SIEMENS

Data sheet

3RT2016-2AK64-3MA0



power contactor, AC-3e/AC-3, 9 A, 4 kW / 400 V, 3-pole, 110 V AC, 50 Hz / 120 V, 60 Hz, 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
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 	0.9 W
 at AC in hot operating state per pole 	0.3 W
 without load current share typical 	4.4 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 coil and main contacts according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at AC	6,7g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at AC	10,5g / 5 ms, 6,6g / 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 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
 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	9 A
— at 500 V rated value	7.7 A
— at 690 V rated value	6.7 A
• at AC-3e	
— at 400 V rated value	9 A
— at 500 V rated value	7.7 A
— at 690 V rated value	6.7 A
at AC-4 at 400 V rated value	8.5 A
at AC-5a up to 690 V rated value	19.4 A
• at AC-5b up to 400 V rated value	7.4 A
• at AC-6a	5.2.4
— up to 230 V for current peak value n=20 rated value	5.3 A
 — up to 400 V for current peak value n=20 rated value — up to 500 V for current peak value n=20 rated value 	5.3 A 5.3 A
— up to 500 V for current peak value n=20 rated value	5.5 A
• at AC-6a	54
 up to 230 V for current peak value n=30 rated value 	3.5 A
— up to 200 V for current peak value n=30 rated value	3.5 A
— up to 500 V for current peak value n=30 rated value	3.6 A
— up to 690 V for current peak value n=30 rated value	3.3 A
minimum cross-section in main circuit at maximum AC-1 rated	4 mm ²
value	
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	4.1 A
at 690 V rated value	3.3 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 	

• • # 12 current paths in sories at DC-3 at DC-5 20. • • at 24 V rated value 20.36 A • • att 30 V rated value 20.36 A • • att 30 V rated value 20.4 • • att 30 V rated value 22.4 • • att 30 V rated value 22.4 • • att 30 V rated value 4.4W • • att 30 V rated value 4.4W • • att 30 V rated value 5.5 KW • • att 30 V rated value 5.5 KW • • att 30 V rated value 5.5 KW • • att 30 V rated value 5.5 KW • • att 30 V rated value 5.5 KW • • att 30 V rated value 5.5 KW • • att 30 V rated value 5.5 KW • • att 30 V rated value 5.5 KW • • att 30 V rated value 5.5 KW • • att 30 V rated value 5.5 KW • • att 30 V rated value 5.6 KW		0.5 A		
- at 24 V rains value 20Å - at 10 V rated value 5Å - at 110 V rated value 20Å - at 24 V rated value 20Å - at 20 V rated value 22Å - at 20 V rated value 22Å - at 20 V rated value 4 MV - at 20 V rated value 4 MV - at 20 V rated value 5 KW - at 20 V rated value 4 MV - at 20 V rated value 5 KW - at 20 V rated value 5 KW - at 20 V rated value 2 KW - at 60 V rated value 2 KW - at 60 V frated value 3 KVA -	— 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 path is series at DC-3 at DC-5 at 24 V rated value 20 A at 32 V rated value 20 A at 40 V rated value 22 AV at 40 V rated value 46 V rated value 56 VV at 60 V rated value 50 VV at 60 V recome pask value n=20 rated value 50	— 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 4 KW • at AC-2 at 400 V rated value 4 KW • at AC-2 at 400 V rated value 4 KW at 230 V rated value 2 KW at 500 V rated value 4 KW at 500 V rated value 4 KW at 500 V rated value 5 KW at 230 V rated value 5 KW	— at 440 V rated value	0.2 A		
• et AC-2 at 400 V rated value 4 kW • at AC-3 - at 230 V rated value - at 230 V rated value 22 kW - at 690 V rated value 4 kW - at 690 V rated value 55 kW • at AC-3 - at 690 V rated value - at 690 V rated value 22 kW - at 690 V rated value 55 kW • at 400 V rated value 4 kW - at 690 V rated value 2 kW - at 690 V rated value 5 kW - at 690 V rated value 2 kW - at 690 V rated value 5 kW operating power for approx. 20000 operating cycles at AC-6 5 kW • up to 400 V for current pack value n=20 rated value 2 kW • up to 600 V for current pack value n=20 rated value 3 kVA • up to 600 V for current pack value n=20 rated value 3 kVA • up to 600 V for current pack value n=30 rated value 5 kVA • up to 600 V for current pack value n=30 rated value 3 kVA • up to 600 V for current pack value n=30 rated value 3 kVA • up to 600 V for current pack value n=30 rated value 4 kVA • up to 600 V for current pack value n=30 rated value 3 kVA • up to 600 V for current pack value n=30 rated value 4 kVA • up to 600 V for current pack value n=30 rated value 4 kVA	— at 600 V rated value	0.2 A		
eat AC-3 eat AC-3 eat 230 V rated value eat 230 V rated value eat 200 V rated value eat 200 V rated value eat 200 V rated value eat AC-3e eat AC-3e eat 200 V rated value eat AC-3e eat AC-3e	operating power			
	 at AC-2 at 400 V rated value 	4 kW		
	• at AC-3			
	— at 230 V rated value	2.2 kW		
	— at 400 V rated value	4 kW		
• at AC-3e 2 2 kW - at 230 V rated value 4 kW - at 600 V rated value 4 kW - at 600 V rated value 5 kW opprating power for approx. 20000 operating cycles at AC-4 5 kW • at 400 V rated value 2 kW • at 400 V rated value 2 kW • at 400 V rated value 2 kW • at 690 V rated value 2 kW • at 690 V rated value 2 kW • at 690 V for current peak value n=20 rated value 3 6 kVA • up to 500 V for current peak value n=20 rated value 3 6 kVA • up to 500 V for current peak value n=20 rated value 3 kVA • up to 500 V for current peak value n=20 rated value 3 kVA • up to 500 V for current peak value n=20 rated value 3 kVA • up to 500 V for current peak value n=20 rated value 3 kVA • up to 500 V for current peak value n=30 rated value 3 kVA • up to 500 V for current peak value n=30 rated value 3 kVA • up to 500 V for current maximum 155 Å; Use minimum cross-section acc. to AC-1 rated value • limited to 1 s switching at zero current maximum 155 Å; Use minimum cross-section acc. to AC-1 rated value • limited to 3 s switching at zero current maxi	— at 500 V rated value	4 kW		
		5.5 kW		
	— at 230 V rated value	2.2 kW		
	— at 400 V rated value	4 kW		
operating power for approx. 200000 operating cycles at AC-4 2 kW • at 400 V rated value 2 kW • at 690 V rated value 2.5 kW operating apparent power at AC-6a 2 kVA • up to 500 V for current peak value n=20 rated value 3.6 kVA • up to 500 V for current peak value n=20 rated value 4.6 kVA • up to 500 V for current peak value n=20 rated value 5.9 kVA operating apparent power at AC-6a 1.3 kVA • up to 500 V for current peak value n=30 rated value 2.4 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 500 V for current peak value n=30 rated value 4.1 kVA • up to 500 V for current peak value n=30 rated value 4.1 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 500 V for current peak value n=30 rated value 4.1 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 500 V for current peak value n=30 rated value 5.1 kVA • up to 500	— at 500 V rated value	4 kW		
operating power for approx. 200000 operating cycles at AC-4 2 kW • at 400 V rated value 2 kW • at 690 V rated value 2.5 kW operating apparent power at AC-6a 2 kVA • up to 500 V for current peak value n=20 rated value 3.6 kVA • up to 500 V for current peak value n=20 rated value 4.6 kVA • up to 500 V for current peak value n=20 rated value 5.9 kVA operating apparent power at AC-6a 1.3 kVA • up to 500 V for current peak value n=30 rated value 2.4 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 500 V for current peak value n=30 rated value 4.1 kVA • up to 500 V for current peak value n=30 rated value 4.1 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 500 V for current peak value n=30 rated value 4.1 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 500 V for current peak value n=30 rated value 5.1 kVA • up to 500				
• at 680 V rated value 2.5 kW operating apparent power at AC-6a 2 kVA • up to 230 V for current peak value n=20 rated value 3.6 kVA • up to 500 V for current peak value n=20 rated value 4.6 kVA • up to 500 V for current peak value n=20 rated value 4.6 kVA • up to 500 V for current peak value n=20 rated value 5.8 kVA • up to 500 V for current peak value n=20 rated value 5.8 kVA • up to 500 V for current peak value n=30 rated value 1.3 kVA • up to 500 V for current peak value n=30 rated value 2.4 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 500 V for current peak value n=30 rated value 4 kVA short-time withstand current in cold operating state up to 40 °C 4 kVA short-time withstand current maximum 155 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1s switching at zero current maximum 86 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 10 000 1/h • at AC-1 maximum 10 000 1/h • at AC-2 maximum 10 000 1/h • at				
operating apparent power at AC-6a 2 kVA • up to 230 V for current peak value n=20 rated value 3.6 kVA • up to 500 V for current peak value n=20 rated value 3.6 kVA • up to 690 V for current peak value n=20 rated value 5.9 kVA operating apparent power at AC-6a 1.3 kVA • up to 400 V for current peak value n=30 rated value 2.4 kVA • up to 500 V for current peak value n=30 rated value 2.4 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 500 V for current peak value n=30 rated value 4.4 kVA short-time withstand current in cold operating state up to 40°C 155 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1 s switching at zero current maximum 165 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value <	• at 400 V rated value	2 kW		
• up to 230 V for current peak value n=20 rated value 2 kVA • up to 400 V for current peak value n=20 rated value 3.6 kVA • up to 500 V for current peak value n=20 rated value 4.6 kVA • up to 500 V for current peak value n=20 rated value 5.9 kVA operating apparent power at AC-6 1.3 kVA • up to 500 V for current peak value n=30 rated value 2.4 kVA • up to 500 V for current peak value n=30 rated value 3.1 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 3.1 kVA • up to 500 V for current peak value n=30 rated value 4.4 kVA short-time withstand current in cold operating state up to 40°C 155 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1 s switching at zero current maximum 155 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value • at AC-1 10 000 1/h • at AC-2 maximum 750 1/h	• at 690 V rated value	2.5 kW		
• up to 400 V for current peak value n=20 rated value 3.6 kVA • up to 500 V for current peak value n=20 rated value 4.6 kVA • up to 690 V for current peak value n=20 rated value 5.9 kVA operating apparent power at AC-6a 5.9 kVA • up to 500 V for current peak value n=30 rated value 1.3 kVA • up to 600 V for current peak value n=30 rated value 2.4 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 600 V for current peak value n=30 rated value 3.1 kVA • up to 600 V for current peak value n=30 rated value 4. kVA short-time withstand current in cold operating state up to 0 4 kVA • up to 600 V for current peak value n=30 rated value 4. kVA • ilmited to 1 s switching at zero current maximum 155 A; Use minimum cross-section acc. to AC-1 rated value • limited to 50 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 56 A; Use minimum cross-section acc. to AC-1 rated value • at AC 10 000 1/h 10 000 1/h • at AC-2 maximum 750 1/h 10 000 1/h	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 5.9 kVA operating apparent power at AC-6a up to 230 V for current peak value n=30 rated value 1.3 kVA vup to 500 V for current peak value n=30 rated value vup to 500 V for current peak value n=30 rated value vup to 690 V for current peak value n=30 rated value vup to 690 V for current peak value n=30 rated value vup to 690 V for current peak value n=30 rated value vup to 690 V for current peak value n=30 rated value vup to 690 V for current peak value n=30 rated value vup to 690 V for current peak value n=30 rated value vup to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to vup to 500 V for current peak value n=30 rated value vup to 500 V for current peak value n=30 rated value ilmited to 1 s switching at zero current maximum ilmited to 1 s switching at zero current maximum ilmited to 50 s switching at zero current maximum for 111 A; Use minimum cross-section acc. to AC-1 rated value ilmited to 60 s switching at zero current maximum for 120 S witching at zero current maximum ilmited to 60 s switching at zero current maximum for 10 000 1/h operating frequency e at AC 10 000 1/h et AC-1 maximum for 1/h et AC-3 maximum for 1/h et AC-3 maximum for 1/h et AC-3 maximum for 1/h et AC-4 maximu	 up to 230 V for current peak value n=20 rated value 	2 kVA		
• up to 690 V for current peak value n=20 rated value 5.9 kVA operating apparent power at AC-6a 1.3 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 2.4 kVA • up to 690 V for current peak value n=30 rated value 4 kVA • up to 690 V for current peak value n=30 rated value 4 kVA short-time withstand current in cold operating state up to 40 °C 111 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1 s switching at zero current maximum 115 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 67 V • at AC 10 000 1/h • at AC-4 maximum 1000 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 Control supply volt	 up to 400 V for current peak value n=20 rated value 	3.6 kVA		
operating apparent power at AC-6a • 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 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • thinted to 1 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • at AC • at AC • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum	 up to 500 V for current peak value n=20 rated value 	4.6 kVA		
• up to 230 V for current peak value n=30 rated value 1.3 kVA • up to 400 V for current peak value n=30 rated value 2.4 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 690 V for current peak value n=30 rated value 3.1 kVA • up to 690 V for current peak value n=30 rated value 4 kVA short-time withstand current in cold operating state up to 40 °C 4 kVA • limited to 1 s switching at zero current maximum 155 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1 s switching at zero current maximum 86 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 65 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 65 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 65 A; Use minimum cross-section acc. to AC-1 rated value • at AC 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-3 maximum	 up to 690 V for current peak value n=20 rated value 	5.9 kVA		
• up to 400 V for current peak value n=30 rated value 2.4 kVA • up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 690 V for current peak value n=30 rated value 4 kVA short-time withstand current in cold operating state up to 40 °C 4 kVA short-time withstand current maximum 155 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1 s switching at zero current maximum 111 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 86 A; Use minimum cross-section acc. to AC-1 rated value • limited to 30 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 65 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 67 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 67 A; Use minimum cross-section acc. to AC-1 rated value • at AC 10 000 1/h • at AC 10 000 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	operating apparent power at AC-6a			
• up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 690 V for current peak value n=30 rated value 4 kVA short-time withstand current in cold operating state up to 40°C 4 kVA • limited to 1 s switching at zero current maximum 155 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1 s switching at zero current maximum 111 A; Use minimum cross-section acc. to AC-1 rated value • limited to 30 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 10 000 1/h • at AC 10 000 1/h • at AC-3 maximum 1000 1/h • at AC-4 maximum 750 1/h • at AC-3 maximum 750 1/h • at AC-4 maximum 250 1/h Control circuit/ Control Ype of voltage of the control supply voltage AC 00 • at 60 Hz rated value 110 V • at 60 Hz rated value 110 V • at 60 Hz rated value 120 V	• up to 230 V for current peak value n=30 rated value	1.3 kVA		
• up to 500 V for current peak value n=30 rated value 3.1 kVA • up to 690 V for current peak value n=30 rated value 4 kVA short-time withstand current in cold operating state up to 40 °C 4 kVA • limited to 1 s witching at zero current maximum 155 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1 s witching at zero current maximum 111 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s witching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s witching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 10 000 1/h • at AC 10 000 1/h • at AC-1 maximum 1 000 1/h • at AC-3 maximum 750 1/h • at AC-4 maximum 750 1/h • at AC-4 maximum 250 1/h Control circuit/ Control 4C type of voltage of the control supply voltage AC • at 50 Hz rated value 110 V • at 60 Hz rated value 120 V operating range factor control supply voltage rated value of	• up to 400 V for current peak value n=30 rated value	2.4 kVA		
• up to 690 V for current peak value n=30 rated value 4 kVA short-time withstand current in cold operating state up to 40 °C 155 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1s switching at zero current maximum 111 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 86 A; Use minimum cross-section acc. to AC-1 rated value • limited to 30 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 75 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value • at AC 10 000 1/h operating frequency • at AC-1 maximum • at AC-3 maximum 750 1/h • at AC-3 maximum 750 1/h • at AC-4 maximum 250 1/h Control supply voltage at AC AC • at 60 Hz rated value 110 V • at 60 Hz rated value 110 V • at 60 Hz r		3.1 kVA		
short-time withstand current in cold operating state up to 40 °C ilimited to 1 s witching at zero current maximum e limited to 1 s witching at zero current maximum 155 A; Use minimum cross-section acc. to AC-1 rated value e limited to 1 s witching at zero current maximum 86 A; Use minimum cross-section acc. to AC-1 rated value e limited to 3 s witching at zero current maximum 86 A; Use minimum cross-section acc. to AC-1 rated value e limited to 3 s witching at zero current maximum 86 A; Use minimum cross-section acc. to AC-1 rated value e limited to 60 s witching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value e limited to 60 s witching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value of a AC 10 000 1/h operating frequency 1000 1/h e at AC-1 maximum 1 000 1/h e at AC-3 maximum 750 1/h e at AC-3 maximum 750 1/h e at AC-4 maximum 250 1/h Control circuit/ Control KC type of voltage of the control supply voltage AC e at 50 Hz rated value 110 V e at 60 Hz rated value 120 V operating range factor control supply voltage rated value of 120 V		4 kVA		
40 °C • limited to 1 s switching at zero current maximum 155 A; Use minimum cross-section acc. to AC-1 rated value • limited to 5 s switching at zero current maximum 111 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 86 A; Use minimum cross-section acc. to AC-1 rated value • limited to 30 s switching at zero current maximum 86 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 56 A; Use minimum cross-section acc. to AC-1 rated value • at AC 10 000 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-4 maximum 250 1/h Control circuit/ Control Into V • at 50 Hz rated value 110 V				
 limited to 5 s switching at zero current maximum 111 A; Use minimum cross-section acc. to AC-1 rated value limited to 10 s switching at zero current maximum 86 A; Use minimum cross-section acc. to AC-1 rated value limited to 30 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value at AC lo 000 1/h operating frequency at AC-1 maximum lo 000 1/h at AC-2 maximum st AC-3 maximum st AC-3 maximum st AC-3 maximum st AC-3 maximum st AC-4 maximum z50 1/h control circuit/ Control type of voltage of the control supply voltage at 50 Hz rated value at 50 Hz rated value st 60 Hz rated value st 0V operating range factor control supply voltage rated value of				
 limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value no-load switching frequency at AC 10 000 1/h operating frequency at AC-1 maximum 10000 1/h at AC-2 maximum 1000 1/h at AC-3 maximum 750 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 AC AC AC AC AC by a for the control supply voltage at AC at 50 Hz rated value 110 V at 60 Hz rated value 120 V 	 limited to 1 s switching at zero current maximum 	155 A; Use minimum cross-section acc. to AC-1 rated value		
• limited to 30 s switching at zero current maximum 66 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value no-load switching frequency 10 000 1/h • at AC 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-3 maximum 750 1/h • at AC-4 maximum 250 1/h Control circuit/ Control 250 1/h type of voltage of the control supply voltage AC • at 50 Hz rated value 110 V • at 60 Hz rated value 120 V	 limited to 5 s switching at zero current maximum 	111 A; Use minimum cross-section acc. to AC-1 rated value		
• limited to 60 s switching at zero current maximum 55 A; Use minimum cross-section acc. to AC-1 rated value no-load switching frequency 10 000 1/h • at AC 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-3 maximum 750 1/h • at AC-3 maximum 750 1/h • at AC-4 maximum 250 1/h Control circuit/ Control 250 1/h type of voltage of the control supply voltage AC • at 50 Hz rated value 110 V • at 60 Hz rated value 120 V operating range factor control supply voltage rated value of 120 V	 limited to 10 s switching at zero current maximum 	86 A; Use minimum cross-section acc. to AC-1 rated value		
no-load switching frequency 10 000 1/h operating frequency - • 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 250 1/h type of voltage of the control supply voltage AC control supply voltage at AC	 limited to 30 s switching at zero current maximum 	66 A; Use minimum cross-section acc. to AC-1 rated value		
• at AC10 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-3e maximum750 1/h• at AC-3e maximum750 1/h• at AC-4 maximum250 1/hControl circuit/ ControlACtype of voltage of the control supply voltageAC• at 50 Hz rated value110 V• at 60 Hz rated value120 V	 limited to 60 s switching at zero current maximum 	55 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-4 maximum250 1/h• at AC-4 maximum250 1/hControl circuit/ ControlACtype of voltage of the control supply voltageAC• at 50 Hz rated value110 V• at 60 Hz rated value120 V	no-load switching frequency			
 at AC-1 maximum at AC-2 maximum at AC-2 maximum at AC-3 maximum at AC-3 maximum at AC-3e maximum at AC-3e maximum at AC-4 maximum 250 1/h Control circuit/ Control type of voltage of the control supply voltage AC control supply voltage at AC AC at 50 Hz rated value 110 V at 60 Hz rated value 120 V	● at AC	10 000 1/h		
 at AC-1 maximum at AC-2 maximum at AC-2 maximum at AC-3 maximum at AC-3 maximum at AC-3e maximum at AC-3e maximum at AC-4 maximum 250 1/h Control circuit/ Control type of voltage of the control supply voltage AC control supply voltage at AC AC at 50 Hz rated value 110 V at 60 Hz rated value 120 V	operating frequency			
• at AC-3 maximum750 1/h• at AC-3e maximum750 1/h• at AC-4 maximum250 1/hControl circuit/ Control250 1/htype of voltage of the control supply voltageAC• at 50 Hz rated value110 V• at 60 Hz rated value120 V		1 000 1/h		
• at AC-3e maximum 750 1/h • at AC-4 maximum 250 1/h Control circuit/ Control 250 1/h type of voltage of the control supply voltage AC control supply voltage at AC 4000000000000000000000000000000000000	● at AC-2 maximum	750 1/h		
• at AC-3e maximum 750 1/h • at AC-4 maximum 250 1/h Control circuit/ Control 250 1/h type of voltage of the control supply voltage AC control supply voltage at AC 4000000000000000000000000000000000000	• 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 AC control supply voltage at AC • at 50 Hz rated value 110 V • at 60 Hz rated value 120 V operating range factor control supply voltage rated value of				
Control circuit/ Control type of voltage of the control supply voltage AC control supply voltage at AC Intervention • at 50 Hz rated value 110 V • at 60 Hz rated value 120 V operating range factor control supply voltage rated value of Intervention				
type of voltage of the control supply voltage AC control supply voltage at AC				
control supply voltage at AC • at 50 Hz rated value • at 60 Hz rated value 120 V operating range factor control supply voltage rated value of		AC		
at 50 Hz rated value 110 V at 60 Hz rated value 120 V operating range factor control supply voltage rated value of				
at 60 Hz rated value 120 V 120 V		110 V		
operating range factor control supply voltage rated value of				

• at 50 Hz	0.8 1.1
• at 60 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	26.4 VA
• at 60 Hz	26.4 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.81
• at 60 Hz	0.81
apparent holding power of magnet coil at AC	
• at 50 Hz	4.4 VA
• at 60 Hz	4.4 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.24
• at 60 Hz	0.24
closing delay	
• at AC	9 35 ms
opening delay	
• at AC	4 15 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	2
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	7.6 A
at 600 V rated value	9 A
yielded mechanical performance [hp]	
for single-phase AC motor	
- at 110/120 V rated value	0.33 hp
— at 230 V rated value	1 hp
for 3-phase AC motor	
	2 hn
- at 200/208 V rated value	2 hp
- at 220/230 V rated value	3 hp
- at 460/480 V rated value	5 hp
— at 575/600 V rated value	7.5 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: 35A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)		
— with type of assignment 2 required	gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (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 			
— 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	C min		
type of electrical connection			
for main current circuit	spring-loaded terminals		
	spring-loaded terminals		
 for auxiliary and control circuit at contactor for auxiliary contacts 			
	Spring-type terminals		
of magnet coil	Spring-type terminals		
type of connectable conductor cross-sections for main contacts	0 (0.5		
• solid	2x (0.5 4 mm ²)		
solid or stranded	2x (0,5 4 mm ²)		
finely stranded with core end processing	2x (0.5 2.5 mm ²)		
finely stranded without core end processing	2x (0.5 2.5 mm²)		
connectable conductor cross-section for main contacts			
• solid	0.5 4 mm²		
• stranded	0.5 4 mm²		
 finely stranded with core end processing 	0.5 2.5 mm²		
 finely stranded without core end processing 	0.5 2.5 mm²		
connectable conductor cross-section for auxiliary contacts			
 solid or stranded 	0.5 4 mm²		
 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 mm ²)		
 finely stranded without core end processing 	2x (0.5 2.5 mm ²)		
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		

according to IEC 60947-4-1		Yes		
n operation according to IEC	C 60947-5-1	No		
lemand rate according to SN	N 31920	1 000 000		
rous failures				
nd rate according to SN 319	20	40 %		
and rate according to SN 319	920	73 %		
low demand rate according	to SN 31920	100 FIT		
t interval or service life acco	rding to IEC	20 a		
on the front according to I	EC 60529	IP20		
the front according to IEC	60529	finger-safe, for vertical con	ntact from the front	
switching OFF		Yes		
s				
proval				
<u>Confirmation</u>			KC	EHC
Functional Safety/Safety of Ma- chinery	Declaration of C	onformity	Test Certificates	
<u>Type Examination Cer-</u> tificate	UK CA	CE EG-Konf.	<u>Special Test Certific-</u> <u>ate</u>	<u>Type Test Certific</u> ates/Test Report
BUREAU VERITAS		Lloyd's Register urs	PRS	RINA
other			Railway	Environment
<u>Confirmation</u>		<u>Confirmation</u>	Vibration and Shock	Environmental Cor firmations
ed to exit the Russian marl				
	lemand rate according to SN prous failures and rate according to SN 319 and rate according to SN 319 low demand rate according t interval or service life according t interval or service life according to II the front according to II the front according to II the front according to IEC switching OFF s poproval Confirmation Functional Safety/Safety of Ma- chinery Type Examination Cer- tificate Other	en operation according to IEC 60947-5-1 temand rate according to SN 31920 prous failures nd rate according to SN 31920 low demand rate according to SN 31920 low demand rate according to SN 31920 tt interval or service life according to IEC 60529 the front according to IEC 60529 switching OFF s pproval Confirmation Confirmation Confirmation Cer- tificate Curcional Safety/Safety of Ma- chinery Type Examination Cer- tificate Curcional Curci	n operation according to IEC 60947-5-1 No lemand rate according to SN 31920 10000 rous failures nd rate according to SN 31920 40 % and rate according to SN 31920 73 % low demand rate according to SN 31920 100 FIT t interval or service life according to IEC 20 a on the front according to IEC 60529 IP20 the front according to IEC 60529 Finger-safe, for vertical co switching OFF Yes proval Confirmation Confirmation Confirmation Confirmation Cer- tificate Confirmation Cer- tificate Cere	n operation according to IEC 60947-5-1 No termand rate according to SN 31920 100000 rrous failures nd rate according to SN 31920 73 % low demand rate according to SN 31920 100 FIT tinterval or service life according to IEC 60529 finger-safe, for vertical contact from the front switching OFF Yes switching OFF Yes systemation Confirmation Conformity Test Certificates Functional Safety/Safety of Ma- Crimery Declaration of Conformity Ec 60529 IF CONFIRMENT Type Examination Cer- tificate Certificate Certificates Type Examination Cer- tificate Certificate Certificates Certificate Certificates Certificate Certificates Type Examination Cer- tificate Certificates Certificate Certificates Certificates Certificate Certificates Certificate Certificates Certificates Certificates Certificate Certificates

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=3RT2016-2AK64-3MA0

Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2016-2AK64-3MA0

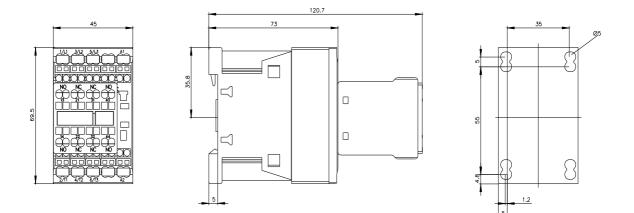
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT2016-2AK64-3MA0

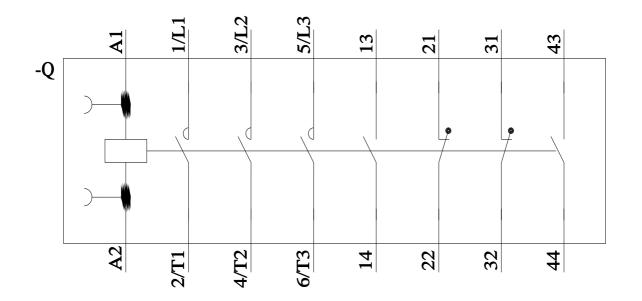
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2016-2AK64-3MA0&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT2016-2AK64-3MA0/char Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2016-2AK64-3MA0&objecttype=14&gridview=view1





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