SIEMENS

Data sheet

3RT2027-1NB30



power contactor, AC-3e/AC-3, 32 A, 15 kW / 400 V, 3-pole, 21-28 V AC/DC, 50/60 Hz, with integrated varistor, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S0

0/13			
product brand name	SIRIUS		
product designation	Power contactor		
product type designation	3RT2		
General technical data			
size of contactor	S0		
product extension			
 function module for communication 	No		
 auxiliary switch 	Yes		
power loss [W] for rated value of the current			
 at AC in hot operating state 	6.3 W		
 at AC in hot operating state per pole 	2.3 W		
 without load current share typical 	1.4 W		
type of calculation of power loss depending on pole	quadratic		
insulation voltage			
 of main circuit with degree of pollution 3 rated value 	690 V		
 of auxiliary circuit with degree of pollution 3 rated value 	690 V		
surge voltage resistance			
 of main circuit rated value 	6 kV		
 of auxiliary circuit rated value 	6 kV		
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	400 V		
shock resistance at rectangular impulse			
• at AC	8,3g / 5 ms, 5,3g / 10 ms		
• at DC	10g / 5 ms, 7,5g / 10 ms		
shock resistance with sine pulse			
• at AC	13,5g / 5 ms, 8,3g / 10 ms		
• at DC	15g / 5 ms, 10g / 10 ms		
mechanical service life (operating cycles)			
 of contactor typical 	10 000 000		
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000		
 of the contactor with added auxiliary switch block typical 	10 000 000		
reference code according to IEC 81346-2	Q		
Substance Prohibitance (Date)			
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8		
Weight	0.585 kg		
Ambient conditions			
installation altitude at height above sea level maximum	2 000 m		
ambient temperature			
 during operation 	-25 +60 °C		

during storage	-55 +80 °C		
relative humidity minimum	10 %		
relative humidity at 55 °C according to IEC 60068-2-30	95 %		
maximum			
Environmental footprint			
Environmental Product Declaration(EPD)	Yes		
Global Warming Potential [CO2 eq] total	59.7 kg		
Global Warming Potential [CO2 eq] during manufacturing	3.7 kg		
Global Warming Potential [CO2 eq] during operation	56.6 kg		
Global Warming Potential [CO2 eq] after end of life	-0.626 kg		
Main circuit			
number of poles for main current circuit	3		
number of NO contacts for main contacts	3		
operating voltage			
 at AC-3 rated value maximum 	690 V		
at AC-3e rated value maximum	690 V		
operational current			
• at AC-1 at 400 V at ambient temperature 40 °C rated value	50 A		
• at AC-1			
— up to 690 V at ambient temperature 40 °C rated value	50 A		
— up to 690 V at ambient temperature 60 °C rated value	42 A		
• at AC-3			
— at 400 V rated value	32 A		
— at 500 V rated value	32 A		
— at 690 V rated value	21 A		
• at AC-3e	20.4		
— at 400 V rated value	32 A		
— at 500 V rated value	32 A		
— at 690 V rated value	21 A		
• at AC-4 at 400 V rated value	22 A		
 at AC-5a up to 690 V rated value at AC-5b up to 400 V rated value 	44 A 26.5 A		
• at AC-5a	20.5 A		
 up to 230 V for current peak value n=20 rated value 	30.8 A		
— up to 200 V for current peak value n=20 rated value	30.8 A		
— up to 500 V for current peak value n=20 rated value	27 A		
— up to 690 V for current peak value n=20 rated value	21 A		
• at AC-6a			
— up to 230 V for current peak value n=30 rated value	20.5 A		
— up to 400 V for current peak value n=30 rated value	20.5 A		
— up to 500 V for current peak value n=30 rated value	18 A		
— up to 690 V for current peak value n=30 rated value	18 A		
minimum cross-section in main circuit at maximum AC-1 rated value	10 mm ²		
operational current for approx. 200000 operating cycles at AC-4			
• at 400 V rated value	12 A		
• at 690 V rated value	12 A		
operational current			
• at 1 current path at DC-1			
— at 24 V rated value	35 A		
— at 60 V rated value	20 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	35 A		
— at 60 V rated value	35 A		

	at 110 V/ rated value	25.4
	- at 110 V rated value	35 A
- af 80 V rated value08 A• with 3 corrent paths in solves at DC-155 A- af 80 V rated value55 A- af 80 V rated value20 A- af 80 V rated value50 A- af 80 V rated value50 A- af 80 V rated value50 A- af 81 V rated value51 A- af 81 V rated value51 A<		
•••••••••••••••••••••••••••••••••••		
		0.8 A
	-	
- at 400 Y rade value2.9 A- at 600 Y rade value1.4 A- at 600 Y rade value20.A- at 600 Y rade value20.A- at 74 Y rates value25.A- at 100 Y rade value25.A- at 100 Y rade value0.09 A- at 440 V rade value0.09 A- at 440 V rade value0.09 A- at 600 V rade value35.A- at 600 V rade value35.A- at 600 V rade value35.A- at 740 V rade value15.W- at 740 V rade value15.W <trr>- at 740 V rade value15.W<</trr>		
• at 1 current path at DC-3 at DC-520 A- at 24 V rated value20 A- at 10 V rated value25 A- at 20 V rated value0.09 A- at 20 V rated value0.006 A- at 400 V rated value0.006 A- at 400 V rated value0.06 A- at 400 V rated value0.06 A- at 20 V rated value0.07 A- at 20 V rated value0.16 A- at 20 V rated value0.16 A- at 20 V rated value0.16 A- at 20 V rated value0.57 A- at 20 V rated value15 KW- at 400 V rated value <td></td> <td></td>		
- all 24 Vrade Vaule20 A- all 50 Vrade Vaule5 A- all 20 Vrade Vaule25 A- all 20 Vrade Vaule00 A- all 20 Vrade Vaule00 A- all 20 Vrade Vaule00 A- all 24 Vrade Vaule00 A- all 24 Vrade Vaule35 A- all 20 Vrade Vaule35 A- all 20 Vrade Vaule0.05 A- all 20 Vrade Vaule0.06 A- all 20 Vrade Vaule0.07 A- all 20 Vrade Vaule15 KW- all 20 Vrade Vaule15 KW<		1.4 A
	-	
	— at 60 V rated value	
	— at 110 V rated value	2.5 A
	— at 220 V rated value	1 A
• with 2 current paths in series at DC-3 at DC-5 35 A - at 24 V rated value 35 A - at 100 V rated value 55 A - at 1220 V rated value 36 A - at 220 V rated value 37 A - at 240 V rated value 0.27 A - at 600 V rated value 0.16 A • with 3 current paths in series at DC-3 at DC-5 - - at 60 V rated value 35 A - at 100 V rated value 35 A - at 100 V rated value 35 A - at 60 V rated value 35 A - at 60 V rated value 0.6 A - at 220 V rated value 0.6 A - at 600 V rated value 15 KW - at 600 V rated	— at 440 V rated value	0.09 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	35 A
	— at 60 V rated value	35 A
	— at 110 V rated value	15 A
at 600 V rated value0.16 Å• at 24 V rated value35 Å at 26 V rated value35 Å at 100 V rated value35 Å at 220 V rated value35 Å at 220 V rated value0.6 Å at 220 V rated value0.6 Å at 600 V rated value0.6 Å at 220 V rated value0.6 Å at 600 V rated value15 Å at 220 V rated value15 Å at 230 V rated value15 Å at 230 V rated value15 Å at 230 V rated value15 Å at 690 V rated value10 Å at 690 V rated value<	— at 220 V rated value	3 A
• with 3 current paths in series at DC-3 at DC-59- at 24 V rated value35 Å- at 60 V rated value35 Å- at 110 V rated value35 Å- at 220 V rated value0.6 Å- at 220 V rated value0.6 Å- at 230 V rated value0.6 Åoperating power at 230 V rated value15 KW- at 690 V rated value12 KVA• at 600 V rated value12 KVA• up to 230 V for current peak value n=20 rated value23 KVA• up to 230 V for current peak value n=20 rated value25 KV• up to 230 V for current peak value n=20 rated value25 KVA• up to 500 V for current peak value n=30 rated value21 KVA• up to 500 V for current peak value n=30 rated value31 KVA• up to 500 V for current peak value n=30 rated value31 KVA <tr< td=""><td>— at 440 V rated value</td><td>0.27 A</td></tr<>	— at 440 V rated value	0.27 A
	— at 600 V rated value	0.16 A
	 with 3 current paths in series at DC-3 at DC-5 	
	— at 24 V rated value	35 A
at 220 V rated value10 A at 440 V rated value0.6 A at 630 V rated value0.6 Aoperating power	— at 60 V rated value	35 A
	— at 110 V rated value	35 A
at 800 V rated value0.6 Aoperating power-• at AC-3 at 230 V rated value7.5 kW at 400 V rated value15 kW at 600 V rated value15 kW at 600 V rated value18.5 kW at 630 V rated value18.5 kW at 230 V rated value15 kW at 230 V rated value15 kW at 400 V rated value15 kW at 300 V rated value15 kW at 300 V rated value15 kW at 400 V rated value15 kW at 600 V rated value15 kW at 600 V rated value18 kW at 600 V rated value18 kW at 600 V rated value18 kW at 300 V rated value18 kW at 600 V rated value2 kW at 400 V rated value2 kW at 400 V rated value n=20 rated value2.3 kW at 600 V for current peak value n=20 rated value2.3 kVA up to 500 V for current peak value n=20 rated value2.3 kVA up to 500 V for current peak value n=30 rated value8.1 kVA up to 500 V for current peak value n=30 rated value8.1 kVA up to 500 V for current peak value n=30 rated value8.1 kVA up to 500 V for current peak value n=30 rated value8.1 kVA up to 500 V for current peak value n=30 rated value8.1 kVA up to 600 V for current peak value n=30 rated va	— at 220 V rated value	10 A
operating power• at AC-37.5 kW- at 230 V rated value7.5 kW- at 400 V rated value15 kW- at 690 V rated value18.5 kW- at 690 V rated value18.5 kW• at AC-3e7.5 kW- at 230 V rated value15 kW- at 400 V rated value15 kW- at 400 V rated value15 kW- at 400 V rated value15 kW- at 690 V rated value18.5 kW- at 690 V rated value18.5 kW- at 690 V rated value10.3 kWoperating power for approx. 200000 operating cycles at AC-4• at 400 V rated value12.2 kVA• up to 200 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 500 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a8.1 kVA• up to 230 V for current peak value n=30 rated value8.1 kVA• up to 500 V for current peak value n=30 rated value14.2 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value	— at 440 V rated value	0.6 A
• at AC-3- at 230 V rated value7.5 kW- at 400 V rated value15 kW- at 500 V rated value15 kW- at 500 V rated value15 kW- at 690 V rated value15 kW- at 230 V rated value15 kW- at 230 V rated value15 kW- at 400 V rated value15 kW- at 400 V rated value15 kW- at 690 V rated value15 kW- at 690 V rated value16 kW- at 690 V rated value10 k W- at 690 V rated value12 kVA- at 690 V rated value12 kVA- at 690 V rated value21 kVA- up to 230 V for current peak value n=20 rated value23 kVA- up to 500 V for current peak value n=20 rated value23 kVA- up to 630 V for current peak value n=20 rated value23 kVA- up to 630 V for current peak value n=30 rated value8.1 kVA- up to 630 V for current peak value n=30 rated value14 kVA- up to 630 V for current peak value n=30 rated value15 kVA- up to 630 V for current peak value n=30 rated value15 kVA- up to 630 V for current peak value n=30 rated value15 kVA- up to 630 V for current peak value n=30 rated value15 kVA- up to 630 V for current peak value n=30 rated value15 kVA- up to 630 V for current peak value n=30 rated value15 kVA- up to 630 V for current peak value n=30 rated value15 kV	— at 600 V rated value	0.6 A
at 230 V rated value7.5 kW at 400 V rated value15 kW at 500 V rated value15 kW at 690 V rated value15 kW at 690 V rated value7.5 kW at 230 V rated value7.5 kW at 230 V rated value15 kW at 400 V rated value15 kW at 690 V rated value18 kW at 690 V rated value10 kW at 690 V rated value12.2 kVA at 690 V rated value n=20 rated value21.3 kVA up to 230 V for current peak value n=20 rated value23.3 kVA up to 500 V for current peak value n=20 rated value23.3 kVA up to 500 V for current peak value n=20 rated value23.3 kVA up to 500 V for current peak value n=20 rated value23.3 kVA up to 500 V for current peak value n=20 rated value23.3 kVA up to 500 V for current peak value n=30 rated value8.1 kVA up to 500 V for current peak value n=30 rated value8.1 kVA up to 500 V for current peak value n=30 rated value15.5 kVA up to 690 V for current peak value n=30 rated value15.5 kVA up to 690 V for current peak value n=30 rated value15.5 kVA up to 690 V for current peak value n=30 rated value15.5 kVA up to 690 V for current peak value	operating power	
at 400 V rated value15 kW at 500 V rated value15 kW at 690 V rated value18.5 kW at 630 V rated value7.5 kW at 230 V rated value7.5 kW at 400 V rated value15 kW at 500 V rated value15 kW at 690 V rated value15 kW at 690 V rated value15 kW at 690 V rated value16 kW at 690 V rated value18.5 kW at 690 V rated value18.5 kW at 690 V rated value10.3 kWoperating apparent power at AC-6a	• at AC-3	
- at 500 V rated value15 kW- at 690 V rated value18.5 kW• at AC-3e at 230 V rated value7.5 kW- at 400 V rated value15 kW- at 400 V rated value15 kW- at 690 V rated value18.5 kW• at 400 V rated value18.5 kW• at 400 V rated value6 kW• at 690 V rated value20.3 kW• at 400 V rated value12.2 kVA• up to 230 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 500 V for current peak value n=30 rated value25 kVA• up to 230 V for current peak value n=30 rated value55 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rat	— at 230 V rated value	7.5 kW
at 690 V rated value18.5 kW• at AC-3e at 230 V rated value7.5 kW at 400 V rated value15 kW at 690 V rated value15 kW at 690 V rated value18.5 kW at 690 V rated value6 kW• at 400 V rated value10.3 kW• at 400 V rated value12.2 kVA• at 690 V rated value n=20 rated value21.3 kVA• up to 530 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value25 kVA• up to 230 V for current peak value n=30 rated value8.1 kVA• up to 500 V for current peak value n=30 rated value14.2 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA• up to 600 V for current peak value n=30 rated value21.5 kVA<	— at 400 V rated value	15 kW
• at AC-3e- at 230 V rated value7.5 kW- at 400 V rated value15 kW- at 500 V rated value15 kW- at 690 V rated value18.5 kWoperating power for approx. 200000 operating cycles at AC-46 kW• at 400 V rated value6 kW• at 690 V rated value10.3 kWoperating apparent power at AC-6a12.2 kVA• up to 230 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 500 V for current peak value n=20 rated value25. kVA• up to 500 V for current peak value n=30 rated value8.1 kVA• up to 230 V for current peak value n=30 rated value14.2 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value31.5 kVA• up to 690 V	— at 500 V rated value	15 kW
- at 230 V rated value7.5 kW- at 400 V rated value15 kW- at 500 V rated value15 kW- at 690 V rated value18.5 kWoperating power for approx. 200000 operating cycles at AC-46 kW- at 690 V rated value6 kW- at 400 V rated value10.3 kWoperating apparent power at AC-6a2- up to 230 V for current peak value n=20 rated value21.3 kVA- up to 500 V for current peak value n=20 rated value23.3 kVA- up to 500 V for current peak value n=20 rated value25 kVA- up to 500 V for current peak value n=30 rated value8.1 kVA- up to 500 V for current peak value n=30 rated value14.2 kVA- up to 500 V for current peak value n=30 rated value21.5 kVA- up to 690 V for current peak value n=30 rated value15.5 kVA- up to 690 V for current peak value n=30 rated value15.5 kVA- up to 690 V for current peak value n=30 rated value15.5 kVA- up to 690 V for current peak value n=30 rated value15.5 kVA- up to 690 V for current peak value n=30 rated value15.5 kVA- up to 690 V for current peak value n=30 rated value15.5 kVA- up to 690 V for current peak value n=30 rated value15.5 kVA- up to 690 V for current peak value n=30 rated value15.5 kVA- up to 690 V for current peak value n=30 rated value15.5 kVA- up to 690 V for current peak value n=30 rated value15.5 kVA- up to 690 V for current peak value n=30 rated value15.5 kVA- up to 690 V for current peak value n=30 rated value	— at 690 V rated value	18.5 kW
- at 400 V rated value15 kW- at 500 V rated value15 kW- at 690 V rated value18.5 kWoperating power for approx. 200000 operating cycles at AC-4V- at 400 V rated value6 kW- at 400 V rated value10.3 kWoperating apparent power at AC-6a21.2 kVA- up to 230 V for current peak value n=20 rated value21.3 kVA- up to 500 V for current peak value n=20 rated value23.3 kVA- up to 500 V for current peak value n=20 rated value5k VA- up to 500 V for current peak value n=30 rated value8.1 kVA- up to 500 V for current peak value n=30 rated value5.5 kVA- up to 500 V for current peak value n=30 rated value15.5 kVA- up to 500 V for current peak value n=30 rated value15.5 kVA- up to 500 V for current peak value n=30 rated value15.5 kVA- up to 500 V for current peak value n=30 rated value15.5 kVA- up to 500 V for current peak value n=30 rated value15.5 kVA- up to 500 V for current peak value n=30 rated value15.5 kVA- up to 500 V for current peak value n=30 rated value15.5 kVA- up to 500 V for current peak value n=30 rated value15.5 kVA- up to 500 V for current peak value n=30 rated value15.5 kVA- up to 500 V for current peak value n=30 rated value15.5 kVA- up to 500 V for current peak value n=30 rated value15.5 kVA- up to 500 V for current peak value n=30 rated value15.5 kVA- up to 500 V for current peak value n=30 rated value15.5 kVA- up to 500 V for curre	• at AC-3e	
at 500 V rated value15 kW- at 690 V rated value18.5 kWoperating power for approx. 200000 operating cycles at AC-4	— at 230 V rated value	7.5 kW
at 690 V rated value18.5 kWoperating power for approx. 20000 operating cycles at AC- 4I- at 400 V rated value6 kW- at 400 V rated value10.3 kWoperating apparent power at AC-6aI- up to 230 V for current peak value n=20 rated value21.3 kVA- up to 500 V for current peak value n=20 rated value23.3 kVA- up to 500 V for current peak value n=20 rated value25 kVAOperating apparent power at AC-6aI- up to 500 V for current peak value n=20 rated value25 kVAOperating apparent power at AC-6aI- up to 500 V for current peak value n=30 rated value8.1 kVA- up to 500 V for current peak value n=30 rated value14.2 kVA- up to 500 V for current peak value n=30 rated value15.5 kVA- up to 500 V for current peak value n=30 rated value21.5 kVA- up to 690 V for current peak value n=30 rated value15.5 kVA- up to 690 V for current peak value n=30 rated value21.5 kVA- up to 690 V for current peak value n=30 rated value15.5 kVA- up to 690 V for current peak value n=30 rated value21.5 kVA- up to 690 V for current peak value n=30 rated value21.5 kVA- up to 690 V for current peak value n=30 rated value21.5 kVA- up to 690 V for current peak value n=30 rated value21.5 kVA- up to 690 V for current peak value n=30 rated value21.5 kVA- up to 690 V for current peak value n=30 rated value21.5 kVA- up to 690 V for current peak value n=30 rated value21.5 kVA- up to 690	— at 400 V rated value	15 kW
operating power for approx. 200000 operating cycles at AC- 4• at 400 V rated value6 kW• at 690 V rated value10.3 kWoperating apparent power at AC-6a• up to 230 V for current peak value n=20 rated value12.2 kVA• up to 400 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a25 kVA• up to 690 V for current peak value n=30 rated value8.1 kVA• up to 230 V for current peak value n=30 rated value8.1 kVA• up to 500 V for current peak value n=30 rated value14.2 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA	— at 500 V rated value	15 kW
4• at 400 V rated value6 kW• at 690 V rated value10.3 kWoperating apparent power at AC-6a• up to 230 V for current peak value n=20 rated value12.2 kVA• up to 400 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a• up to 230 V for current peak value n=30 rated value• up to 230 V for current peak value n=30 rated value8.1 kVA• up to 500 V for current peak value n=30 rated value14.2 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA	— at 690 V rated value	18.5 kW
• at 400 V rated value6 kW• at 690 V rated value10.3 kWoperating apparent power at AC-6a-• up to 230 V for current peak value n=20 rated value12.2 kVA• up to 400 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a-• up to 230 V for current peak value n=30 rated value8.1 kVA• up to 230 V for current peak value n=30 rated value14.2 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30		
• at 690 V rated value10.3 kWoperating apparent power at AC-6aI• up to 230 V for current peak value n=20 rated value12.2 kVA• up to 400 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6aI• up to 230 V for current peak value n=30 rated value8.1 kVA• up to 230 V for current peak value n=30 rated value8.1 kVA• up to 500 V for current peak value n=30 rated value14.2 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to		
operating apparent power at AC-6aI2.2 kVA• up to 230 V for current peak value n=20 rated value12.2 kVA• up to 400 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a8.1 kVA• up to 230 V for current peak value n=30 rated value8.1 kVA• up to 400 V for current peak value n=30 rated value14.2 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated va	 at 400 V rated value 	6 kW
• up to 230 V for current peak value n=20 rated value12.2 kVA• up to 400 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a8.1 kVA• up to 230 V for current peak value n=30 rated value8.1 kVA• up to 600 V for current peak value n=30 rated value14.2 kVA• up to 500 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value15.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA	at 690 V rated value	10.3 kW
• up to 400 V for current peak value n=20 rated value21.3 kVA• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a		
• up to 500 V for current peak value n=20 rated value23.3 kVA• up to 690 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a		
• up to 690 V for current peak value n=20 rated value25 kVAoperating apparent power at AC-6a8.1 kVA• up to 230 V for current peak value n=30 rated value8.1 kVA• up to 400 V for current peak value n=30 rated value14.2 kVA• up to 500 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA• up to 690 V for current peak value n=30 rated value21.5 kVA	 up to 400 V for current peak value n=20 rated value 	21.3 kVA
operating apparent power at AC-6a 8.1 kVA • up to 230 V for current peak value n=30 rated value 8.1 kVA • up to 400 V for current peak value n=30 rated value 14.2 kVA • up to 500 V for current peak value n=30 rated value 15.5 kVA • up to 690 V for current peak value n=30 rated value 21.5 kVA short-time withstand current in cold operating state up to 40 °C 40 °C	 up to 500 V for current peak value n=20 rated value 	23.3 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 21.5 kVA short-time withstand current in cold operating state up to 40 °C	 up to 690 V for current peak value n=20 rated value 	25 kVA
• up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value 21.5 kVA 21.5 kVA 3chort-time withstand current in cold operating state up to		
• up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value 21.5 kVA 21.5 kVA 40 °C	 up to 230 V for current peak value n=30 rated value 	8.1 kVA
• up to 690 V for current peak value n=30 rated value 21.5 kVA short-time withstand current in cold operating state up to 40 °C	 up to 400 V for current peak value n=30 rated value 	14.2 kVA
short-time withstand current in cold operating state up to 40 °C	 up to 500 V for current peak value n=30 rated value 	15.5 kVA
40 °C	 up to 690 V for current peak value n=30 rated value 	21.5 kVA
light date de publicar et energian en anter a contrat de publicar en anter a contrat de la Calendar de publica		
• limited to 1's switching at zero current maximum 499 A; Use minimum cross-section acc. to AC-1 rated value	 limited to 1 s switching at zero current maximum 	499 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 5 s switching at zero current maximum 341 A; Use minimum cross-section acc. to AC-1 rated value	 limited to 5 s switching at zero current maximum 	341 A; Use minimum cross-section acc. to AC-1 rated value

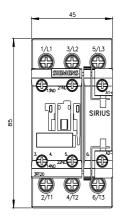
 limited to 10 s switching at zero current maximum 	260 A; Use minimum cross-section acc. to AC-1 rated value			
 limited to 30 s switching at zero current maximum 	199 A; Use minimum cross-section acc. to AC-1 rated value			
 limited to 60 s switching at zero current maximum 	162 A; Use minimum cross-section acc. to AC-1 rated value			
no-load switching frequency				
• at AC	1 500 1/h			
• at DC	1 500 1/h			
operating frequency				
 at AC-1 maximum 	1 000 1/h			
• at AC-2 maximum	750 1/h			
 at AC-3 maximum 	750 1/h			
• at AC-3e maximum	750 1/h			
• at AC-4 maximum	250 1/h			
Control circuit/ Control				
	AC/DC			
type of voltage of the control supply voltage	ACIDC			
control supply voltage at AC	24 22.14			
• at 50 Hz rated value	21 28 V			
at 60 Hz rated value	21 28 V			
control supply voltage at DC rated value	21 28 V			
operating range factor control supply voltage rated value of				
magnet coil at DC	0.7			
initial value	0.7			
• full-scale value	1.3			
operating range factor control supply voltage rated value of magnet coil at AC				
• at 50 Hz	0.7 1.3			
	0.7 1.3			
• at 60 Hz				
design of the surge suppressor	with varistor			
inrush current peak	3 A			
duration of inrush current peak	30 µs			
locked-rotor current mean value	0.3 A			
locked-rotor current peak	0.52 A			
duration of locked-rotor current	180 ms			
holding current mean value	45 mA			
apparent pick-up power of magnet coil at AC				
• at 50 Hz	6.6 VA			
• at 60 Hz	6.7 VA			
inductive power factor with closing power of the coil				
• at 50 Hz	0.98			
● at 60 Hz	0.98			
apparent holding power				
at minimum rated control supply voltage at DC	1.4 VA			
 at maximum rated control supply voltage at DC 	1.4 VA			
apparent holding power				
at minimum rated control supply voltage at AC				
— at 50 Hz	1.9 VA			
— at 60 Hz	2 VA			
at maximum rated control supply voltage at AC				
• at maximum rated control supply voltage at AC — at 50 Hz	1.9 VA			
- at 50 Hz 	2 VA			
	2 1/1			
apparent holding power of magnet coil at AC	101/4			
• at 50 Hz	1.9 VA			
• at 60 Hz	2 VA			
inductive power factor with the holding power of the coil				
• at 50 Hz	0.86			
• at 60 Hz	0.82			
closing power of magnet coil at DC	5.9 W			
holding power of magnet coil at DC	1.4 W			
closing delay				
• at AC	50 80 ms			
• at DC	50 80 ms			
opening delay				

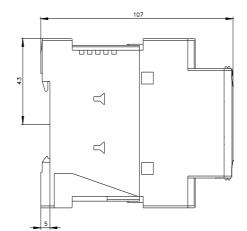
• at AC	30 50 ms		
• at DC	30 50 ms		
arcing time	10 10 ms		
control version of the switch operating mechanism	Standard A1 - A2		
Auxiliary circuit			
number of NC contacts for auxiliary contacts instantaneous	1		
contact			
number of NO contacts for auxiliary contacts instantaneous contact	1		
operational 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	27 A		
 at 600 V rated value 	27 A		
yielded mechanical performance [hp]			
for single-phase AC motor			
— at 110/120 V rated value	2 hp		
— at 230 V rated value	5 hp		
• for 3-phase AC motor	Ср.		
- at 200/208 V rated value	10 hp		
- at 220/230 V rated value	10 hp		
— at 460/480 V rated value	20 hp		
— at 575/600 V rated value	25 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 	AC: 1254 (600)/ 100k4) - 04: 504 (600)/ 100k4) - D000, 4054 (445)/ 00k4)		
 with type of coordination 1 required with type of assignment 2 required 	gG: 125A (690V,100kA), aM: 50A (690V,100kA), BS88: 125A (415V,80kA)		
- with type of assignment 2 required	gG: 50A (690V,100kA), aM: 25A (690V, 100kA), BS88: 50A (415V, 80kA)		
for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)		
Installation/ mounting/ dimensions			
	+/-180° rotation possible on vertical mounting surface; can be tilted forward and		
mounting position	backward by +/- 22.5° on vertical mounting surface		
mounting position fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715		
fastening method			
	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715		
fastening method height width	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 85 mm		
fastening method height width depth	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 85 mm 45 mm		
fastening method height width	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 85 mm 45 mm		

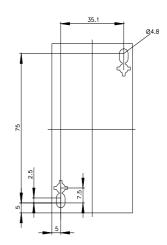
forwards	10 mm			
— forwards	10 mm			
— upwards	10 mm			
— downwards	10 mm			
— at the side	0 mm			
for grounded parts				
— forwards	10 mm			
— upwards	10 mm			
— at the side	6 mm			
— downwards	10 mm			
for live parts				
— forwards	10 mm			
— upwards	10 mm			
— downwards	10 mm			
— at the side	6 mm			
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	2x (1 2.5 mm²), 2x (2.5 10 mm²)			
— solid or stranded	2x (1 2.5 mm²), 2x (2.5 10 mm²)			
 finely stranded with core end processing 	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²			
for AWG cables for main contacts	2x (16 12), 2x (14 8)			
connectable conductor cross-section for main contacts				
• solid	1 10 mm ²			
• stranded	1 10 mm ²			
 finely stranded with core end processing 	1 10 mm ²			
connectable conductor cross-section for auxiliary contacts				
 solid or stranded 	0.5 2.5 mm ²			
 finely stranded with core end processing 	0.5 2.5 mm²			
type of connectable conductor cross-sections				
 for auxiliary contacts 				
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)			
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)			
 for AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14)			
AWG number as coded connectable conductor cross section				
	16 0			
 for main contacts for auxiliary contacts	16 8 20 14			
Safety related data				
product function				
	Yes			
 mirror contact according to IEC 60947-4-1 positively driven operation according to IEC 60947-5-1 	No			
suitable for safety function	Yes			
suitability for use safety-related switching OFF	Yes			
suitability for use safety-related switching OFF service life maximum	20 a			
test wear-related service life necessary	Yes			
proportion of dangerous failures				
with low demand rate according to SN 31920	40 %			
with high demand rate according to SN 31920	73 %			
B10 value with high demand rate according to SN 31920	1 000 000			
failure rate [FIT] with low demand rate according to SN 31920	100 FIT			
31920				
ISO 13849				
device type according to ISO 13849-1	3			
overdimensioning according to ISO 13849-2 necessary	Yes			
IEC 61508				
safety device type according to IEC 61508-2	Туре А			

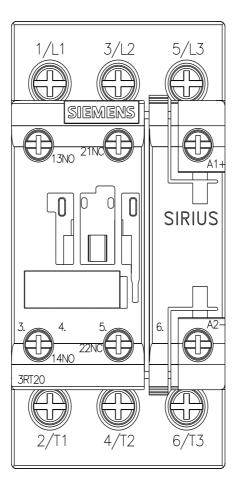
Electrical Safety						
protection class IP on t	he front according to I	EC 60529	IP20			
•				-safe, for vertical contact	from the front	
Approvals Certificates						
General Product Appro	oval					
C E EG-Konf.	UK CA	<u>Confirmatio</u>	ם			KC
General Product Approval	EMV	Functional Saf	tey	Test Certificates		
EHC	RCM	<u>Type Examination Cer-</u> tificate		Type Test Certific- ates/Test Report	Special Test Certific- ate	<u>Miscellaneous</u>
Marine / Shipping						other
ABS	DUREAU VERITAS			RINA	RMRS	<u>Miscellaneous</u>
other		Railway		Dangerous goods	Environment	
<u>Confirmation</u>	<u>Confirmation</u>	<u>Special Test Certific-</u> <u>ate</u>		Transport Information	EPD	Environmental Con- firmations
Further information						
Service&Support (Manu https://support.industry.s	iemens.com/cs/ww/en/v loadcenter (Catalogs, l <u>//ic10</u> rdering system) ens.com/mall/en/en/Cat .siemens.com/WW/CA2 uals, Certificates, Char iemens.com/cs/ww/en/p ct images, 2D dimensi emens.com/bilddb/cax	Brochures,) alog/product?mlfb= (order/default.aspx acteristics, FAQs s/3RT2027-1NB30 on drawings, 3D r de.aspx?mlfb=3RT	?lang=e ,) nodels, 2027-11	en&mlfb=3RT2027-1NB30 device circuit diagrams	-	
https://support.industry.s	https://support.industry.siemens.com/cs/ww/en/ps/3RT2027-1NB30/char Further characteristics (e.g. electrical endurance, switching frequency)					

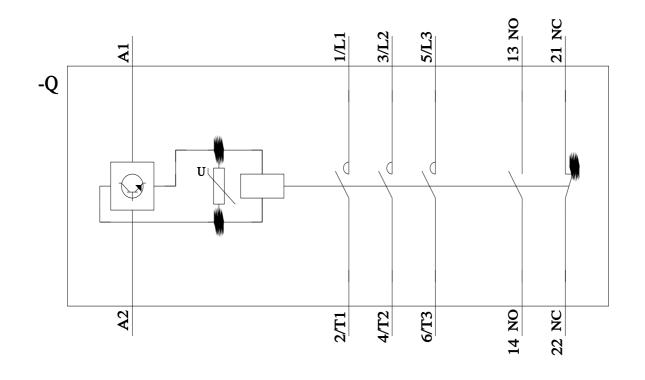
Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2027-1NB30&objecttype=14&gridview=view1











last modified:

C