## SIEMENS

## Data sheet

## 3RT2018-4BB41



power contactor, AC-3e/AC-3, 16 A, 7.5 kW / 400 V, 3-pole, 24 V DC, auxiliary contacts: 1 NO, ring cable lug connection, size: S00

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S00
product extension	
<ul> <li>function module for communication</li> </ul>	No
<ul> <li>auxiliary switch</li> </ul>	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	3 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	1 W
<ul> <li>without load current share typical</li> </ul>	4 W
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 V
<ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul>	690 V
surge voltage resistance	
<ul> <li>of main circuit rated value</li> </ul>	6 kV
<ul> <li>of auxiliary circuit rated value</li> </ul>	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 DC	7.3g / 5 ms, 4.7g / 10 ms
shock resistance with sine pulse	
● at DC	11,4g / 5 ms, 7,3g / 10 ms
mechanical service life (operating cycles)	
<ul> <li>of contactor typical</li> </ul>	30 000 000
<ul> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> </ul>	5 000 000
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
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 maximum	95 %
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
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated	22 A
value	
• at AC-1	
<ul> <li>— up to 690 V at ambient temperature 40 °C rated value</li> </ul>	22 A
— up to 690 V at ambient temperature 60 °C rated	20 A
value	
• at AC-3	
— at 400 V rated value	16 A
— at 500 V rated value	12.4 A
— at 690 V rated value	8.9 A
• at AC-3e	
— at 400 V rated value	16 A
— at 500 V rated value	12.4 A
— at 690 V rated value	8.9 A
• at AC-4 at 400 V rated value	11.5 A
at AC-5a up to 690 V rated value	19.4 A
• at AC-5b up to 400 V rated value	13.2 A
• at AC-6a	
<ul> <li>— up to 230 V for current peak value n=20 rated value</li> </ul>	9.6 A
<ul> <li>— up to 400 V for current peak value n=20 rated value</li> </ul>	9.6 A
<ul> <li>— up to 500 V for current peak value n=20 rated value</li> </ul>	9.6 A
— up to 690 V for current peak value n=20 rated value	8.9 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	6.6 A
— up to 400 V for current peak value n=30 rated value	6.4 A
— up to 500 V for current peak value n=30 rated value	6.4 A
— up to 690 V for current peak value n=30 rated value	6.4 A
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm <sup>2</sup>
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	5.5 A
• at 690 V rated value	4.4 A
operational current	
<ul> <li>at 1 current path at DC-1</li> </ul>	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	2.1 A
— at 220 V rated value	0.8 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	12 A
— at 220 V rated value	1.6 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.7 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	20 A
— at 220 V rated value	20 A
— at 440 V rated value	1.3 A
— at 600 V rated value	1 A
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	

- at 24 V rates value     20 A       - at 24 V rates value     0.5 A       - at 24 V rates value     0.5 A       - at 24 V rates value     20 A       - at 25 V rates value     20 A       - at 260 V rates value     7.5 kW       - at 260 V rates value     2.5 kW       - at 260 V rates valu		
	— at 24 V rated value	20 A
• with 2 current paths inseries at DC-3 at DC-320 A- at GV Yindo Yubo5 A- at GV Yindo Yubo20 A <trr< td=""><td></td><td>0.5 A</td></trr<>		0.5 A
	— at 110 V rated value	0.15 A
	<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
	— at 24 V rated value	20 A
• with 3 current paths in series at DC-3 at DC-59- at 24 V rands value20 A- at 10 V rands value20 A- at 110 V rands value20 A- at 240 V rands value20 A- at 240 V rands value0.2 A- at 250 V rands value0.2 A- at 250 V rands value0.2 A- at 250 V rands value7.5 KW- at 250 V rands value7.6 KW	— at 60 V rated value	5 A
	— at 110 V rated value	0.35 A
	<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
	— at 24 V rated value	20 A
	— at 60 V rated value	20 A
	— at 110 V rated value	20 A
	— at 220 V rated value	1.5 A
operating power              • at AC-3               • A AC-4	— at 440 V rated value	0.2 A
• et AC-3     4 kW       - at 230 V rated value     7.5 kW       - at 500 V rated value     7.5 kW       - at 500 V rated value     7.5 kW       - at 230 V rated value     7.5 kW       - at 230 V rated value     7.5 kW       - at 230 V rated value     7.5 kW       - at 200 V rated value     7.5 kW       - at 200 V rated value     7.5 kW       - at 200 V rated value     7.5 kW       - at 600 V rated value = 8.0 kW     8.5 kW       - opt 500 V for current pack value n=20 rated value     5.6 kVA       - opt 500 V for current pack value n=30 rated value     7.5 kVA       - opt 500 V for current pack value n=30 rated value     7.5 kVA       - opt 500 V for current pack value n=30 rated value     7.5 kVA <t< td=""><td>— at 600 V rated value</td><td>0.2 A</td></t<>	— at 600 V rated value	0.2 A
	operating power	
	• at AC-3	
	— at 230 V rated value	4 kW
	— at 400 V rated value	7.5 kW
		7.5 kW
et AC-3e		
		4 kW
operating power for approx. 200000 operating cycles at AC- 4       2.5 kW         • at 400 V rated value       3.5 kW         operating apparent power at AC-6a       3.5 kW         • up to 230 V for current peak value n=20 rated value       6.6 kVA         • up to 230 V for current peak value n=20 rated value       6.8 kVA         • up to 500 V for current peak value n=20 rated value       8.3 kVA         • up to 600 V for current peak value n=30 rated value       10.6 kVA         operating apparent power at AC-6a       2.5 kVA         • up to 600 V for current peak value n=30 rated value       2.5 kVA         • up to 600 V for current peak value n=30 rated value       5.5 kVA         • up to 600 V for current peak value n=30 rated value       5.5 kVA         • up to 600 V for current peak value n=30 rated value       7.6 kVA         • up to 600 V for current peak value n=30 rated value       7.6 kVA         • up to 600 V for current maximum       300 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       108 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 30 s switching at zero current maximum       128 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 30 s switching at zero current maximum       10 000 1/h         • at DC       10 000 1/h <td< td=""><td></td><td></td></td<>		
• at 690 V rated value       3.5 kW         operating apparent power at AC-6a       3.8 kVA         • up to 400 V for current peak value n=20 rated value       6.8 kVA         • up to 530 V for current peak value n=20 rated value       8.3 kVA         • up to 530 V for current peak value n=20 rated value       10.6 kVA         operating apparent power at AC-6a		
operating apparent power at AC-6a       3.8 kVA         • up to 230 V for current peak value n=20 rated value       5.8 kVA         • up to 600 V for current peak value n=20 rated value       6.6 kVA         • up to 630 V for current peak value n=20 rated value       8.3 kVA         • up to 630 V for current peak value n=20 rated value       10.6 kVA         operating apparent power at AC-6a       2.5 kVA         • up to 530 V for current peak value n=30 rated value       2.5 kVA         • up to 500 V for current peak value n=30 rated value       5.5 kVA         • up to 500 V for current peak value n=30 rated value       5.5 kVA         • up to 500 V for current peak value n=30 rated value       5.5 kVA         • up to 600 V for current peak value n=30 rated value       5.5 kVA         • up to 600 V for current peak value n=30 rated value       5.5 kVA         • up to 600 V for current peak value n=30 rated value       5.5 kVA         • up to 600 V for current peak value n=30 rated value       5.5 kVA         • up to 600 V for current peak value n=30 rated value       5.5 kVA         • up to 500 V for current peak value n=30 rated value       5.5 kVA         • up to 600 V for current peak value n=30 rated value       5.5 kVA         • initied to 10 s switching at zero current maximum       109 k; Use minimum cross-section acc. to AC-1 rated value         • initie	• at 400 V rated value	2.5 kW
• up to 230 V for current peak value n=20 rated value     • up to 400 V for current peak value n=20 rated value     • 0.5 KVA     • up to 500 V for current peak value n=20 rated value     • 0.5 KVA     • up to 500 V for current peak value n=20 rated value     • 0.6 KVA     • up to 500 V for current peak value n=20 rated value     • up to 230 V for current peak value n=30 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 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     • Us to 500 V for current peak value n=30 rated value     • Us to 500 V for current peak value n=30 rated value     • Us to 500 V for current peak value n=30 rated value     • Us to 500 V for current peak value n=30 rated value     • Us to 500 V for current neak value n=30 rated value     • Use minimum cross-section acc. to AC-1 rated value     • Use minimum cross-section acc. to AC-1 rated value     • Use minimum cross-section acc. to AC-1 rated value     • Use minimum cross-section acc. to AC-1 rated value     • Use minimum cross-section acc. to AC-1 rated value     • Use minimum cross-section acc. to AC-1 rated value     • Use minimum cross-section acc. to AC-1 rated value     • Use to 30 s witching at zero current maximum     • Use minimum cross-section acc. to AC-1 rated value     • Use to 30 s witching at zero current maximum     • Use minimum cross-section acc. to AC-1 rated value     • Use to 30 s witching at zero current maximum     • Use minimum cross-section acc. to AC-1 rated value     • Use of 0 to 000 1/h     • at AC-1 maximum     • Use 0.000 1/h     • at AC-2 maximum     • at AC-3 maximum     • DC     • crated value     • DC     • crated value     • Cotrool     • crotool supply voltage rated value     • Cotrool     • crated value     • Cotrool supply voltage rated val	• at 690 V rated value	3.5 kW
• up to 400 V for current peak value n=20 rated value     • up to 500 V for current peak value n=20 rated value     8.3 kVA     • up to 500 V for current peak value n=20 rated value     10.6 kVA     • up to 500 V for current peak value n=20 rated value     10.6 kVA     • up to 230 V for current peak value n=30 rated value     2.5 kVA     • up to 500 V for current peak value n=30 rated value     4.4 kVA     • up to 500 V for current peak value n=30 rated value     5.5 kVA     • up to 500 V for current peak value n=30 rated value     5.5 kVA     • up to 500 V for current peak value n=30 rated value     7.6 kVA     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 30 s switching at zero current maximum     • limited to 30 s switching at zero current maximum     • limited to 30 s switching at zero current maximum     • limited to 50 s switching at zero current maximum     • limited to 50 s switching at zero current maximum     • limited to 50 s switching at zero current maximum     • limited to 50 s switching at zero current maximum     • limited to 50 s switching at zero current maximum     • limited to 50 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 50 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 50 s switching at zero current maximum     • at AC-3 maximum     • at AC-4 maximum     • at	operating apparent power at AC-6a	
• up to 500 V for current peak value n=20 rated value     • up to 690 V for current peak value n=20 rated value     10.6 kVA      operating apparent power at AC-6a     • up to 230 V for current peak value n=30 rated value     2.5 kVA     • up to 400 V for current peak value n=30 rated value     4.4 kVA     • up to 500 V for current peak value n=30 rated value     5.5 kVA     • up to 500 V for current peak value n=30 rated value     5.5 kVA     • up to 500 V for current peak value n=30 rated value     5.5 kVA     • up to 500 V for current peak value n=30 rated value     5.5 kVA     • up to 500 V for current peak value n=30 rated value     5.5 kVA     • up to 500 V for current peak value n=30 rated value     5.5 kVA     • up to 500 V for current peak value n=30 rated value     5.5 kVA     • up to 500 V for current peak value n=30 rated value     5.5 kVA     • up to 500 V for current peak value n=30 rated value     5.5 kVA     • up to 500 V for current peak value n=30 rated value     5.5 kVA     • up to 500 V for current peak value n=30 rated value     5.5 kVA     • up to 500 V for current peak value n=30 rated value     7.6 kVA     • up to 500 V for current peak value n=30 rated value     7.6 kVA     • up to 500 V for current peak value n=30 rated value     10.6 kWA     • up to 500 V for current maximum     1028 A; Use minimum cross-section acc. to AC-1 rated value     • limited to 10 s switching at zero current maximum     92 A; Use minimum cross-section acc. to AC-1 rated value     • at DC     10 000 1/h     • at AC-3 maximum     1000 1/h     • at AC-3 maximum     1000 1/h     • at AC-3 maximum     50 1/h     • at AC-4 maximum     50 1/h     • at AC-3 maximum     50 1/h     • at AC-4 maximum     50 1/h     • at AC-4 maximum     50 1/h     • at AC-4 maximum     50 1/h     • at AC-3 maximum     50 1/h     • at AC-4 maximum     50 1/h     • at AC-3 maximum     50 1/h     • at AC-	<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	3.8 kVA
• up to 690 V for current peak value n=20 rated value       10.6 kVA         operating apparent power at AC-6a       2.5 kVA         • up to 230 V for current peak value n=30 rated value       2.4 kVA         • up to 500 V for current peak value n=30 rated value       5 kVA         • up to 690 V for current peak value n=30 rated value       5 kVA         • up to 690 V for current peak value n=30 rated value       7.6 kVA         • up to 690 V for current peak value n=30 rated value       7.6 kVA         short-time withstand current in cold operating state up to 40 °C       300 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 1 s switching at zero current maximum       169 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 50 s switching at zero current maximum       128 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       92 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       128 A; Use minimum cross-section acc. to AC-1 rated value         • at DC       10 000 1/h         • at AC-1 maximum       1 000 1/h         • at AC-3 maximum       1 000 1/h         • at AC-3 maximum       750 1/h         • at AC-3 maximum       250 1/h         • control supply voltage of the control supply voltage       DC	<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	6.6 kVA
operating apparent power at AC-6a       2.5 kVA         • up to 230 V for current peak value n=30 rated value       2.5 kVA         • up to 400 V for current peak value n=30 rated value       4.4 kVA         • up to 680 V for current peak value n=30 rated value       5.5 kVA         • up to 680 V for current peak value n=30 rated value       7.6 kVA         short-time withstand current in cold operating state up to 40°C       300 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 1 s switching at zero current maximum       169 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 30 s switching at zero current maximum       128 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 30 s switching at zero current maximum       92 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 30 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • at DC       10 000 1/h         • at AC-1 maximum       1000 1/h         • at AC-3 maximum       750 1/h         • at AC-4 maximum       250 1/h         • control circuit/ Control       type of voltage of the control supply voltage         Control circuit/ Control       0C         control circuit/ Control<	<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	8.3 kVA
• up to 230 V for current peak value n=30 rated value       2.5 kVA         • up to 400 V for current peak value n=30 rated value       4.4 kVA         • up to 500 V for current peak value n=30 rated value       5.5 kVA         • up to 690 V for current peak value n=30 rated value       5.5 kVA         • up to 690 V for current peak value n=30 rated value       7.6 kVA         short-time withstand current in cold operating state up to 40 °C       300 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 1 s switching at zero current maximum       300 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       128 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       92 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • at AC-1 maximum       10000 1/h         • at AC-1 maximum       10000 1/h         • at AC-3 maximum       750 1/h         • at AC-3 maximum       250 1/h         • at AC-3 maximum       250 1/h         • at AC-4 maximum       250 1/h         • at AC-4 maximum       250 1/h <td><ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul></td> <td>10.6 kVA</td>	<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	10.6 kVA
• up to 400 V for current peak value n=30 rated value4.4 kVA• up to 500 V for current peak value n=30 rated value5.5 kVA• up to 690 V for current peak value n=30 rated value7.6 kVAshort-time withstand current in cold operating state up to 40 °C300 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum169 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum128 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum24 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum24 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum1000 1/h• at DC10 000 1/h• at AC-1 maximum1000 1/h• at AC-3 maximum750 1/h• at AC-3 maximum250 1/h• at AC-4 maximum250 1/h• control supply voltage at DC24 V• rated value24 V• operating rade factor control supply voltage rated value of magnet coil at DC24 V• operating rade factor control supply voltage rated value of magnet coil at DC24 V• initial value0.8	operating apparent power at AC-6a	
• up to 500 V for current peak value n=30 rated value5.5 kVA• up to 690 V for current peak value n=30 rated value7.6 kVAshort-time withstand current in cold operating state up to 40 °C300 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum300 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 os switching at zero current maximum169 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum92 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum92 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum74 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum74 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum76 1/h• at DC10 000 1/h• at AC-1 maximum1000 1/h• at AC-3 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3 maximum250 1/h• at AC-4 maximum250 1/h• control supply voltage at DC24 V• cortrol supply voltage at DC24 V• operating range factor control supply voltage rated value of magnet coil at DC24 V• operating range factor control supply voltage rated value of magnet coil at DC0.8	<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	2.5 kVA
• up to 690 V for current peak value n=30 rated value7.6 kVAshort-time withstand current in cold operating state up to 40 °C300 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1s switching at zero current maximum169 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum128 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum92 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum74 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum74 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum74 A; Use minimum cross-section acc. to AC-1 rated value• at DC10 000 1/hoperating frequency10 000 1/h• at AC-3 maximum1000 1/h• at AC-3 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3 maximum250 1/h• at AC-4 maximum224 V• operating range factor control supply voltage rated value of magnet coil at DC• rated value0.8	<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	4.4 kVA
short-time withstand current in cold operating state up to 40 °C       300 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 1s switching at zero current maximum       169 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       128 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 30 s switching at zero current maximum       92 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       92 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 switching frequency       10 000 1/h         • at DC       10 000 1/h         • at AC-3 maximum       750 1/h         • at AC-3 maximum       750 1/h         • at AC-3 maximum       250 1/h         Control circuit/ Control       DC         • rated value       24 V         • operating range factor control supply voltage rated value of magnet coil at DC       24 V	<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	5.5 kVA
40 °C       ilmited to 1 s switching at zero current maximum       300 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 5 s switching at zero current maximum       169 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 10 s switching at zero current maximum       128 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 30 s switching at zero current maximum       92 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         • at DC       10 000 1/h         • at DC       10 000 1/h         • at AC-1 maximum       1 000 1/h         • at AC-2 maximum       750 1/h         • at AC-3 maximum       250 1/h         Control circuit/ Control       V         • at AC-4 maximum       250 1/h         Control supply voltage at DC       V         • rated value       24 V         • operating range factor control supply voltage rated value of magnet	• up to 690 V for current peak value n=30 rated value	7.6 kVA
• limited to 1 s switching at zero current maximum300 A; Use minimum cross-section acc. to AC-1 rated value• limited to 5 s switching at zero current maximum169 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum28 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum92 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum74 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum74 A; Use minimum cross-section acc. to AC-1 rated value• at DC10 000 1/h• at DC10 000 1/h• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximum24 V• operating range factor control supply voltage rated value24 V• operating range factor control supply voltage rated value0.8	short-time withstand current in cold operating state up to	
• limited to 5 s switching at zero current maximum169 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum128 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum92 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum74 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum74 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum74 A; Use minimum cross-section acc. to AC-1 rated value• at DC10 000 1/h• at DC10 000 1/h• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3 maximum750 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/h• control circuit/ ControlDC• control supply voltage at DC0C• rated value24 V• operating range factor control supply voltage rated value of magnet coil at DC24 V	40 °C	
• limited to 10 s switching at zero current maximum       128 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 30 s switching at zero current maximum       92 A; Use minimum cross-section acc. to AC-1 rated value         • limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         no-load switching frequency       74 A; Use minimum cross-section acc. to AC-1 rated value         • at DC       10 000 1/h         operating frequency       10 000 1/h         • at AC-1 maximum       1 000 1/h         • at AC-2 maximum       750 1/h         • at AC-3 maximum       750 1/h         • at AC-3 maximum       750 1/h         • at AC-4 maximum       250 1/h         Control circuit/ Control       Uc         type of voltage of the control supply voltage       DC         • rated value       24 V         operating range factor control supply voltage rated value of magnet coil at DC       0.8	<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	300 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> <li>92 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>limited to 60 s switching at zero current maximum</li> <li>74 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>no-load switching frequency         <ul> <li>at DC</li> <li>10 000 1/h</li> </ul> </li> <li>operating frequency         <ul> <li>at AC-1 maximum</li> <li>1000 1/h</li> <li>at AC-2 maximum</li> <li>1000 1/h</li> <li>at AC-2 maximum</li> <li>1000 1/h</li> <li>at AC-3 maximum</li> <li>50 1/h</li> <li>at AC-3 maximum</li> <li>50 1/h</li> <li>at AC-4 maximum</li> <li>250 1/h</li> </ul> </li> <li>Control circuit/ Control</li> <li>type of voltage of the control supply voltage</li> <li>Control supply voltage at DC                 <ul> <li>at AC-4 maximu</li> <li>24 V</li> <li>operating range factor control supply voltage rated value of magnet coil at DC                 <ul> <li>initial value</li> <li>0.8</li> </ul> </li> </ul></li></ul>	<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	169 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 60 s switching at zero current maximum       74 A; Use minimum cross-section acc. to AC-1 rated value         no-load switching frequency       10 000 1/h         • at DC       10 000 1/h         operating frequency       1000 1/h         • at AC-1 maximum       1 000 1/h         • at AC-2 maximum       750 1/h         • at AC-3 maximum       750 1/h         • at AC-3 maximum       750 1/h         • at AC-4 maximum       250 1/h         • at AC-4 maximum       250 1/h         • at AC-4 maximum       250 1/h         Control circuit/ Control       DC         type of voltage of the control supply voltage       DC         • rated value       24 V         operating range factor control supply voltage rated value of magnet coil at DC       0.8	<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	128 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency     10 000 1/h       • at DC     10 000 1/h       operating frequency     1 000 1/h       • at AC-1 maximum     1 000 1/h       • at AC-2 maximum     750 1/h       • at AC-3 maximum     750 1/h       • at AC-4 maximum     250 1/h       • at AC-4 maximum     24 V       • rated value     24 V       • perating range factor control supply voltage rated value of magnet coil at DC     0.8	<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	92 A; Use minimum cross-section acc. to AC-1 rated value
• at DC10 000 1/hoperating frequency1 000 1/h• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3 maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/hControl circuit/ ControlDCtype of voltage of the control supply voltageDC• rated value24 Voperating range factor control supply voltage rated value of magnet coil at DC0.8	<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	74 A; Use minimum cross-section acc. to AC-1 rated value
operating frequency1 000 1/h• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3e maximum750 1/h• at AC-3e maximum250 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/h• control circuit/ ControlDCcontrol supply voltage at DC0C• rated value24 V• perating range factor control supply voltage rated value of magnet coil at DC0.8	no-load switching frequency	
• at AC-1 maximum1 000 1/h• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3e maximum750 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/h• control circuit/ ControlDCtype of voltage of the control supply voltageDC• rated value24 V• perating range factor control supply voltage rated value of magnet coil at DC0.8	• at DC	10 000 1/h
• at AC-2 maximum750 1/h• at AC-3 maximum750 1/h• at AC-3e maximum750 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/hControl circuit/ ControlDCcontrol supply voltage at DCDC• rated value24 V• perating range factor control supply voltage rated value of magnet coil at DC0.8	operating frequency	
• at AC-3 maximum750 1/h• at AC-3e maximum750 1/h• at AC-4 maximum250 1/h• at AC-4 maximum250 1/hControl circuit/ ControlDCcontrol supply voltage at DCDC• rated value24 V• perating range factor control supply voltage rated value of magnet coil at DC0.8	• at AC-1 maximum	1 000 1/h
• at AC-3e maximum750 1/h• at AC-4 maximum250 1/hControl circuit/ ControlDCtype of voltage of the control supply voltageDCcontrol supply voltage at DC24 V• rated value24 Voperating range factor control supply voltage rated value of magnet coil at DC0.8	• at AC-2 maximum	750 1/h
• at AC-4 maximum       250 1/h         Control circuit/ Control       DC         type of voltage of the control supply voltage       DC         control supply voltage at DC       24 V         • rated value       24 V         operating range factor control supply voltage rated value of magnet coil at DC       0.8	• at AC-3 maximum	750 1/h
Control circuit/ Control         type of voltage of the control supply voltage       DC         control supply voltage at DC       24 V         • rated value       24 V         operating range factor control supply voltage rated value of magnet coil at DC       0.8	• at AC-3e maximum	750 1/h
type of voltage of the control supply voltage     DC       control supply voltage at DC	• at AC-4 maximum	250 1/h
control supply voltage at DC     24 V       • rated value     24 V       operating range factor control supply voltage rated value of magnet coil at DC     0.8	Control circuit/ Control	
control supply voltage at DC     24 V       • rated value     24 V       operating range factor control supply voltage rated value of magnet coil at DC     0.8	type of voltage of the control supply voltage	DC
• rated value     24 ∨       operating range factor control supply voltage rated value of magnet coil at DC     0.8		
operating range factor control supply voltage rated value of magnet coil at DC       0.8		24 V
	operating range factor control supply voltage rated value of	
• full-scale value 1.1	• initial value	0.8
	• full-scale value	1.1

closing power of magnet coil at DC	4 W
holding power of magnet coil at DC	4 W
closing delay	
• at DC	30 100 ms
opening delay	
• at DC	7 13 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
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
<ul> <li>at 400 V rated value</li> </ul>	3 A
<ul> <li>at 500 V rated value</li> </ul>	2 A
at 690 V rated value	1 A
operational current at DC-12	
at 24 V rated value	10 A
at 24 V rated value     at 48 V rated value	6 A
at 40 V rated value     at 60 V rated value	6 A
at 50 V rated value     at 110 V rated value	8 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
<ul> <li>at 60 V rated value</li> </ul>	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	14 A
• at 600 V rated value	11 A
yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
— at 110/120 V rated value	1 hp
— at 230 V rated value	2 hp
• for 3-phase AC motor	
— at 200/208 V rated value	3 hp
— at 220/230 V rated value	5 hp
— at 460/480 V rated value	10 hp
— at 575/600 V rated value	10 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
for short-circuit protection of the main circuit	
- with type of coordination 1 required	gG: 50A (690V,100kA), aM: 25A (690V,100kA), BS88: 50A (415V,80kA)
— with type of assignment 2 required	gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80kA)
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	<u></u>
	±/ 180° rotation possible on vortical mounting surfaces can be tilted forward and
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and 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	58 mm
width	45 mm
maan	

depth			73 mm		
required spacing					
<ul> <li>with side-by-side</li> </ul>	mounting				
— forwards			10 mm		
— upwards			10 mm		
— downwards			10 mm		
— at the side			0 mm		
<ul> <li>for grounded part</li> </ul>	ts				
— forwards			10 mm		
— upwards			10 mm		
— at the side			6 mm		
— downwards			10 mm		
<ul> <li>for live parts</li> </ul>					
— forwards			10 mm		
— upwards			10 mm		
— downwards			10 mm		
— at the side			6 mm		
onnections/ Terminals	;				
type of electrical conn	nection				
<ul> <li>for main current of</li> </ul>	circuit		Ring cable lug connection		
<ul> <li>for auxiliary and of</li> </ul>	control circuit		ring terminal lug connection		
• at contactor for a			Ring cable lug connection		
<ul> <li>of magnet coil</li> </ul>			Ring cable lug connection		
afety related data					
product function					
-	cording to IEC 60947-4-1		Yes; with 3RH29		
suitability for use safety	-related switching OFF		Yes		
B10 value with high der	mand rate according to SN	I 31920	1 000 000		
proportion of dangero	ous failures				
<ul> <li>with low demand</li> </ul>	rate according to SN 319	20	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			
	nterval or service life acco	rding to IEC	20 a		
61508					
•	the front according to I	EC 60529	IP00		
Certificates/ approvals		_			
General Product Appr	roval				
SP M		<u>Confirmatic</u>		KC	EHC
EMC	Functional Safety/Safety of Ma- chinery	Declaration of	Conformity	Test Certificates	
RCM	<u>Type Examination Cer-</u> <u>tificate</u>	UK CA	CE EG-Konf.	<u>Special Test Certific-</u> <u>ate</u>	<u>Type Test Certific-</u> ates/Test Report
Test Certificates	Marine / Shipping				
<u>Miscellaneous</u>	ABS	BUREAU VERITAS		Lloyds Register urs	PRS
Marine / Shipping		other		Railway	Dangerous Good

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**Confirmation** 



Vibration and Shock

Environment

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=3RT2018-4BB41

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2018-4BB41

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-4BB41

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

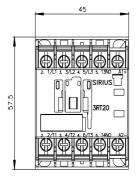
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2018-4BB41&lang=en

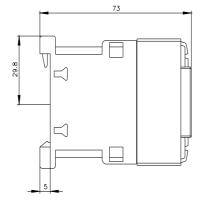
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

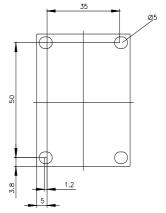
https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-4BB41/char

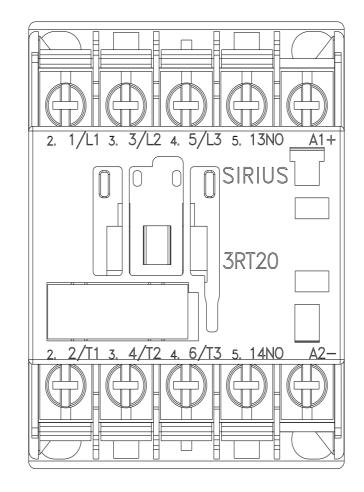
Further characteristics (e.g. electrical endurance, switching frequency)

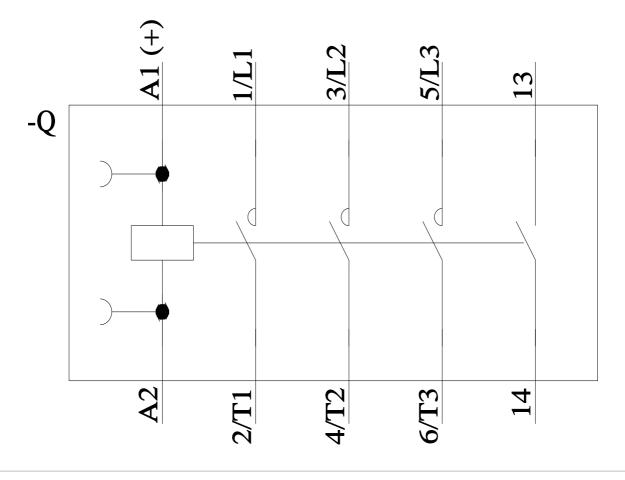
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2018-4BB41&objecttype=14&gridview=view1











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