SIEMENS

Data sheet

3RT2037-1AK60-1AA0



power contactor, AC-3e/AC-3, 65 A, 30 kW / 400 V, 3-pole, 110 V AC, 50 Hz / 120 V, 60 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S2, upright mounting position

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S2
product extension	
 function module for communication 	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	11.4 W
 at AC in hot operating state per pole 	3.8 W
 without load current share typical 	18.5 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	11.8g / 5 ms, 7.4g / 10 ms
shock resistance with sine pulse	
• at AC	18.5g / 5 ms, 11.6g / 10 ms
mechanical service life (operating cycles)	
 of contactor typical 	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)	10/01/2014
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	80 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	80 A
— up to 690 V at ambient temperature 60 °C rated	70 A
value	
• at AC-3	
— at 400 V rated value	65 A
— at 500 V rated value	65 A
— at 690 V rated value	47 A
• at AC-3e	
— at 400 V rated value	65 A
— at 500 V rated value	65 A
— at 690 V rated value	47 A
at AC-4 at 400 V rated value	55 A
at AC-5a up to 690 V rated value	70.4 A
 at AC-5b up to 400 V rated value at AC-6a 	53.9 A
	56.9 A
— up to 230 V for current peak value n=20 rated value	
— up to 400 V for current peak value n=20 rated value	56.9 A 56.9 A
 up to 500 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value 	47 A
• at AC-6a	4/ A
 up to 230 V for current peak value n=30 rated value 	38 A
— up to 200 V for current peak value n=30 rated value	38 A
— up to 500 V for current peak value n=30 rated value	38 A
— up to 690 V for current peak value n=30 rated value	38 A
minimum cross-section in main circuit at maximum AC-1 rated	25 mm ²
value	
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	28 A
at 690 V rated value	22 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	55 A
— at 60 V rated value	23 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	55 A
— at 60 V rated value	45 A
— at 110 V rated value	45 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
 with 3 current paths in series at DC-1 	
— at 24 V rated value	55 A
— at 60 V rated value	55 A
— at 110 V rated value	55 A
— at 220 V rated value	45 A
— at 440 V rated value	2.9 A
— at 600 V rated value	1.4 A
 at 1 current path at DC-3 at DC-5 	

	— at 24 V rated value	35 A
	— at 60 V rated value	6 A
	— at 220 V rated value	1 A
• win 2 current path in series at DC-3 at DC-5 5 - at 24 V rade value 55 Å - at 110 V rade value 25 Å - at 110 V rade value 5 Å - at 440 V rade value 0.27 Å - at 440 V rade value 0.18 Å - at 440 V rade value 0.18 Å - at 440 V rade value 0.18 Å - at 440 V rade value 0.5 Å - at 440 V rade value 55 Å - at 440 V rade value 55 Å - at 440 V rade value 0.38 Å - at 440 V rade value 30 kW - at 440 V rade value 30 kW - at 420 V rade value 37 kW - at 400 V rade value 37 kW <td>— at 440 V rated value</td> <td>0.1 A</td>	— at 440 V rated value	0.1 A
	— at 600 V rated value	0.06 A
	 with 2 current paths in series at DC-3 at DC-5 	
- all 10 Vinited value at 440 Vinited value b 27 A - at 600 Vinited value 0 27 A - at 600 Vinited value 0 27 A - at 600 Vinited value 0 27 A - at 60 Vinited value 55 A - at 24 Vinited value 55 A - at 24 Vinited value 55 A - at 70 Vinited value 56 A - at 700 Vinited value 57 A - at 400 Vinited value 58 A - at 700 Vinited value 59 A - at 700 Vinited value 50 Vinited value	— at 24 V rated value	55 A
	— at 60 V rated value	45 A
	— at 110 V rated value	25 A
	— at 220 V rated value	5 A
• with 3 current path in series at DC-3 at DC-5 55 A - at 20 V rated value 55 A - at 110 V rated value 55 A - at 120 V rated value 55 A - at 440 V rated value 66 A - at 420 V rated value 0.35 A operating power 0.35 A - at 600 V rated value 0.35 A operating power 0.15 KW - at 230 V rated value 30 KW - at 230 V rated value 30 KW - at 500 V rated value 30 KW - at 500 V rated value 30 KW - at 500 V rated value 37 KW - at 600 V rated value 30 KW - at 500 V rated value 30 kW - at 500 V rated value 30 kW - at 600 V rated value 30 kW opoperating poperator 30 kW <tr< td=""><td>— at 440 V rated value</td><td>0.27 A</td></tr<>	— at 440 V rated value	0.27 A
	— at 600 V rated value	0.16 A
	 with 3 current paths in series at DC-3 at DC-5 	
	— at 24 V rated value	55 A
	— at 60 V rated value	55 A
	— at 110 V rated value	55 A
	— at 220 V rated value	25 A
operating power at AC-2 at 400 V rated value 30 kW • at AC-3	— at 440 V rated value	0.6 A
	— at 600 V rated value	0.35 A
	operating power	
		30 kW
	• at AC-3	
at 400 V rated value30 kW at 500 V rated value37 kW at 230 V rated value37 kW at 230 V rated value15. kW at 400 V rated value30 kW at 630 V rated value30 kW at 630 V rated value37 kW at 630 V rated value20 kWoperating power for approx. 20000 operating cycles at AC at 640 V rated value20 kWoperating apparent power at AC-6820 kW operating apparent power at AC-6850 kW op to 200 V for current peak value n=20 rated value34 kVA up to 200 V for current peak value n=20 rated value35 kVA op to 400 V for current peak value n=30 rated value36 k kVA up to 200 V for current peak value n=30 rated value26 kVA op to 400 V for current peak value n=30 rated value28 kVA up to 580 V for current peak value n=30 rated value28 kVA op to 680 V for current peak value n=30 rated value28 kVA op to 680 V for current peak value n=30 rated value28 kVA op to 680 V for current peak value n=30 rated value28 kVA op time bas value n=30 rated value28 kVA <td>— at 230 V rated value</td> <td>18.5 kW</td>	— at 230 V rated value	18.5 kW
at 890 V rated value37 kW• at AC-3e at 230 V rated value30 kW at 400 V rated value30 kW at 690 V rated value37 kW at 690 V rated value20 kWoperating paperent power at AC-6a22.6 kVA up to 500 V for current peak value n=20 rated value39.4 kVA up to 500 V for current peak value n=20 rated value56.1 kVA up to 500 V for current peak value n=20 rated value56.1 kVA up to 500 V for current peak value n=30 rated value56.1 kVA up to 500 V for current peak value n=30 rated value28.2 kVA up to 500 V for current peak value n=30 rated value28.2 kVA up to 500 V for current peak value n=30 rated value28.2 kVA up to 500 V for current peak value n=30 rated value28.2 kVA up to 500 V for current peak value n=30 rated value28.2 kVA up to 500 V for current neak value n=30 rated value28.2 kVA up to 500 V for current neak value n=30 rated value28.2 kVA up to 500 V for current neak value n=30 rated value28.2 kVA up to 500 V for current neak value n=30 rated value28.2 kVA up to 500 V for current neak value n=30 rated value28.2 kVA up to 500 V for current neak value n=30 rated value28.2 kVA </td <td>— at 400 V rated value</td> <td>30 kW</td>	— at 400 V rated value	30 kW
• at AC-3eI at 230 V rated value15.5 kW- at 400 V rated value30 kW- at 600 V rated value37 kW- at 600 V rated value37 kW- at 600 V rated value37 kWoperating power for approx. 20000 operating cycles at AC-414.7 kW• at 400 V rated value14.7 kW• at 600 V rated value20 kWoperating apparent power at AC-6a20 kW• up to 230 V for current peak value n=20 rated value39.4 kVA• up to 500 V for current peak value n=20 rated value39.4 kVA• up to 690 V for current peak value n=20 rated value56.1 kVAoperating apparent power at AC-6a15.1 kVA• up to 690 V for current peak value n=30 rated value22.8 kVA• up to 600 V for current peak value n=30 rated value25.8 kVA• up to 500 V for current peak value n=30 rated value25.8 kVA• up to 500 V for current peak value n=30 rated value25.8 kVA• up to 500 V for current peak value n=30 rated value35.4 kVA• up to 500 V for current peak value n=30 rated value32.8 kVA• up to 500 V for current peak value n=30 rated value35.4 kVA• up to 500 V for current no current maximum1055 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1s switching at zero current maximum520 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1s switching at zero current maximum520 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum520 A; Use minimum cross-section acc. to AC-1 ra	— at 500 V rated value	37 kW
at 230 V rated value18.5 kW at 400 V rated value30 kW at 500 V rated value37 kWoperating power for approx. 20000 operating cycles at AC- 47 kW• at 400 V rated value14.7 kWoperating apparent power at AC-6a22 22 kWA• up to 230 V for current peak value n=20 rated value39.4 kVA• up to 500 V for current peak value n=20 rated value39.4 kVA• up to 500 V for current peak value n=20 rated value50.1 kVA• up to 500 V for current peak value n=20 rated value51.4 kVA• up to 500 V for current peak value n=30 rated value52.4 kVA• up to 500 V for current peak value n=30 rated value22.8 kVA• up to 500 V for current peak value n=30 rated value22.8 kVA• up to 500 V for current peak value n=30 rated value22.8 kVA• up to 500 V for current peak value n=30 rated value22.8 kVA• up to 500 V for current peak value n=30 rated value22.8 kVA• up to 500 V for current peak value n=30 rated value22.8 kVA• up to 500 V for current peak value n=30 rated value32.8 kVA• up to 500 V for current peak value n=30 rated value32.8 kVA• up to 500 V for current peak value n=30 rated value33.6 k.U se minimum cross-section acc. to AC-1 rated value• up to 500 V for current peak value n=30 rated value33.6 k.U se minimum cross-section acc. to AC-1 rated value• uimited to 1 s switching at zero current maximum33.6 k.U se minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum35.0 k.U se minimum cross-	— at 690 V rated value	37 kW
	• at AC-3e	
	— at 230 V rated value	18.5 kW
	— at 400 V rated value	30 kW
operating power for approx. 20000 operating cycles at AC-4 14.7 kW • at 400 V rated value 20 kW operating apparent power at AC-6a 20 kW • up to 230 V for current peak value n=20 rated value 39.4 kVA • up to 500 V for current peak value n=20 rated value 39.4 kVA • up to 500 V for current peak value n=20 rated value 39.4 kVA • up to 500 V for current peak value n=20 rated value 46.1 kVA • up to 500 V for current peak value n=20 rated value 56.1 kVA operating apparent power at AC-6a 15.1 kVA • up to 500 V for current peak value n=30 rated value 56.2 kVA • up to 500 V for current peak value n=30 rated value 28.8 kVA • up to 500 V for current peak value n=30 rated value 28.8 kVA • up to 690 V for current peak value n=30 rated value 32.8 kVA • up to 690 V for current peak value n=30 rated value 45.3 kVA short-time withstand current in cold operating state up to 40° C 1055 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1s switching at zero current maximum 1055 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 236 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at	— at 500 V rated value	37 kW
4 i at 400 V rated value 14.7 kW • at 690 V rated value 20 kW operating apparent power at AC-6a 22.6 kVA • up to 230 V for current peak value n=20 rated value 39.4 kVA • up to 500 V for current peak value n=20 rated value 39.4 kVA • up to 500 V for current peak value n=20 rated value 49.2 kVA • up to 500 V for current peak value n=20 rated value 56.1 kVA operating apparent power at AC-6a 15.1 kVA • up to 230 V for current peak value n=30 rated value 28.2 kVA • up to 600 V for current peak value n=30 rated value 28.2 kVA • up to 500 V for current peak value n=30 rated value 28.2 kVA • up to 600 V for current peak value n=30 rated value 28.2 kVA • up to 600 V for current peak value n=30 rated value 26.2 kVA • up to 600 V for current peak value n=30 rated value 26.3 kVA • up to 600 V for current peak value n=30 rated value 26.3 kVA • up to 600 V for current peak value n=30 rated value 32.8 kVA • up to 600 V for current peak value n=30 rated value 45.3 kVA • up to 600 V for current maximum 1055 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 500 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 27	— at 690 V rated value	37 kW
4 i at 400 V rated value 14.7 kW • at 690 V rated value 20 kW operating apparent power at AC-6a 22.6 kVA • up to 230 V for current peak value n=20 rated value 39.4 kVA • up to 500 V for current peak value n=20 rated value 39.4 kVA • up to 500 V for current peak value n=20 rated value 49.2 kVA • up to 500 V for current peak value n=20 rated value 56.1 kVA operating apparent power at AC-6a 15.1 kVA • up to 230 V for current peak value n=30 rated value 28.2 kVA • up to 600 V for current peak value n=30 rated value 28.2 kVA • up to 500 V for current peak value n=30 rated value 28.2 kVA • up to 600 V for current peak value n=30 rated value 28.2 kVA • up to 600 V for current peak value n=30 rated value 26.2 kVA • up to 600 V for current peak value n=30 rated value 26.3 kVA • up to 600 V for current peak value n=30 rated value 26.3 kVA • up to 600 V for current peak value n=30 rated value 32.8 kVA • up to 600 V for current peak value n=30 rated value 45.3 kVA • up to 600 V for current maximum 1055 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 500 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 27		
• at 690 V rated value 20 kW operating apparent power at AC-6a 22.6 kVA • up to 230 V for current peak value n=20 rated value 39.4 kVA • up to 600 V for current peak value n=20 rated value 39.4 kVA • up to 690 V for current peak value n=20 rated value 49.2 kVA • up to 690 V for current peak value n=20 rated value 56.1 kVA operating apparent power at AC-6a 51.1 kVA • up to 230 V for current peak value n=30 rated value 26.2 kVA • up to 500 V for current peak value n=30 rated value 28.8 kVA • up to 690 V for current peak value n=30 rated value 28.8 kVA • up to 690 V for current peak value n=30 rated value 28.8 kVA • up to 690 V for current peak value n=30 rated value 45.3 kVA short-time withstand current in cold operating state up to 40°C 45.3 kVA • limited to 1 s switching at zero current maximum 1 055 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 20 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 20 A; Use minimum cross-section acc. to AC-1 rated value • limited to 30 s switching at zero current maximum 20 A; Use minimum cross-section acc. to AC-1 rated value		
operating apparent power at AC-6a22.6 kVA• up to 230 V for current peak value n=20 rated value39.4 kVA• up to 500 V for current peak value n=20 rated value39.4 kVA• up to 500 V for current peak value n=20 rated value49.2 kVA• up to 690 V for current peak value n=20 rated value50.1 kVAoperating apparent power at AC-6a15.1 kVA• up to 230 V for current peak value n=30 rated value26.2 kVA• up to 500 V for current peak value n=30 rated value22.6 kVA• up to 500 V for current peak value n=30 rated value26.2 kVA• up to 500 V for current peak value n=30 rated value28.8 kVA• up to 500 V for current peak value n=30 rated value32.8 kVA• up to 500 V for current peak value n=30 rated value45.3 kVA• up to 690 V for current peak value n=30 rated value45.3 kVA• up to 500 V for current maximum1 055 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum20 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum36 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value	 at 400 V rated value 	14.7 kW
• up to 230 V for current peak value n=20 rated value 22.6 kVA • up to 400 V for current peak value n=20 rated value 39.4 kVA • up to 500 V for current peak value n=20 rated value 49.2 kVA • up to 690 V for current peak value n=20 rated value 50.1 kVA operating apparent power at AC-6a 6 • up to 230 V for current peak value n=30 rated value 26.2 kVA • up to 500 V for current peak value n=30 rated value 26.2 kVA • up to 500 V for current peak value n=30 rated value 26.2 kVA • up to 500 V for current peak value n=30 rated value 28.4 kVA • up to 500 V for current peak value n=30 rated value 28.4 kVA • up to 690 V for current peak value n=30 rated value 32.8 kVA • up to 690 V for current peak value n=30 rated value 45.3 kVA • up to 690 V for current peak value n=30 rated value 45.3 kVA • up to 690 V for current peak value n=30 rated value 45.3 kVA • up to 690 V for current peak value n=30 rated value 45.3 kVA • up to 690 V for current peak value n=30 rated value 45.3 kVA • up to 690 V for current peak value n=30 rated value 45.3 kVA • up to 690 V for current peak value n=30 rated value 730 A; Use minimum cross-section acc. to AC-1 rated value </td <td> at 690 V rated value </td> <td>20 kW</td>	 at 690 V rated value 	20 kW
up to 400 V for current peak value n=20 rated value39.4 kVAup to 500 V for current peak value n=20 rated value49.2 kVAup to 690 V for current peak value n=20 rated value56.1 kVAoperating apparent power at AC-6aup to 230 V for current peak value n=30 rated value15.1 kVAup to 400 V for current peak value n=30 rated value26.2 kVAup to 500 V for current peak value n=30 rated value32.8 kVAup to 690 V for current peak value n=30 rated value32.8 kVAup to 690 V for current peak value n=30 rated value32.8 kVAup to 690 V for current peak value n=30 rated value32.8 kVAup to 690 V for current peak value n=30 rated value45.3 kVAshort-time withstand current in cold operating state up to 40 °C40.2 Cilmited to 1 s switching at zero current maximum1055 A; Use minimum cross-section acc. to AC-1 rated valueilmited to 50 s switching at zero current maximum520 A; Use minimum cross-section acc. to AC-1 rated valueilmited to 60 s switching at zero current maximum36 A; Use minimum cross-section acc. to AC-1 rated valueilmited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated valueilmited to 60 s switching at zero current maximum270 A; Use minimum cross-section acc. to AC-1 rated valueilmited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated valueilmited to 60 s switching at zero current maximum270 A; Use minimum cross-section acc. to AC-1 rated valueilmited to 60 s switching at zero current maximum200 1/h	operating apparent power at AC-6a	
• up to 500 V for current peak value n=20 rated value 49.2 kVA • up to 690 V for current peak value n=20 rated value 56.1 kVA operating apparent power at AC-6a 15.1 kVA • up to 230 V for current peak value n=30 rated value 26.2 kVA • up to 500 V for current peak value n=30 rated value 26.2 kVA • up to 500 V for current peak value n=30 rated value 26.2 kVA • up to 500 V for current peak value n=30 rated value 25.3 kVA • up to 500 V for current peak value n=30 rated value 45.3 kVA • up to 500 V for current peak value n=30 rated value 45.3 kVA • up to 500 V for current peak value n=30 rated value 45.3 kVA • up to 500 V for current maximum 1 055 A; Use minimum cross-section acc. to AC-1 rated value • limited to 1 s switching at zero current maximum 520 A; Use minimum cross-section acc. to AC-1 rated value • limited to 10 s switching at zero current maximum 236 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 S switching at zero current maximum 272 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 272 A; Use minimum cross-section acc. to AC-1 rated value • limited to 60 s switching at zero current maximum 272 A; Use minimum cross-section acc. to AC-1 rated value <td> up to 230 V for current peak value n=20 rated value </td> <td>22.6 kVA</td>	 up to 230 V for current peak value n=20 rated value 	22.6 kVA
• up to 690 V for current peak value n=20 rated value for current peak value n=30 rated value iup to 230 V for current peak value n=30 rated value iup to 230 V for current peak value n=30 rated value iup to 500 V for current peak value n=30 rated value 26.2 kVA iup to 500 V for current peak value n=30 rated value 32.8 kVA iup to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C ilimited to 1 s switching at zero current maximum limited to 5 s switching at zero current maximum ilimited to 10 s switching at zero current maximum ilimited to 30 s switching at zero current maximum ilimited to 30 s switching at zero current maximum ilimited to 60 s switching at zero current maximum ilimited to 60 s switching at zero current maximum ilimited to 60 s switching at zero current maximum at AC- sound thing frequency i at AC- for at AC- for at AC- for at AC- sound thing i at AC-2 maximum at AC-3 maximum i at AC-3 maximum current at AC-4 maximum zurent at AC-4 maximum zurent	 up to 400 V for current peak value n=20 rated value 	39.4 kVA
operating apparent power at AC-6a15.1 kVA• up to 230 V for current peak value n=30 rated value15.1 kVA• up to 400 V for current peak value n=30 rated value26.2 kVA• up to 500 V for current peak value n=30 rated value32.8 kVA• up to 690 V for current peak value n=30 rated value45.3 kVAshort-time withstand current in cold operating state up to 40 °C45.3 kVA• limited to 1 s switching at zero current maximum1 055 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum520 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum520 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum336 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• at AC5 000 1/h• at AC-1 maximum800 1/h• at AC-2 maximum400 1/h• at AC-3 maximum700 1/h• at AC-3 maximum700 1/h• at AC-4 maximum200 1/h	 up to 500 V for current peak value n=20 rated value 	49.2 kVA
 up to 230 V for current peak value n=30 rated value 15.1 kVA up to 400 V for current peak value n=30 rated value 26.2 kVA up to 500 V for current peak value n=30 rated value 32.8 kVA up to 690 V for current peak value n=30 rated value 45.3 kVA short-time withstand current in cold operating state up to 40 °C limited to 1 s switching at zero current maximum 1055 A; Use minimum cross-section acc. to AC-1 rated value limited to 1 s switching at zero current maximum 1055 A; Use minimum cross-section acc. to AC-1 rated value limited to 30 s switching at zero current maximum S20 A; Use minimum cross-section acc. to AC-1 rated value limited to 30 s switching at zero current maximum S22 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum S22 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum S22 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum S22 A; Use minimum cross-section acc. to AC-1 rated value limited to 60 s switching at zero current maximum S22 A; Use minimum cross-section acc. to AC-1 rated value at AC s to 00 1/h at AC-1 maximum at AC-1 maximum at AC-1 maximum at AC-2 maximum at AC-3 maximum at AC-4 maximum at AC-4 maximum at AC-4 maximum at AC-4 maximum 	 up to 690 V for current peak value n=20 rated value 	56.1 kVA
• up to 400 V for current peak value n=30 rated value26.2 kVA• up to 500 V for current peak value n=30 rated value32.8 kVA• up to 690 V for current peak value n=30 rated value45.3 kVA short-time withstand current in cold operating state up to 40 °C 1 055 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum1 055 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum520 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum520 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum336 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching frequency5 000 1/h• at AC5 000 1/h• at AC-1 maximum800 1/h• at AC-2 maximum400 1/h• at AC-3 maximum700 1/h• at AC-3 maximum700 1/h• at AC-3 maximum700 1/h• at AC-4 maximum200 1/h	operating apparent power at AC-6a	
• up to 500 V for current peak value n=30 rated value32.8 kVA• up to 690 V for current peak value n=30 rated value45.3 kVAshort-time withstand current in cold operating state up to 40 °C1055 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum1 055 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum520 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum520 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum336 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• at AC5 000 1/h• at AC-1 maximum800 1/h• at AC-2 maximum400 1/h• at AC-3 maximum700 1/h• at AC-3 maximum700 1/h• at AC-3 maximum200 1/h	 up to 230 V for current peak value n=30 rated value 	15.1 kVA
• up to 690 V for current peak value n=30 rated value45.3 kVAshort-time withstand current in cold operating state up to 40 °C45.3 kVA• limited to 1 s switching at zero current maximum1 055 A; Use minimum cross-section acc. to AC-1 rated value• limited to 5 s switching at zero current maximum730 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum520 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum336 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• at AC5 000 1/h• at AC-1 maximum800 1/h• at AC-2 maximum400 1/h• at AC-3 maximum700 1/h• at AC-3 maximum700 1/h• at AC-4 maximum200 1/h	 up to 400 V for current peak value n=30 rated value 	26.2 kVA
short-time withstand current in cold operating state up to 40 °C1 055 A; Use minimum cross-section acc. to AC-1 rated value• limited to 1 s switching at zero current maximum1 055 A; Use minimum cross-section acc. to AC-1 rated value• limited to 5 s switching at zero current maximum520 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum336 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum336 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• at AC5 000 1/h• at AC-1 maximum800 1/h• at AC-2 maximum400 1/h• at AC-3 maximum700 1/h• at AC-3 maximum700 1/h• at AC-3 maximum200 1/h	 up to 500 V for current peak value n=30 rated value 	32.8 kVA
40 °C• limited to 1 s switching at zero current maximum1 055 A; Use minimum cross-section acc. to AC-1 rated value• limited to 5 s switching at zero current maximum730 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum520 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum336 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• at AC5 000 1/h• at AC5 000 1/h• at AC-1 maximum800 1/h• at AC-2 maximum400 1/h• at AC-3 maximum700 1/h• at AC-3 e maximum700 1/h• at AC-4 maximum200 1/h	 up to 690 V for current peak value n=30 rated value 	45.3 kVA
• limited to 1 s switching at zero current maximum1 055 A; Use minimum cross-section acc. to AC-1 rated value• limited to 5 s switching at zero current maximum730 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum520 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum336 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching frequency272 A; Use minimum cross-section acc. to AC-1 rated value• at AC5 000 1/h• at AC-1 maximum800 1/h• at AC-2 maximum800 1/h• at AC-3 maximum400 1/h• at AC-3 maximum700 1/h• at AC-3 maximum700 1/h• at AC-4 maximum200 1/h		
• limited to 5 s switching at zero current maximum730 A; Use minimum cross-section acc. to AC-1 rated value• limited to 10 s switching at zero current maximum520 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum336 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• at AC5 000 1/h• at AC5 000 1/h• at AC-1 maximum800 1/h• at AC-2 maximum400 1/h• at AC-3 maximum700 1/h• at AC-3 maximum700 1/h• at AC-4 maximum200 1/h		
• limited to 10 s switching at zero current maximum520 A; Use minimum cross-section acc. to AC-1 rated value• limited to 30 s switching at zero current maximum336 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated value• no-load switching frequency272 A; Use minimum cross-section acc. to AC-1 rated value• at AC5 000 1/h• at AC-1 maximum800 1/h• at AC-2 maximum400 1/h• at AC-3 maximum700 1/h• at AC-3e maximum700 1/h• at AC-4 maximum200 1/h	-	
• limited to 30 s switching at zero current maximum336 A; Use minimum cross-section acc. to AC-1 rated value• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated valueno-load switching frequency • at AC5 000 1/hoperating frequency5 000 1/h• at AC-1 maximum800 1/h• at AC-2 maximum400 1/h• at AC-3 maximum700 1/h• at AC-3e maximum700 1/h• at AC-4 maximum200 1/h	-	
• limited to 60 s switching at zero current maximum272 A; Use minimum cross-section acc. to AC-1 rated valueno-load switching frequency5 000 1/h• at AC5 000 1/hoperating frequency800 1/h• at AC-1 maximum800 1/h• at AC-2 maximum400 1/h• at AC-3 maximum700 1/h• at AC-3 maximum200 1/h	-	
no-load switching frequency• at AC5 000 1/hoperating frequency• at AC-1 maximum800 1/h• at AC-2 maximum400 1/h• at AC-3 maximum700 1/h• at AC-3 maximum700 1/h• at AC-4 maximum200 1/h	-	
• at AC5 000 1/hoperating frequency800 1/h• at AC-1 maximum800 1/h• at AC-2 maximum400 1/h• at AC-3 maximum700 1/h• at AC-3e maximum700 1/h• at AC-4 maximum200 1/h		272 A; Use minimum cross-section acc. to AC-1 rated value
operating frequency800 1/h• at AC-1 maximum800 1/h• at AC-2 maximum400 1/h• at AC-3 maximum700 1/h• at AC-3e maximum700 1/h• at AC-4 maximum200 1/h		
• at AC-1 maximum800 1/h• at AC-2 maximum400 1/h• at AC-3 maximum700 1/h• at AC-3e maximum700 1/h• at AC-4 maximum200 1/h		5 000 1/h
• at AC-2 maximum 400 1/h • at AC-3 maximum 700 1/h • at AC-3e maximum 700 1/h • at AC-4 maximum 200 1/h		
• at AC-3 maximum 700 1/h • at AC-3e maximum 700 1/h • at AC-4 maximum 200 1/h		
• at AC-3e maximum 700 1/h • at AC-4 maximum 200 1/h		
• at AC-4 maximum 200 1/h		
Control circuit/ Control		200 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 magnet coil at AC	
• 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	212 VA
• at 60 Hz	188 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.69
• at 60 Hz	0.65
apparent holding power of magnet coil at AC	
• at 50 Hz	18.5 VA
• at 60 Hz	16.5 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.36
• at 60 Hz	0.39
closing delay	
• at AC	10 80 ms
opening delay	
• at AC	10 18 ms
arcing time	10 20 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous	1
contact	
number of NO contacts for auxiliary contacts instantaneous contact	1
operational current at AC-12 maximum	10 A
operational current at AC-15	
at 230 V rated value	10 A
• at 400 V rated value	3 A
• at 500 V rated value	2 A
• at 690 V rated value	1 A
operational current at DC-12	
• at 24 V rated value	10 A
• at 48 V rated value	6 A
• at 60 V rated value	6 A
• at 110 V rated value	3 A
• at 125 V rated value	2 A
• at 220 V rated value	1 A
• at 600 V rated value	0.15 A
operational current at DC-13	
• at 24 V rated value	10 A
-	10 A 2 A
• at 24 V rated value	
at 24 V rated valueat 48 V rated value	2 A
 at 24 V rated value at 48 V rated value at 60 V rated value 	2 A 2 A
 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value 	2 A 2 A 1 A
 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value 	2 A 2 A 1 A 0.9 A
 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value 	2 A 2 A 1 A 0.9 A 0.3 A
 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value 	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts 	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 600 V rated value UL/CSA ratings 	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor 	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value 	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA) 65 A
 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA) 65 A
 at 24 V rated value at 48 V rated value at 60 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value at 600 V rated value 	2 A 2 A 1 A 0.9 A 0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA) 65 A

-+ 000 \/ \	10 hz		
— at 230 V rated value	10 hp		
• for 3-phase AC motor			
— at 200/208 V rated value	20 hp		
— at 220/230 V rated value	20 hp		
— at 460/480 V rated value	50 hp		
— at 575/600 V rated value	50 hp		
contact rating of auxiliary contacts according to UL	A600 / P600		
Short-circuit protection			
design of the fuse link			
 for short-circuit protection of the main circuit 			
— with type of coordination 1 required	gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA)		
 — with type of assignment 2 required 	gG: 125A (690V,100kA), aM: 63A (690V,100kA), BS88: 100A (415V,80kA)		
 for short-circuit protection of the auxiliary switch required 	gG: 10 A (500 V, 1 kA)		
Installation/ mounting/ dimensions			
mounting position	standing, on horizontal mounting surface		
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715		
side-by-side mounting	Yes		
height	114 mm		
width	55 mm		
depth	130 mm		
required spacing			
with side-by-side mounting			
- forwards	10 mm		
	10 mm		
— upwards — downwards	10 mm		
— at the side	0 mm		
for grounded parts forwards	10 mm		
— forwards	10 mm		
— upwards	10 mm		
— at the side	6 mm		
— downwards	10 mm		
• for live parts			
— forwards	10 mm		
— upwards	10 mm		
— downwards	10 mm		
— at the side	6 mm		
Connections/ Terminals			
type of electrical connection			
for main current circuit	screw-type terminals		
 for auxiliary and control circuit 	screw-type terminals		
 at contactor for auxiliary contacts 	Screw-type terminals		
of magnet coil	Screw-type terminals		
type of connectable conductor cross-sections for main contacts			
solid or stranded	2x (1 35 mm²), 1x (1 50 mm²)		
 finely stranded with core end processing 	2x (1 25 mm²), 1x (1 35 mm²)		
connectable conductor cross-section for main contacts			
 finely stranded with core end processing 	1 35 mm²		
connectable conductor cross-section for auxiliary contacts			
solid or stranded	0.5 2.5 mm²		
 finely stranded with core end processing 	0.5 2.5 mm ²		
type of connectable conductor cross-sections			
for auxiliary contacts			
- solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
 finely stranded with core end processing for AWC cobles for auxiliant contacts 	2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²)		
for AWG cables for auxiliary contacts	2x (20 16), 2x (18 14)		
AWG number as coded connectable conductor cross section			
 for main contacts 			
	18 1		
for auxiliary contacts Safety related data	18 1 20 14		

product function						
product function	poording to IEO 60047.4.4					
	ccording to IEC 60947-4-1		es			
. ,	operation according to IEC					
B10 value with high de	mand rate according to SN	31920 1	000 000			
proportion of danger	ous failures					
 with low demand 	d rate according to SN 3192	20 40	D %			
 with high deman 	nd rate according to SN 319	20 73	3 %			
	w demand rate according t					
	interval or service life accor		Da			
61508			Ja			
protection class IP or	n the front according to IE	EC 60529	20			
-	he front according to IEC		nger-safe, for vertical contact	from the front		
			iger sale, for vertical contact			
suitability for use						
 safety-related sv 		Ŷ	es			
ertificates/ approvals						
General Product App	proval					
SP.	Confirmation		(h)	KC	EAC	
EMC	Functional Safety/Safety of Ma- chinery	Declaration of Cor	nformity	Test Certificates		
RCM	<u>Type Examination Cer-</u> <u>tificate</u>	UK CA	C C EG-Konf.	Type Test Certific- ates/Test Report	Special Test Certific- ate	
Marine / Shipping	B U R E A U VERITAS		Lloyds Register us	PRS	RINA	
Marine / Shipping	other		Railway	Dangerous Good		
	Confirmation	<u>Confirmation</u>	Vibration and Shock	Transport Information		
https://press.siemens.cc Siemens is working of Please contact your loc EAC relevant market (of Information on the pa https://support.industry Information- and Dow https://www.siemens.cc Industry Mall (Online	other than the sanctioned E ackaging siemens.com/cs/ww/en/vie vnloadcenter (Catalogs, B om/ic10 ordering system)	/siemens-wind-down- ent EAC certificates. tatus of validity of the AEU member states ew/109813875 Brochures,)	EAC certification if you inten Russia or Belarus).	d to import or offer to supp	ly these products to an	
Cax online generator http://support.automatic Service&Support (Ma https://support.industry Image database (proc http://www.automation. Characteristic: Trippi	on.siemens.com/WW/CAX anuals, Certificates, Chara siemens.com/cs/ww/en/ps duct images, 2D dimensio siemens.com/bilddb/cax_d ng characteristics, I ² t, Le	order/default.aspx?lar acteristics, FAQs,) //3RT2037-1AK60-1A on drawings, 3D mod le.aspx?mlfb=3RT203 t-through current	ng=en&mlfb=3RT2037-1AK6 A0 Iels, device circuit diagram I7-1AK60-1AA0⟨=en			
	v.siemens.com/cs/ww/en/ps cs (e.g. electrical enduran					
RT20371AK601AA			IN/2023	Subject to c	hange without notic	

7/10/2023





last modified:

2/10/2023 🖸

3RT20371AK601AA0 Page 7/8

Subject to change without notice © Copyright Siemens