## **SIEMENS**

Data sheet 3RT2038-3AC20



power contactor, AC-3e/AC-3, 80 A, 37 kW / 400 V, 3-pole, 24 V AC, 50/60 Hz, auxiliary contacts: 1 NO + 1 NC, main circuit: screw terminal, control and auxiliary circuit: spring-loaded terminal, size: S2

product brand name product designation product type designation General technical data size of contactor	SIRIUS Power contactor 3RT2
product type designation General technical data	
General technical data	3RT2
size of contactor	
	_ \$2
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>	17.1 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	5.7 W
without load current share typical	6.5 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	11.8g / 5 ms, 7.4g / 10 ms
shock resistance with sine pulse	
• at AC	18.5g / 5 ms, 11.6g / 10 ms
mechanical service life (operating cycles)	
of contactor typical	10 000 000
<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)	10/01/2014
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	236 kg
Global Warming Potential [CO2 eq] during manufacturing	4.11 kg
Global Warming Potential [CO2 eq] during manufacturing  Global Warming Potential [CO2 eq] during operation	233 kg
Global Warming Potential [CO2 eq] during operation  Global Warming Potential [CO2 eq] after end of life	-0.635 kg
Main circuit	-0.000 kg
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	3
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	90 A
• at AC-1	
— up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	90 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	80 A
• at AC-3	
— at 400 V rated value	80 A
— at 500 V rated value	80 A
— at 690 V rated value	58 A
• at AC-3e	80 A
— at 400 V rated value	80 A
— at 500 V rated value — at 690 V rated value	58 A
at AC-4 at 400 V rated value	55 A
at AC-5 up to 690 V rated value	79.2 A
• at AC-5b up to 400 V rated value	66.4 A
• at AC-6a	00.171
— up to 230 V for current peak value n=20 rated value	70 A
— up to 400 V for current peak value n=20 rated value	70 A
— up to 500 V for current peak value n=20 rated value	70 A
— up to 690 V for current peak value n=20 rated value	58 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	46.7 A
— up to 400 V for current peak value n=30 rated value	46.7 A
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	46.7 A
— up to 690 V for current peak value n=30 rated value	46.7 A
minimum cross-section in main circuit at maximum AC-1 rated value	35 mm²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	30 A
at 690 V rated value	24 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	55 A
— at 60 V rated value	23 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
with 2 current paths in series at DC-1     at 24 V rated value.	55 A
at 24 V rated value      at 60 V rated value	55 A 45 A
— at 100 V rated value  — at 110 V rated value	45 A
— at 110 V rated value  — at 220 V rated value	5 A
— at 440 V rated value	1A
— at 600 V rated value	0.8 A
with 3 current paths in series at DC-1	
- man o can one patrio in correct at DO-1	

— at 24 V rated value	55 A
— at 60 V rated value	55 A
— at 110 V rated value	55 A
— at 220 V rated value	45 A
— at 440 V rated value	2.9 A
— at 600 V rated value	1.4 A
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	35 A
— at 60 V rated value	6 A
— at 220 V rated value	1 A
— at 440 V rated value	0.1 A
— at 600 V rated value	0.06 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	55 A
— at 60 V rated value	45 A
— at 110 V rated value	25 A
— at 220 V rated value	5 A
— at 440 V rated value	0.27 A
— at 600 V rated value	0.16 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	55 A
— at 60 V rated value	55 A
— at 110 V rated value	55 A
— at 220 V rated value	25 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.35 A
operating power	
<ul> <li>at AC-2 at 400 V rated value</li> </ul>	37 kW
• at AC-3	
— at 230 V rated value	22 kW
— at 400 V rated value	37 kW
— at 500 V rated value	37 kW
— at 690 V rated value	45 kW
• at AC-3e	
— at 230 V rated value	22 kW
— at 400 V rated value	37 kW
— at 500 V rated value	37 kW
— at 690 V rated value	45 kW
operating power for approx. 200000 operating cycles at AC-	
at 400 V rated value	15.8 kW
at 690 V rated value	21.8 kW
operating apparent power at AC-6a	
up to 230 V for current peak value n=20 rated value	27.8 kVA
up to 400 V for current peak value n=20 rated value	48.4 kVA
• up to 500 V for current peak value n=20 rated value	60.6 kVA
• up to 690 V for current peak value n=20 rated value	69.3 kVA
operating apparent power at AC-6a	
up to 230 V for current peak value n=30 rated value	18.6 kVA
• up to 400 V for current peak value n=30 rated value	32.3 kVA
• up to 500 V for current peak value n=30 rated value	40.4 kVA
• up to 690 V for current peak value n=30 rated value	55.8 kVA
short-time withstand current in cold operating state up to 40 °C	
limited to 1 s switching at zero current maximum	1 298 A; Use minimum cross-section acc. to AC-1 rated value
limited to 5 s switching at zero current maximum	898 A; Use minimum cross-section acc. to AC-1 rated value
limited to 10 s switching at zero current maximum	640 A; Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum	414 A; Use minimum cross-section acc. to AC-1 rated value
limited to 60 s switching at zero current maximum	333 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	, , , , , , , , , , , , , , , , , , , ,
• at AC	5 000 1/h

operating frequency		
* at AC-3 maximum 500 tih 600		700 1/h
* at AC-3e maximum	• at AC-2 maximum	350 1/h
Ac AC - Maximum   500 M/h	• at AC-3 maximum	500 1/h
Control circuit/ Control   type of voltage of the control supply voltage	• at AC-3e maximum	500 1/h
type of voltage of the control supply voltage AC control supply voltage at AC	at AC-4 maximum	150 1/h
Control supply voltage at AC	Control circuit/ Control	
	type of voltage of the control supply voltage	AC
• at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 60 Hz  • at 60 Hz  operating pick-up power of magnet coil at AC  • at 60 Hz  a paparent pick-up power of magnet coil at AC  • at 60 Hz  •	control supply voltage at AC	
Operating range factor control supply voltage rated value of magnet coil at AC   0.8 1.1   0.85 1.1	at 50 Hz rated value	24 V
magnet coil at AC	at 60 Hz rated value	24 V
• at 50 Hz		
		0.0 1.1
apparent pick-up power of magnet coil at AC		
• at 50 Hz • at 60 Hz • at 80 Hz		0.85 1.1
• at 60 Hz   188 VA   188 VA   189 V		240.1/4
15 0 Hz		
• at 50 Hz	*****	100 VA
• at 60 Hz		0.60
apparent holding power of magnet coil at AC	*****	
		0.00
• at 60 Hz   16.5 VA		17.2 \/ \( \Delta \)
inductive power factor with the holding power of the coil         0.36           at 15 0 Hz         0.39           closing delay         10 80 ms           opening delay         10 80 ms           at AC         10 18 ms           arcing time         10 20 ms           control version of the switch operating mechanism         Standard A1 - A2           Auxiliary circuit         20 ms           number of NC contacts for auxiliary contacts instantaneous contact         1           ontact         10 30 ms           operational current at AC-12 maximum         10 A           operational current at AC-12 maximum         10 A           operational current at AC-13 was used to value         10 A           o at 230 V rated value         2 A           o at 690 V rated value         10 A           o at 690 V rated value         6 A           o at 48 V rated value         6 A           o at 48 V rated value         3 A           o at 24 V rated value         6 A           o at 220 V rated value         3 A           o at 220 V rated value         10 A           o at 220 V rated value         2 A           o at 220 V rated value         10 A           o at 220 V rated value		
• at 50 Hz • at 60 Hz • at AC  closing delay • at AC  opening delay • at AC  10 80 ms  opening time control version of the switch operating mechanism Standard A1 - A2  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum  10 A  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 500 V rated value • at 690 V rated value • at 890 V rated value • at 89 V rated value • at 80 V rated value • at 8 V rated value • at 8 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value • at 125 V rated value • at 127 V rated value • at 128 V rated value • at 129 V rated value • at 120 V rated value • at 24 V rated value • at 24 V rated value • at 27 V rated value • at 28 V rated value • at 29 V rated value • at 48 V rated value • at 40 V rated value • at 60 V rated value • at 110 V rated value • at 110 V rated value	1 1 1 1	10.5 VA
e at 60 Hz closing delay e at AC opening delay e at AC 10 80 ms  arcing time 10 20 ms control version of the switch operating mechanism Standard A1 - A2  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact  operational current at AC-12 maximum 10 A  operational current at AC-15 e at 230 V rated value at 400 V rated value at 690 V rated value 10 A  operational current at DC-12 e at 24 V rated value 10 A e at 40 V rated value 10 A  operational current at DC-12 e at 24 V rated value 10 A e at 40 V rated value 10 A  operational current at DC-12 e at 24 V rated value 10 A e at 40 V rated value 10 A e at 40 V rated value 10 A e at 110 V rated value 11 A  operational current at DC-12 e at 22 V rated value 12 A e at 120 V rated value 13 A e at 120 V rated value 14 B V rated value 15 A  operational current at DC-13 e at 24 V rated value 16 A e at 48 V rated value 17 A e at 24 V rated value 28 A e at 220 V rated value 29 A e at 220 V rated value 20 A e at 48 V rated value 20 A e at 48 V rated value 21 A e at 48 V rated value 22 A e at 600 V rated value 24 A e at 600 V rated value 25 A e at 600 V rated value 26 A e at 600 V rated value 27 A e at 24 V rated value 28 A e at 600 V rated value 29 A e at 600 V rated value 20 A e at 600 V rated value 21 A e at 600 V rated value 22 A e at 600 V rated value 23 A e at 600 V rated value 24 A e at 600 V rated value 25 A e at 600 V rated value 26 A e at 600 V rated value 27 A e at 600 V rated value 28 A e at 600 V rated value 39 A e at 600 V rated value 40 A e at		0.36
e at AC 10 80 ms  opening delay		
● at AC 10 80 ms  opening delay ● at AC 10 18 ms  arcing time 10 20 ms  control version of the switch operating mechanism Standard A1 - A2  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact		0.55
e at AC 10 18 ms arcing time 10 20 ms Standard A1 - A2  Auxiliary circuit		10 80 ms
■ at AC     arcing time		10 00 mb
arcing time  control version of the switch operating mechanism  Standard A1 - A2  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact  operational current at AC-12 maximum  10 A  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 690 V rated value • at 80 V rated value • at 48 V rated value • at 10 V rated value • at 110 V rated value • at 220 V rated value • at 48 V rated value • at 420 V rated value • at 48 V rated value • at 600 V rated value • at 48 V rated value • at 600 V rated value		10 18 ms
Control version of the switch operating mechanism  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact  number of NC contacts for auxiliary contacts instantaneous contact  number of NC contacts for auxiliary contacts instantaneous contact  number of NC contacts for auxiliary contacts instantaneous contact  number of NC contacts for auxiliary contacts instantaneous contact  1 contact  number of NC contacts for auxiliary contacts instantaneous contact  1 contact  number of NC contacts for auxiliary contacts instantaneous contact  1		
Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact  number of NC contacts for auxiliary contacts instantaneous contact  operational current at AC-12 maximum  10 A  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 690 V rated value • at 690 V rated value  • at 690 V rated value  • at 4 V rated value • at 4 V rated value • at 4 V rated value • at 60 V rated value • at 220 V rated value • at 800 V rated value • at 600 V rated value	<del></del>	Standard A1 - A2
contact         number of NO contacts for auxiliary contacts instantaneous contact         1           operational current at AC-12 maximum         10 A           operational current at AC-15         10 A           • at 230 V rated value         10 A           • at 500 V rated value         2 A           • at 690 V rated value         1 A           operational current at DC-12         4 A           • 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         1 A           • at 220 V rated value         1 A           • at 600 V rated value         0.15 A           operational current at DC-13         0.15 A           operational current at DC-13         0.10 A           • at 24 V rated value         1 O A           • at 48 V rated value         2 A           • at 60 V rated value         2 A           • at 24 V rated value         2 A           • at 24 V rated value         2 A           • at 24 V rated value         2 A           • at 30 V rated value         2 A           • at 30 V rated value         3 A	· · · ·	
contact           operational current at AC-12 maximum         10 A           operational current at AC-15         10 A           • at 230 V rated value         10 A           • at 400 V rated value         3 A           • at 500 V rated value         1 A           • at 690 V rated value         1 A           • 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         1 A           • at 600 V rated value         0.15 A           • operational current at DC-13         10 A           • at 48 V rated value         2 A           • at 60 V rated value         2 A           • at 24 V rated value         2 A           • at 24 V rated value         2 A           • at 24 V rated value         2 A           • at 60 V rated value         2 A           • at 24 V rated value         2 A           • at 24 V rated value         2 A           • at 30 V rated value         2 A           • at 24 V rated value         2 A           • at 30 V rated value         2 A           • at 30 V rated value <t< th=""><th></th><th>1</th></t<>		1
operational current at AC-15	· · · · · · · · · · · · · · · · · · ·	1
<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>1 A</li> <li>operational current at DC-12</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 200 V rated value</li> <li>at 24 V rated value</li> <li>at 25 V rated value</li> <li>at 200 V rated value</li> <li>at 220 V rated value</li> <li>at 24 V rated value</li> <li>at 600 V rated value</li> <li>at 24 V rated value</li> <li>at 3 A</li> <li>at 24 V rated value</li> <li>at 60 V rated value</li> <li>at 7 rated value</li> <li>at 60 V rated value</li> <li>at 60 V rated value</li> <li>at 7 rated value</li> <li>at 60 V rated value</li> <li>at 7 rated value</li> <li>at 7 rated value</li> <li>at 110 V rated value</li> <li>at 110 V rated value</li> </ul>	operational current at AC-12 maximum	10 A
<ul> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> <li>1 A</li> </ul> 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 60 V rated value     2 A       at 60 V rated value     2 A       at 110 V rated value     1 A	operational current at AC-15	
<ul> <li>at 500 V rated value</li> <li>at 690 V rated value</li> <li>1 A</li> <li>operational current at DC-12</li> <li>at 24 V rated value</li> <li>at 8 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>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 110 V rated value</li> </ul>	• at 230 V rated value	10 A
<ul> <li>at 690 V rated value</li> <li>operational current at DC-12</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 600 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 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> </ul>	• at 400 V rated value	3 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       3 A         • at 110 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 500 V rated value	2 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 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 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 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> </ul>	at 690 V rated value	1 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 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 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>1 A</li> </ul>	operational current at DC-12	
<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>ot 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 10 V rated value</li> <li>at 110 V rated value</li> <li>1 A</li> </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>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> </ul>		
<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> <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>1 A</li> </ul>		
<ul> <li>at 220 V rated value</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 10 V rated value</li> <li>at 110 V rated value</li> </ul>		
● 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 110 V rated value  ■ at 110 V rated value  1 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		
<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>1 A</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>1 A</li> </ul>		
<ul> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>1 A</li> </ul>		
• at 110 V rated value 1 A		
• at 125 V rated value 0.9 A	• at 125 V rated value	
• at 220 V rated value 0.3 A	• at 220 V rated value	
at 600 V rated value     0.1 A	at 600 V rated value	
contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA)	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	65 A
	62 A
at 600 V rated value  violated graph price   performance   her]	02 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	5 hp
— at 230 V rated value	15 hp
<ul> <li>for 3-phase AC motor</li> </ul>	
— at 200/208 V rated value	20 hp
<ul> <li>at 220/230 V rated value</li> </ul>	25 hp
— at 460/480 V rated value	50 hp
— at 575/600 V rated value	60 hp
contact rating of auxiliary contacts according to UL	A600 / P600
Short-circuit protection	
design of the fuse link	
for short-circuit protection of the main circuit	
— with type of coordination 1 required	gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA)
— with type of assignment 2 required	gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)
for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	3··(000 ·) · · · ·)
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and
mounting position	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
height	114 mm
width	55 mm
depth	130 mm
required spacing	100 11111
with side-by-side mounting	40
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
<ul> <li>for grounded parts</li> </ul>	
— 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	screw-tyne terminals
	screw-type terminals
for auxiliary and control circuit     at contactor for auxiliary contactor	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 or stranded	2x (1 35 mm²), 1x (1 50 mm²)
	2x (1 25 mm²), 1x (1 35 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	
<ul><li>finely stranded with core end processing</li><li>for AWG cables for main contacts</li></ul>	2x (18 2), 1x (18 1)
	2x (18 2), 1x (18 1)
for AWG cables for main contacts	2x (18 2), 1x (18 1)  1 35 mm²
for AWG cables for main contacts     connectable conductor cross-section for main contacts	
for AWG cables for main contacts  connectable conductor cross-section for main contacts     finely stranded with core end processing	
for AWG cables for main contacts     connectable conductor cross-section for main contacts         finely stranded with core end processing     connectable conductor cross-section for auxiliary contacts	1 35 mm²

type of connectable conductor cross-sections	
for auxiliary contacts	
<ul><li>— solid or stranded</li></ul>	2x (0.5 2.5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²)
<ul> <li>finely stranded without core end processing</li> </ul>	2x (0.5 2.5 mm²)
<ul> <li>for AWG cables for auxiliary contacts</li> </ul>	2x (20 14)
AWG number as coded connectable conductor cross section	
• for main contacts	18 1
<ul> <li>for auxiliary contacts</li> </ul>	20 14
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
suitability for use safety-related switching OFF	Yes; applies only to contactor operating mechanism
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
IEC 61508	
T1 value	
for proof test interval or service life according to IEC 61508	20 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

## **General Product Approval**



Approvals Certificates







Confirmation



General Product Approval EMV Functional Saftey Test Certificates

<u>KC</u>





Type Examination Certificate

Type Test Certificates/Test Report

Special Test Certificate

## Marine / Shipping













Marine / Shipping other Railway Dangerous Good Environment



Confirmation

Confirmation

Special Test Certificate
ate

**Transport Information** 

EPD

Environment

Environmental Confirmations

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=3RT2038-3AC20

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2038-3AC20

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-3AC20

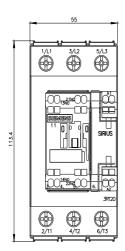
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ EPLAN\ macros,\ ...)$ 

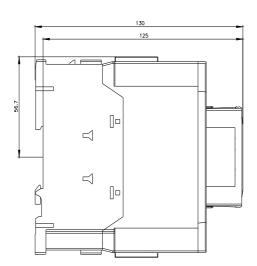
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2038-3AC20&lang=en

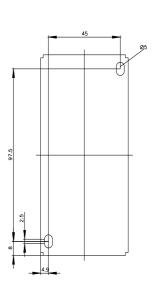
Characteristic: Tripping characteristics, I2t, Let-through current

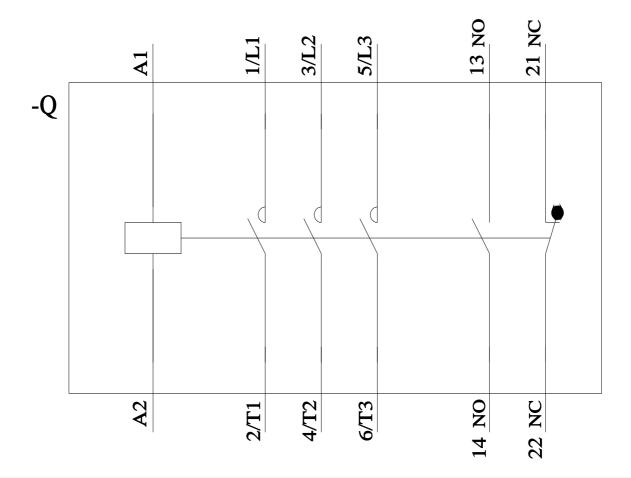
https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-3AC20/char

Further characteristics (e.g. electrical endurance, switching frequency)
<a href="http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2038-3AC20&objecttype=14&gridview=view1">http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2038-3AC20&objecttype=14&gridview=view1</a>









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