SIEMENS

Data sheet

3RT2025-1AF00



power contactor, AC-3e/AC-3, 17 A, 7.5 kW / 400 V, 3-pole, 110 V AC, 50 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S0

size of contactor S0 product extension No • function module for communication No • auxiliary switch Yes power loss [W] for rated value of the current 1.8 W • at AC in hot operating state 1.8 W • at AC in hot operating state per pole 0.6 W • without load current share typical 1.9 W insulation voltage 690 V • of main circult with degree of pollution 3 rated value 690 V • of main circult with degree of pollution 3 rated value 690 V • of main circult rated value 64 V • of auxiliary circult rated value 64 V • of auxiliary circult rated value 64 V • of auxiliary switch block bytes 7.5g / 5 ms, 4.7g / 10 ms shock resistance with sine pulse 11.8g / 5 ms, 7.4g / 10 ms • at AC 11.8g / 5 ms, 7.4g / 10 ms mechanical service life (operating cycles) 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 of the contactor with added auxiliary switch block typical 10 000 000 reference code according to IEC 81345-2 Q <td< th=""><th>6/13</th><th></th></td<>	6/13	
product type designation 3RT2 Contral cash S0 Size of contactor S0 product extension No • function module for communication No • function module for communication No • function module for communication No • auxilary switch Yes power loss [W] for rated value of the current 1.8 W • at AC in hot operating state per pole 6.6 W • of main circuit with degree of pollution 3 rated value 690 V • of main circuit and value 690 V • of main circuit and value 690 V • of main circuit and value 64 V • of anal circuit and value 50 V • of contact secord protective separation between 7.5g / 5 ms, 4.7g / 10 ms stack 1.8g / 5 ms, 7.4g / 10 ms mechanical service life (operating cycles) 10	product brand name	SIRIUS
Size of contactor S0 product extension No • function module for communication No • auxiliary switch Yes power loss [M] for rated value of the current 0.6 W • at AC in hot operating state 1.8 W • at AC in hot operating state prole 0.6 W • without bad current share typical 19 W insulation voltage 690 V • of main circuit with degree of pollution 3 rated value 690 V • of main circuit with degree of pollution 3 rated value 690 V • of main circuit rated value 64 V • of main circuit rated value 64 V • of main circuit rated value 64 V • of auxiliary circuit value 64 V • of the contactor with sine pulse 118 g / 5 ms, 7,4g / 10 ms • at AC 118 g / 5 ms, 7,4g / 10 ms mechanical service life (operating cycles) 10 000 000 • of the contactor with added auxiliary switch b	product designation	Power contactor
size of contactor S0 product extension No • function module for communication No • auxiliary switch Yes power loss [W] for rated value of the current 1.8 W • at AC in hot operating state 1.8 W • at AC in hot operating state per pole 0.6 W • without load current share typical 1.9 W insulation voltage 690 V • of main circult with degree of pollution 3 rated value 690 V • of main circult with degree of pollution 3 rated value 690 V • of main circult rated value 64 V • of auxiliary circult rated value 64 V • of auxiliary circult rated value 64 V • of auxiliary switch block bytes 7.5g / 5 ms, 4.7g / 10 ms shock resistance with sine pulse 11.8g / 5 ms, 7.4g / 10 ms • at AC 11.8g / 5 ms, 7.4g / 10 ms mechanical service life (operating cycles) 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 of the contactor with added auxiliary switch block typical 10 000 000 reference code according to IEC 81345-2 Q <td< th=""><th>product type designation</th><th>3RT2</th></td<>	product type designation	3RT2
product extension No • function module for communication No • auxiliary switch Yes power loss [W] for rated value of the current 1.8 W • at AC in hot operating state 1.8 W • at AC in hot operating state per pole 0.6 W • without load current share typical 1.9 W Insulation voltage 690 V • of main circuit with degree of pollution 3 rated value 690 V • of main circuit rated value 690 V • of main circuit rated value 64 V • of main circuit rated value 64 V • of main circuit rated value 64 V • of auxiliary circuit with degree of pollution 3 rated value 64 V • of main circuit rated value 64 V • of auxiliary circuit rated value 64 V • of auxiliary circuit rated value 7,5g / 5 ms, 4,7g / 10 ms • at AC 11.8g / 5 ms, 7,4g / 10 ms mechanical service IIfe (operating cycles) 0 • of the contactor with added auxiliary switch block typical 10000 000 • of the contactor with added auxiliary switch block typical 10000 000	General technical data	
• function module for communication No • auxiliary switch Yes power loss [W] for rated value of the current ************************************	size of contactor	SO
• auxiliary switch Yes power loss [W] for rated value of the current	product extension	
power loss [W] for rated value of the current 4 AC in hot operating state 1.8 W • at AC in hot operating state per pole 0.6 W • without load current share typical 1.9 W Insulation voltage 690 V • of main circuit with degree of pollution 3 rated value 690 V • of maxing vicinalit with degree of pollution 3 rated value 690 V • of maxing vicinalit with degree of pollution 3 rated value 690 V • of maxing vicinalit with degree of pollution 3 rated value 64 V • of maxing vicinalit rated value 64 V • of auxiliary circuit rated value 64 V • of cauxiliary circuit rated value 64 V • at AC 7.5g / 5 ms, 4.7g / 10 ms shock resistance with sine pulse 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 • of the contactor with added auxiliary	 function module for communication 	No
• at AC in hot operating state 1.8 W • at AC in hot operating state per pole 0.6 W • without load current share typical 90 V • of main circuit with degree of pollution 3 rated value 690 V • of auxiliary circuit with degree of pollution 3 rated value 690 V • of auxiliary circuit with degree of pollution 3 rated value 690 V • of main circuit with degree of pollution 3 rated value 690 V • of main circuit rated value 6 kV • of auxiliary circuit rated value 100 V • of auxiliary since hoteking to E0471 400 V shock resistance at rectangular impulse - • at AC 11.8g / 5 ms, 7.4g / 10 ms mechanical service life (operating cycles) 10 000 000 • of the contactor with added electronically optimized 2000 m auxiliary switch block typical 10 000 000 • o	 auxiliary switch 	Yes
• at AC in hot operating state per pole0.6 W• without load current share typical1.9 Winsulation voltage600 V• of main circuit with degree of pollution 3 rated value690 V• of main circuit rated value690 V• of main circuit rated value690 V• of main circuit rated value6 kV• of main circuit rated value6 kV• of auxiliary circuit with degree of pollution 3 rated value6 kV• of auxiliary circuit with added sector7,5g / 5 ms, 4,7g / 10 ms• at AC11,8g / 5 ms, 7,4g / 10 ms• of contactor typical10 000 000• of the contactor with added electronically optimized auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added electronically optimized auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical200 mambient conditions• during operation • duri	power loss [W] for rated value of the current	
• without load current share typical 1.9 W insulation voltage 690 V • 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 6 kV • of main circuit rated value 6 kV • of auxiliary circuit rated value 6 kV • at AC 7,5g / 5 ms, 4,7g / 10 ms shock resistance with sine pulse 10 000 000 • at AC 11.8g / 5 ms, 7,4g / 10 ms • of the contactor with added electronically optimized auxiliary switch block typical 10 000 000 • of the contactor with added electronically optimized auxiliary switch block typical 10/01/2009 Ambient conditions 2000 m ambient temperature -55 +60 °C • during storage -	 at AC in hot operating state 	1.8 W
Insulation voltage 600 V 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 600 V 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 7,5g / 5 ms, 4,7g / 10 ms shock resistance with sine pulse 11,8g / 5 ms, 7,4g / 10 ms of contactor typical 10 000 000 of the contactor with added electronically optimized auxiliary switch block typical 10 000 000 of the contactor with added auxiliary switch block typical 10 000 000 of the contactor with added auxiliary switch block typical 10 000 000 reference code according to EC 81346-2 Q Substance Prohibitance (Date) 10 001/2009 ambient temperature	 at AC in hot operating state per pole 	0.6 W
• of main circuit with degree of pollution 3 rated value690 V• of auxiliary circuit with degree of pollution 3 rated value690 Vsurge voltage resistance6 kV• of main circuit rated value6 kV• of auxiliary circuit rated value6 kV• of auxiliary circuit rated value6 kVmaximum permissible voltage for protective separation between coll and main contacts according to EN 60947-1400 Vshock resistance at rectangular impulse400 V• at AC7,5g / 5 ms, 4,7g / 10 msshock resistance with sine pulse11,8g / 5 ms, 7,4g / 10 ms• at AC10 000 000• of contactor typical10 000 000• of the contactor with added electronically optimized auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical0000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical0000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical0000 000• of the contactor with added auxiliary switch block typical0000 000• of the contactor with added seleri maximum200 mambient temperature-• during operation-25 +60 °C• during storage-25 +60 °C• during storage-25 +60 °C• during storage-25 +60 °C	 without load current share typical 	1.9 W
of auxiliary circuit with degree of pollution 3 rated value 690 V surge voltage resistance 680 V of main circuit rated value 6 kV of auxiliary circuit rated value 6 kV maximup permissible voltage for protective separation between coll and main contacts according to EN 60947-1 400 V shock resistance at rectangular impulse 400 V e at AC 7,5g / 5 ms, 4,7g / 10 ms shock resistance with sine pulse 11,8g / 5 ms, 7,4g / 10 ms e at AC 11,8g / 5 ms, 7,4g / 10 ms mechanical service life (operating cycles) 10 000 000 e of the contactor with added electronically optimized auxiliary switch block typical 10 000 000 of the contactor with added auxiliary switch block typical 10 000 000 e of the contactor with added auxiliary switch block typical 10 000 000 e of the contactor with added auxiliary switch block typical 10 000 000 e of the contactor with added auxiliary switch block typical 10 000 000 e of the contactor with added auxiliary switch block typical 10 000 000 e of the contactor with added auxiliary switch block typical 10 000 000 e of the contactor with added sector 2 000 m ambient conditions 2 000 m installation altitude at height above sea level maximum 2 000 m ambient temperature -	insulation voltage	
surge voltage resistance 6 kV • of main circuit rated value 6 kV • of auxiliary circuit rated value 6 kV • at AC 400 V • at AC 7,5g / 5 ms, 4,7g / 10 ms • at AC 11,8g / 5 ms, 7,4g / 10 ms • of the contactor with added electronically optimized auxiliary switch block typical 10 000 000 • of the contactor with added electronically optimized auxiliary switch block typical 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 reference code according to IEC 81346-2 Q Substance P	 of main circuit with degree of pollution 3 rated value 	690 V
• of main circuit rated value6 kV• of auxiliary circuit rated value6 kV• of auxiliary circuit rated value6 kVmaximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1400 V• at AC7,5g / 5 ms, 4,7g / 10 ms• at AC7,5g / 5 ms, 4,7g / 10 ms• at AC11,8g / 5 ms, 7,4g / 10 ms• at AC10 000 000• of contactor typical10 000 000• of the contactor with added electronically optimized auxiliary switch block typical5 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical2 000 mInstallation altitude at height above sea level maximum2 000 mambient temperature • during operation-25 +60 °C• during storage-55 +80 °C• lative humidity at 55 °C according to IEC 60068-2-30 maximum95 %	 of auxiliary circuit with degree of pollution 3 rated value 	690 V
• 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 7,5g / 5 ms, 4,7g / 10 ms • at AC 7,5g / 5 ms, 4,7g / 10 ms • at AC 11,8g / 5 ms, 7,4g / 10 ms • at AC 10 000 000 • of contactor typical 10 000 000 • of the contactor with added electronically optimized auxiliary switch block typical 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 • of the contactor with addee auxiliary switch block typical 10 000 000 • during operation 2 000 m • during operation -25 +60 °C • during storage -55 +60 °C • during storage 55 %	surge voltage resistance	
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 7,5g / 5 ms, 4,7g / 10 ms shock resistance with sine pulse at AC 11,8g / 5 ms, 7,4g / 10 ms mechanical service life (operating cycles) of contactor typical 10 000 000 for the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical 10 000 000 10 000 000 feference 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 storage -25 +60 °C etative humidity minimum 10 % 95 % 	of main circuit rated value	6 kV
coll and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at AC shock resistance with sine pulse • at AC at AC 11,8g / 5 ms, 7,4g / 10 ms mechanical service life (operating cycles) • of contactor typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical <	 of auxiliary circuit rated value 	6 kV
• at AC7,5g / 5 ms, 4,7g / 10 msshock resistance with sine pulse11,8g / 5 ms, 7,4g / 10 ms• at AC11,8g / 5 ms, 7,4g / 10 msmechanical service life (operating cycles)000000• of contactor typical10 000 000• of the contactor with added electronically optimized auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical2000 mmether conditions2000 m• ambient conditions2 000 m• during operation • during storage-25 +60 °C• felative humidity minimum10 %• relative humidity at 55 °C according to IEC 60068-2-30 maximum95 %		400 V
shock resistance with sine pulse in spream registrame • at AC 11,8g / 5 ms, 7,4g / 10 ms mechanical service life (operating cycles) 0 000 000 • of contactor typical 10 000 000 • of the contactor with added electronically optimized auxiliary switch block typical 10 000 000 • 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 2 000 m installation altitude at height above sea level maximum 2 000 m ambient temperature -25 +60 °C • during operation -25 +80 °C relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum 95 %	shock resistance at rectangular impulse	
• at AC11,8g / 5 ms, 7,4g / 10 msmechanical service life (operating cycles)0• of contactor typical10 000 000• of the contactor with added electronically optimized auxiliary switch block typical5 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor do tilce 81346-2QSubstance Prohibitance (Date)10/01/2009Ambient conditions2 000 m• during operation • during operation • during storage-25 +60 °C• during storage-25 +60 °C• relative humidity minimum10 %relative humidity at 55 °C according to IEC 60068-2-30 maximum95 %	• at AC	7,5g / 5 ms, 4,7g / 10 ms
mechanical service life (operating cycles) 10 000 000 • of contactor typical 10 000 000 • of the contactor with added electronically optimized auxiliary switch block typical 10 000 000 • of the contactor with added auxiliary switch block typical 10 000 000 • 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 2 000 m ambient temperature -25 +60 °C • 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 % Main circuit 40 or incircuit	shock resistance with sine pulse	
• of contactor typical10 000 000• of the contactor with added electronically optimized auxiliary switch block typical5 000 000• of the contactor with added auxiliary switch block typical10 000 000reference code according to IEC 81346-2QSubstance Prohibitance (Date)10/01/2009Ambient conditions2 000 mambient temperature • during operation • during storage-25 +60 °C• during storage-55 +80 °Crelative humidity minimum10 %relative humidity at 55 °C according to IEC 60068-2-30 maximum95 %	• at AC	11,8g / 5 ms, 7,4g / 10 ms
 of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical 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 -55 +80 °C relative humidity minimum 10 % 95 % 	mechanical service life (operating cycles)	
auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000reference code according to IEC 81346-2QSubstance Prohibitance (Date)10/01/2009Ambient conditions2 000 minstallation altitude at height above sea level maximum2 000 mambient temperature-25 +60 °C• during operation-25 +80 °C• during storage-55 +80 °Crelative humidity minimum10 %relative humidity at 55 °C according to IEC 60068-2-30 maximum95 %	 of contactor typical 	10 000 000
reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/01/2009 Ambient conditions 2 000 m installation altitude at height above sea level maximum 2 000 m ambient temperature -25 +60 °C • 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 %		5 000 000
Substance Prohibitance (Date) 10/01/2009 Ambient conditions 2 000 m installation altitude at height above sea level maximum 2 000 m ambient temperature -25 +60 °C • 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 %	 of the contactor with added auxiliary switch block typical 	10 000 000
Ambient conditions 2 000 m installation altitude at height above sea level maximum 2 000 m ambient temperature -25 +60 °C • 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 %	reference code according to IEC 81346-2	Q
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 %	Substance Prohibitance (Date)	10/01/2009
ambient temperature -25 • during operation -25 • during storage -55 relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum 95 % Main circuit	Ambient conditions	
• 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 %	installation altitude at height above sea level maximum	2 000 m
	ambient temperature	
relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 95 % Main circuit 40 %	 during operation 	-25 +60 °C
relative humidity at 55 °C according to IEC 60068-2-30 95 % maximum Main circuit	during storage	-55 +80 °C
Main circuit	relative humidity minimum	10 %
		95 %
	Main circuit	
number of poles for main current circuit 3	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 	40 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	40 A
— up to 690 V at ambient temperature 60 °C rated	35 A
value	
• at AC-3	
— at 400 V rated value	17 A
— at 500 V rated value	17 A
— at 690 V rated value	13 A
• at AC-3e	
— at 400 V rated value	17 A
— at 500 V rated value	17 A
— at 690 V rated value	13 A
• at AC-4 at 400 V rated value	15.5 A
at AC-5a up to 690 V rated value	35.2 A
• at AC-5b up to 400 V rated value	14.1 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	11.4 A
— up to 400 V for current peak value n=20 rated value	11.4 A
— up to 500 V for current peak value n=20 rated value	11.4 A
 up to 690 V for current peak value n=20 rated value at AC-6a 	11.3 A
	7.6 A
 — up to 230 V for current peak value n=30 rated value — up to 400 V for current peak value n=30 rated value 	7.6 A
— up to 500 V for current peak value n=30 rated value	7.6 A
— up to 690 V for current peak value n=30 rated value	7.6 A
minimum cross-section in main circuit at maximum AC-1 rated	10 mm ²
value	
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	7.7 A
at 690 V rated value	7.7 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 60 V rated value	20 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 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	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	35 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	20 A
— at 60 V rated value	5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.09 A
— at 600 V rated value	0.06 A
 with 2 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	15 A
— at 220 V rated value	3 A
— at 440 V rated value	0.27 A
— at 600 V rated value	0.16 A
 with 3 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	10 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
	0.07
operating power • at AC-3	
	4 1404
- at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
• at AC-3e	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
operating power for approx. 200000 operating cycles at AC-	
4	
• at 400 V rated value	3.5 kW
at 690 V rated value	6 kW
operating apparent power at AC-6a	
 up to 230 V for current peak value n=20 rated value 	4.5 kVA
• up to 400 V for current peak value n=20 rated value	7.8 kVA
• up to 500 V for current peak value n=20 rated value	9.9 kVA
 up to 690 V for current peak value n=20 rated value 	13.6 kVA
operating apparent power at AC-6a	
 up to 230 V for current peak value n=30 rated value 	3 kVA
 up to 400 V for current peak value n=30 rated value 	5.2 kVA
 up to 500 V for current peak value n=30 rated value 	6.6 kVA
● up to 690 V for current peak value n=30 rated value	9.1 kVA
short-time withstand current in cold operating state up to	
40 °C	
• limited to 1 s switching at zero current maximum	225 A; Use minimum cross-section acc. to AC-1 rated value
Imited to 5 s switching at zero current maximum	225 A; Use minimum cross-section acc. to AC-1 rated value
Imited to 10 s switching at zero current maximum	189 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	140 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 60 s switching at zero current maximum 	115 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	5 000 1/h
operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	1 000 1/h
• at AC-3 maximum	1 000 1/h
• at AC-3e maximum	1 000 1/h
• at AC-4 maximum	300 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
operating range factor control supply voltage rated value of	
magnet coil at AC	
• at 50 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	65 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.82
apparent holding power of magnet coil at AC	
• at 50 Hz	7.6 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.25
closing delay	
• at AC	8 40 ms
opening delay	
• at AC	4 16 ms
arcing time	10 10 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous	1
contact	
number of NO contacts for auxiliary contacts instantaneous contact	1
operational current at AC-12 maximum	10 A
operational current at AC-12 maximum	
• at 230 V rated value	10 A
at 200 V rated value	3 A
• at 500 V rated value	2 A
• at 690 V rated value	1A
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	10 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	17 A
yielded mechanical performance [hp]	
 for single-phase AC motor 	
— at 110/120 V rated value	1 hp
— at 230 V rated value	3 hp
• for 3-phase AC motor	
— at 200/208 V rated value	3 hp
— at 220/230 V rated value	5 hp
— at 460/480 V rated value	10 hp
— at 575/600 V rated value	15 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: 63A (690V,100kA), aM: 32A (690V,100kA), BS88: 63A (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)
nstallation/ 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	85 mm
width	45 mm
depth	97 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
	10 mm
— upwards	
— at the side	6 mm
— downwards	10 mm
 for live parts 	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	6 mm
Connections/ Terminals	
type of electrical connection	
 for main current circuit 	screw-type terminals
 for auxiliary and control circuit 	screw-type terminals
 at contactor for auxiliary contacts 	Screw-type terminals
of magnet coil	Screw-type terminals
type of connectable conductor cross-sections for main contacts	
• solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)
 solid or stranded 	2x (1 2.5 mm²), 2x (2.5 10 mm²)
 finely stranded with core end processing 	2x (1 2.5 mm ²), 2x (2.5 6 mm ²), 1x 10 mm ²
connectable conductor cross-section for main contacts	
• solid	1 10 mm²
stranded	1 10 mm ²
 finely stranded with core end processing 	
	1 10 mm ²
	1 10 mm²
connectable conductor cross-section for auxiliary contacts	
connectable conductor cross-section for auxiliary contacts • solid or stranded	0.5 2.5 mm²
 connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing 	
connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections	0.5 2.5 mm²
connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts 	0.5 2.5 mm² 0.5 2.5 mm²
connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded 	0.5 2.5 mm² 0.5 2.5 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded finely stranded with core end processing 	0.5 2.5 mm ² 0.5 2.5 mm ² 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²)
connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded 	0.5 2.5 mm² 0.5 2.5 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded finely stranded with core end processing for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section	0.5 2.5 mm ² 0.5 2.5 mm ² 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (20 16), 2x (18 14)
connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded finely stranded with core end processing for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross	0.5 2.5 mm ² 0.5 2.5 mm ² 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²)
connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded finely stranded with core end processing for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section	0.5 2.5 mm ² 0.5 2.5 mm ² 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (20 16), 2x (18 14)
connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded solid or stranded finely stranded with core end processing for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section for main contacts for auxiliary contacts 	0.5 2.5 mm ² 0.5 2.5 mm ² 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (20 16), 2x (18 14) 16 8
connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded solid or stranded finely stranded with core end processing for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section for main contacts for auxiliary contacts 	0.5 2.5 mm ² 0.5 2.5 mm ² 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (20 16), 2x (18 14) 16 8
connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded finely stranded with core end processing for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section for main contacts for auxiliary contacts 	0.5 2.5 mm ² 0.5 2.5 mm ² 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (20 16), 2x (18 14) 16 8
connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded finely stranded with core end processing for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section for main contacts for auxiliary contacts Safety related data	0.5 2.5 mm ² 0.5 2.5 mm ² 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (20 16), 2x (18 14) 16 8 20 14

proportion of dange					
with low demand rate according to SN 31920					
 with high demand rate according to SN 31920 					
failure rate [FIT] with low demand rate according to SN 31920) FIT		
T1 value for proof test interval or service life according to IEC 61508		rding to IEC 20	20 a		
protection class IP of	on the front according to I	EC 60529 IP2	.0		
touch protection on	the front according to IEC	60529 fing	ger-safe, for vertical contact	from the front	
ertificates/ approval	S				
General Product Ap	proval				
		<u>Confirmation</u>		KC	EAC
EMC	Functional Safety/Safety of Ma- chinery	Declaration of Conf	ormity	Test Certificates	
RCM	Type Examination Cer- tificate	CE EG-Konf.	UK CA	Special Test Certific- ate	Type Test Certific- ates/Test Report
Marine / Shipping					
ABS	BUREAU VERITAS		Lloyd's Register uts	RINA	RMRS
other			Railway	Environment	
<u>Confirmation</u>		<u>Confirmation</u>	Vibration and Shock	Environmental Con- firmations	
https://press.siemens Siemens is working Please contact your lo EAC relevant market	d to exit the Russian mark .com/global/en/pressrelease on the renewal of the curr ocal Siemens office on the s (other than the sanctioned E	/siemens-wind-down-ru ent EAC certificates. tatus of validity of the E	AC certification if you intend	d to import or offer to suppl	ly these products to an
Information- and Do https://www.siemens. Industry Mall (Online	ry.siemens.com/cs/ww/en/vie wnloadcenter (Catalogs, E com/ic10	rochures,)	<u>2025-1AF00</u>		
Cax online generato	r				

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2025-1AF00

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1AF00

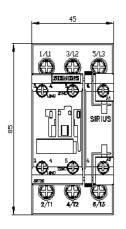
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

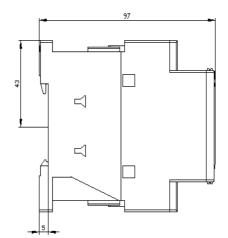
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2025-1AF00&lang=en

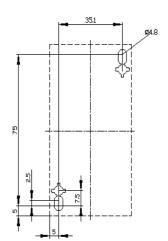
Characteristic: Tripping characteristics, I²t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT2025 -1AF00/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2025-1AF00&objecttype=14&gridview=view1











last modified:

8/15/2023 🖸

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Siemens: 3RT20251AF00