SIEMENS

Data sheet 3RT2016-2WB42



power contactor, AC-3e/AC-3, 9 A, 4 kW / 400 V, 3-pole, 24 V DC, $0.85\text{-}1.85^{*}$ Us, with varistor plugged on, auxiliary contacts: 1 NC, spring-loaded terminal, size: S00, not expandable with auxiliary switch

product type designation product type designation Size of contactor product extension • function module for communication • function module for communication • auxiliary switch No auxiliary switch No power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole • without load current share typical insulation voltage • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit vith degree of pollution 3 rated value • of auxiliary circuit vith degree of pollution 3 rated value • of auxiliary circuit vith degree of pollution 3 rated value • of auxiliary circuit vith degree of pollution 3 rated value • of auxiliary circuit vith degree of pollution 3 rated value • of auxiliary circuit vith degree of pollution 3 rated value • of auxiliary circuit vith degree of pollution 3 rated value • of with a circuit rated value • of size resistance • of main circuit rated value • of auxiliary circuit vith degree of pollution 3 rated value • of with a circuit rated value • of size resistance • of main circuit rated value • of size resistance • of main circuit rated value • of size resistance • of main circuit trated value • of size resistance • of main current size value • of contactor typical relative humidity minimum relative humidity minimum current circuit number of poles for main current circuit number of NO contacts for main current circuit number of NO contacts for main current circuit number of NO contacts for main contacts	product brand name	SIRIUS
size of contactor S00 product extension • function module for communication No • auxiliary switch No power loss [W] for rated value of the current • at AC in hot operating state 0.9 W • at AC in hot operating state 0.9 W • at AC in hot operating state per pole 0.3 W • without load current share typical 1.6 W insulation voltage • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit atted value 6 kV • of auxiliary circuit rated value 6 kV • of auxiliary circuit rated value 6 kV • of auxiliary circuit rated value 400 V shock resistance at rectangular impulse • at DC 6.7g / 5 ms, 4.2g / 10 ms shock resistance with sine pulse • at DC 10,5g / 5 ms, 6.6g / 10 ms mechanical service life (operating cycles) • of contactor typical 30 000 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/01/2009 Ambient conditions installation altitude at height above sea level maximum 2000 m ambient temperature • during operation -25 +60 °C • during storage -55 +80 °C relative humidity at 55 °C according to IEC 60068-2-30 maximum Misin circuit number of poles for main current circuit 3	product designation	Coupling contactor
size of contactor product extension • function module for communication • function module for communication • auxiliary switch No power loss [W] for rated value of the current • at AC in hot operating state per pole • without load current share typical • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit trated value • of auxiliary circuit rated value • of auxiliary circuit rated value • of main circuit with degree of pollution 3 rated value • of main circuit rated value • of main circuit rated value • of auxiliary circuit rated value • of main circuit rated value • of auxiliary circuit • our of main circuit value • of auxiliary circ	product type designation	3RT2
product extension • function module for communication • auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of main circuit rated value • of main circuit rated value • of main circuit rated value • of auxiliary circ	General technical data	
• function module for communication • auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state 0.9 W • without load current share typical 1.6 W insulation voltage • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of main circuit twith degree of pollution 3 rated value • of main circuit rated value • of main circuit rated value • of main circuit rated value • of auxiliary circuit rated valu	size of contactor	S00
auxiliary switch power loss [W] for rated value of the current at AC in hot operating state at AC in hot operating state per pole without load current share typical of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with de	product extension	
power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole • without load current share typical insulation voltage • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of main circuit rated value • of auxiliary circuit rated value • of auxiliary circuit rated value maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at DC	 function module for communication 	No
at AC in hot operating state	auxiliary switch	No
at AC in hot operating state per pole without load current share typical insulation voltage of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit rated value of auxiliary circii rated value of auxilia	power loss [W] for rated value of the current	
without load current share typical insulation voltage of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value surge voltage resistance of main circuit rated value of auxiliary circuit rated value of kV of kV aximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse ot at DC of C,7g / 5 ms, 4,2g / 10 ms shock resistance with sine pulse ot DC reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Anbient conditions installation altitude at height above sea level maximum ambient temperature oduring operation oduring storage of character typical relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 3	 at AC in hot operating state 	0.9 W
insulation voltage • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit rated value • of main circuit rated value • of auxiliary circuit rated value maximum permissible voltage for protective separation between coll and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at DC shock resistance with sine pulse • at DC shock resistance with sine pulse • at DC for ontactor typical of contactor typical reference code according to IEC 81346-2 Qu Substance Prohibitance (Date) Anbient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during operation • during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 3 000 V 690 V 6	 at AC in hot operating state per pole 	0.3 W
of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value surge voltage resistance of main circuit rated value of auxiliary circuit rated value of work resistance with governorm of the work resistance at rectangular impulse ot at DC of at DC shock resistance with sine pulse of contactor typical of contactor typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation oduring storage relative humidity minimum relative number of poles for main current circuit of solution at relative humidity minimum relative for main current circuit anumber of poles for main current circuit 3	without load current share typical	1.6 W
of auxiliary circuit with degree of pollution 3 rated value surge voltage resistance of main circuit rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of kV of anin circuit of auxiliary circuit with degree of pollution 3 rated value of kV of auxiliary circuit with degree of pollution 3 rated value of kV of auxiliary circuit with degree of pollution 3 rated value of kV of auxiliary circuit with degree of pollution 3 rated value of kV of auxiliary circuit with degree of pollution 3 rated value of kV of auxiliary circuit with degree of pollution 5 ex V of kV of contactor typical of contact	insulation voltage	
surge voltage resistance • of main circuit rated value • of auxillary circuit rated value maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at DC shock resistance with sine pulse • at DC shock resistance with sine pulse • at DC mechanical service life (operating cycles) • of contactor typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 8 6 kV 6 kV 400 V 400	 of main circuit with degree of pollution 3 rated value 	690 V
of main circuit rated value of auxiliary circuit rated value of auxiliary circuit rated value aximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse o at DC fo,7g / 5 ms, 4,2g / 10 ms shock resistance with sine pulse o at DC focontactor typical of contactor typical of contactor typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature o during operation oduring storage relative humidity an 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit description for the NV 400 V 40	 of auxiliary circuit with degree of pollution 3 rated value 	690 V
of auxiliary circuit rated value maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse o at DC fo.7g / 5 ms, 4,2g / 10 ms shock resistance with sine pulse o at DC fo.7g / 5 ms, 6,6g / 10 ms mechanical service life (operating cycles) of contactor typical of contactor typical for contactor typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation oduring operation oduring storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 3	surge voltage resistance	
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at DC shock resistance with sine pulse • at DC 10,5g / 5 ms, 4,2g / 10 ms mechanical service life (operating cycles) • of contactor typical reference code according to IEC 81346-2 Qu Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 3 000 V 6,7g / 5 ms, 4,2g / 10 ms 10,5g / 5 ms, 6,6g / 10 ms 10,00 000 10,00 00	of main circuit rated value	6 kV
shock resistance at rectangular impulse • at DC shock resistance with sine pulse • at DC 10,5g / 5 ms, 4,2g / 10 ms shock resistance with sine pulse • at DC mechanical service life (operating cycles) • of contactor typical reference code according to IEC 81346-2 Qu Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 3 6,7g / 5 ms, 4,2g / 10 ms 6,7g / 5 ms, 4,2g / 10 ms 10,5g / 5 ms, 6,6g / 10 ms 10,0g / 6 ms	of auxiliary circuit rated value	6 kV
• at DC shock resistance with sine pulse • at DC 10,5g / 5 ms, 6,6g / 10 ms mechanical service life (operating cycles) • of contactor typical 30 000 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 3 0 000 000 10/01/2009 A 2 000 m 2 000 m 3 0 000 000 10/01/2009 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		400 V
shock resistance with sine pulse • at DC 10,5g / 5 ms, 6,6g / 10 ms mechanical service life (operating cycles) • of contactor typical 30 000 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation -25 +60 °C • during storage relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 3	shock resistance at rectangular impulse	
at DC mechanical service life (operating cycles) of contactor typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 3 0 000 000 0 0 0 0 0 0 0 0 0 0	• at DC	6,7g / 5 ms, 4,2g / 10 ms
mechanical service life (operating cycles) • of contactor typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 3 0 000 000 30 000 000 10/01/2009 2 000 m 2 000 m 2 000 m 2 000 m 9 0 °C -55 +60 °C -55 +80 °C 95 %	shock resistance with sine pulse	
of contactor typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation oduring storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 3 0 000 000 Q Q 2 000 10/01/2009 -25 +60 °C -25 +60 °C -55 +80 °C 95 %	• at DC	10,5g / 5 ms, 6,6g / 10 ms
reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 3	mechanical service life (operating cycles)	
Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage -25 +60 °C • during storage relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 3	of contactor typical	30 000 000
Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 3	reference code according to IEC 81346-2	Q
installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during storage -55 +80 °C relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 3	Substance Prohibitance (Date)	10/01/2009
ambient temperature • during operation -25 +60 °C • during storage -55 +80 °C relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 3	Ambient conditions	
 during operation during storage telative humidity minimum maximum Main circuit number of poles for main current circuit 	installation altitude at height above sea level maximum	2 000 m
● during storage -55 +80 °C relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Main circuit number of poles for main current circuit 3	ambient temperature	
relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 95 % maximum Main circuit number of poles for main current circuit 3	 during operation 	-25 +60 °C
relative humidity at 55 °C according to IEC 60068-2-30 95 % maximum Main circuit number of poles for main current circuit 3	during storage	-55 +80 °C
maximum Main circuit number of poles for main current circuit 3	relative humidity minimum	10 %
number of poles for main current circuit 3		95 %
-	Main circuit	
number of NO contacts for main contacts 3	number of poles for main current circuit	3
	number of NO contacts for main contacts	3
operating voltage	operating voltage	
at AC-3 rated value maximum 690 V	 at AC-3 rated value maximum 	690 V

 at AC-3e rated value maximum 	690 V
operational current	
 at AC-1 at 400 V at ambient temperature 40 °C rated value 	22 A
• at AC-1	
— up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	22 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	20 A
• at AC-3	
— at 400 V rated value	9 A
— at 500 V rated value	7.7 A
— at 690 V rated value	6.7 A
• at AC-3e	
— at 400 V rated value	9 A
— at 500 V rated value	7.7 A
— at 690 V rated value	6.7 A
 at AC-4 at 400 V rated value 	8.5 A
• at AC-5a up to 690 V rated value	19.4 A
 at AC-5b up to 400 V rated value 	7.4 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	5.3 A
— up to 400 V for current peak value n=20 rated value	5.3 A
— up to 500 V for current peak value n=20 rated value	5.3 A
— up to 690 V for current peak value n=20 rated value	5 A
• at AC-6a	
 up to 230 V for current peak value n=30 rated value 	3.5 A
— up to 400 V for current peak value n=30 rated value	3.5 A
— up to 500 V for current peak value n=30 rated value	3.6 A
— up to 690 V for current peak value n=30 rated value	3.3 A
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	4.1 A
at 690 V rated value	3.3 A
operational current	0.071
• at 1 current path at DC-1	
— at 24 V rated value	20 A
— at 24 V rated value — at 60 V rated value	20 A 20 A
— at 60 V rated value	20 A
— at 60 V rated value— at 110 V rated value	20 A 2.1 A
— at 60 V rated value— at 110 V rated value— at 220 V rated value	20 A 2.1 A 0.8 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value 	20 A 2.1 A 0.8 A 0.6 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value 	20 A 2.1 A 0.8 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 	20 A 2.1 A 0.8 A 0.6 A 0.6 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value 	20 A 2.1 A 0.8 A 0.6 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value 	20 A 2.1 A 0.8 A 0.6 A 0.6 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value at 60 V rated value 	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value 	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value 	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value 	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value 	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value 	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value with 3 current paths in series at DC-1 at 24 V rated value 	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 120 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 60 V rated value at 60 V rated value at 60 V rated value 	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A
- at 110 V rated value - at 220 V rated value - at 440 V rated value - at 600 V rated value • with 2 current paths in series at DC-1 - at 24 V rated value - at 60 V rated value - at 110 V rated value - at 220 V rated value - at 440 V rated value - at 440 V rated value - at 600 V rated value - at 600 V rated value - at 600 V rated value - at 24 V rated value - at 24 V rated value - at 24 V rated value - at 300 V rated value	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 220 V rated value at 220 V rated value 	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A 20 A 20 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 24 V rated value at 24 V rated value at 25 V rated value at 26 V rated value at 27 V rated value at 28 V rated value at 29 V rated value at 20 V rated value at 210 V rated value at 220 V rated value at 240 V rated value at 240 V rated value 	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A 20 A 20 A 20 A 20 A 20 A 20 A
 at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value with 2 current paths in series at DC-1 at 24 V rated value at 60 V rated value at 110 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 600 V rated value at 600 V rated value at 110 V rated value at 24 V rated value at 24 V rated value at 24 V rated value at 110 V rated value at 110 V rated value at 220 V rated value at 240 V rated value at 340 V rated value at 340 V rated value at 340 V rated value 	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A 20 A 20 A 20 A 20 A 20 A 20 A
- at 60 V rated value - at 110 V rated value - at 220 V rated value - at 440 V rated value - at 600 V rated value • with 2 current paths in series at DC-1 - at 24 V rated value - at 60 V rated value - at 110 V rated value - at 220 V rated value - at 440 V rated value - at 600 V rated value - at 600 V rated value - at 24 V rated value - at 440 V rated value - at 600 V rated value	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 12 A 1.6 A 0.8 A 0.7 A 20 A 20 A 21 A 20 A 21 A 21 A 21 A 21 A 22 A 23 A 24 A 25 A 26 A 27 A 28 A 29 A 20 A 20 A 20 A 21 A 21 A
- at 60 V rated value - at 110 V rated value - at 220 V rated value - at 440 V rated value - at 600 V rated value • with 2 current paths in series at DC-1 - at 24 V rated value - at 60 V rated value - at 110 V rated value - at 220 V rated value - at 440 V rated value - at 600 V rated value - at 600 V rated value - at 600 V rated value - at 22 V rated value - at 24 V rated value - at 24 V rated value - at 60 V rated value - at 110 V rated value - at 110 V rated value - at 600 V rated value - at 600 V rated value - at 440 V rated value - at 600 V rated value - at 1 current path at DC-3 at DC-5 - at 24 V rated value	20 A 2.1 A 0.8 A 0.6 A 0.6 A 20 A 20 A 21 A 1.6 A 0.8 A 0.7 A 20 A 20 A 20 A 20 A 20 A 20 A 20 A 2

 with 2 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	20 A
— at 60 V rated value	5 A
— at 110 V rated value	0.35 A
 with 3 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	20 A
— at 220 V rated value	1.5 A
— at 440 V rated value	0.2 A
— at 600 V rated value	0.2 A
operating power	
• at AC-3	
— at 230 V rated value	2.2 kW
— at 400 V rated value	4 kW
— at 500 V rated value	4 kW
— at 690 V rated value	5.5 kW
• at AC-3e	
— at 230 V rated value	2.2 kW
— at 400 V rated value	4 kW
— at 500 V rated value	4 kW
— at 690 V rated value	5 kW
operating power for approx. 200000 operating cycles at AC-	
4	
• at 400 V rated value	2 kW
at 690 V rated value	2.5 kW
operating apparent power at AC-6a	
 up to 230 V for current peak value n=20 rated value 	2 kVA
 up to 400 V for current peak value n=20 rated value 	3.6 kVA
• up to 500 V for current peak value n=20 rated value	4.6 kVA
• up to 690 V for current peak value n=20 rated value	5.9 kVA
operating apparent power at AC-6a	
 up to 230 V for current peak value n=30 rated value 	1.3 kVA
 up to 400 V for current peak value n=30 rated value 	2.4 kVA
 up to 500 V for current peak value n=30 rated value 	3.1 kVA
 up to 690 V for current peak value n=30 rated value 	4 kVA
short-time withstand current in cold operating state up to	
40 °C	
 limited to 1 s switching at zero current maximum 	155 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	111 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	86 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	66 A; Use minimum cross-section acc. to AC-1 rated value
Iimited to 60 s switching at zero current maximum	55 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at DC	10 000 1/h
operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	750 1/h
• at AC-3e maximum	750 1/h
• at AC-4 maximum	250 1/h
Control circuit/ Control	
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	
• initial value	0.85
• full-scale value	1.85
design of the surge suppressor	with varistor
closing power of magnet coil at DC	1.6 W
holding power of magnet coil at DC	1.6 W

closing delay	
• at DC	25 120 ms
opening delay	
• at DC	5 20 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous	1
contact operational current at AC-12 maximum	10 A
operational current at AC-15	
at 230 V rated value	10 A
at 400 V rated value	3 A
at 500 V rated value	2 A
at 690 V rated value	1 A
operational current at DC-12	
at 24 V rated value	10 A
at 48 V rated value	6 A
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
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	7.6 A
at 600 V rated value	9 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	0.33 hp
— at 230 V rated value	1 hp
• for 3-phase AC motor	
— at 200/208 V rated value	2 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	5 hp
— at 575/600 V rated value	7.5 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
for short-circuit protection of the main circuit	
with type of coordination 1 required	gG: 35A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)
with type of assignment 2 required	gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)
• 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	70 mm
width	45 mm
depth	121 mm
required spacing	

W	
with side-by-side mounting	40
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
 for grounded parts 	
— forwards	10 mm
— upwards	10 mm
— at the side	6 mm
— downwards	10 mm
for live parts	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	6 mm
Connections/ Terminals	
type of electrical connection	
 for main current circuit 	spring-loaded terminals
 for auxiliary and control circuit 	spring-loaded terminals
 at contactor for auxiliary contacts 	Spring-type terminals
of magnet coil	Spring-type terminals
type of connectable conductor cross-sections for main contacts	
• solid	2x (0.5 4 mm²)
solid or stranded	2x (0,5 4 mm²)
 finely stranded with core end processing 	2x (0.5 2.5 mm²)
 finely stranded without core end processing 	2x (0.5 2.5 mm²)
connectable conductor cross-section for main contacts	
• solid	0.5 4 mm²
stranded	0.5 4 mm²
 finely stranded with core end processing 	0.5 2.5 mm²
finely stranded without core end processing	0.5 2.5 mm²
connectable conductor cross-section for auxiliary contacts	
solid or stranded	0.5 4 mm²
finely stranded with core end processing	0.5 2.5 mm²
finely stranded without core end processing	0.5 2.5 mm²
type of connectable conductor cross-sections	
for auxiliary contacts	
— solid or stranded	2x (0,5 4 mm²)
finely stranded with core end processing	2x (0.5 2.5 mm²)
— finely stranded without core end processing	2x (0.5 2.5 mm²)
for AWG cables for auxiliary contacts	2x (20 12)
AWG number as coded connectable conductor cross	ZA (20 12)
section	
• for main contacts	20 12
for auxiliary contacts	20 12
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
B10 value with high demand rate according to SN 31920	1 000 000
proportion of dangerous failures	
with low demand rate according to SN 31920	40 %
 with high demand rate according to SN 31920 	73 %
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
T1 value for proof test interval or service life according to IEC	20 a
61508	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
suitability for use	
 safety-related switching OFF 	Yes
Certificates/ approvals	
General Product Approval	



Confirmation





<u>KC</u>



Functional
Safety/Safety of Machinery

Declaration of Conformity

Test Certificates



Type Examination Certificate





Special Test Certificate

Type Test Certificates/Test Report

Marine / Shipping













Marine / Shipping

other

Railway

Dangerous Good

Environment



Confirmation



Vibration and Shock

Transport Information

Environmental Confirmations

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=3RT2016-2WB42

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2016-2WB42

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2016-2WB42

 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ EPLAN\ macros,\ ...)$

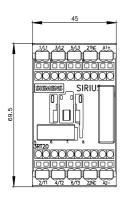
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2016-2WB42&lang=en

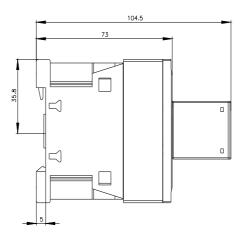
Characteristic: Tripping characteristics, I2t, Let-through current

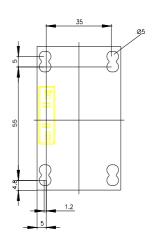
https://support.industry.siemens.com/cs/ww/en/ps/3RT2016-2WB42/char

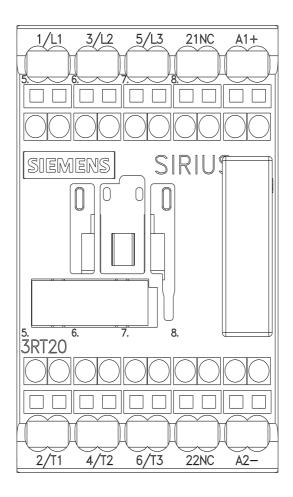
Further characteristics (e.g. electrical endurance, switching frequency)

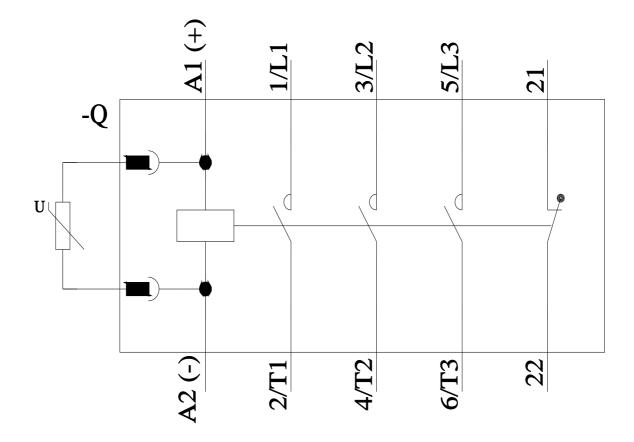
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2016-2WB42&objecttype=14&gridview=view1











last modified: 2/10/2023 🖸