690 V rated value         • at 48 V rated value         • at 48 V rated value         • at 220 V rated value         • at 600 V rated value         • at 220 V rated value         • at 600 V rated value         • at 220 V rated value         • at 600 V rated value         • at 220 V rated value         • at 24 V rated value         • at 25 V rated value         • at 24 V rated value         • at 25 V rated value         • at 20 V rated value         • at 220 V rated value         • at 100 V rated value         • at 220 V rated value         • at 220 V rated value	2 2 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 3 A 2 A 1 A 0 15 A 6 A 2 A 1 A 0.15 A
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact         number of NO contacts for auxiliary contacts instantaneous contact         operational current at AC-12 maximum         operational current at AC-15         • at 230 V rated value         • at 500 V rated value         • at 690 V rated value         • at 690 V rated value         • at 48 V rated value         • at 24 V rated value         • at 25 V rated value         • at 220 V rated value         • at 600 V rated value         • at 220 V rated value         • at 600 V rated value         • at 600 V rated value         • at 220 V rated value         • at 600 V rated value         • at 24 V rated value         • at 25 V rated value         • at 24 V rated value         • at 100 V rated value      <	2 2 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A 6 A 2 A 1 A 0.15 A

• at 480 V rated value	96 A
• at 600 V rated value	77 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	30 hp
— at 460/480 V rated value	75 hp
— at 575/600 V rated value	75 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>	
— 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
- with type of assignment 2 required	kA) gG: 160 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80
	kA)
for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
side-by-side mounting	Yes
height	140 mm
width	70 mm
depth	195 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
• for live parts	
— 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
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 mm²), 1x (2.5 50 mm²)
connectable conductor cross-section for main contacts	
solid	2.5 16 mm²
stranded	6 70 mm <sup>2</sup>
finely stranded with core end processing	2.5 50 mm²
connectable conductor cross-section for auxiliary contacts	0.5 0.5 mm²
solid or stranded	0.5 2.5 mm <sup>2</sup>
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm²
<ul> <li>type of connectable conductor cross-sections</li> <li>for auxiliary contacts</li> </ul>	

— solid or stra	anded		2x (0.5 1.5 mm²), 2x	$(0.75 - 2.5 \text{ mm}^2)$	
	ded with core end process	ina	2x (0.5 1.5 mm <sup>2</sup> ), 2x		
-	for auxiliary contacts	ing	2x (20 16), 2x (18		
	ed connectable conducto	or cross	LX (L0 10), LX (10	,	
<ul> <li>for main contacts</li> </ul>	S		10 2		
<ul> <li>for auxiliary cont</li> </ul>	acts		20 14		
Safety related data					
product function					
•	cording to IEC 60947-4-1		Yes		
<ul> <li>positively driven</li> </ul>	operation according to IEC	C 60947-5-1	No		
suitability for use safety	/-related switching OFF		Yes		
	mand rate according to SN	I 31920	1 000 000		
proportion of dangero					
	I rate according to SN 319	20	40 %		
	d rate according to SN 319		73 %		
	w demand rate according		100 FIT		
	interval or service life acco		20 a		
protection class IP or	the front according to I	EC 60529	IP20		
touch protection on the	he front according to IEC	60529	finger-safe, for vertical	contact from the front	
Certificates/ approvals	-		-		
General Product App	roval				
<b>E</b>		<u> </u>			EHL
EMC	Functional Safety/Safety of Ma- chinery	Declaration of	Conformity	Test Certificates	Marine / Shipping
RCM	Type Examination Cer- tificate	CE EG-Konf.	UK CA	<u>Special Test Certific-</u> <u>ate</u>	ABS
Marine / Shipping					other
Marine / Shipping	Llovd's Register Lits	PRS	RINA	RMRS	other Confirmation
		PRS	RINA	RMRS	
Ĵ.Å.	LRS Dangerous Good	PRS Environment	RINA	KMRS	
		Prs Environmental O firmations	RINA Con-	<b>EXAMPLE</b>	

#### Further information

Siemens has decided to exit the Russian market (see here). https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business Siemens is working on the renewal of the current EAC certificates. Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875 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=3RT2046-1AG24

#### Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2046-1AG24

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

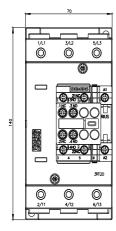
https://support.industry.siemens.com/cs/ww/en/ps/3RT2046-1AG24

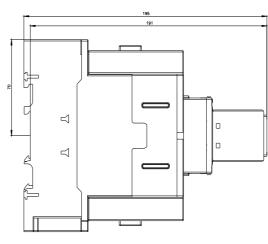
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2046-1AG24&lang=en

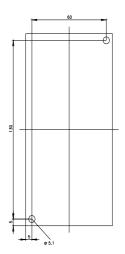
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2046-1AG24/char

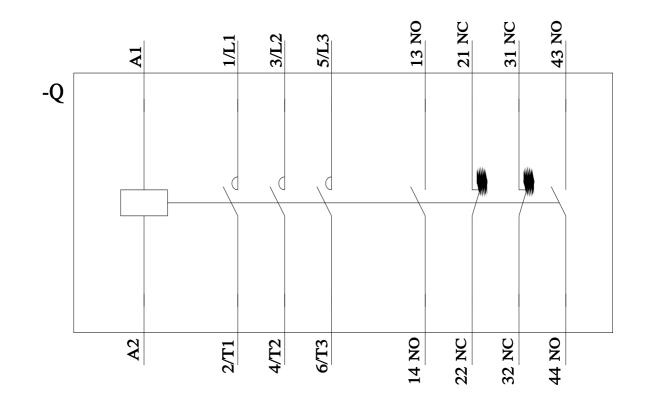
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2046-1AG24&objecttype=14&gridview=view1









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