## **SIEMENS**

Data sheet 3RT2017-1AP02



power contactor, AC-3e/AC-3, 12 A, 5.5 kW / 400 V, 3-pole, 230 V AC, 50/60 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	
<ul> <li>function module for communication</li> </ul>	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	1.5 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	0.5 W
<ul> <li>without load current share typical</li> </ul>	1.5 W
type of calculation of power loss depending on pole	quadratic
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 V
<ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul>	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	7,3g / 5 ms, 4,7g / 10 ms
shock resistance with sine pulse	
• at AC	11,4g / 5 ms, 7,3g / 10 ms
mechanical service life (operating cycles)	
of contactor typical	30 000 000
<ul> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> </ul>	5 000 000
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	
Weight	0.233 kg
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul> <li>during operation</li> </ul>	-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	0.100 Ng
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	22 A
<ul> <li>at AC-1</li> <li>— up to 690 V at ambient temperature 40 °C rated</li> </ul>	22 A
value — up to 690 V at ambient temperature 60 °C rated	20 A
value  • at AC-3	
— at 400 V rated value	12 A
— at 500 V rated value	9.2 A
— at 690 V rated value	6.7 A
• at AC-3e	
— at 400 V rated value	12 A
— at 500 V rated value	9.2 A
— at 690 V rated value	6.7 A
<ul> <li>at AC-4 at 400 V rated value</li> </ul>	8.5 A
• at AC-5a up to 690 V rated value	19.4 A
<ul> <li>at AC-5b up to 400 V rated value</li> </ul>	9.9 A
• at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	7.2 A
— up to 400 V for current peak value n=20 rated value	7.2 A
— up to 500 V for current peak value n=20 rated value	7.2 A
<ul><li>up to 690 V for current peak value n=20 rated value</li><li>at AC-6a</li></ul>	6.7 A
— up to 230 V for current peak value n=30 rated value	4.8 A
— up to 400 V for current peak value n=30 rated value	4.8 A
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	4.8 A
— up to 690 V for current peak value n=30 rated value	4.8 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 60 V rated value	20 A
— 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
<ul> <li>with 2 current paths in series at DC-1</li> <li>at 24 V rated value</li> </ul>	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

<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— 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 .
<ul> <li>at 1 current path at DC-3 at DC-5</li> <li>— at 24 V rated value</li> </ul>	20 A
— at 60 V rated value	0.5 A
— at 110 V rated value	0.15 A
	0.15 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> <li>— at 24 V rated value</li> </ul>	20 A
	5 A
— at 60 V rated value	
— at 110 V rated value	0.35 A
with 3 current paths in series at DC-3 at DC-5	00.4
— 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	0.1144
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	5.5 kW
• at AC-3e	2111
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	5.5 kW
operating power for approx. 200000 operating cycles at AC-	
• 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	2.8 kVA
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	4.9 kVA
• up to 500 V for current peak value n=20 rated value	6.2 kVA
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	8 kVA
operating apparent power at AC-6a	
up to 230 V for current peak value n=30 rated value	1.9 kVA
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	3.3 kVA
• up to 500 V for current peak value n=30 rated value	4.1 kVA
• up to 690 V for current peak value n=30 rated value	5.7 kVA
short-time withstand current in cold operating state up to 40 °C	
• limited to 1 s switching at zero current maximum	200 A; Use minimum cross-section acc. to AC-1 rated value
Iimited to 5 s switching at zero current maximum	123 A; Use minimum cross-section acc. to AC-1 rated value
limited to 10 s switching at zero current maximum	96 A; Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum	74 A; Use minimum cross-section acc. to AC-1 rated value
limited to 60 s switching at zero current maximum	61 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
• at AC-3e maximum	750 1/h

Control Supply Voltage of the control supply voltage of Control supply voltage at AC   230 V	• at AC-4 maximum	250 1/h
Spee of voltage of the control supply voltage at AC   230 V		
control supply voltage at AC		AC
* ±16 DF treated value		
### 160 Hz rated value coperating range factor control supply voltage rated value of insignate coll at AC		230 V
magnet coil at AC		
magnet coil at AC	operating range factor control supply voltage rated value of	
a + 160 Hz		
apparent pick-up power of magnet coil at AC	● at 50 Hz	0.8 1.1
* at 60 Hz 33 VA 33 VA 33 VA 33 VA 33 VA 33 VA 34 VA 34 VA 34 VA 35 VA 3	• at 60 Hz	0.85 1.1
• al 60 Hz	apparent pick-up power of magnet coil at AC	
Inductive power factor with closing power of the coil	● at 50 Hz	
• at 50 Hz • at 60 Hz • at 60 Hz • at 50 Hz • at 50 Hz • at 60 Hz		33 VA
apparent holding power of magnet coil at AC		
• at 50 Hz		0.75
• at 60 Hz		
Inductive power factor with the holding power of the coil		
• at 50 Hz • at 60 Hz • at AC closing delay • at AC opining delay • at AC opining delay • at AC arching time • at AC arching time  • at AC arching time  • at AC arching time  • at AC arching time  • at AC arching time  • at AC arching time  • at AC arching time  • at AC availiary circuit  number of NC contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum  • at 400 V rated value • at 500 V rated value • at 600 V rated		4.4 VA
• at 80 Hz closing delay • at AC opening delay • at AC opening delay • at AC ot A 15 ms arching time 10 15 ms control version of the switch operating mechanism control to Proporational current at AC-12 maximum  10 A 10		0.05
elat AC 935 ms opening delay o at AC 415 ms arcing time 1015 ms Control version of the switch operating mechanism Standard A1 - A2  Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact contact 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 AC-18 maximum 10 A  operational current at AC-19 maximum 10 A  operational current at DC-19 operati		
• at AC opening delay • at AC arcing time control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact 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 800 V rated value • at 100 V rated value • at 600 V rated value •		0.25
e at AC 415 ms arcing time 1015 ms Slandard A1 - A2  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact contact for auxiliary contacts 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 2 A • at 500 V rated value 1 A • at 400 V rated value 2 A • at 110 V rated value 2 A • at 110 V rated value 1 A • at 400 V r		0. 25 mg
• at AC         4 15 ms           arcing time         10 15 ms           control version of the switch operating mechanism         Slandard A1 - A2           Auxiliary circuit         10 ms           number of NC contacts for auxiliary contacts instantaneous contact         1           operational current at AC-12 maximum         10 A           operational current at AC-15 maximum         10 A           operational current at AC-15 maximum         10 A           • at 250 V rated value         2 A           • at 450 V rated value         1 A           • at 80 V rated value         1 A           • at 42 V rated value         6 A           • at 450 V rated value         6 A           • at 10 V rated value         3 A           • at 110 V rated value         1 A           • at 220 V rated value         1 A           • at 220 V rated value         1 A           • at 24 V rated value         2 A           • at 48 V rated value         2 A           • at 48 V rated value         2 A           • at 48 V rated value         2 A           • at 220 V rated value         2 A           • at 125 V rated value         0 A           • at 125 V rated value         0 A		8 30 IIIS
Auxiliary circuit		4 15 mg
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		
number of NC contacts for auxillary contacts instantaneous contact contact contact contact contact contact contact contact so contact contac		Ottanuary AT - AZ
Operational current at AC-12 maximum   10 A		1
Operational current at AC-15   at 230 V rated value		
<ul> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> <li>at 690 V rated value</li> <li>at 24 V rated value</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 20 V rated value</li> <li>at 60 V rated value</li> <li>at 48 V rated value</li> <li>at 48 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <l< td=""><td>operational current at AC-12 maximum</td><td>10 A</td></l<></ul>	operational current at AC-12 maximum	10 A
	operational current at AC-15	
at 500 V rated value     at 690 V rated value     at 24 V rated value     at 24 V rated value     at 25 V rated value     at 20 V rated value     at 48 V rated value     at 48 V rated value     at 20 V rated value     at 30 V rated value     at 40 V rated value     at 20 V rated value     at 20 V rated value     at 110 V rated value     at 20 V rated value     at 600 V rated value	• at 230 V rated value	10 A
• at 690 V rated value 10 A  operational current at DC-12  • at 24 V rated value 6 A • at 48 V rated value 6 A • at 110 V rated value 3 A • at 125 V rated value 2 A • at 220 V rated value 11 A • at 600 V rated value 10 A • at 48 V rated value 10 A • at 48 V rated value 10 A • at 48 V rated value 10 A • at 110 V rated value 11 A • at 110 V rated value 11 A • at 120 V rated value 11 A • at 600 V rated value 11 A	• at 400 V rated value	3 A
Operational current at DC-12	• at 500 V rated value	2 A
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>6 A</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 24 V rated value</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 10 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 480 V rated value</li> <li>at 480 V rated value</li> <li>at 600 V rated value<!--</td--><td>• at 690 V rated value</td><td>1 A</td></li></ul>	• at 690 V rated value	1 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 1 A • at 600 V rated value 0.15 A  operational current at DC-13 • at 24 V rated value 2 A • at 48 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 2 A • at 60 V rated value 3 A • at 24 V rated value 4 A • at 48 V rated value 5 A • at 110 V rated value 6 A • at 110 V rated value 7 A • at 125 V rated value 9 A • at 122 V rated value 9 A • at 220 V rated value 9 A • at 220 V rated value 9 A • at 600 V rated value 9 A • at 480 V rated value 9 A • at 480 V rated value 9 A • at 480 V rated value 11 A • at 600 V rated value 11 A  yielded mechanical performance [hp] • for single-phase AC motor	operational current at DC-12	
• 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 110 V rated value 2 A • at 60 V rated value 2 A • at 110 V rated value 2 A • at 110 V rated value 1 A • at 125 V rated value 2 A • at 110 V rated value 1 A • at 120 V rated value 1 A • at 120 V rated value 1 A • at 125 V rated value 1 A • at 480 V rated value 1 A • at 600 V rated value 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 11 A  yielded mechanical performance [hp] • for single-phase AC motor	• at 24 V rated value	10 A
<ul> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>1 A</li> <li>at 600 V rated value</li> <li>0.15 A</li> <li>operational current at DC-13</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 60 V rated value</li> <li>at 10 V rated value</li> <li>at 110 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 200 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>at 70 V rated value<!--</td--><td>• at 48 V rated value</td><td>6 A</td></li></ul>	• at 48 V rated value	6 A
<ul> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>1 A</li> <li>at 600 V rated value</li> <li>0.15 A</li> </ul> Operational current at DC-13 <ul> <li>at 24 V rated value</li> <li>at 24 V rated value</li> <li>at 60 V rated value</li> <li>at 60 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 3 A</li> <li>at 600 V rated value</li> <li>at 3 A</li> <li>at 600 V rated value</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>at 7 I faulty switching per 100 million (17 V, 1 mA)</li> </ul> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 7 I A</li> <li>at 600 V rated value</li> <li>at 7 I A</li> <li>at 600 V rated value</li> <li>at 7 I A</li> <li>at 7 I A<!--</td--><td>• at 60 V rated value</td><td>6 A</td></li>	• at 60 V rated value	6 A
<ul> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>operational current at DC-13</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 125 V rated value</li> <li>at 140 V rated value</li> <li>at 140 V rated value</li> <li>at 150 V rated value</li> <li>at 11 A</li> <li>at 11 A</li> <li>yielded mechanical performance [hp]</li> <li>for single-phase AC motor</li> </ul>	• at 110 V rated value	3 A
at 4600 V rated value  operational current at DC-13  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 125 V rated value  at 220 V rated value  at 600 V rated	• at 125 V rated value	2 A
operational current at DC-13	• at 220 V rated value	1 A
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>0.1 A</li> <li>contact reliability of auxiliary contacts</li> <li>1 faulty switching per 100 million (17 V, 1 mA)</li> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>11 A</li> <li>yielded mechanical performance [hp]</li> <li>for single-phase AC motor</li> </ul>		0.15 A
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 480 V rated value</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li< td=""><td>operational current at DC-13</td><td></td></li<></ul>	operational current at DC-13	
<ul> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 480 V rated value</li> <li>at 480 V rated value</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <l< td=""><td>at 24 V rated value</td><td></td></l<></ul>	at 24 V rated value	
<ul> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at faulty switching per 100 million (17 V, 1 mA)</li> </ul> UL/CSA ratings full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 7 A</li> </ul> yielded mechanical performance [hp] <ul> <li>for single-phase AC motor</li> </ul>	at 48 V rated value	2 A
at 125 V rated value at 220 V rated value at 600 V rated value  o.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 600 V rated value 11 A  yielded mechanical performance [hp] for single-phase AC motor	• at 60 V rated value	2 A
<ul> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> <li>1 faulty switching per 100 million (17 V, 1 mA)</li> </ul> UL/CSA ratings full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>11 A</li> </ul> yielded mechanical performance [hp] <ul> <li>for single-phase AC motor</li> </ul>	• at 110 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  11 A  at 600 V rated value  11 A  yielded mechanical performance [hp]  for single-phase AC motor		
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  11 A  yielded mechanical performance [hp]  • for single-phase AC motor	• at 220 V rated value	
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  11 A  yielded mechanical performance [hp]  • for single-phase AC motor		
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  11 A  • at 600 V rated value  11 A  yielded mechanical performance [hp]  • for single-phase AC motor		1 faulty switching per 100 million (17 V, 1 mA)
<ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>11 A</li> <li>yielded mechanical performance [hp]</li> <li>for single-phase AC motor</li> </ul>		
◆ at 600 V rated value  yielded mechanical performance [hp]      ◆ for single-phase AC motor  11 A	full-load current (FLA) for 3-phase AC motor	
yielded mechanical performance [hp]  • for single-phase AC motor		
for single-phase AC motor		11 A
— at 110/120 V rated value 0.5 hp		
	— at 110/120 V rated value	0.5 hp

<ul> <li>at 230 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>3 hp</li> <li>at 220/230 V rated value</li> <li>3 hp</li> <li>at 460/480 V rated value</li> <li>7.5 hp</li> <li>at 575/600 V rated value</li> <li>10 hp</li> <li>contact rating of auxiliary contacts according to UL</li> <li>Short-circuit protection</li> <li>design of the fuse link</li> <li>for short-circuit protection of the main circuit</li> <li>with type of coordination 1 required</li> <li>with type of assignment 2 required</li> <li>for short-circuit protection of the auxiliary switch required</li> <li>for short-circuit protection of the auxiliary switch required</li> <li>gG: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)</li> <li>gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)</li> <li>gG: 10 A (500 V, 1 kA)</li> <li>Installation/ mounting/ dimensions</li> <li>+/-180° rotation possible on vertical mounting surface; can be tilted forwal backward by +/- 22.5° on vertical mounting surface</li> </ul>	)
- at 220/230 V rated value - at 220/230 V rated value 3 hp - at 460/480 V rated value 7.5 hp - at 575/600 V rated value 10 hp  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit - with type of coordination 1 required with type of assignment 2 required • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required    G: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)   G: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)   G: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)   G: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)   G: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)   Simplifying the first of the fi	)
- at 220/230 V rated value - at 460/480 V rated value 7.5 hp - at 575/600 V rated value 10 hp  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required gG: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)  • for short-circuit protection of the auxiliary switch required gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)  • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions  mounting position  +/-180° rotation possible on vertical mounting surface; can be tilted forward.	)
- at 460/480 V rated value  - at 575/600 V rated value  10 hp  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  - with type of coordination 1 required  with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  for short-circuit protection of the main circuit  for short-circuit protect	)
- at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  - with type of coordination 1 required  with type of assignment 2 required  for short-circuit protection of the auxiliary switch required  for short-circuit protection of the auxiliary switch required  for short-circuit protection of the auxiliary switch required  gG: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)  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  +/-180° rotation possible on vertical mounting surface; can be tilted forward.	)
contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  #/-180° rotation possible on vertical mounting surface; can be tilted forward.	)
Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  #/-180° rotation possible on vertical mounting surface; can be tilted forward.	)
design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  #/-180° rotation possible on vertical mounting surface; can be tilted forward.	)
• for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  ##-180° rotation possible on vertical mounting surface; can be tilted forward.	)
— with type of coordination 1 required  — with type of assignment 2 required  — with type of assignment 2 required  — for short-circuit protection of the auxiliary switch required  — with type of assignment 2 required  — for short-circuit protection of the auxiliary switch required  — with type of assignment 2 required  — gG: 20A (690V,100kA), aM: 20A (690V, 100kA), BS88: 35A (415V,80kA)  — gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)  — gG: 10 A (500 V, 1 kA)  — with type of assignment 2 required  — with type of assignment 2 required  — gG: 20A (690V,100kA), aM: 20A (690V, 100kA), BS88: 35A (415V,80kA)  — yith type of assignment 2 required  — yi	)
— 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.	)
• 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.	
Installation/ mounting/ dimensions  mounting position  +/-180° rotation possible on vertical mounting surface; can be tilted forward.	
mounting position +/-180° rotation possible on vertical mounting surface; can be tilted forward	
	rd and
	ra ana
fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 6	0715
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	
— forwards 10 mm	
— upwards 10 mm	
— downwards 10 mm	
— at the side 6 mm	
Connections/ Terminals type of electrical connection	
71	
<ul> <li>for auxiliary and control circuit</li> <li>at contactor for auxiliary contacts</li> <li>Screw-type terminals</li> <li>Screw-type terminals</li> </ul>	
• of magnet coil  • 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
for auxiliary contacts	20 12
Safety related data	
product function	
<ul> <li>mirror contact according to IEC 60947-4-1</li> </ul>	Yes
<ul> <li>positively driven operation according to IEC 60947-5-1</li> </ul>	No
<ul> <li>suitable for safety function</li> </ul>	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	
<ul> <li>with low demand rate according to SN 31920</li> </ul>	40 %
<ul> <li>with high demand rate according to SN 31920</li> </ul>	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	
General Product Approval	







Confirmation



<u>KC</u>

General Product Approval

EMV

**Functional Saftey** 

**Test Certificates** 

Marine / Shipping





Type Examination Certificate

Special Test Certificate

Type Test Certificates/Test Report



Marine / Shipping







Special Test Certificate





Miscellaneous

other

other Railway Environment

<u>Confirmation</u> <u>Confirmation</u>

FPI

Environmental Confirmations

## Further information

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=3RT2017-1AP02

## Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2017-1AP02

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

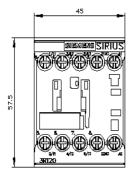
https://support.industry.siemens.com/cs/ww/en/ps/3RT2017-1AP02

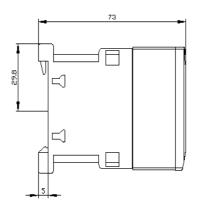
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2017-1AP02&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2017-1AP02&lang=en</a>

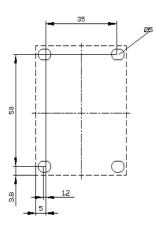
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2017-1AP02/char

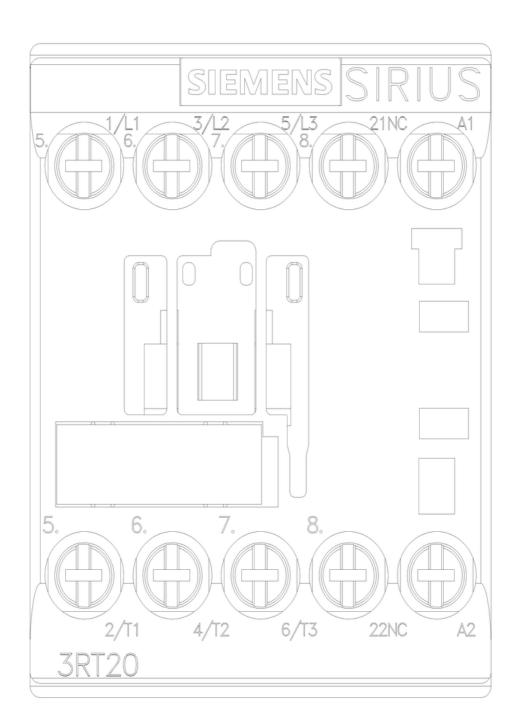
Further characteristics (e.g. electrical endurance, switching frequency)

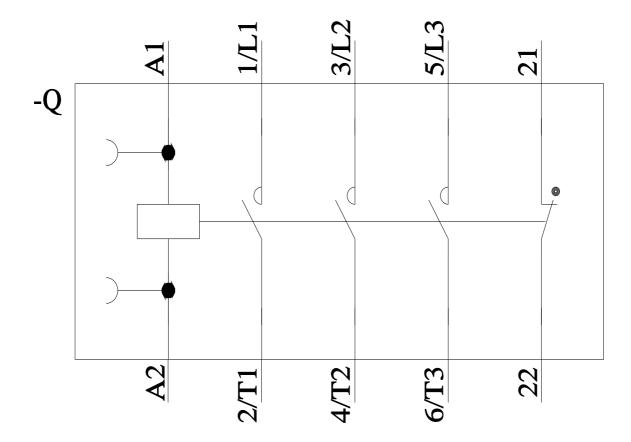
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2017-1AP02&objecttype=14&gridview=view1











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