SIEMENS

Data sheet

3RT2018-2BB44-3MA0



power contactor, AC-3e/AC-3, 16 A, 7.5 kW / 400 V, 3-pole, 24 V DC, auxiliary contacts: 2 NO + 2 NC, spring-loaded terminal, size: S00, captive auxiliary switch

product brand name SIRIUS product designation Power contactor product type designation 3RT2	
product type designation 3RT2	
P	
General technical data	
size of contactor S00	
product extension	
function module for communication No	
auxiliary switch No	
power loss [W] for rated value of the current	
at AC in hot operating state 3 W	
at AC in hot operating state per pole 1 W	
without load current share typical 4 W	
insulation voltage	
• of main circuit with degree of pollution 3 rated value 690 V	
of auxiliary circuit with degree of pollution 3 rated value 690 V	
surge voltage resistance	
of main circuit rated value 6 kV	
of auxiliary circuit rated value 6 kV	
maximum permissible voltage for protective separation between 400 V coil and main contacts according to EN 60947-1	
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)	
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) 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 95 % 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
 at AC-3e rated value maximum 	690 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated	22 A
value	
• at AC-1	
 — up to 690 V at ambient temperature 40 °C rated value 	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	
 — up to 230 V for current peak value n=20 rated value 	9.6 A
 — up to 400 V for current peak value n=20 rated value 	9.6 A
 — up to 500 V for current peak value n=20 rated value 	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 ²
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	
 at 1 current path at DC-1 	
— 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
 with 2 current paths in series at DC-1 	
— 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
 with 3 current paths in series at DC-1 	
— 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
 at 1 current path at DC-3 at DC-5 	

- 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
	 with 2 current paths in series at DC-3 at DC-5 	
	— 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
	 with 3 current paths in series at DC-3 at DC-5 	
	— 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 • limited to 50 s switching at zero current maximum • at AC-3 maximum • at AC-4 maxi	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-	 up to 230 V for current peak value n=20 rated value 	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	 up to 400 V for current peak value n=20 rated value 	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<	 up to 500 V for current peak value n=20 rated value 	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> up to 690 V for current peak value n=20 rated value </td> <td>10.6 kVA</td>	 up to 690 V for current peak value n=20 rated value 	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	 up to 230 V for current peak value n=30 rated value 	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	 up to 400 V for current peak value n=30 rated value 	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	 up to 500 V for current peak value n=30 rated value 	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• initial value0.8	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	 limited to 1 s switching at zero current maximum 	300 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 at DC 10 000 1/h operating frequency at AC-1 maximum 1000 1/h at AC-2 maximum 1000 1/h at AC-2 maximum 1000 1/h at AC-3 maximum 50 1/h at AC-3 maximum 50 1/h at AC-4 maximum 250 1/h Control circuit/ Control type of voltage of the control supply voltage Control supply voltage at DC at AC-4 maximu 24 V operating range factor control supply voltage rated value of magnet coil at DC initial value 0.8 	 limited to 5 s switching at zero current maximum 	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	 limited to 10 s switching at zero current maximum 	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	 limited to 30 s switching at zero current maximum 	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	 limited to 60 s switching at zero current maximum 	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 NC contacts for auxiliary contacts instantaneous contact	2
number of NO contacts for auxiliary contacts instantaneous contact	2
operational current at AC-12 maximum	10 A
operational current at AC-15	
• at 230 V rated value	6 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	1A
at 600 V rated value	0.15 A
operational current at DC-13	
at 24 V rated value	6 A
at 48 V rated value	2 A
at 60 V rated value	2 A
at 110 V rated value	1A
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]	
 for single-phase AC motor at 110/120 V rated value 	1 hp
— 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	2 hp
- 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)
 for short-circuit protection of the auxiliary switch required 	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
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	70 mm
width	45 mm
depth	121 mm
•	
required spacing	
with side-by-side mounting	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	spring-loaded terminals
 for auxiliary and control circuit 	spring-loaded terminals
 at contactor for auxiliary contacts 	Spring-type terminals
of magnet coil	Spring-type terminals
type of connectable conductor cross-sections for main contacts	
• solid	2x (0.5 4 mm²)
solid or stranded	2x (0,5 4 mm ²)
 finely stranded with core end processing 	2x (0.5 2.5 mm ²)
 finely stranded with our one end processing 	2x (0.5 2.5 mm ²)
connectable conductor cross-section for main contacts	ZX (0.0 2.0 mm)
solid	0.5 4 mm²
solu stranded	0.5 4 mm ²
finely stranded with core end processing	0.5 2.5 mm ²
finely stranded without core end processing	0.5 2.5 mm²
connectable conductor cross-section for auxiliary contacts	
solid or stranded	0.5 4 mm ²
 finely stranded with core end processing 	0.5 2.5 mm²
 finely stranded without core end processing 	0.5 2.5 mm²
type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid or stranded	2x (0,5 4 mm²)
 finely stranded with core end processing 	2x (0.5 2.5 mm²)
 finely stranded without core end processing 	2x (0.5 2.5 mm²)
 for AWG cables for auxiliary contacts 	2x (20 12)
AWG number as coded connectable conductor cross section	
for main contacts	20 12
for auxiliary contacts	20 12
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
 positively driven operation according to IEC 60947-5-1 	No
B10 value with high demand rate according to SN 31920	1 000 000
proportion of dangerous failures	
with low demand rate according to SN 31920	40 %
 with high demand rate according to SN 31920 	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		C 60529 fing	finger-safe, for vertical contact from the front			
 suitability for use safety-related switching OFF 		Yo	Yes			
rtificates/ approvals	-	Te				
General Product Ap						
() E		<u>Confirmation</u>		KC	EHC	
EMC	Functional Safety/Safety of Ma- chinery	Declaration of Cont	formity	Test Certificates		
RCM	Type Examination Cer- tificate	UK CA	CE EG-Konf.	<u>Special Test Certific-</u> <u>ate</u>	<u>Type Test Certific</u> ates/Test Repor	
larine / Shipping						
ABS	BUREAU VERITAS		Lloyd's Register	PRS	RINA	
Aarine / Shipping	other		Railway	Dangerous Good	Environment	
KMRS	<u>Confirmation</u>		Vibration and Shock	Transport Information	Environmental Co firmations	
rther information	d to exit the Russian mar	kot (coo horo)				
ttps://press.siemens.	com/global/en/pressreleas	e/siemens-wind-down-r	ussian-business			

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=3RT2018-2BB44-3MA0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2018-2BB44-3MA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-2BB44-3MA0

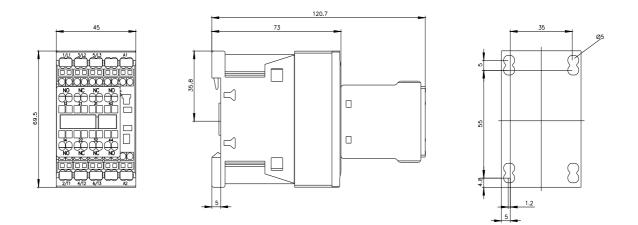
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

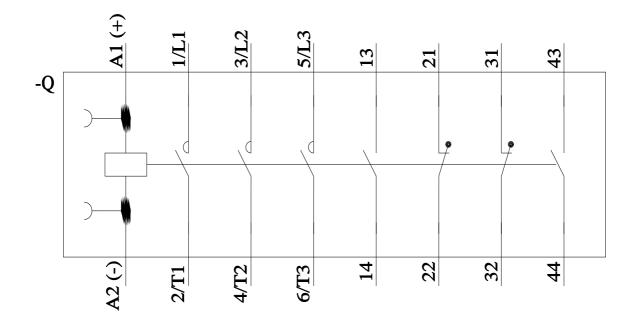
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2018-2BB44-3MA0&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-2BB44-3MA0/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2018-2BB44-3MA0&objecttype=14&gridview=view1





last modified:

2/10/2023 🖸