SIEMENS

Data sheet 3RT2038-3NF30



power contactor, AC-3e/AC-3, 80 A, 37 kW / 400 V, 3-pole, 83-155 V AC/DC, 50/60 Hz, with integrated varistor, auxiliary contacts: 1 NO + 1 NC, main circuit: screw terminal, control and auxiliary circuit: spring-loaded terminal, size: S2,

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 	17.1 W
 at AC in hot operating state per pole 	5.7 W
without load current share typical	1 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	7.7g / 5 ms, 4.5g / 10 ms
• at DC	7.7g / 5 ms, 4.5g / 10 ms
shock resistance with sine pulse	
• at AC	12g / 5 ms, 7g / 10 ms
• at DC	12g / 5 ms, 7g / 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
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
Weight	1.125 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
during storage relative humidity minimum	-55 +60 C
relative numidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
Environmental footprint	
Environmental Product Declaration(EPD)	Yes
global warming potential [CO2 eq] total	107 kg
global warming potential [CO2 eq] during manufacturing	5.88 kg
global warming potential [CO2 eq] during operation	102 kg
global warming potential [CO2 eq] after end of life	-0.988 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 	90 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	90 A
— up to 690 V at ambient temperature 60 °C rated value	80 A
• at AC-3	
— at 400 V rated value	80 A
— at 500 V rated value	80 A
— at 690 V rated value	58 A
• at AC-3e	
— at 400 V rated value	80 A
— at 500 V rated value	80 A
— at 690 V rated value	58 A
 at AC-4 at 400 V rated value 	55 A
 at AC-5a up to 690 V rated value 	79.2 A
 at AC-5b up to 400 V rated value 	66.4 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	70 A
— up to 400 V for current peak value n=20 rated value	70 A
— up to 500 V for current peak value n=20 rated value	70 A
— up to 690 V for current peak value n=20 rated value	58 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	46.7 A
— up to 400 V for current peak value n=30 rated value	46.7 A
— up to 500 V for current peak value n=30 rated value	46.7 A
— up to 690 V for current peak value n=30 rated value	46.7 A
minimum cross-section in main circuit at maximum AC-1 rated value	35 mm ²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	30 A
• at 690 V rated value	24 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	1A
— 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	0.2071
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 ratiod value		
	— at 110 V rated value	45 A
• with 3 current paths in series at DC-1		
### with 3 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value — at 110 V rated value — at 110 V rated value — at 600 V rated value —		
		0.8 A
	 with 3 current paths in series at DC-1 	
	— at 24 V rated value	55 A
al 220 Y rated value	— at 60 V rated value	55 A
	— at 110 V rated value	55 A
at 500 V rated value	— at 220 V rated value	45 A
• at 1 current path at DC-3 at DC-5 — at 22 V rated value — at 200 V rated value — at 400 V rated value — at 400 V rated value — at 400 V rated value — at 600 V rated value — at 100 V rated value — 55 A — at 220 V rated value — 100 V rat	— 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 220 V rated value	— at 24 V rated value	35 A
at 440 V rated value	— at 60 V rated value	6 A
■ with 2 current paths in series at DC-3 at DC-5 ■ at 24 V rated value ■ at 100 V rated value ■ at 200 V rated value ■ at 220 V rated value ■ at 220 V rated value ■ at 200 V rated value ■ at 400 V rated value ■ at 600 V rated value ■ 55 A ■ at 60 V rated value ■ 55 A ■ at 110 V rated value ■ 55 A ■ at 110 V rated value ■ 55 A ■ at 110 V rated value ■ 55 A ■ at 110 V rated value ■ 55 A ■ at 110 V rated value ■ 57 A ■ at 110 V rated value ■ 37 KW ■ at AC-2 at 400 V rated value ■ 37 KW ■ at AC-3 A ■ at 230 V rated value ■ 37 KW ■ at AC-3 A ■ at 230 V rated value ■ 37 KW ■ at AC-3 A ■ at 300 V rated value ■ 37 KW ■ at AC-3 A ■ at 230 V rated value ■ 45 KW ■ at AC-3 A ■ at 200 V rated value ■ 45 KW ■ at AC-3 A ■ at 200 V rated value ■ 45 KW ■ at AC-3 A ■ at 400 V rated value ■ 45 KW ■ at AC-3 A ■ at 400 V rated value ■ 45 KW ■ at AC-3 A ■ at 400 V rated value ■ 45 KW ■ at AC-3 A ■ at 400 V rated value ■ 45 KW ■ at AC-3 A ■ at 400 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 45 KW ■ at 600 V rated value ■ 400 V	— at 220 V rated value	1 A
• with 2 current paths in series at DC-3 at DC-5 — at 224 V rated value — at 10 V rated value — at 110 V rated value — at 120 V rated value — at 1200 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value — at 100 V rated value — 55 A — at 220 V rated value — 55 A — at 220 V rated value — 55 A — at 120 V rated value — 55 A — at 100 V rated value — 55 A — at 100 V rated value — 55 A — at 100 V rated value — 56 A — at 100 V rated value — 57 A — at 100 V rated value — 58 A — at 100 V rated value — 58 A — at 100 V rated value — 58 A — at 100 V rated value — 59 A — at 400 V rated value — 50 A — at 200 V rated value — 50 A — 5	— 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 	
	— 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 paths in series at DC-3 at DC-5	— at 440 V rated value	0.27 A
at 24 V rated value 55 A	— at 600 V rated value	0.16 A
- at 60 V rated value 55 A - at 110 V rated value 55 A - at 220 V rated value 0.6 A - at 440 V rated value 0.6 A - at 600 V rated value 0.35 A operating power - at 600 V rated value 37 kW - at 600 V rated value 22 kW - at 600 V rated value 37 kW - at 600 V rated value 45 kW - at 600 V rated value 45 kW operating power for approx. 200000 operating cycles at AC-44 - at 400 V rated value 21.8 kW operating apparent power at AC-6a - up to 230 V for current peak value n=20 rated value 48.8 kW - up to 400 V for current peak value n=20 rated value 60.6 kW - up to 650 V for current peak value n=20 rated value 60.8 kW - up to 650 V for current peak value n=30 rated value 60.8 kW - up to 650 V for current peak value n=30 rated value 53.8 kW operating apparent power at AC-6a - up to 500 V for current peak value n=30 rated value 60.8 kW - up to 650 V for current peak value n=30 rated value 53.8 kW operating apparent power at AC-6a - up to 500 V for current peak value n=30 rated value 53.8 kW operating apparent power at AC-6a - up to 500 V for current peak value n=30 rated value 53.8 kW operating apparent power at AC-6a - up to 500 V for current peak value n=30 rated value 55.8 kW short-time withstand current in cold operating state up to 40 V C current peak value n=30 rated value 55.8 kW short-time withstand current in cold operating state up to 40 V C current peak value n=20 rated value 65.8 kW short-time withstand current in cold operating state up to 40 V C current	 with 3 current paths in series at DC-3 at DC-5 	
- at 110 V rated value 25 A	— at 24 V rated value	55 A
	— at 60 V rated value	55 A
— at 440 V rated value	— at 110 V rated value	55 A
operating power • at AC-2 at 400 V rated value • at AC-3 — at 230 V rated value — at 400 V rated value — at 690 V rated value — at 690 V rated value — at 690 V rated value — at 230 V rated value — at 690 V rated value — at 690 V rated value — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 690 V rated value • up to 230 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value	— at 220 V rated value	25 A
e at AC-2 at 400 V rated value e at AC-3 — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 690 V rated value — at 690 V rated value — at 400 V rated value — at 400 V rated value — at 400 V rated value — at 500 V rated value — at 600 V rated value — 21.8 kW operating power for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 600 V rated value • at 600 V rated value • 21.8 kW operating apparent power at AC-6a • up to 230 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 600 V for current peak value n=20 rated value • up to 600 V for current peak value n=20 rated value • up to 500 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 600 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value	— at 440 V rated value	0.6 A
at AC-2 at 400 V rated value at AC-3 — at 230 V rated value — at 400 V rated value — at 690 V rated value — at 690 V rated value — at 690 V rated value — at 230 V rated value — at 400 V rated value — at 400 V rated value — at 230 V rated value — at 230 V rated value — at 400 V rated value — at 400 V rated value — at 690 V rated value	— at 600 V rated value	0.35 A
at AC-3 at 230 V rated value at 400 V rated value at 500 V rated value at 690 V rated value at 800 V rated value at AC-3e at 500 V rated value at 500 V rated value at 690 V rated value at 400 V rated value at 690 V rated value at	operating power	
- at 230 V rated value 22 kW - at 400 V rated value 37 kW - at 500 V rated value 45 kW • at AC-3e - at 230 V rated value 22 kW - at 400 V rated value 37 kW - at 690 V rated value 37 kW - at 500 V rated value 37 kW - at 690 V rated value 37 kW - at 690 V rated value 45 kW operating power for approx. 200000 operating cycles at AC-4 • at 400 V rated value 15.8 kW operating apparent power at AC-6a • up to 230 V for current peak value n=20 rated value 48.4 kVA • up to 500 V for current peak value n=20 rated value 69.3 kVA operating apparent power at AC-6a • up to 250 V for current peak value n=20 rated value 69.3 kVA oup to 500 V for current peak value n=30 rated value 69.3 kVA operating apparent power at AC-6a • up to 230 V for current peak value n=30 rated value 69.3 kVA operating apparent power at AC-6a • up to 500 V for current peak value n=30 rated value 69.3 kVA operating apparent power at AC-6a • up to 500 V for current peak value n=30 rated value 69.3 kVA operating apparent power at AC-6a • up to 500 V for current peak value n=30 rated value 78.6 kVA • up to 500 V for current peak value n=30 rated value 78.6 kVA • up to 500 V for current peak value n=30 rated value 78.6 kVA • up to 690 V for current peak value n=30 rated value 78.6 kVA • up to 690 V for current peak value n=30 rated value 78.6 kVA • up to 690 V for current peak value n=30 rated value 78.6 kVA • up to 690 V for current peak value n=30 rated value 78.6 kVA • up to 690 V for current peak value n=30 rated value 78.6 kVA • up to 690 V for current peak value n=30 rated value 78.6 kVA • up to 690 V for current peak value n=30 rated value 78.6 kVA • up to 690 V for current peak value n=30 rated value 78.6 kVA • up to 690 V for current peak value n=30 rated value 78.6 kVA • up to 690 V for current peak value n=30 rated value 79.6 kVA • up to 690 V for current peak value n=30 rated value 79.6 kVA • up to 690 V for current peak value n=30 rated value 79.6 kVA • up to 600 V for current peak value n=30 rated value 79.6 kVA • up to 600 V for cur	 at AC-2 at 400 V rated value 	37 kW
- at 400 V rated value 37 kW - at 500 V rated value 45 kW • at AC-3e - at 230 V rated value 22 kW - at 400 V rated value 37 kW - at 690 V rated value 22 kW - at 400 V rated value 37 kW - at 690 V rated value 37 kW - at 690 V rated value 45 kW operating power for approx. 200000 operating cycles at AC-4 • at 400 V rated value 21.8 kW operating apparent power at AC-6a • up to 230 V for current peak value n=20 rated value 48.4 kVA • up to 400 V for current peak value n=20 rated value 69.3 kVA operating apparent power at AC-6a • up to 500 V for current peak value n=20 rated value 69.3 kVA operating apparent power at AC-6a • up to 500 V for current peak value n=30 rated value 60.6 kVA • up to 500 V for current peak value n=30 rated value 69.3 kVA operating apparent power at AC-6a • up to 500 V for current peak value n=30 rated value 59.3 kVA operating apparent power at AC-6a • up to 500 V for current peak value n=30 rated value 55.8 kVA sup to 500 V for current peak value n=30 rated value 40.4 kVA • up to 690 V for current peak value n=30 rated value 55.8 kVA short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum 1 298 A; Use minimum cross-section acc. to AC-1 rated value	• at AC-3	
- at 500 V rated value - at 690 V rated value 45 kW • at AC-3e - at 230 V rated value 22 kW - at 400 V rated value 37 kW - at 500 V rated value 37 kW - at 500 V rated value 45 kW operating power for approx. 200000 operating cycles at AC-4 • at 400 V rated value 9 at 690 V rated value 21.8 kW operating apparent power at AC-6a • up to 230 V for current peak value n=20 rated value 9 up to 500 V for current peak value n=20 rated value 9 up to 500 V for current peak value n=20 rated value 9 up to 690 V for current peak value n=20 rated value 9 up to 330 V for current peak value n=20 rated value 9 up to 690 V for current peak value n=20 rated value 9 up to 500 V for current peak value n=20 rated value 9 up to 330 V for current peak value n=20 rated value 9 up to 500 V for current peak value n=30 rated value 9 up to 500 V for current peak value n=30 rated value 9 up to 500 V for current peak value n=30 rated value 9 up to 500 V for current peak value n=30 rated value 9 up to 690 V for current peak value n=3	— at 230 V rated value	22 kW
- at 690 V rated value • at AC-3e - at 230 V rated value - at 400 V rated value - at 500 V rated value - at 690 V rated value • at 400 V rated value • at 400 V rated value • at 690 V rated value • up to 230 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value	— at 400 V rated value	37 kW
at AC-3e — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value • at 400 V rated value • at 400 V rated value • at 690 V rated value • up to 230 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • to 55.8 kVA	— at 500 V rated value	37 kW
- at 230 V rated value - at 400 V rated value - at 500 V rated value - at 690 V rated value - at 690 V rated value	— at 690 V rated value	45 kW
- at 400 V rated value - at 500 V rated value - at 690 V rated value - at 690 V rated value operating power for approx. 200000 operating cycles at AC- at 400 V rated value • at 400 V rated value • at 690 V rated value • at 690 V rated value • at 690 V rated value • up to 230 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • to 690 V for current peak value n=30 rated value • to 690 V for current peak value n=30 rated value • to 690 V for current peak value n=30 rated value • to 690 V for current peak value n=30 rated value • to 690 V for current peak value n=30 rated value • to 690 V for current peak value n=30 rated value • to 690 V for current peak value n=30 rated value • to 690 V for current peak value n=30 rated value • to 690 V for current peak value n=30 rated value • to 690 V for current peak value n=30 rated value • to 690 V for current peak value n=30 rated value • to 690 V for current peak value n=30 rated value • to 690 V for current peak value n=30 rated value	• at AC-3e	
- at 500 V rated value - at 690 V rated value operating power for approx. 200000 operating cycles at AC- 4 • at 400 V rated value • at 690 V rated value • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 230 V for current peak value n=30 rated value • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value	— at 230 V rated value	22 kW
- at 690 V rated value operating power for approx. 200000 operating cycles at AC-4 • at 400 V rated value • at 690 V rated value • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • 69.3 kVA operating apparent power at AC-6a • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • 1298 A; Use minimum cross-section acc. to AC-1 rated value	— at 400 V rated value	37 kW
operating power for approx. 200000 operating cycles at AC- 4 • at 400 V rated value • at 690 V rated value 21.8 kW operating apparent power at AC-6a • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 230 V for current peak value n=20 rated value • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value 55.8 kVA short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum 1 298 A; Use minimum cross-section acc. to AC-1 rated value	— at 500 V rated value	37 kW
at 400 V rated value at 690 V rated value 21.8 kW operating apparent power at AC-6a up to 230 V for current peak value n=20 rated value 48.4 kVA up to 400 V for current peak value n=20 rated value 48.4 kVA up to 500 V for current peak value n=20 rated value 60.6 kVA up to 690 V for current peak value n=20 rated value 69.3 kVA operating apparent power at AC-6a up to 230 V for current peak value n=30 rated value 18.6 kVA up to 400 V for current peak value n=30 rated value 32.3 kVA up to 500 V for current peak value n=30 rated value 55.8 kVA short-time withstand current in cold operating state up to 40 °C limited to 1 s switching at zero current maximum 1298 A; Use minimum cross-section acc. to AC-1 rated value	— at 690 V rated value	45 kW
 at 400 V rated value at 690 V rated value 21.8 kW operating apparent power at AC-6a up to 230 V for current peak value n=20 rated value up to 400 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value 69.3 kVA Operating apparent power at AC-6a up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value 40.4 kVA up to 690 V for current peak value n=30 rated value 55.8 kVA Short-time withstand current in cold operating state up to 40 °C limited to 1 s switching at zero current maximum 1 298 A; Use minimum cross-section acc. to AC-1 rated value 		
at 690 V rated value operating apparent power at AC-6a up to 230 V for current peak value n=20 rated value up to 400 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value operating apparent power at AC-6a up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value sup to 690 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C e limited to 1 s switching at zero current maximum 1 298 A; Use minimum cross-section acc. to AC-1 rated value		
operating apparent power at AC-6a • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • bimited to 1 s switching at zero current maximum 1 298 A; Use minimum cross-section acc. to AC-1 rated value		
 up to 230 V for current peak value n=20 rated value up to 400 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value 69.3 kVA Operating apparent power at AC-6a up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value to 40 kVA Short-time withstand current in cold operating state up to 40 °C limited to 1 s switching at zero current maximum 1 298 A; Use minimum cross-section acc. to AC-1 rated value 		21.8 kW
 up to 400 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value 69.3 kVA Operating apparent power at AC-6a up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value 40.4 kVA Short-time withstand current in cold operating state up to 40 °C limited to 1 s switching at zero current maximum 1 298 A; Use minimum cross-section acc. to AC-1 rated value 		
up to 500 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value 69.3 kVA operating apparent power at AC-6a up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value vup to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C elimited to 1 s switching at zero current maximum 1 298 A; Use minimum cross-section acc. to AC-1 rated value	· · · · · · · · · · · · · · · · · · ·	
• up to 690 V for current peak value n=20 rated value operating apparent power at AC-6a • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • limited to 1 s switching at zero current maximum 1 298 A; Use minimum cross-section acc. to AC-1 rated value		
operating apparent power at AC-6a • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value 55.8 kVA short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum 1 298 A; Use minimum cross-section acc. to AC-1 rated value		
 up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C limited to 1 s switching at zero current maximum 1 298 A; Use minimum cross-section acc. to AC-1 rated value 		69.3 kVA
 up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to 40 °C limited to 1 s switching at zero current maximum 1 298 A; Use minimum cross-section acc. to AC-1 rated value 		40.014
up to 500 V for current peak value n=30 rated value up to 690 V for current peak value n=30 rated value 55.8 kVA short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum 1 298 A; Use minimum cross-section acc. to AC-1 rated value		
• up to 690 V for current peak value n=30 rated value 55.8 kVA short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum 1 298 A; Use minimum cross-section acc. to AC-1 rated value		
short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum 1 298 A; Use minimum cross-section acc. to AC-1 rated value	· · · · · · · · · · · · · · · · · · ·	
40 °C ● limited to 1 s switching at zero current maximum 1 298 A; Use minimum cross-section acc. to AC-1 rated value		55.8 kVA
	40 °C	
• limited to 5 s switching at zero current maximum 898 A; Use minimum cross-section acc. to AC-1 rated value	-	
	 limited to 5 s switching at zero current maximum 	898 A; Use minimum cross-section acc. to AC-1 rated value

the its of the 40 and its birth and the second and income	040 A. H	
Iimited to 10 s switching at zero current maximum	640 A; Use minimum cross-section acc. to AC-1 rated value	
Iimited to 30 s switching at zero current maximum	414 A; Use minimum cross-section acc. to AC-1 rated value	
Iimited to 60 s switching at zero current maximum	333 A; Use minimum cross-section acc. to AC-1 rated value	
no-load switching frequency	4.500.4%	
• at AC	1 500 1/h	
• at DC	1 500 1/h	
operating frequency		
• at AC-1 maximum	700 1/h	
• at AC-2 maximum	350 1/h	
• at AC-3 maximum	500 1/h	
• at AC-3e maximum	500 1/h	
at AC-4 maximum	150 1/h	
Control circuit/ Control		
type of voltage of the control supply voltage	AC/DC	
control supply voltage at AC		
at 50 Hz rated value	83 155 V	
at 60 Hz rated value	83 155 V	
control supply voltage at DC rated value	83 155 V	
operating range factor control supply voltage rated value of magnet coil at DC		
initial value	0.8	
full-scale value	1.1	
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	
design of the surge suppressor	with varistor	
inrush current peak	1.5 A	
duration of inrush current peak	50 μs	
locked-rotor current mean value	0.45 A	
locked-rotor current peak	0.8 A	
duration of locked-rotor current	230 ms	
holding current mean value	12 mA	
apparent pick-up power of magnet coil at AC		
● at 50 Hz	40 VA	
● at 60 Hz	40 VA	
apparent holding power		
 at minimum rated control supply voltage at DC 	2 VA	
at maximum rated control supply voltage at DC	2 VA	
apparent holding power		
 at minimum rated control supply voltage at AC 		
— at 50 Hz	2 VA	
— at 60 Hz	2 VA	
 at maximum rated control supply voltage at AC 		
— at 50 Hz	2 VA	
— at 60 Hz	2 VA	
apparent holding power of magnet coil at AC		
● at 50 Hz	2 VA	
• at 60 Hz	2 VA	
inductive power factor with the holding power of the coil		
● at 50 Hz	0.95	
• at 60 Hz	0.95	
closing power of magnet coil at DC	23 W	
holding power of magnet coil at DC	1 W	
closing delay		
• at AC	35 110 ms	
• at DC	35 110 ms	
opening delay		
• at AC	30 55 ms	
• at DC	30 55 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
• 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	Transfer of the control of the contr
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	65 A
at 600 V rated value	62 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	5 hp
— at 230 V rated value	15 hp
for 3-phase AC motor	
— at 200/208 V rated value	20 hp
— at 220/230 V rated value	25 hp
— at 460/480 V rated value	50 hp
— at 575/600 V rated value	60 hp
contact rating of auxiliary contacts according to UL	A600 / P600
Short-circuit protection	1,00071 000
design of the miniature circuit breaker for short-circuit protection	C characteristic: 10 A; 0.4 kA
of the auxiliary circuit up to 230 V	O GHARAGEORIGE TO A, U.T IVE
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: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)
• for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method side-by-side mounting	Yes
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	114 mm
width	55 mm
depth	130 mm
required spacing	

- forwards				
downwards downwards for grounded parts forwards for	— forwards	10 mm		
at the side - for grounded parts convarids upwards at the side forwards to wards to wards upwards at the side at the s	— upwards	10 mm		
• for grounded parts — forwards — upwards • for the parts — forwards • for the parts — forwards — towards • for main current circuit • for main conductor ross-sections • for main conductor cross-section for main contacts • finely standed with core end processing • for AVC cables for main contacts • finely standed with core end processing • for AVC cables of which core end processing • for AVC cables towards • for audilary contacts • for audila	— downwards	10 mm		
frowards	— at the side	0 mm		
- at the side	for grounded parts			
- of the side - downwards 10 mm 10	— forwards	10 mm		
• for live parts - forwards - for live parts - towards - upwards - downwards - downwards - at the side - forman content circuit - for auxiliary and control circuit - of connections Towards - of or main contacts - of or good connectable conductor cross-sections - for auxiliary and control circuit - of or successing - of or main contacts - solid or stranded - finely stranded with core end processing - of a finely stranded with core end processing - finely	— upwards	10 mm		
• for live parts — forwards — upwards — upwards — at the side Connections Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit • for main current circuit • for auxiliary and control circuit • for main current circuit • for main contacts • of magnet coil Yepe of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core and processing • for AWC cables for main contacts • finely stranded with core and processing • for AWC cables for unalising contacts — solid or stranded • finely stranded with core and processing • for awCollable conductor cross-sections • for auxiliary contacts — solid or stranded • finely stranded with core and processing • for AWC cables for auxiliary contacts — solid or stranded • finely stranded with core and processing • for AWC cables for auxiliary contacts — solid or stranded • finely stranded without core and processing • for awCollables for auxiliary contacts — solid or stranded • finely stranded without core and processing • for awCollables for auxiliary contacts — solid or stranded • finely stranded without core and processing • for awCollables for auxiliary contacts Safety related data product function • for main contacts • for auxiliary contacts Safety related data product function • for main contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts 18. 1 • for auxiliary contacts 20. 14 Safety related data pr	— at the side			
Forwards	— downwards	10 mm		
- upwards - downwards - downwa	for live parts			
- at the sade 6 mm Connections/Terminals Uppe of electrical connection • for main cumrent circuit • for auxillary and control circuit • of a contactor for auxillary contacts • of magnet coil Spring-type terminals Vippe of connectable conductor cross-sections • for AWG cables for main contacts • finely stranded with core end processing • for auxillary contacts AWG number as coded connectable conductor cross-sections • for auxillary contacts • for auxillary contacts • for main contacts • for main contacts • for main contacts • for auxillary contacts • for main contacts • for auxillary contacts 2 (20	— forwards	10 mm		
Connections/ Terminals Vippe of electrical connection • for main current circuit • at contactor for auxiliary contacts • for main current circuit • at contactor for auxiliary contacts • for main contacts • for wild cables for main contacts • for wild cables for main contacts • for lay stranded with core end processing • for AWG cables for main contacts • finely stranded with core end processing • for auxiliary contacts • solid or stranded • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for favior cables for auxiliary contacts • for a	— upwards	10 mm		
ype of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil ype of connectable conductor cross-sections • for fain contacts — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts • finely stranded with core end processing connectable conductor cross-section for main contacts • finely stranded with core end processing connectable conductor cross-section for main contacts • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • finely stranded without core end processing • for auxiliary contacts • for auxiliary	— downwards	10 mm		
type of electrical connection • for main current circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts • solid or stranded — snelly stranded with core end processing • for AWC conductor cross-section for main contacts • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • finely stranded without core end processing • for own stranded • finely stranded without core end processing • for own stranded • finely stranded without core end processing • for own stranded • finely stranded without core end processing • for own stranded • finely stranded without core end processing • for own stranded • finely stranded with core end processing • for faviliary contacts • solid or stranded • finely stranded with core end processing • for faviliary contacts • for auxiliary contacts • for	— at the side	6 mm		
• for main current circuit • for auxiliary and control circuit • a contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing • for AWC cables for main contacts • finely stranded with core end processing • for auxiliary contacts • finely stranded with core end processing • for awC cables for main contacts • finely stranded with core end processing • for auxiliary contacts • solid or stranded — finely stranded with core end processing • for fawC cables for auxiliary contacts • finely stranded with core end processing • for fawC cables for auxiliary contacts • for auxiliary contacts • for main contacts • for sawlitary c	Connections/ Terminals			
• for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing • for AWC cables for main contacts • finely stranded with core end processing • for auxiliary contacts — solid or stranded — finely stranded without core end processing • for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross-sections • for auxiliary contacts AWG number as coded connectable conductor cross-section • for main contacts • for auxiliary contacts AWG number as coded connectable conductor cross-section • for main contacts • for auxiliary contacts 2x (0.5 2.5 mm²) 2x (20 14) AWG number as coded connectable conductor cross-section • for main contacts • for auxiliary contacts 2x (20 14) AWG number as coded connectable conductor cross-section • for main contacts • for auxiliary contacts 2x (20 14) AWG number as coded connectable conductor cross-section • for main contacts • for auxiliary contacts 2x (20 14) AWG number as coded connectable conductor cross-section • for main contacts • for auxiliary contacts 2x (20 14) AWG number as coded connectable conductor cross-section • for waxiliary contacts 2x (20 14) AWG number as coded connectable conductor cross-section • for waxiliary contacts 2x (20 14) AWG number as coded connectable conductor cross-section contacts • for auxiliary contacts 2x (20 14) AWG number as coded connectable conduct	type of electrical connection			
at contactor for auxiliary contacts of magnet coal type of connectable conductor cross-sections of or main contacts — solid or stranded — finely stranded with core end processing for AWG cables for main contacts of inely stranded with core end processing tonectable conductor cross-section for main contacts of finely stranded with core end processing connectable conductor cross-section for auxiliary contacts of inely stranded with core end processing connectable conductor cross-section for auxiliary contacts of inely stranded with core end processing of a stranded of a stranded without core end processing of finely stranded without core end processing of finely stranded without core end processing of for AWG cables for auxiliary contacts of or auxiliary contacts of or main contacts of or main contacts of or main contacts of or main contacts of or main contacts of or main contacts of or main contacts of or main contacts of or main contacts of main contacts	for main current circuit	screw-type terminals		
• of magnet coll type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing • for AVIC cables for main contacts • solid or stranded **Connectable conductor cross-section for main contacts • finely stranded with core end processing connectable conductor cross-section for main contacts • finely stranded with core end processing • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • finely stranded without core end processing • for connectable conductor cross-sections • for availiary contacts — solid or stranded — finely stranded without core end processing — finely stranded with core end processing — finely stranded with core end processing — finely stranded with core end processing — finely stranded without core end processing — for AVIC cables for auxiliary contacts AVIC number as coded connectable conductor cross section • for main contacts • for auxiliary contacts 18 1 • for auxiliary contacts 20 14 Safety related data Product function • mirror contact according to IEC 60947-5-1 • positively driven operation according to IEC 60947-5-1 • positively driven operation according to IEC 60947-5-1 • positively driven operation according to IEC 80947-5-1 • positively driven operation according to IEC 80947-5-1 • visitablity for use safety-related switching OFF 20 a 100 0000 100 FIT 13920 100 0000 131920 100 13849 40 % 40 % 40 % 40 We	for auxiliary and control circuit	spring-loaded terminals		
type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing • for AWC cables for main contacts • finely stranded with core end processing connectable conductor cross-section for main contacts • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing clinely stranded with core end processing • finely stranded without core end processing • for auxiliary contacts — solid or stranded — finely stranded without core end processing — finely stranded with core end processing — finely stranded with core end processing — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing — finely stranded without core end processing — for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts 2x (25 1.5 mm²) 2x (20 14) AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts 2x (20 14) AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts 2x (20 14) AWG number as coded connectable conductor cross section • for such a conding to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • with love demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with low demand	at contactor for auxiliary contacts	Spring-type terminals		
of or main contacts — solid or stranded — finely stranded with core end processing of rAWG cables for main contacts onnectable conductor cross-section for main contacts of finely stranded with core end processing connectable conductor cross-section for main contacts of finely stranded with core end processing of finely stranded with core end processing of finely stranded without core end processing of finely stranded without core end processing of finely stranded with core end processing of or stranded of finely stranded with core end processing of or stranded of finely stranded with core end processing of or stranded of finely stranded with core end processing of or stranded of finely stranded with core end processing of or stranded of finely stranded with core end processing of or stranded of finely stranded with core end processing of or AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section of or auxiliary contacts Safety related data product function on information contact according to IEC 60947-5-1 opsitively driven operation according to ISN 31920 owth high demand rate according to SN 31920 owth high demand rate according to SN 31920 owth high demand rate according to SN 31920 owthin bigh demand rate according to SN 31920 owthin ligh demand rate according to SN 3	• of magnet coil	Spring-type terminals		
solid or stranded finely stranded with core end processing for AVMC acalles for main contacts connectable conductor cross-section for main contacts finely stranded with core end processing connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing finely stranded with core end processing finely stranded with core end processing solid or stranded finely stranded with core end processing solid or stranded finely stranded with core end processing finely stranded without core end processing for auxiliary contacts solid or stranded finely stranded without core end processing for finely stranded without core end processing for finely stranded without core end processing for auxiliary contacts solid or stranded finely stranded without core end processing for auxiliary contacts solid or stranded finely stranded without core end processing finely stranded without core end processing for auxiliary contacts solid or stranded finely stranded without core end processing for auxiliary contacts solid or stranded finely stranded without core end processing finely stranded without core en				
- finely stranded with core end processing • for AWG cables for main contacts • finely stranded with core end processing connectable conductor cross-section for main contacts • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded without core end processing • for auxiliary contacts - solid or stranded - finely stranded with core end processing - finely stranded without core end processing - for AWG cables for auxiliary contacts - solid or stranded - finely stranded without core end processing - for auxiliary contacts - solid or stranded - finely stranded without core end processing - for auxiliary contacts - solid or sulfary contacts - for auxiliary contacts - for sulfary contacts -	• for main contacts			
• for AWG cables for main contacts • finely stranded with core end processing connectable conductor cross-section for auxillary contacts • solid or stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • for auxillary contacts • solid or stranded • finely stranded without core end processing • for auxillary contacts • solid or stranded — solid or stranded — solid or stranded — solid or stranded — finely stranded with core end processing — solid or stranded — finely stranded without core end processing — solid or stranded — finely stranded without core end processing — solid or stranded — finely stranded without core end processing — solid or stranded — finely stranded without core end processing — solid or stranded — finely stranded without core end processing — solid or stranded —	— solid or stranded	2x (1 35 mm²), 1x (1 50 mm²)		
connectable conductor cross-section for main contacts • finely stranded with core end processing clinely stranded with core end processing clinely stranded without core end processing of niely stranded without core end processing of niely stranded without core end processing of niely stranded without core end processing of a williary contacts AWG number as coded connectable conductor cross section of or main contacts of or auxiliary contacts 18 1 of or auxiliary contacts 20 14 Safoty rolated data product function of williary contact according to IEC 60947-4-1 of positively driven operation according to IEC 60947-5-1 of suitablify for use safety-function verse suitablify for use safety-function test wear-related service life necessary proportion of dangerous failures of with low demand rate according to SN 31920 of with high demand rate according to SN 31920 of with high demand rate according to SN 31920 of with high demand rate according to SN 31920 of with high demand rate according to SN 31920 of with high demand rate according to SN 31920 overdimensioning according to ISO 13849-2 necessary feel welvice type according to IEC 61508-2 Type A	— 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 clinely stranded with core end processing clinely stranded without core end processing of niely stranded without core end processing of niely stranded without core end processing of niely stranded without core end processing of a williary contacts AWG number as coded connectable conductor cross section of or main contacts of or auxiliary contacts 18 1 of or auxiliary contacts 20 14 Safoty rolated data product function of williary contact according to IEC 60947-4-1 of positively driven operation according to IEC 60947-5-1 of suitablify for use safety-function verse suitablify for use safety-function test wear-related service life necessary proportion of dangerous failures of with low demand rate according to SN 31920 of with high demand rate according to SN 31920 of with high demand rate according to SN 31920 of with high demand rate according to SN 31920 of with high demand rate according to SN 31920 of with high demand rate according to SN 31920 overdimensioning according to ISO 13849-2 necessary feel welvice type according to IEC 61508-2 Type A				
connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • for auxiliary contacts • solid or stranded — finely stranded with core end processing • 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 main contacts • for auxiliary contacts • for salving contacts • for salving contacts • for salving contacts • for salving contacts • go 14 Safoty related data product function • mirror contact according to IEC 60947-6-1 • suitable for safety function • suitablity for use safety-related switching OFF • yes service life maximum 20 a test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 100 FIT 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary yes licc 61508 safety device type according to IEC 61508-2 Type A	connectable conductor cross-section for main contacts			
Solid or stranded Innely stranded with core end processing Innely stranded without core end processing Itype of connectable conductor cross-sections In or auxiliary contacts — solid or stranded — finely stranded with ore end processing — finely stranded without core end processing — for AWG cables for auxiliary contacts — so for AWG cables for auxiliary contacts — to for auxiliary contacts — to for auxiliary contacts — to so auxi	• finely stranded with core end processing	1 35 mm²		
Solid or stranded Innely stranded with core end processing Innely stranded without core end processing Itype of connectable conductor cross-sections In or auxiliary contacts — solid or stranded — finely stranded with ore end processing — finely stranded without core end processing — for AWG cables for auxiliary contacts — so for AWG cables for auxiliary contacts — to for auxiliary contacts — to for auxiliary contacts — to so auxi				
• finely stranded without core end processing type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section • for main contacts — for auxiliary contacts — for auxil	•	0.5 2.5 mm²		
• finely stranded without core end processing type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing — for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts 20 14 Safety related data product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • suitablity for use safety-related switching OFF ves service life maximum 20 a test wear-related service life necessary yes with low demand rate according to SN 31920 • with high demand rate according to SN 31920 swith low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISC 61508-2 Type A	• finely stranded with core end processing	0.5 1.5 mm²		
type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing — finely stranded without core end processing — for AWG cables for auxiliary contacts — 2x (2014) AWG number as coded connectable conductor cross section • for main contacts — for auxiliary contacts — 181 — for auxiliary contacts — for auxiliary contacts — solid of stranded without core end processing — for main contacts — for auxiliary contacts — 181 — to auxiliary contacts — for auxiliary contacts — solid of stranded without core end processing — for auxiliary contacts — for		0.5 2.5 mm²		
• for auxiliary contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing 2x (0.5 2.5 mm²) • for AWG cables for auxiliary contacts 2x (20 14) AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts 20 14 Safety related data product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • suitable for safety function • suitable for safety function • suitablity for use safety-related switching OFF service life maximum 20 a test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 100 000 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 soverdimensioning according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary res FIC 61508 safety device type according to IEC 61508-2 Type A				
- solid or stranded - finely stranded with core end processing - finely stranded without core end processing - finely stranded without core end processing - for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section - for main contacts - for auxiliary contacts				
finely stranded with core end processing finely stranded without core end processing finely stranded without core end processing for AWG cables for auxiliary contacts 2x (20 14) AWG number as coded connectable conductor cross section for main contacts for auxiliary contacts for	•	2x (0.5 2.5 mm²)		
- finely stranded without core end processing • for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts 20 14 Safety related data product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • positively driven operation according to IEC 60947-5-1 • suitable for safety function • suitable for safety-related switching OFF yes service life maximum 20 a test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high 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 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A	— finely stranded with core end processing			
AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts 20 14 Safety related data product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • suitable for safety function • suitable for safety function • suitablity for use safety-related switching OFF service life maximum 20 a test wear-related service life necessary yes proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 1000 000 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A	, ,			
AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts 20 14 Safety related data product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • suitable for safety function • suitable for safety function • suitablity for use safety-related switching OFF service life maximum 20 a test wear-related service life necessary yes proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 1000 000 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A	for AWG cables for auxiliary contacts	2x (20 14)		
for main contacts for auxiliary contacts 20 14 Safety related data product function	i			
• for auxiliary contacts Safety related data product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • suitable for safety function • suitable for safety function • suitablity for use safety-related switching OFF service life maximum 20 a test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 1000 000 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A				
product function	• for main contacts			
product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • positively driven operation according to IEC 60947-5-1 • suitable for safety function • suitability for use safety-related switching OFF service life maximum 20 a test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 73 % B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A	• for auxiliary contacts	20 14		
mirror contact according to IEC 60947-4-1 positively driven operation according to IEC 60947-5-1 positively driven operation according to IEC 60947-5-1 suitable for safety function suitability for use safety-related switching OFF yes service life maximum 20 a test wear-related service life necessary proportion of dangerous failures with low demand rate according to SN 31920 with high demand rate according to SN 31920 with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A	Safety related data			
positively driven operation according to IEC 60947-5-1 suitable for safety function 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 with high demand rate according to SN 31920 with high demand rate according to SN 31920 1000 000 B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A	product function			
suitable for safety function suitability for use safety-related switching OFF service life maximum 20 a test wear-related service life necessary Yes proportion of dangerous failures with low demand rate according to SN 31920 with high demand rate according to SN 31920 with high demand rate according to SN 31920 1000 000 B10 value with high demand rate according to SN 31920 1000 FIT 100 FIT	 mirror contact according to IEC 60947-4-1 	Yes		
suitability for use safety-related switching OFF service life maximum test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A	 positively driven operation according to IEC 60947-5-1 	No		
test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A	suitable for safety function	Yes		
test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A	suitability for use safety-related switching OFF	Yes		
proportion of dangerous failures ● with low demand rate according to SN 31920 ● with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A	service life maximum	20 a		
 with low demand rate according to SN 31920 with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A 	test wear-related service life necessary	Yes		
● with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 3 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A	proportion of dangerous failures			
B10 value with high demand rate according to SN 31920 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 IEC 61508 safety device type according to IEC 61508-2 Type A	 with low demand rate according to SN 31920 	40 %		
failure rate [FIT] with low demand rate according to SN 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	with high demand rate according to SN 31920	73 %		
31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A	B10 value with high demand rate according to SN 31920	1 000 000		
device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A		100 FIT		
device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A				
overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A				
IEC 61508 safety device type according to IEC 61508-2 Type A				
safety device type according to IEC 61508-2 Type A		Yes		
Electrical Safety		Type A		
	Electrical Safety			

protection class IP on the front according to IEC 60529

IP20

touch protection on the front according to IEC 60529

finger-safe, for vertical contact from the front

Approvals Certificates

General Product Approval







Confirmation



Miscellaneous

General Product Approval

EMV

Test Certificates

Marine / Shipping

<u>KC</u>





Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping













other

Railway

Dangerous goods

Environment

Confirmation

Special Test Certificate **Transport Information**



Environmental Confirmations

Further informatior

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=3RT2038-3NF30

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT2038-3NF30}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-3NF30

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

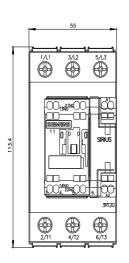
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2038-3NF30&lang=en

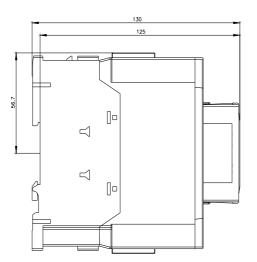
 $\label{lem:characteristics} \textbf{Characteristics}, \textbf{I}^{\textbf{2}}\textbf{t}, \textbf{Let-through current}$

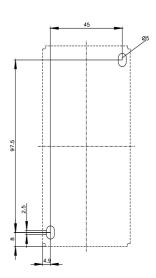
https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-3NF30/char

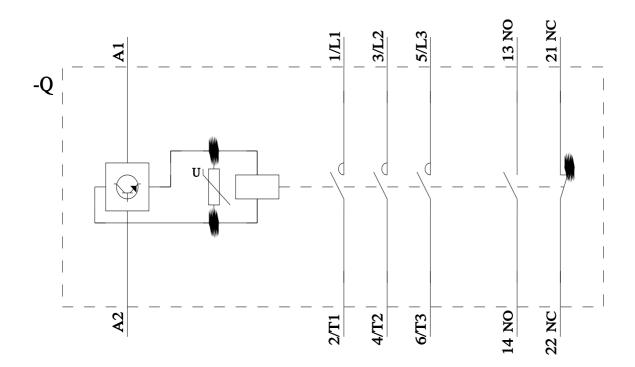
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2038-3NF30&objecttype=14&gridview=view1









last modified:

1/24/2025

3RT20 Page 9	 NF3	30