SIEMENS

Data sheet 3RT2016-1AP62



power contactor, AC-3e/AC-3, 9 A, 4 kW / 400 V, 3-pole, 220 V AC, 50 Hz / 240 V, 60 Hz, auxiliary contacts: 1 NC, screw terminal, size: S00

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S00
product extension	
 function module for communication 	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	0.9 W
 at AC in hot operating state per pole 	0.3 W
without load current share typical	1.2 W
type of calculation of power loss depending on pole	quadratic
insulation voltage	
 of main circuit with degree of pollution 3 rated value 	690 V
 of auxiliary circuit with degree of pollution 3 rated value 	690 V
surge voltage resistance	
of main 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	400 V
shock resistance at rectangular impulse	
• at AC	6,7g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at AC	10,5g / 5 ms, 6,6g / 10 ms
mechanical service life (operating cycles)	
 of contactor typical 	30 000 000
 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 according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
Weight	0.233 kg
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
during operation	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %

Environmental footprint	
Environmental Product Declaration(EPD)	Yes
global warming potential [CO2 eq] total	39.6 kg
global warming potential [CO2 eq] during manufacturing	1.18 kg
global warming potential [CO2 eq] during operation	38.5 kg
global warming potential [CO2 eq] after end of life	-0.155 kg
Main circuit	on too hig
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
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 at AC-1 	22 A
— up to 690 V at ambient temperature 40 °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 at AC Facus to 600 V rated value	8.5 A 19.4 A
 at AC-5a up to 690 V rated value at AC-5b up to 400 V rated value 	7.4 A
• at AC-6a	1.T A
— 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	
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 100 V rated value — at 110 V rated value	2.1 A
— at 220 V rated value	0.8 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
with 2 current paths in series at DC-1	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	12 A
— at 220 V rated value	1.6 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.7 A

a with 2 augment paths in series at DC 1	
with 3 current paths in series at DC-1 — 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	20 A
— at 440 V rated value	1.3 A
— at 600 V rated value	1.5 A
	TA .
at 1 current path at DC-3 at DC-5 — at 24 V rated value	20 A
— at 60 V rated value	0.5 A
— at 110 V rated value	0.15 A
with 2 current paths in series at DC-3 at DC-5	0.13 A
— 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	0.55 A
— 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	0.E / (
at AC-2 at 400 V rated value	4 kW
• at AC-3	7 (0)
— 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	5.5 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	0.11/4
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 value n=20 rated value	3.6 kVA
up to 500 V for current peak value n=20 rated value up to 600 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	1.2 1// / /
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value.	1.3 kVA
up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value	2.4 kVA
up to 500 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value	3.1 kVA
up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to	4 kVA
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
 limited 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 AC	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

* af AC-36	- ot AC 20	
### AC-4 macrimum ### Operation 250 th ### Operati	• at AC-3e	750 1/b
Control service Control		
Type of voltage of the control supply voltage AC		230 1/11
Control supply voltage at AC		AC
		AC
### ### ##############################		220 V
Operating range factor control supply voltage rated value of regard coil at 1.0 ft.		
magnet coil at AC		240 V
■ at 60 Hz ■ apparent pick-up power of magnet coil at AC ■ at 60 Hz		
apparent pick-up power of magnet coil at AC	● at 50 Hz	
ea 16 0 Hz		0.8 1.1
end ti0 Hz		
Inductive power factor with closing power of the coil	● at 50 Hz	26.4 VA
eart 60 Hz		26.4 VA
■ at 60 Hz apparent holding power of magnet coil at AC ■ at 50 Hz ■ at 60 Hz ■ at AC □ 24 □ 24 □ 24 □ 24 □ 25 Ms Ms □ 25 Ms		
apparent holding power of magnet coil at AC		
		0.81
Multivity power factor with the holding power of the coil all 50 Hz		
inductive power factor with the holding power of the coil at 50 Hz 0.24 at 80 Hz 0.24 closing delay at AC 935 ms opening delay at AC 415 ms arcing time 1015 ms control version of the switch operating mechanism Standard A1 - A2 Auxiliary circuit 1 number of NC contacts for auxiliary contacts instantaneous contact 1 operational current at AC-12 maximum 10 A operational current at AC-12 maximum 10 A operational current at AC-12 maximum 10 A operational current at D-12 at 4500 V rated value 3 A at 500 V rated value 1 A operational current at D-12 at 45 V rated value 1 A at 600 V rated value 6 A at 450 V rated value 6 A at 450 V rated value 1 A at 600 V rated value 2 A at 125 V rated value 1 A at 220 V rated value 1 A at 24 V rated value 1 A at 24 V rated value 2 A at 48 V rated value		
		4.4 VA
e at 60 Hz closing delay e at AC opening delay e at AC opening delay e at AC opening delay e at AC opening delay e at AC out 15 ms control version of the switch operating mechanism Control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-12 maximum 10 A operational current at AC-15 e at 230 V rated value		
e at AC 935 ms opening delay		
		0.24
e at AC 415 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 contact operational current at AC-12 maximum 10 A operational current at AC-15		
■ at AC arcing time		9 35 ms
arcing time		
Control version of the switch operating mechanism Standard A1 - A2		
Auxiliary circuit		
number of NC contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum 10 A operational current at AC-15		Standard A1 - A2
contact operational current at AC-12 maximum	Auxiliary circuit	
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 690 V rated value • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value • at 48 V rated value • at 600 V rated value • at 110 V rated value • at 110 V rated value • at 110 V rated value • at 24 V rated value • at 125 V rated value • at 126 V rated value • at 110 V rated value • at 220 V rated value • at 600 V rated value	number of NC contacts for auxilians contacts instantaneous	1
 at 230 V rated value at 400 V rated value at 500 V rated value at 690 V rated value 1 A operational current at DC-12 at 24 V rated value at 80 V rated value at 80 V rated value at 60 V rated value at 60 V rated value at 10 V rated value at 110 V rated value at 220 V rated value at 200 V rated value at 24 V rated value at 25 V rated value at 10 A at 110 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 20 V rated value at 30 V rated value at 30 V rated value at 60 V rated value at		1
at 400 V rated value at 500 V rated value at 690 V rated value at 690 V rated value 1 A operational current at DC-12 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 220 V rated value at 48 V rated value at 48 V rated value at 200 V rated value at 48 V rated value at 110 V rated value at 110 V rated value at 20 V rated value at 100 V rated value at 100 V rated value at 110 V rated value at 110 V rated value at 20 V rated value at 125 V rated value at 20 V rated value at 125 V rated value at 125 V rated value at 125 V rated value at 120 V rated value at 120 V rated value at 120 V rated value at 200 V rated value at 200 V rated value at 200 V rated value at 480 V rated value 7.6 A at 600 V rated value at 480 V rated value at 5	contact	
■ at 500 V rated value ■ at 690 V rated value ■ 1 A Operational current at DC-12 ■ at 24 V rated value ■ at 48 V rated value ■ at 60 V rated value ■ at 110 V rated value ■ at 110 V rated value ■ at 110 V rated value ■ at 125 V rated value ■ at 220 V rated value ■ at 200 V rated value ■ at 600 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 25 V rated value ■ at 24 V rated value ■ at 48 V rated value ■ at 60 V rated value ■ at 60 V rated value ■ at 110 V rated value ■ at 125 V rated value ■ at 220 V rated value ■ at 220 V rated value ■ at 25 V rated value ■ at 20 V rated value ■ at 4600 V rated value ■ at 600 V	contact operational current at AC-12 maximum	
• at 690 V rated value 1 A operational current at DC-12 • at 24 V rated value 6 A • at 48 V rated value 6 A • at 60 V rated value 3 A • at 110 V rated value 2 A • at 125 V rated value 2 A • at 220 V rated value 3 A • at 220 V rated value 0.15 A operational current at DC-13 • at 24 V rated value 2 A • at 34 V rated value 2 A • at 600 V rated value 2 A • at 600 V rated value 2 A • at 60 V rated value 3 A • at 25 V rated value 4 A • at 60 V rated value 5 A • at 10 V rated value 6 A • at 10 V rated value 7 A • at 220 V rated value 9 A • at 220 V rated value 10 A • at 48 V rated value 10 A • at 600 V rated value 11 A • at 600 V rated value 11 A • at 600 V rated value 11 A • at 600 V rated value 12 A • at 600 V rated value 14 A • at 600 V rated value 15 A • at 600 V rated value 17 A • at 600 V rated value 17 A • at 600 V rated value 19 A	contact operational current at AC-12 maximum operational current at AC-15	10 A
operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 60 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 • at 600 V rated value • at 600 V rated value • at 24 V rated value • at 24 V rated value • at 25 V rated value • at 600 V rated value • at 20 V rated value • at 20 V rated value • at 20 V rated value • at 20 V rated value • at 20 V rated value • at 20 V rated value • at 30 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value 7.6 A • at 600 V rated value • at 480 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 800 V rated value	contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value	10 A
 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value operational current at DC-13 at 24 V rated value at 48 V rated value at 60 V rated value at 60 V rated value at 110 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 120 V rated value at 600 V rated value at 480 V rated value at 480 V rated value at 480 V rated value at 600 V rated value at 480 V rated value at 480 V rated value at 600 V rated value 	contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value	10 A 10 A 3 A
 at 48 V rated value at 60 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 600 V rated value onts A Operational current at DC-13 at 24 V rated value at 48 V rated value at 600 V rated value at 600 V rated value at 10 V rated value at 110 V rated value at 125 V rated value at 125 V rated value at 220 V rated value at 220 V rated value at 600 V rated value ontact reliability of auxiliary contacts full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value at 600 V rated value 	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	10 A 10 A 3 A 2 A
 at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value ontage of the following of t	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	10 A 10 A 3 A 2 A
 at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value operational current at DC-13 at 24 V rated value at 80 V rated value at 48 V rated value at 60 V rated value at 60 V rated value at 110 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 at 480 V rated value at 600 V rated value 	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	10 A 10 A 3 A 2 A 1 A
■ at 125 V rated value ■ at 220 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 48 V rated value ■ at 48 V rated value ■ at 110 V rated value ■ at 110 V rated value ■ at 1125 V rated value ■ at 125 V rated value ■ at 125 V rated value ■ at 220 V rated value ■ at 600 V rated value	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 24 V rated value	10 A 10 A 3 A 2 A 1 A
 at 220 V rated value at 600 V rated value 0.15 A 0perational current at DC-13 at 24 V rated value at 48 V rated value at 60 V rated value at 60 V rated value at 110 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 at 480 V rated value at 480 V rated value at 600 V rated value 	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 24 V rated value • at 48 V rated value	10 A 10 A 3 A 2 A 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 1 A • at 110 V rated value 1 A • at 125 V rated value 0.9 A • at 220 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	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 24 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A
operational current at DC-13	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 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A
 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 480 V rated value at 600 V rated value 	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 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A
 at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 600 V rated value 1 A at 600 V rated value 1 A 1 A 1 A 1 A 2 A 3 A 4 A 5 A 6 A 1 A 6 A 7 A 6 A 9 A 	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 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A
 at 60 V rated value at 110 V rated value 1 A at 125 V rated value 0.9 A at 220 V rated value 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 at 480 V rated value 9 A 	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 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A
 at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value 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 at 480 V rated value at 600 V rated value 9 A 	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 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 2 A 1 A 0.15 A
 at 125 V rated value at 220 V rated value at 600 V rated value 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 at 600 V rated value 9 A 	contact 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 operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 220 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
 at 220 V rated value at 600 V rated value 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 at 600 V rated value 9 A 	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 24 V rated value • at 48 V rated value • at 110 V rated value • at 125 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 25 V rated value • at 27 V rated value • at 28 V rated value • at 24 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
● at 600 V rated value 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	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 24 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 125 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 operational current at DC-13 • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 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 • at 600 V rated value 9 A	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 24 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A
UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value 9 A	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 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 24 V rated value • at 25 V rated value • at 27 V rated value • at 28 V rated value • at 29 V rated value • at 20 V rated value • at 20 V rated value • at 20 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A
full-load current (FLA) for 3-phase AC motor • at 480 V rated value 7.6 A • at 600 V rated value 9 A	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 24 V rated value • at 48 V rated value • at 110 V rated value • at 110 V rated value • at 220 V rated value • at 600 V rated value • at 125 V rated value • at 110 V rated value • at 24 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A
 at 480 V rated value at 600 V rated value 9 A 	contact 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 operational current at DC-12 • at 24 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 24 V rated value • at 125 V rated value • at 125 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 24 V rated value • at 24 V rated value • at 24 V rated value • at 25 V rated value • at 24 V rated value • at 25 V rated value • at 25 V rated value • at 26 V rated value • at 27 V rated value • at 28 V rated value • at 110 V rated value • at 125 V rated value • at 127 V rated value • at 128 V rated value • at 129 V rated value • at 200 V rated value • at 600 V rated value • at 600 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
• at 600 V rated value 9 A	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 24 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value • at 220 V rated value • at 600 V rated value • at 110 V rated value • at 600 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
	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 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 24 V rated value • at 25 V rated value • at 20 V rated value • at 60 V rated value • at 600 V rated value • at 725 V rated value • at 600 V rated value • at 726 V rated value • at 727 V rated value • at 728 V rated value • at 729 V rated value • at 720 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
yielded mechanical performance [hp]	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 24 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 125 V rated value • at 220 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 60 V rated value • at 10 V rated value • at 10 V rated value • at 110 V rated value • at 125 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
	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 24 V rated value • at 60 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 24 V rated value • at 25 V rated value • at 25 V rated value • at 26 V rated value • at 600 V rated value • at 27 V rated value • at 28 V rated value • at 29 V rated value • at 60 V rated value • at 60 V rated value • at 60 V rated value • at 600 V rated value	10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)

6 1 1 1 10 10	
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 miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V	C characteristic: 10 A; 0.4 kA
design of the fuse link	
for short-circuit protection of the main circuit	
with type of coordination 1 required	gG: 35 A (690 V,100 kA), aM: 20 A (690 V,100 kA), BS88: 35 A (415 V,80 kA)
with type of coordination 1 required — with type of coordination 2 required	gG: 20 A (690 V, 100 kA), aM: 16 A (690 V, 100 kA), BS88: 20 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 surfaces can be tilted forward and
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method side-by-side mounting	Yes
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	58 mm
width	45 mm
depth	73 mm
required spacing	
with side-by-side mounting	
— 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	10 111111
·	10 mm
— forwards	
— upwards	10 mm
— downwards	10 mm
— at the side	6 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	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
for AWG cables for main contacts	2x (20 16), 2x (18 14), 2x 12
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
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
type of connectable conductor cross-sections	

 for auxiliary contacts 	
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 for AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14), 2x 12
AWG number as coded connectable conductor cross section for main contacts	20 12
AWG number as coded connectable conductor cross section for auxiliary contacts	20 12
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
 positively driven operation according to IEC 60947-5-1 	No
 suitable for safety function 	Yes
suitability for use safety-related switching OFF	Yes
service life maximum	20 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
 with low demand rate according to SN 31920 	40 %
 with high demand rate according to SN 31920 	73 %
B10 value with high demand rate according to SN 31920	1 000 000
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
ISO 13849	
device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type A
Electrical Safety	
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
Approvals Certificates	













<u>KC</u>

General Product Approval

EMV

Test Certificates

Maritime application





Special Test Certificate

Type Test Certificates/Test Report





Maritime application











Miscellaneous

other

other



Confirmation

Confirmation

Special Test Certificate

Railway



Environment

Environmental Confirmations

Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information for data generation and storage

https://support.industry.siemens.com/cs/ww/en/view/109995012

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=3RT2016-1AP62

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2016-1AP62

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2016-1AP6

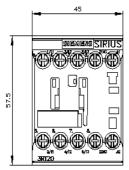
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

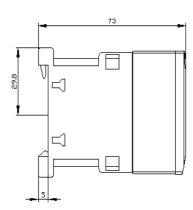
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2016-1AP62&lang=en

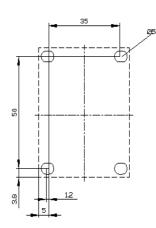
Characteristic: Tripping characteristics, I2t, Let-through current

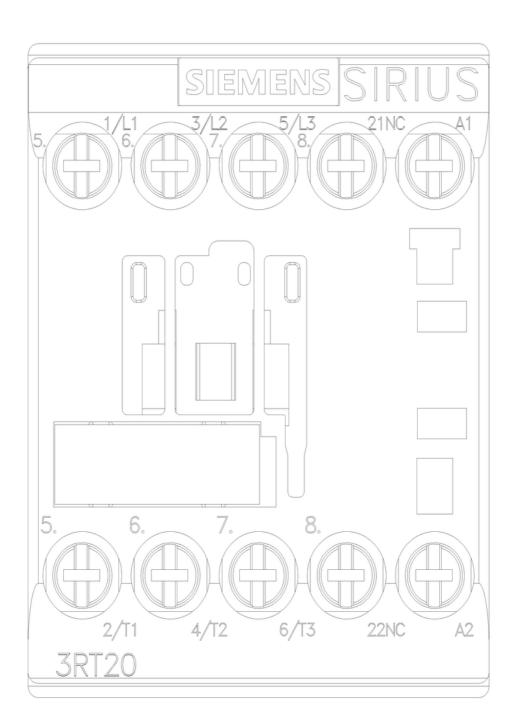
https://support.industry.siemens.com/cs/ww/en/ps/3RT2016-1AP62/char

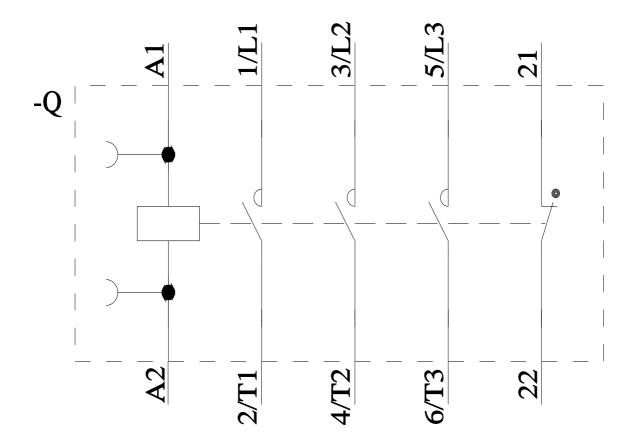
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2016-1AP62&objecttype=14&gridview=view1











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