SIEMENS

Data sheet 3RT2027-1NF30



power contactor, AC-3e/AC-3, 32 A, 15 kW / 400 V, 3-pole, 95-130 V AC/DC, 50/60 Hz, with integrated varistor, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S0

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S0
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 	6.3 W
 at AC in hot operating state per pole 	2.3 W
without load current share typical	1.3 W
type of calculation of power loss depending on pole	quadratic
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	8,3g / 5 ms, 5,3g / 10 ms
• at DC	10g / 5 ms, 7,5g / 10 ms
shock resistance with sine pulse	
• at AC	13,5g / 5 ms, 8,3g / 10 ms
• at DC	15g / 5 ms, 10g / 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)	
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
Weight	0.552 kg
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
 during operation 	-25 +60 °C

during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30	95 %
maximum	
Environmental footprint	
Environmental Product Declaration(EPD)	Yes
Global Warming Potential [CO2 eq] total	59.7 kg
Global Warming Potential [CO2 eq] during manufacturing	3.7 kg
Global Warming Potential [CO2 eq] during operation	56.6 kg
Global Warming Potential [CO2 eq] after end of life	-0.626 kg
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 value 	50 A
• at AC-1	
 up to 690 V at ambient temperature 40 °C rated value 	50 A
— up to 690 V at ambient temperature 60 °C rated value	42 A
• at AC-3	
— at 400 V rated value	32 A
— at 500 V rated value	32 A
— at 690 V rated value	21 A
• at AC-3e	
— at 400 V rated value	32 A
— at 500 V rated value	32 A
— at 690 V rated value	21 A
 at AC-4 at 400 V rated value 	22 A
● at AC-5a up to 690 V rated value	44 A
 at AC-5b up to 400 V rated value 	26.5 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	30.8 A
— up to 400 V for current peak value n=20 rated value	30.8 A
 up to 500 V for current peak value n=20 rated value 	27 A
 up to 690 V for current peak value n=20 rated value 	21 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	20.5 A
— up to 400 V for current peak value n=30 rated value	20.5 A
— up to 500 V for current peak value n=30 rated value	18 A
— up to 690 V for current peak value n=30 rated value	18 A
minimum cross-section in main circuit at maximum AC-1 rated value	10 mm²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	12 A
at 690 V rated value	12 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 110 V rated value	2.5 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
operating power	
• at AC-3	
— at 230 V rated value	7.5 kW
— at 400 V rated value	15 kW
— at 500 V rated value	15 kW
— at 690 V rated value	18.5 kW
• at AC-3e	
— at 230 V rated value	7.5 kW
— at 400 V rated value	15 kW
— at 500 V rated value	15 kW
— at 690 V rated value	18.5 kW
operating power for approx. 200000 operating cycles at AC-	
4	
at 400 V rated value	6 kW
at 690 V rated value	10.3 kW
operating apparent power at AC-6a	40.013/4
• up to 230 V for current peak value n=20 rated value	12.2 kVA
• up to 400 V for current peak value n=20 rated value	21.3 kVA
• up to 500 V for current peak value n=20 rated value	23.3 kVA
• up to 690 V for current peak value n=20 rated value	25 kVA
operating apparent power at AC-6a	0.413/4
• up to 230 V for current peak value n=30 rated value	8.1 kVA
• up to 400 V for current peak value n=30 rated value	14.2 kVA
• up to 500 V for current peak value n=30 rated value	15.5 kVA
• up to 690 V for current peak value n=30 rated value	21.5 kVA
short-time withstand current in cold operating state up to 40 °C	
Iimited to 1 s switching at zero current maximum	499 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	341 A; Use minimum cross-section acc. to AC-1 rated value

Initiate to 30 a switching at 200 content in assimum 1987, Use minimum cross-section acc. to AC-1 rated value 1987, Use minimum cross-section acc. to A	 limited to 10 s switching at zero current maximum 	260 A; Use minimum cross-section acc. to AC-1 rated value
• Initial to 60 a swilching requency • If AC 1500 1 th 150	-	
molecular switching frequency	-	
# ## AC		102 A, Use minimum cross-section acc. to AC-1 rated value
## AC-2 maximum		4.500.4%
operating frequency		
		1 500 1/h
# AI AC-2 maximum		
Control a Providage of the control supply voltage ACDIC control supply voltage at AC # 150 Hz rated value 95 130 V # 150 Hz rated value 95 130 V e at 50 Hz rated value 95 130 V operating range factor control supply voltage rated value of impericol at DC # 180 V operating range factor control supply voltage rated value of impericol at DC 0.7 • full-cacle value 1.3 operating range factor control supply voltage rated value of impericol at AC 1.3 • at 50 Hz 0.7 1.3 • at 50 Hz 0.7 1.3 • design of the surge suppressor with variation function of inrush current peak 1.5 A duration of inrush current peak 0.19 A duration of inrush current peak 0.19 A duration of locked-rotor current peak 0.19 A duration of locked-rotor current peak 0.19 A duration of locked-rotor current peak 0.98 a 150 Hz 1.5 VA a 160 Hz 0.98 a 160 Hz 0.98 a 160 Hz 1.8 VA a 160 Hz 1.8 V		
Type of voltage of the control supply voltage at AC		250 1/h
Section Supply voltage at AC		
		AC/DC
■ st 60 Hz rated value ○ Sh 130 V ○ Control supply voltage at DC rated value of magnet coil at DC ■ Initial value ● (Lill-scale value) ○ Facility rate of the surge suppressor ■ at 60 Hz ○ at 60 Hz ○ at 60 Hz ○ At 1.3 design of the surge suppressor ○ with variator finush current peak ○ Initial value ○ At 1.3 design of the surge suppressor ○ with variator finush current peak ○ At 1.3 design of the surge suppressor ○ with variator finush current peak ○ 1.5 A duration of inrush current peak ○ 1.9 A duration of locked-rotor current peak ○ 1.9 A duration of locked-rotor current ○ 180 ms holding current mean value ○ 11.9 VA ○ at 60 Hz ○ at 60 Hz ○ at 60 Hz ○ at 60 Hz ○ at maximum rated control supply voltage at DC ○ at maximum rated control supply voltage at DC ○ at maximum rated control supply voltage at DC ○ at maximum rated control supply voltage at DC ○ at maximum rated control supply voltage at DC ○ at maximum rated control supply voltage at DC ○ at 80 Hz ○ at 60 Hz ○ at		
Control supply voltage at DC rated value 95 130 V	 at 50 Hz rated value 	
Operating range factor control supply voltage rated value of magnet coil at DC Italiscale value Italis	at 60 Hz rated value	
magnet col at DC		95 130 V
• full-scale value 1.3		
operating range factor control supply voltage rated value of magnet coil at AC at 50 Hz 0.7 1.3 • at 50 Hz 1.5 • at 50 H	• initial value	0.7
magnet coil at AC 0.7 1.3 • at 50 Hz 0.7 1.3 • at 60 Hz 0.7 1.3 design of the surge suppressor with varistor Inrush current peak 15 A duration of inrush current peak 30 µs locked-rotor current mean value 0.13 A locked-rotor current peak 0.19 A duration of locked-rotor current 180 ms holding current mean value 19 mA apparent pick-up power of magnet coil at AC 15 VA • at 50 Hz 11.9 VA • at 60 Hz 12 VA Inductive power factor with closing power of the coil 4 S VA • at 80 Hz 0.98 • at 80 Hz 0.98 • at maximum rated control supply voltage at DC 1.3 VA • at maximum rated control supply voltage at DC 1.3 VA • at maximum rated control supply voltage at AC - at 50 Hz 1.8 VA — at 50 Hz 1.8 VA — at 60 Hz 1.8 VA • at 50 Hz 1.8 VA • at 60 Hz 1.8 VA • at 60 Hz 0.	• full-scale value	1.3
■ at 60 Hz 0.7 1.3		
design of the surge suppressor with varistor Inrush current peak	• at 50 Hz	0.7 1.3
Inrush current peak	● at 60 Hz	0.7 1.3
duration of inrush current peak 30 µs locked-rotor current mean value 0.13 A duration of locked-rotor current duration of locked-rotor current 180 ms holding current mean value apparent pick-up power of magnet coil at AC e at 50 Hz 11.9 VA e at 60 Hz 12 VA inductive power factor with closing power of the coil e at 50 Hz 0.98 apparent holding power e at maximum rated control supply voltage at DC 1.3 VA apparent holding power e at minimum rated control supply voltage at DC 1.3 VA apparent holding power e at minimum rated control supply voltage at DC 1.8 VA apparent holding power e at maximum rated control supply voltage at AC a 160 Hz 1.8 VA apparent holding power of magnet coil at AC a 160 Hz 1.8 VA apparent holding power of magnet coil at AC a 150 Hz 1.8 VA apparent holding power of magnet coil at AC a 160 Hz 1.8 VA apparent holding power of magnet coil at AC a 160 Hz 1.8 VA al 60 Hz 1.8 VA inductive power factor with the holding power of the coil a 150 Hz 0.74 closing power of magnet coil at DC 1.3 W closing power of magnet coil at DC 1.3 W closing delay a 14 AC 50 80 ms a 10 DC 50 80 ms	design of the surge suppressor	with varistor
locked-rotor current peak 0.19 A duration of locked-rotor current peak 0.19 A duration of locked-rotor current 180 ms holding current mean value 19 mA apparent pick-up power of magnet coil at AC at 50 Hz	inrush current peak	15 A
locked-rotor current peak 0.19 A	duration of inrush current peak	30 μs
duration of locked-rotor current holding current mean value apparent pick-up power of magnet coil at AC • at 50 Hz • at 60 Hz 11.9 VA • at 60 Hz 12 VA Inductive power factor with closing power of the coil • at 50 Hz • at 60 Hz 0.98 apparent holding power • at minimum rated control supply voltage at DC • at minimum rated control supply voltage at DC • at minimum rated control supply voltage at DC • at minimum rated control supply voltage at DC • at maximum rated control supply voltage at AC - at 50 Hz - at 60 Hz • at maximum rated control supply voltage at AC - at 50 Hz - at 60 Hz apparent holding power of magnet coil at AC • at 50 Hz - at 60 Hz apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz 1.6 VA 1.8 VA apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz 1.6 VA - at 60 Hz 1.7 VA 1.8 VA apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz 1.8 VA inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz 1.8 VA inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz 1.8 VA inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz 1.8 VA inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz 1.8 VA inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz • a	locked-rotor current mean value	0.13 A
holding current mean value apparent pick-up power of magnet coil at AC • at 50 Hz • at 60 Hz inductive power factor with closing power of the coil • at 50 Hz • at 60 Hz • at minimum rated control supply voltage at DC • at maximum rated control supply voltage at DC • at minimum rated control supply voltage at DC • at minimum rated control supply voltage at AC • at so Hz • at 60 Hz • at 60 Hz • at 60 Hz • at 60 Hz • at 50 Hz • at 60 Hz Inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz • at 60 Hz • at 60 Hz Closing power of magnet coil at DC tolsing power of magnet coil at DC tolsing delay • at AC • at DC 1.3 WA 11.9 VA 12.9 VA 12.9 VA 12.9 VA 13.9 VA 13.9 VA 14.6 VA 15.6 VA 16.6 VA 17.6 VA 17.6 VA 18.8 VA 18.9 VA 18	locked-rotor current peak	0.19 A
apparent pick-up power of magnet coil at AC at 50 Hz at 60 Hz 12 VA inductive power factor with closing power of the coil at 50 Hz at 60 Hz 0.98 at 60 Hz 0.98 apparent holding power at minimum rated control supply voltage at DC 1.3 VA at maximum rated control supply voltage at DC 1.3 VA apparent holding power at minimum rated control supply voltage at AC —at 50 Hz —at 60 Hz 1.8 VA at maximum rated control supply voltage at AC —at 50 Hz —at 60 Hz 1.8 VA apparent holding power of magnet coil at AC at 50 Hz at 50 Hz 0.79 at 50 Hz 0.79 at 60 Hz 1.8 VA a	duration of locked-rotor current	180 ms
	holding current mean value	19 mA
* at 60 Hz	apparent pick-up power of magnet coil at AC	
inductive power factor with closing power of the coil • at 50 Hz • at 60 Hz apparent holding power • at minimum rated control supply voltage at DC at maximum rated control supply voltage at DC at minimum rated control supply voltage at AC — at 50 Hz — at 60 Hz • at maximum rated control supply voltage at AC — at 50 Hz — at 60 Hz • at maximum rated control supply voltage at AC — at 50 Hz — at 60 Hz 1.6 VA — at 60 Hz 1.8 VA apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz inductive power of magnet coil at DC closing power of magnet coil at DC holding power of magnet coil at DC closing delay • at AC • at DC 50 80 ms 5 80 ms	● at 50 Hz	11.9 VA
• at 50 Hz • at 60 Hz	• at 60 Hz	12 VA
apparent holding power at minimum rated control supply voltage at DC at maximum rated control supply voltage at DC at maximum rated control supply voltage at DC apparent holding power at minimum rated control supply voltage at AC at 50 Hz at 60 Hz at 60 Hz at 50 Hz at 60 Hz at 50 Hz at 60 Hz bilding power of magnet coil at DC at 60 Hz closing power of magnet coil at DC holding power of magnet coil at DC toloing delay at AC at AC at Maximum rated control supply voltage at AC 1.3 VA 1.6 VA 1.6 VA 1.8 VA 1.6 VA 0.79 0.79 1.8 VA	inductive power factor with closing power of the coil	
apparent holding power • at minimum rated control supply voltage at DC • at maximum rated control supply voltage at DC apparent holding power • at minimum rated control supply voltage at AC — at 50 Hz — at 60 Hz • at maximum rated control supply voltage at AC — at 50 Hz — at 60 Hz 1.6 VA — at 60 Hz 1.8 VA apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz 1.6 VA apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz 1.6 VA at 60 Hz 1.7 VA 1.8 VA apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz 1.8 VA inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz 1.8 VA closing power of magnet coil at DC holding power of magnet coil at DC holding power of magnet coil at DC closing delay • at AC • at DC 50 80 ms	• at 50 Hz	0.98
at minimum rated control supply voltage at DC at maximum rated control supply voltage at DC apparent holding power at minimum rated control supply voltage at AC — at 50 Hz — at 60 Hz at maximum rated control supply voltage at AC — at 50 Hz — at 50 Hz — at 60 Hz 1.6 VA — at 60 Hz apparent holding power of magnet coil at AC at 50 Hz at 60 Hz 1.6 VA 1.8 VA apparent holding power of magnet coil at AC at 50 Hz at 60 Hz 1.8 VA inductive power factor with the holding power of the coil at 50 Hz at 60 Hz 1.8 VA closing power of magnet coil at DC holding power of magnet coil at DC 1.3 W closing delay at AC at AC at AC 50 80 ms 50 80 ms	• at 60 Hz	0.98
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apparent holding power • at minimum rated control supply voltage at AC — at 50 Hz — at 60 Hz 1.8 VA • at maximum rated control supply voltage at AC — at 50 Hz — at 60 Hz 1.8 VA apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz 1.8 VA apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz 1.8 VA inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz closing power of magnet coil at DC holding power of magnet coil at DC 1.3 W closing delay • at AC • at CD • at DC • at	 at minimum rated control supply voltage at DC 	1.3 VA
at minimum rated control supply voltage at AC - at 50 Hz - at 60 Hz at maximum rated control supply voltage at AC - at 50 Hz - at 60 Hz 1.6 VA - at 60 Hz 1.6 VA apparent holding power of magnet coil at AC at 50 Hz at 60 Hz 1.6 VA 1.8 VA apparent holding power of magnet coil at AC at 50 Hz at 60 Hz 1.6 VA 1.8 VA inductive power factor with the holding power of the coil at 50 Hz at 60 Hz 0.79 at 60 Hz closing power of magnet coil at DC holding power of magnet coil at DC 1.3 W closing delay at AC at DC 50 80 ms 50 80 ms	at maximum rated control supply voltage at DC	1.3 VA
- at 50 Hz - at 60 Hz • at maximum rated control supply voltage at AC - at 50 Hz - at 60 Hz 1.6 VA - at 60 Hz 1.8 VA apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz 1.6 VA • at 60 Hz 1.8 VA inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz 0.79 • at 60 Hz closing power of magnet coil at DC holding power of magnet coil at DC 1.3 W closing delay • at AC • at DC 50 80 ms • at DC	apparent holding power	
- at 60 Hz • at maximum rated control supply voltage at AC - at 50 Hz - at 60 Hz 1.6 VA apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz 1.6 VA • at 60 Hz 1.8 VA 1.8 VA 1.8 VA 1.8 VA 1.8 VA inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz 0.79 • at 60 Hz 1.2 W holding power of magnet coil at DC 1.3 W closing delay • at AC • at DC 50 80 ms • at DC	 at minimum rated control supply voltage at AC 	
at maximum rated control supply voltage at AC — at 50 Hz — at 60 Hz apparent holding power of magnet coil at AC at 50 Hz at 60 Hz 1.6 VA 1.6 VA 1.8 VA 1.6 VA 1.8 VA 1.8 VA 1.8 VA inductive power factor with the holding power of the coil at 50 Hz 0.79 at 60 Hz 1.0.2 W holding power of magnet coil at DC holding power of magnet coil at DC 1.3 W closing delay at AC at DC 50 80 ms 50 80 ms	— at 50 Hz	1.6 VA
- at 50 Hz	— at 60 Hz	1.8 VA
apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz 1.6 VA • at 60 Hz inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz 0.79 • at 60 Hz closing power of magnet coil at DC holding power of magnet coil at DC 1.3 W closing delay • at AC • at DC 50 80 ms • at DC	 at maximum rated control supply voltage at AC 	
apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz • at 60 Hz 1.8 VA inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz 1.2 W closing power of magnet coil at DC 1.3 W closing delay • at AC • at DC 50 80 ms • at DC	— at 50 Hz	1.6 VA
 at 50 Hz at 60 Hz 1.6 VA inductive power factor with the holding power of the coil at 50 Hz at 60 Hz 0.79 at 60 Hz closing power of magnet coil at DC holding power of magnet coil at DC 10.2 W holding power of magnet coil at DC 1.3 W closing delay at AC at DC 50 80 ms at DC 50 80 ms 	— at 60 Hz	1.8 VA
at 60 Hz inductive power factor with the holding power of the coil at 50 Hz at 60 Hz 0.79 at 60 Hz 0.74 closing power of magnet coil at DC holding power of magnet coil at DC 1.3 W closing delay at AC at DC 50 80 ms at DC 50 80 ms	apparent holding power of magnet coil at AC	
inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz closing power of magnet coil at DC holding power of magnet coil at DC 10.2 W holding power of magnet coil at DC 1.3 W closing delay • at AC • at DC 50 80 ms • at DC	● at 50 Hz	1.6 VA
	● at 60 Hz	1.8 VA
at 60 Hz closing power of magnet coil at DC holding power of magnet coil at DC 1.3 W closing delay • at AC • at DC 50 80 ms • at DC	inductive power factor with the holding power of the coil	
closing power of magnet coil at DC holding power of magnet coil at DC 1.3 W closing delay • at AC • at DC 50 80 ms 50 80 ms	● at 50 Hz	0.79
holding power of magnet coil at DC closing delay • at AC • at DC 1.3 W 50 80 ms 50 80 ms	● at 60 Hz	0.74
closing delay ● at AC 50 80 ms ● at DC 50 80 ms	closing power of magnet coil at DC	10.2 W
• at AC 50 80 ms • at DC 50 80 ms	holding power of magnet coil at DC	1.3 W
• at DC 50 80 ms	closing delay	
	• at AC	50 80 ms
opening delay	• at DC	50 80 ms
	opening delay	

• at AC	30 50 ms
• at DC	30 50 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 contact	1
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
 at 48 V rated value 	2 A
 at 60 V rated value 	2 A
• at 110 V rated value	1 A
• at 125 V rated value	0.9 A
• at 220 V rated value	0.3 A
at 600 V rated value	0.1 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	07.4
• at 480 V rated value	27 A
• at 600 V rated value	27 A
yielded mechanical performance [hp]	
• for single-phase AC motor	2 hn
— at 110/120 V rated value — at 230 V rated value	2 hp
for 3-phase AC motor	5 hp
— at 200/208 V rated value	10 hp
— at 200/206 V rated value — at 220/230 V rated value	10 hp 10 hp
— at 220/230 V rated value — at 460/480 V rated value	20 hp
— at 575/600 V rated value	25 hp
contact rating of auxiliary contacts according to UL	A600 / P600
Short-circuit protection	7,000 / 1,000
design of the fuse link	
for short-circuit protection of the main circuit	
— with type of coordination 1 required	gG: 125A (690V,100kA), aM: 50A (690V,100kA), BS88: 125A (415V,80kA)
— with type of assignment 2 required	gG: 50A (690V,100kA), aM: 25A (690V, 100kA), BS88: 50A (415V, 80kA)
for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	ge:(ess t))
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
height	85 mm
width	45 mm
depth	107 mm
required spacing	TOT THAT
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	
type of electrical connection	
for main current circuit	screw type terminals
	screw-type terminals screw-type terminals
for auxiliary and control circuit at contractor for auxiliary contracts	**
at contactor for auxiliary contacts a of magnet soil.	Screw-type terminals
• of magnet coil	Screw-type terminals
type of connectable conductor cross-sections	
• for main contacts	0 (4 05 3) 0 (05 40 3)
— 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 mm²), 2x (2.5 6 mm²), 1x 10 mm²
for AWG cables for main contacts	2x (16 12), 2x (14 8)
connectable conductor cross-section for main contacts	
• solid	1 10 mm²
• stranded	1 10 mm²
finely stranded with core end processing	1 10 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 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 for AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14)
AWG number as coded connectable conductor cross section	
• for main contacts	16 8
for auxiliary contacts	20 14
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
 positively driven operation according to IEC 60947-5-1 	No
suitable for safety function	Yes
suitability for use safety-related switching OFF	Yes
service life maximum	20 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
with low demand rate according to SN 31920	40 %
with high demand rate according to SN 31920	73 %
B10 value with high demand rate according to SN 31920	1 000 000
failure rate [FIT] with low demand rate according to SN	100 FIT
31920 ISO 13849	
device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type A
	Tr ·

Electrical Safety

protection class IP on the front according to IEC 60529

touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front

Approvals Certificates

General Product Approval







IP20

Confirmation



<u>KC</u>

General Product Approval

EMV

Functional Saftey

Test Certificates





Type Examination Certificate Type Test Certificates/Test Report

Special Test Certificate

Miscellaneous

Marine / Shipping











Miscellaneous

other

other

Railway

Dangerous goods

Environment

Confirmation

Confirmation

Special Test Certificate

Transport Information



Environmental Confirmations

Further information

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=3RT2027-1NF30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2027-1NF30

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2027-1NF30

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

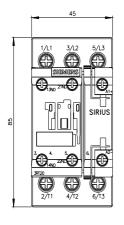
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2027-1NF30&lang=en

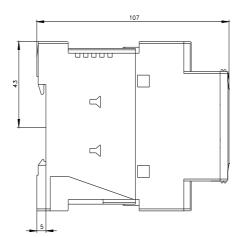
Characteristic: Tripping characteristics, I²t, Let-through current

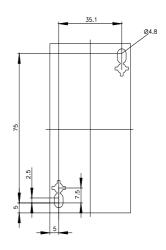
https://support.industry.siemens.com/cs/ww/en/ps/3RT2027-1NF30/char

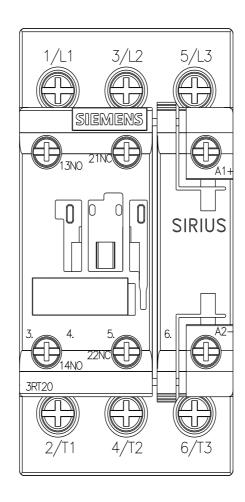
Further characteristics (e.g. electrical endurance, switching frequency)

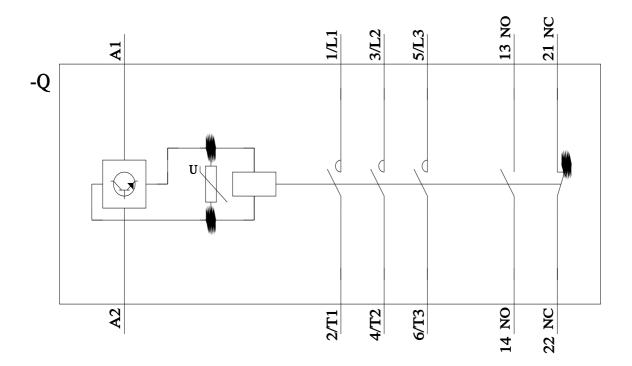
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2027-1NF30&objecttype=14&gridview=view1











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