## **SIEMENS**

Data sheet 3RT2038-1AQ20



power contactor, AC-3e/AC-3, 80 A, 37 kW / 400 V, 3-pole, 500 V AC, 50/60 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S2  $\,$ 

product designation 9round designation 9round type designation 9round for contactor 9s2  product extension 9round for communication 9round	product brand name	SIRIUS
product type designation  General technical data  Staze of contactor  Size of contactor  • (unction module for communication • (unction module for communication • (unction module for communication • (unction module for rated value of the current • et AC in hot operating state per pole • at AC in hot operating state per pole • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit value • of auxiliary circuit value • of auxiliary ci		
Size of contactor product extension • function module for communication • auxiliary switch • at AC in hot operating state • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit vith degree of pollution 3 rated value • of auxiliary circuit rated value • of auxiliary circuit rated value • of auxiliary nicuit rated value • of auxiliary switch block typical • at AC  • of contactor with sine pulse • at AC • of contactor typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of	. •	3RT2
product extension  • function module for communication • auxiliary switch  power loss [W] for rated value of the current  • at AC in hot operating state   17.1 W • at AC in hot operating state per pole   5.7 W • without load current share typical   17.2 W  Insulation voltage • of main circuit with degree of pollution 3 rated value   689 V • of auxiliary circuit with degree of pollution 3 rated value   689 V • of auxiliary circuit with degree of pollution 3 rated value   680 V • of auxiliary circuit with degree of pollution 3 rated value   64 kV • of auxiliary circuit value   64 kV  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse • at AC   11.8g / 5 ms, 7.4g / 10 ms  shock resistance at vite in pulse • at AC   18.5g / 5 ms, 11.6g / 10 ms  mechanical service life (operating cycles) • of contactor with added electronically optimized auxillary switch block typical   10 000 000  reference code according to EC 81346-2   Q  Substance Prohibitance (Date)   10 000 1/2014  Ambient conditions   10 000 000   10 000 000   10 000 000	General technical data	
• function module for communication • auxiliary switch  • auxiliary switch  • at AC in hot operating state • at AC in hot operating state per pole • at AC in hot operating state per pole • at AC in main circuit with degree of pollution 3 rated value • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit vated value • of auxiliary circuit rated value • at AC	size of contactor	S2
• auxillary switch  • auxillary switch  • at AC in hot operating state per pole  • at AC in hot operating state per pole  • without load current share typical  • of main circuit with degree of pollution 3 rated value  • of main circuit with degree of pollution 3 rated value  • of main circuit with degree of pollution 3 rated value  • of main circuit with degree of pollution 3 rated value  • of main circuit rated value  • of auxiliary circuit rated value  • at AC  11.8g / 5 ms, 7.4g / 10 ms  **Shock resistance at rectangular impulse  • at AC  • at AC  11.8g / 5 ms, 7.4g / 10 ms  **Mechanical service life (operating cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary swit	product extension	
power loss [W] for rated value of the current  at AC in hot operating state 17.1 W  at AC in hot operating state per pole 5.7 W  without load current share typical 17.2 W  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 6kV  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse  at AC 11.8g / 5 ms, 7.4g / 10 ms  shock resistance with sine pulse  of contactor typical 10000000  of the contactor with added electronically optimized auxiliary switch block typical 000000000000000000000000000000000000	• function module for communication	No
at AC in hot operating state per pole 5.7 W   at AC in hot operating state per pole 5.7 W   without load current share typical 17.2 W    Insulation voltage   of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value   of auxiliary circuit with degree of pollution 3 rated value   of main circuit rated value   of auxiliary circuit rated value   of contactor with added auxiliary optimized   of the contactor with added auxiliary switch block typical   of the contactor with added auxiliary switch block typical   of the contactor with added auxiliary switch block typical   of the contactor with added auxiliary switch block typical   of the contactor with added auxiliary switch block typical   of the contactor with added auxiliary switch block typical   of the contactor with added auxiliary switch block typical   of the contactor with added auxiliary switch block typical   of the contactor with added auxiliary switch block typical   of the contactor with added auxiliary switch block typical   of the contactor with added auxiliary switch block typical   of the contactor with added auxiliary switch block typical   of the contactor with added auxiliary sw	auxiliary switch	Yes
at AC in hot operating state per pole without load current share typical  insulation voltage of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of main circuit rated value of main circuit rated value of main circuit rated value of auxiliary circuit rated value of at AC of auxiliary circuit rated value of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added electronically optimized auxiliary switch block typical of the	power loss [W] for rated value of the current	
insulation voltage of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit rated value  of auxiliary circuit rated value  of at AC of auxiliary circuit rated value of the contactor with sine pulse of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added electronically opt	<ul> <li>at AC in hot operating state</li> </ul>	17.1 W
insulation voltage  of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value 690 V  surge voltage resistance of main circuit rated value 680 V  of auxiliary circuit rated value 6 kV  of auxiliary circuit rated value 6 kV  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse ot AC 11.8g / 5 ms, 7.4g / 10 ms  shock resistance with sine pulse of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to EC 81346-2 Q Substance Prohibitance (Date) 10/01/2014  Ambient conditions installation altitude at height above sea level maximum 2 000 m  ambient temperature of during storage 25+60 °C elative humidity minimum 10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit  during circuit  Main circuit  during conditions  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit  during circuit  during circuit  during circuit  maximum  690 V  690 V  60 V  60 V  60 KV  400 V  60 V  6	<ul> <li>at AC in hot operating state per pole</li> </ul>	5.7 W
of main circuit with degree of pollution 3 rated value     of auxiliary circuit with degree of pollution 3 rated value     surge voltage resistance     of main circuit rated value     of auxiliary circuit rated value     of kV  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse     ot AC     11.8g / 5 ms, 7.4g / 10 ms  shock resistance with sine pulse     of contactor typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the conta	<ul> <li>without load current share typical</li> </ul>	17.2 W
of auxiliary circuit with degree of pollution 3 rated value  surge voltage resistance     of main circuit rated value     of auxiliary circuit rated value      of auxiliary circuit rated value     of to value      aximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse     of the cristance with sine pulse     of the Contactor with sine pulse     of contactor typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block ty	insulation voltage	
surge voltage resistance  of main circuit rated value  of auxiliary circuit rated value  of auxiliary circuit rated value  of auxiliary circuit rated value  of kV  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse  oat AC  11.8g / 5 ms, 7.4g / 10 ms  shock resistance with sine pulse  oat AC  18.5g / 5 ms, 11.6g / 10 ms  mechanical service life (operating cycles)  of contactor typical  of the contactor with added electronically optimized auxiliary switch block typical  of the contactor with added auxil	<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 V
of main circuit rated value     of auxiliary circuit rated value     of auxiliary circuit rated value     of auxiliary circuit rated value     of kV  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse     oat AC     11.8g / 5 ms, 7.4g / 10 ms  shock resistance with sine pulse     oat AC     18.5g / 5 ms, 11.6g / 10 ms  mechanical service life (operating cycles)     of contactor typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the conta	<ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul>	690 V
of auxiliary circuit rated value     maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse	surge voltage resistance	
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse  • at 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  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor	of main circuit rated value	6 kV
shock resistance at rectangular impulse  • at AC  shock resistance with sine pulse  • at AC  18.5g / 5 ms, 7.4g / 10 ms  mechanical service life (operating cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added auxi	<ul> <li>of auxiliary circuit rated value</li> </ul>	6 kV
at AC  shock resistance with sine pulse  at AC  18.5g / 5 ms, 7.4g / 10 ms  mechanical service life (operating cycles)  of contactor typical  of the contactor with added electronically optimized auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  10 000 000  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  of during operation  of during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit		400 V
shock resistance with sine pulse  • at AC  18.5g / 5 ms, 11.6g / 10 ms  mechanical service life (operating cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added electronically optimized  • of the co	shock resistance at rectangular impulse	
at AC  mechanical service life (operating cycles)  of contactor typical  of the contactor with added electronically optimized auxiliary switch block typical  of the contactor with added	• at AC	11.8g / 5 ms, 7.4g / 10 ms
mechanical service life (operating cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  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  • during operation  • during storage  -55 +80 °C  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit	shock resistance with sine pulse	
of contactor typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     10 000 000  reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum 2 000 m  ambient temperature     oduring operation     during operation     during storage     relative humidity minimum 10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit  10 000 000  10	• at AC	18.5g / 5 ms, 11.6g / 10 ms
of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     for the contactor with added auxiliary switch block typical  In 000 000  Interference code according to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  Installation altitude at height above sea level maximum  Installation altitude at height above sea level maximum  In ambient temperature  In during operation  In a during operation  In a during storage  In a du	mechanical service life (operating cycles)	
auxiliary switch block typical  of the contactor with added auxiliary switch block typical  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature of during operation of during storage  relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit  10 000 000  10	<ul> <li>of contactor typical</li> </ul>	10 000 000
reference code according to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit		5 000 000
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage  relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit	<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000
installation altitude at height above sea level maximum  ambient temperature  during operation during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit  2 000 m  -25 +60 °C  -25 +80 °C  10 %  95 %	reference code according to IEC 81346-2	Q
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit	Substance Prohibitance (Date)	10/01/2014
ambient temperature  • during operation • during storage  -25 +60 °C  • during storage  -55 +80 °C  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit	Ambient conditions	
<ul> <li>during operation</li> <li>during storage</li> <li>telative humidity minimum</li> <li>maximum</li> <li>10 %</li> <li>10 %<td>installation altitude at height above sea level maximum</td><td>2 000 m</td></li></ul>	installation altitude at height above sea level maximum	2 000 m
• during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit	ambient temperature	
relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30 95 %  maximum  Main circuit	during operation	-25 +60 °C
relative humidity at 55 °C according to IEC 60068-2-30 95 % maximum  Main circuit	during storage	-55 +80 °C
maximum Main circuit	relative humidity minimum	10 %
		95 %
number of poles for main current circuit 3	Main circuit	
	number of poles for main current circuit	3

3	
690 V	
690 V	
90 A	
90 A	
80 A	
80 A	
80 A	
58 A	
80 A	
80 A	
58 A	
55 A	
79.2 A	
66.4 A	
70 A	
70 A	
70 A	
58 A	
46.7 A	
35 mm²	
30 A	
24 A	
55 A	
23 A	
4.5 A	
4.5 A 1 A	
1 A	
1 A 0.4 A	
1 A 0.4 A	
1 A 0.4 A 0.25 A	
1 A 0.4 A 0.25 A 55 A 45 A	
1 A 0.4 A 0.25 A 55 A 45 A	
1 A 0.4 A 0.25 A 55 A 45 A 45 A 5 A	
1 A 0.4 A 0.25 A  55 A 45 A 45 A 5 A 1 A	
1 A 0.4 A 0.25 A 55 A 45 A 45 A 5 A	
1 A 0.4 A 0.25 A  55 A 45 A 45 A 5 A 1 A 0.8 A	
1 A 0.4 A 0.25 A  55 A 45 A 45 A 5 A 1 A 0.8 A	
1 A 0.4 A 0.25 A  55 A 45 A 45 A 5 A 1 A 0.8 A	
1 A 0.4 A 0.25 A  55 A 45 A 45 A 1 A 0.8 A	
1 A 0.4 A 0.25 A  55 A 45 A 5 A 1 A 0.8 A  55 A 55 A 55 A 55 A	
1 A 0.4 A 0.25 A  55 A 45 A 45 A 5 A 1 A 0.8 A	

at 24 V rated value	25 A
— at 24 V rated value	35 A
— at 60 V rated value	6 A
— at 220 V rated value	1A
— at 440 V rated value	0.1 A
— at 600 V rated value	0.06 A
with 2 current paths in series at DC-3 at DC-5	
— 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	
• at AC-2 at 400 V rated value	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-	
4	
<ul> <li>at 400 V rated value</li> </ul>	15.8 kW
at 690 V rated value	21.8 kW
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	27.8 kVA
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	48.4 kVA
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	60.6 kVA
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	69.3 kVA
operating apparent power at AC-6a	
operating apparent power at AC-6a  • up to 230 V for current peak value n=30 rated value	18.6 kVA
	18.6 kVA 32.3 kVA
• up to 230 V for current peak value n=30 rated value	
<ul> <li>up to 230 V for current peak value n=30 rated value</li> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	32.3 kVA
<ul> <li>up to 230 V for current peak value n=30 rated value</li> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	32.3 kVA 40.4 kVA
<ul> <li>up to 230 V for current peak value n=30 rated value</li> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> </ul>	32.3 kVA 40.4 kVA
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to	32.3 kVA 40.4 kVA
<ul> <li>up to 230 V for current peak value n=30 rated value</li> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>short-time withstand current in cold operating state up to 40 °C</li> </ul>	32.3 kVA 40.4 kVA 55.8 kVA
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C  Ilmited to 1 s switching at zero current maximum	32.3 kVA 40.4 kVA 55.8 kVA  1 298 A; Use minimum cross-section acc. to AC-1 rated value
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C  limited to 1 s switching at zero current maximum limited to 5 s switching at zero current maximum	32.3 kVA 40.4 kVA 55.8 kVA  1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C  Ilimited to 1 s switching at zero current maximum Ilimited to 10 s switching at zero current maximum	32.3 kVA 40.4 kVA 55.8 kVA  1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value 640 A; Use minimum cross-section acc. to AC-1 rated value
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C  limited to 1 s switching at zero current maximum limited to 5 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum	32.3 kVA 40.4 kVA 55.8 kVA  1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value 640 A; Use minimum cross-section acc. to AC-1 rated value 414 A; Use minimum cross-section acc. to AC-1 rated value
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C  Ilimited to 1 s switching at zero current maximum Ilimited to 5 s switching at zero current maximum Ilimited to 10 s switching at zero current maximum Ilimited to 30 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum	32.3 kVA 40.4 kVA 55.8 kVA  1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value 640 A; Use minimum cross-section acc. to AC-1 rated value 414 A; Use minimum cross-section acc. to AC-1 rated value
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C  limited to 1 s switching at zero current maximum limited to 5 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum limited to 60 s switching at zero current maximum	32.3 kVA 40.4 kVA 55.8 kVA  1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value 640 A; Use minimum cross-section acc. to AC-1 rated value 414 A; Use minimum cross-section acc. to AC-1 rated value 333 A; Use minimum cross-section acc. to AC-1 rated value
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C  Ilimited to 1 s switching at zero current maximum Ilimited to 10 s switching at zero current maximum Ilimited to 30 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum a limited to 60 s switching at zero current maximum  no-load switching frequency at AC	32.3 kVA 40.4 kVA 55.8 kVA  1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value 640 A; Use minimum cross-section acc. to AC-1 rated value 414 A; Use minimum cross-section acc. to AC-1 rated value 333 A; Use minimum cross-section acc. to AC-1 rated value
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C  Ilimited to 1 s switching at zero current maximum Ilimited to 10 s switching at zero current maximum Ilimited to 30 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum a limited to 60 s switching at zero current maximum no-load switching frequency at AC operating frequency	32.3 kVA 40.4 kVA 55.8 kVA  1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value 640 A; Use minimum cross-section acc. to AC-1 rated value 414 A; Use minimum cross-section acc. to AC-1 rated value 333 A; Use minimum cross-section acc. to AC-1 rated value 5 000 1/h
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C  Ilimited to 1 s switching at zero current maximum Ilimited to 5 s switching at zero current maximum Ilimited to 10 s switching at zero current maximum Ilimited to 30 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum a limited to 60 s switching at zero current maximum no-load switching frequency at AC operating frequency at AC-1 maximum	32.3 kVA 40.4 kVA 55.8 kVA  1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value 640 A; Use minimum cross-section acc. to AC-1 rated value 414 A; Use minimum cross-section acc. to AC-1 rated value 333 A; Use minimum cross-section acc. to AC-1 rated value 5 000 1/h
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C  Ilimited to 1 s switching at zero current maximum Ilimited to 5 s switching at zero current maximum Ilimited to 10 s switching at zero current maximum Ilimited to 30 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum ro-load switching frequency at AC operating frequency at AC-1 maximum at AC-2 maximum	32.3 kVA 40.4 kVA 55.8 kVA  1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value 640 A; Use minimum cross-section acc. to AC-1 rated value 414 A; Use minimum cross-section acc. to AC-1 rated value 333 A; Use minimum cross-section acc. to AC-1 rated value 5 000 1/h 700 1/h 350 1/h
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C  Ilimited to 1 s switching at zero current maximum Ilimited to 5 s switching at zero current maximum Ilimited to 10 s switching at zero current maximum Ilimited to 30 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum ro-load switching frequency at AC  operating frequency at AC-1 maximum at AC-2 maximum at AC-3 maximum	32.3 kVA 40.4 kVA 55.8 kVA  1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value 640 A; Use minimum cross-section acc. to AC-1 rated value 414 A; Use minimum cross-section acc. to AC-1 rated value 333 A; Use minimum cross-section acc. to AC-1 rated value 5 000 1/h  700 1/h 350 1/h 500 1/h
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C  Ilimited to 1 s switching at zero current maximum Ilimited to 10 s switching at zero current maximum Ilimited to 30 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum Ilimited to 60 s switching at zero current maximum  no-load switching frequency at AC  operating frequency at AC-1 maximum at AC-3 maximum	32.3 kVA 40.4 kVA 55.8 kVA  1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value 640 A; Use minimum cross-section acc. to AC-1 rated value 414 A; Use minimum cross-section acc. to AC-1 rated value 333 A; Use minimum cross-section acc. to AC-1 rated value  5 000 1/h  700 1/h 350 1/h 500 1/h

type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz rated value	500 V
at 60 Hz rated value	500 V
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	210 VA
• at 60 Hz	188 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.69
• at 60 Hz	0.65
apparent holding power of magnet coil at AC	
• at 50 Hz	17.2 VA
• at 60 Hz	16.5 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.36
• at 60 Hz	0.39
closing 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	1
number of NO contacts for auxiliary contacts instantaneous contact	1
operational current at AC-12 maximum	10 A
operational current at AC-15	
• at 230 V rated value	10 A
• at 400 V rated value	3 A
• at 500 V rated value	2 A
at 690 V rated value	1 A
operational current at DC-12	
• at 24 V rated value	10 A
• at 48 V rated value	6 A
• at 60 V rated value	6 A
• at 110 V rated value	3 A
at 125 V rated value	2 A
<ul><li>at 125 V rated value</li><li>at 220 V rated value</li></ul>	
	2 A
• at 220 V rated value	2 A 1 A
<ul><li>at 220 V rated value</li><li>at 600 V rated value</li></ul>	2 A 1 A
at 220 V rated value     at 600 V rated value  operational current at DC-13	2 A 1 A 0.15 A
at 220 V rated value     at 600 V rated value  operational current at DC-13     at 24 V rated value	2 A 1 A 0.15 A
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	2 A 1 A 0.15 A
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	2 A 1 A 0.15 A 10 A 2 A 2 A
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 110 V rated value	2 A 1 A 0.15 A 10 A 2 A 2 A 1 A
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 110 V rated value  at 125 V rated value	2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A
<ul> <li>at 220 V rated value</li> <li>at 600 V rated value</li> </ul> operational current at DC-13 <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> </ul>	2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A
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 110 V rated value  at 125 V rated value  at 220 V rated value  at 600 V rated value  at 600 V rated value	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 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 110 V rated value  at 125 V rated value  at 220 V rated value  at 600 V rated value  contact reliability of auxiliary contacts	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 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 110 V rated value  at 125 V rated value  at 220 V rated value  at 600 V rated value  contact reliability of auxiliary contacts  UL/CSA ratings	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 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 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 600 V rated value  at 600 V rated value  at 600 V rated value  contact reliability of auxiliary contacts  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor	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)
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 110 V rated value  at 125 V rated value  at 220 V rated value  at 600 V rated value  to at 600 V rated value  at 600 V rated value  at 600 V rated value  contact reliability of auxiliary contacts  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  at 480 V rated value	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)
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 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  contact reliability of auxiliary contacts  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  at 480 V rated value  at 600 V rated value  at 600 V rated value	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)
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 110 V rated value  at 125 V rated value  at 220 V rated value  at 600 V rated value  contact reliability of auxiliary contacts  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  at 480 V rated value  at 600 V rated value  yielded mechanical performance [hp]	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)

— at 230 V rated value	15 hp
• for 3-phase AC motor	
— at 200/208 V rated value	20 hp
— at 220/230 V rated value	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	
<ul> <li>for short-circuit protection of the main circuit</li> </ul>	
<ul> <li>— with type of coordination 1 required</li> </ul>	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	90. 10 A (000 V, 1 kA)
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
side-by-side mounting	Yes
height	114 mm
width	55 mm
depth	130 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	
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 or stranded	2x (1 35 mm²), 1x (1 50 mm²)
• finely stranded with core end processing	2x (1 25 mm²), 1x (1 35 mm²)
connectable conductor cross-section for main contacts	
• finely stranded with core end processing	1 35 mm²
connectable conductor cross-section for auxiliary contacts	
solid or stranded	0.5 2.5 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	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)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
for AWG cables for auxiliary contacts	2x (20 16), 2x (18 14)
AWG number as coded connectable conductor cross section	
• for main contacts	18 1
for auxiliary contacts	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	
B10 value with high demand rate according to SN 31920	1 000 000	
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 %	
failure rate [FIT] with low demand rate according to SN 31920	100 FIT	
T1 value for proof test interval or service life according to IEC 61508	20 a	
protection class IP on the front according to IEC 60529	IP20	
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front	
suitability for use		
<ul> <li>safety-related switching OFF</li> </ul>	Yes	

Certificates/ approvals

## **General Product Approval**



Confirmation





<u>KC</u>



	EMC	Functional Safety/Safety of Ma- chinery	Declaration of Conformity	Test Certificates
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Type Examination Certificate





Special Test Certificate

Type Test Certificates/Test Report

## Marine / Shipping













Marine / Shipping other Railway Dangerous Good Environment



Confirmation

Confirmation

Vibration and Shock

**Transport Information** 

Environmental Confirmations

## Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

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

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2038-1AQ20

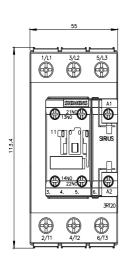
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

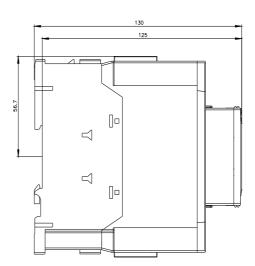
https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-1AQ20

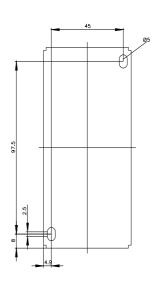
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

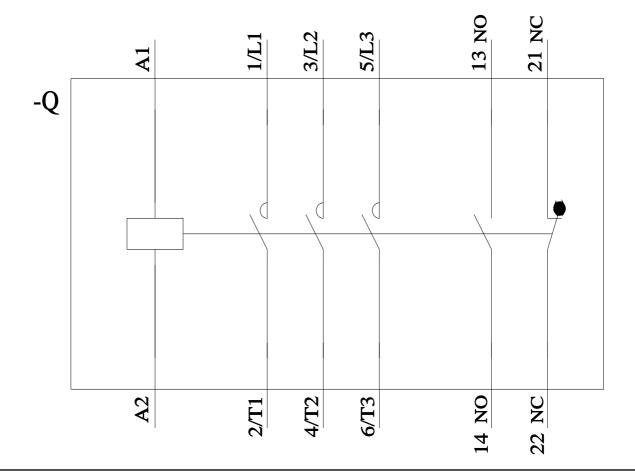
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2038-1AQ20\&lang=en}}$ 

Characteristic: Tripping characteristics, I²t, Let-through current









last modified: 2/10/2023 🖸