# **SIEMENS**

Data sheet 3RT2037-1AL20



power contactor, AC-3e/AC-3, 65 A, 30 kW / 400 V, 3-pole, 230 V AC, 50/60 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S2  $\,$ 

product designation   Power contactor   SRT2   SRT2	product brand name	SIRIUS	
product type designation 3RT2  Since It chinical data  State of contactor \$\$2  product extension  • function module for communication No			
Size of contactor product extension • function module for communication • auxiliary switch • auxiliary switch • at AC in hot operating state • at AC in hot operating state per pole • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxiliary circuit rated value • of auxiliary switch • of of auxiliary circuit rated value • of of auxiliary circuit rated value • of auxiliary switch block typical • at AC • of contactor typical • of of contactor with added electronically optimized • auxiliary switch block typical • of the contactor with added auxiliary switch bl	. •		
product extension  • function module for communication • auxiliary switch  power loss [W] for rated value of the current • at AC in hot operating state   11.4 W   3.8 W   4.2 K   4.2 K   4.2 K   4.2 K   4.3 K   4.2 K   4.3	General technical data		
• function module for communication • auxiliary switch • 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 • 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 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 rated value • at AC • at	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 rated value • of auxillary circuit rated value  • of auxillary circuit rated value  • of auxillary circuit rated value • of auxillary switch block typical • at AC  11.8g / 5 ms, 7.4g / 10 ms  **Abock resistance at rectangular impulse • 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 auxillary 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	product extension		
power loss [W] for rated value of the current  at AC in hot operating state 11.4 W at AC in hot operating state per pole 3.8 W awithout load current share typical 6.5 W  Insulation voltage of main circuit with degree of pollution 3 rated value 690 V surge voltage resistance of main circuit rated value 66 kV of auxiliary control trated value 66 kV of auxiliary control trated value 66 kV surge voltage for protective separation between coil and main contacts according to EN 60947-1 818.5g / 5 ms, 7.4g / 10 ms  shock resistance at rectangular impulse at AC 11.8g / 5 ms, 7.4g / 10 ms  shock resistance with sine pulse of contactor typical 10 000 000 of the contactor with added electronically optimized auxiliary switch block typical 000 000 of the contactor with added auxiliary switch block typical 10 000 000 of the contactor with added auxiliary switch block typical 10 000 000 of the contactor with added auxiliary switch block typical 10 000 000  reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 100 000 000  reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 100 000 000  reference code according to IEC 81346-2 Q Gudantiated the light above sea level maximum 2000 m  ambient temperature of uting operation 255 +60 °C of uting storage 555 +80 °C relative humidity at 55 °C according to IEC 60068-2-30 maximum  Maximum Enter the state of the contactor of the contactor in the contactor of the contactor with added auxiliary switch block typical 1000 000  state of the contactor with added auxiliary switch block typical 1000 000  of the contactor with added auxiliary switch block typical 1000 000  of the contactor with added auxiliary switch block typical 1000 000  of the contactor with added auxiliary switch block typical 1000 000 000  of the contactor with adde	• function module for communication	No	
at AC in hot operating state per pole 3.8 W without load current share typical 6.5 W  insulation voltage  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 with degree of pollution 3 rated value 690 V  surge voltage resistance  of main 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  ot AC 18.5g / 5 ms, 11.6g / 10 ms  mechanical service life (operating cycles)  of contactor typical 10 000 000  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 auxiliary switch block typical 10 000 000  reference code according to EIC 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 utring storage -55 +80 °C  relative humidity minimum 10 %  relative humidity minimum 10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit	auxiliary switch	Yes	
at AC in hot operating state per pole without load current share typical  without load current share typical  of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value  of main circuit rated value of main circuit rated value of auxiliary circuit rated value  of auxiliary circuit rated value of auxiliary circuit rated value  of auxiliary circuit rated value  of auxiliary circuit rated value  of auxiliary circuit rated value  of auxiliary circuit rated value  other of auxiliary other of auxiliary circuit rated value  other of auxiliary other of auxiliary other of auxiliary switch block typical  of the contactor 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 typical  of the contactor with added auxiliary switch block typical  of the contactor typical  of the contact	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 rated value of auxiliary switch sine pulse of the contactor with sine pulse of the contactor vith added electronically optimized auxiliary switch block typical of the contactor with added auxilia	<ul> <li>at AC in hot operating state</li> </ul>	11.4 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 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 ot 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 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 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	<ul> <li>at AC in hot operating state per pole</li> </ul>	3.8 W	
of main circuit with degree of pollution 3 rated value     of auxiliary circuit with degree of pollution 3 rated value     of auxiliary circuit rated value     of kV      maximum permissible voltage for protective separation between coll and main contacts according to EN 60947-1      shock resistance at rectangular impulse     of at 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 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	<ul> <li>without load current share typical</li> </ul>	6.5 W	
of auxiliary circuit with degree of pollution 3 rated value  surge voltage resistance     of main circuit rated value     of auxiliary circuit rated value      aximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse     ot AC     11.8g / 5 ms, 7.4g / 10 ms  shock resistance with sine pulse     ot 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 wit	insulation voltage		
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 of at AC 11.8g / 5 ms, 7.4g / 10 ms  shock resistance with sine pulse of 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 aux	<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     ot AC     11.8g / 5 ms, 7.4g / 10 ms  shock resistance with sine pulse     ot 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 contact	<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	<ul> <li>of main circuit rated value</li> </ul>	6 kV	
shock resistance at rectangular impulse	<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  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	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 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  5 000 000  • 10 000 000	• 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)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  -55 +60 °C  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit  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     oduring storage     during storage     relative humidity minimum 10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit  10 000 000  10 000 000  10 000 000  10 000 00	• 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     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     oduring operation     during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit  5 000 000  10 000  10 000  Q  2 000  0 000  10 000  10 000  0 000  0 000  10 000  0 00	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  during storage  relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit	<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  10 %  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  -55 +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  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit  2 000 m  -25 +60 °C  -55 +80 °C  10 %  95 %	Substance Prohibitance (Date)	10/01/2014	
ambient temperature  • during operation • during storage  • during storage  -25 +60 °C  -55 +80 °C  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit	Ambient conditions		
during operation     during storage     during storage     -55 +80 °C  relative humidity minimum     10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit	installation altitude at height above sea level maximum	2 000 m	
● during storage  relative humidity minimum  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 maximum  Main circuit	<ul> <li>during operation</li> </ul>	-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	

number of NO contacts for main contacts	3
operating voltage	
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
at AC-3e rated value maximum	690 V
operational current	
<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated</li> </ul>	80 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated	80 A
value	70 /
<ul> <li>up to 690 V at ambient temperature 60 °C rated value</li> </ul>	70 A
• at AC-3	
— at 400 V rated value	65 A
— at 500 V rated value	65 A
— at 690 V rated value	47 A
• at AC-3e	
— at 400 V rated value	65 A
— at 500 V rated value	65 A
— at 690 V rated value	47 A
at AC-4 at 400 V rated value	55 A
• at AC-5a up to 690 V rated value	70.4 A
at AC-5a up to 690 V rated value      at AC-5b up to 400 V rated value	70.4 A 53.9 A
• at AC-6a	55.9 A
	50 O A
— up to 230 V for current peak value n=20 rated value	56.9 A
— up to 400 V for current peak value n=20 rated value	56.9 A
— up to 500 V for current peak value n=20 rated value	56.9 A
— up to 690 V for current peak value n=20 rated value	47 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	38 A
— up to 400 V for current peak value n=30 rated value	38 A
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	38 A
— up to 690 V for current peak value n=30 rated value	38 A
minimum cross-section in main circuit at maximum AC-1 rated value	25 mm <sup>2</sup>
operational current for approx. 200000 operating cycles at	
AC-4	
• at 400 V rated value	28 A
• at 690 V rated value	22 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
	0.20 A
with 2 current paths in series at DC-1     at 24 V rated value.	55 A
— at 24 V rated value	55 A
— at 60 V rated value	45 A
— at 110 V rated value	45 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
with 3 current paths in series at DC-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	
at AC-2 at 400 V rated value	30 kW
• at AC-3	
— at 230 V rated value	18.5 kW
— at 400 V rated value	30 kW
— at 500 V rated value	37 kW
— at 690 V rated value	37 kW
• at AC-3e	37 KVV
	18.5 kW
— at 230 V rated value	
— at 400 V rated value	30 kW
— at 500 V rated value	37 kW
— at 690 V rated value	37 kW
operating power for approx. 200000 operating cycles at AC-	
at 400 V rated value	14.7 kW
at 690 V rated value	20 kW
operating apparent power at AC-6a	
• up to 230 V for current peak value n=20 rated value	22.6 kVA
up to 400 V for current peak value n=20 rated value	39.4 kVA
• up to 500 V for current peak value n=20 rated value	49.2 kVA
• up to 690 V for current peak value n=20 rated value	56.1 kVA
operating apparent power at AC-6a	OO.1 KV/
up to 230 V for current peak value n=30 rated value	15.1 kVA
up to 400 V for current peak value n=30 rated value  up to 400 V for current peak value n=30 rated value	26.2 kVA
	32.8 kVA
up to 500 V for current peak value n=30 rated value	45.3 kVA
up to 690 V for current peak value n=30 rated value     short-time withstand current in cold operating state up to	7V.0 IV/A
40 °C	
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	1 055 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	730 A; Use minimum cross-section acc. to AC-1 rated value
Ilmited to 10 s switching at zero current maximum	520 A; Use minimum cross-section acc. to AC-1 rated value
Ilmited to 30 s switching at zero current maximum	336 A; Use minimum cross-section acc. to AC-1 rated value
Ilmited to 60 s switching at zero current maximum	272 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-1 maximum	800 1/h
• at AC-2 maximum	400 1/h
	700 1/h
at AC 3 maximum	(10)
• at AC-3 maximum	
• at AC-3e maximum	700 1/h

type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz rated value	230 V
at 60 Hz rated value	230 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
at 220 V rated value	1 A
at 600 V rated value	0.15 A
operational current at DC-13	
at 24 V rated value	10 A
• at 48 V rated value	2 A
● at 60 V rated value	2 A
• at 110 V rated value	1 A
• at 125 V rated value	0.9 A
at 220 V rated value	0.3 A
at 600 V rated value	0.1 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	65 A
at 600 V rated value	52 A
yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
5 .	
— at 110/120 V rated value	5 hp

— at 230 V rated value	10 hp		
• for 3-phase AC motor			
— at 200/208 V rated value	20 hp		
— at 220/230 V rated value	20 hp		
— at 460/480 V rated value	50 hp		
— at 575/600 V rated value	50 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		
with type of accignment 2 required	kA) gG: 125A (690V,100kA), aM: 63A (690V,100kA), BS88: 100A (415V,80kA)		
<ul> <li>— with type of assignment 2 required</li> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	gG: 10 A (500 V, 1 kA)		
Installation/ mounting/ dimensions	gg. 10 A (500 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	7F		
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	<u>,                                     </u>		
finely stranded with core end processing	1 35 mm²		
connectable conductor cross-section for auxiliary contacts			
solid or stranded	0.5 2.5 mm²		
finely stranded with core end processing	0.5 2.5 mm <sup>2</sup>		
type of connectable conductor cross-sections			
• for auxiliary contacts			
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 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 (0.5 1.5 min ), 2x (0.75 2.5 min ) 2x (20 16), 2x (18 14)		
AWG number as coded connectable conductor cross section	ΔΛ (ΔΟ 10), ΔΛ (10 14)		
for main contacts	18 1		
for auxiliary contacts	20 14		
- 101 daxillary contacto			

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
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

#### Certificates/ approvals

### **General Product Approval**





Confirmation



<u>KC</u>





Type Examination Certificate





Type Test Certificates/Test Report

Special Test Certificate

#### Marine / Shipping













	Marine / Shipping	other	Railway	Dangerous Good	Environment
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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)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2037-1AL20

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2037-1AL20

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

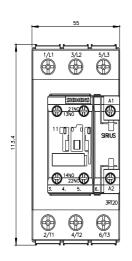
https://support.industry.siemens.com/cs/ww/en/ps/3RT2037-1AL20

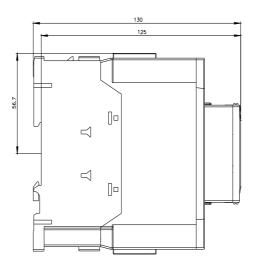
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

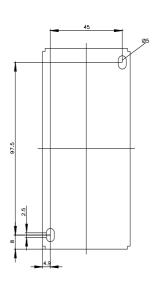
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2037-1AL20&lang=en

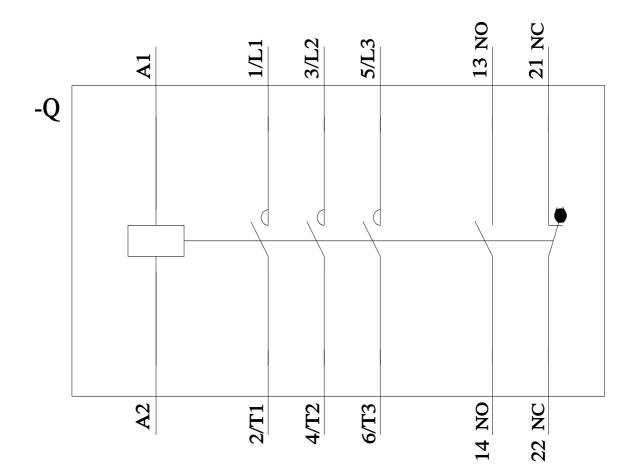
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2037-1AL20/cl

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









last modified:

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## **Mouser Electronics**

**Authorized Distributor** 

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Siemens:

3RT20371AL20