# **SIEMENS**

Data sheet 3RT2038-3SP30



power contactor, AC-3e/AC-3, 80 A, 37 kW / 400 V, 3-pole, 175-280 V AC/DC, 50/60 Hz, with integrated varistor, auxiliary contacts: 1 NC, main circuit: screw terminal, control and auxiliary circuit: spring-loaded terminal, size: S2, F-PLC-IN

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S2
product extension	
<ul> <li>function module for communication</li> </ul>	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	17.1 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	5.7 W
without load current share typical	1.6 W
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	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)	
<ul> <li>of contactor typical</li> </ul>	5 000 000
<ul> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> </ul>	5 000 000
of the contactor with added auxiliary switch block typical	5 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	01/29/2021
SVHC substance name	Blei - 7439-92-1 Bleimonoxid (Bleioxid) - 1317-36-8 2-Methyl-1-(4-methylthiophenyl)-2-morpho - 71868-10-5 Bleititanzirkonoxid - 12626-81-2 2,2',6,6'-Tetrabrom-4,4'-isopropylidendi - 79-94-7
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul> <li>during operation</li> </ul>	-25 +60 °C

Institute   Inst	during storage	-55 +80 °C
Main activit		
number of Potes for main current circuit   3   number of NO contacts for main current circuit   3   number of NO contacts for main centects   3   0   0   0   0   0   0   0   0   0	relative humidity at 55 °C according to IEC 60068-2-30	95 %
Description of INO contacts for main contacts   3	Main circuit	
Operating voltage	number of poles for main current circuit	3
e at AC-2 rated value maximum 690 V operational current  • at AC-1 at 400 V at ambient temperature 40 °C rated value • at AC-1 — up to 690 V at ambient temperature 40 °C rated value • at AC-3 — up to 690 V at ambient temperature 60 °C rated value — up to 690 V at ambient temperature 60 °C rated value — up to 990 V at ambient temperature 60 °C rated value — at 590 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=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 400 V rated value = 30 A 46.7 A 46.7 A 47.7 A 48.7 A	number of NO contacts for main contacts	3
• at AC-2e rated value maximum  operational current  • at AC-1 at 400 V at ambient temperature 40 °C rated value  — up to 680 V at ambient temperature 60 °C rated value — up to 680 V at ambient temperature 60 °C rated value — up to 680 V at ambient temperature 60 °C rated value — at 600 V rated value — up to 200 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=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 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 c	operating voltage	
operational current  ■ at AC-1 at 400 V at ambient temperature 40 °C rated value  ■ at AC-1  — up to 680 V at ambient temperature 80 °C rated value — up to 680 V at ambient temperature 80 °C rated value — up to 680 V at ambient temperature 80 °C rated value — at 500 V rated value — at 600 V rated value — 55 A  ■ at AC-2a  ■ at AC-3b up to 900 V rated value ■ at AC-4a th 00 V rated value ■ at AC-5b up to 900 V rated value — up to 400 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 500 V for current peak value n=3	<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
• at AC-1 at 400 V at ambient temperature 40 °C rated value • at AC-1 — up to 690 V at ambient temperature 40 °C rated value — up to 690 V at ambient temperature 60 °C rated value — up to 690 V at ambient temperature 80 °C rated value — at 690 V rated value — up to 400 V rated value — up to 400 V 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=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 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 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 500 V for current peak value n=30 rated value — up to 500 V for current peak value n=30 rated value — u	at AC-3e rated value maximum	690 V
value  ■ at AC-1  — up to 690 V at ambient temperature 40 °C rated value  — up to 690 V at ambient temperature 60 °C rated value  ■ at 400 V rated value  ■ at 500 V rated value  ■ at 690 V rated value n=20 rated value  ■ at 690 V for current peak value n=20 rated value  ■ at 690 V for current peak value n=20 rated value  ■ at 690 V for current peak value n=30 rated value  ■ at 690 V for current peak value n=30 rated value  ■ at 690 V for current peak value n=30 rated value  ■ at 690 V for current peak value n=30 rated value  ■ at 600 V for current peak value n=30 rated value  ■ at 600 V rated value	operational current	
	· · · · · · · · · · · · · · · · · · ·	90 A
value  — up to 690 V at ambient temperature 60 °C rated value  • at AC-3  — at 400 V rated value — at 500 V rated value — at 690 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value — at AC-5a up to 690 V rated value — at AC-5b up to 400 V for current peak value = 20 rated value — up to 500 V for current peak value = 20 rated value — up to 690 V for current peak value = 20 rated value — up to 690 V for current peak value = 20 rated value — up to 690 V for current peak value = 20 rated value — up to 500 V for current peak value = 20 rated value — up to 500 V for current peak value = 20 rated value — up to 500 V for current peak value = 20 rated value — up to 500 V for current peak value = 20 rated value — up to 500 V for current peak value = 20 rated value — up to 500 V for current peak value = 20 rated value — up to 500 V for current peak value = 30 rated value — up to 500 V for current peak value = 30 rated value — up to 500 V for current peak value = 30 rated value — up to 500 V for current peak value = 30 rated value — up to 500 V for current peak value = 30 rated value — up to 500 V for current peak value = 30 rated value — up to 500 V rated value — at 600 V rated		
value  ■ at AC-3  — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 500 V rated value  ■ at 600 V rated value  ■ at 500 V rated value — at 600 V rated value  ■ at AC-5a up to 690 V rated value ■ at AC-5b up to 400 V rated value — at 600 V rated value — at 600 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 500 V for current peak value n=30 rated value  minimum cross-section in main circuit at maximum AC-1 rated value  at 100 V rated value  at 100 V rated value  at 100 V rated value  at 110 V rated value  at 22 V rated value  at 100 V rated value  at 100 V rated value  at 600	value	
— at 500 V rated value — at 500 V rated value — at 600 V rated value — at 600 V rated value  • at AC-3e — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 500 V rated value — at 600 V rated value — at 600 V rated value  • at AC-4 at 400 V rated value • at AC-5 au pto 690 V rated value • at AC-5 au pto 690 V rated value • at AC-5 au pto 690 V rated value • at AC-5 au pto 690 V rated value • at AC-5 au pto 690 V rated value • at AC-5 au pto 690 V rated value • at AC-6 au pto 690 V roterent peak value n=20 rated value — up to 500 V for current peak value pr=20 rated value — up to 600 V for current peak value pr=20 rated value — up to 600 V for current peak value pr=20 rated value — up to 500 V for current peak value pr=30 rated value — up to 500 V for current peak value pr=30 rated value — up to 500 V for current peak value pr=30 rated value — up to 500 V for current peak value pr=30 rated value — up to 500 V for current peak value pr=30 rated value — up to 500 V for current peak value pr=30 rated value — up to 500 V for current peak value pr=30 rated value — up to 500 V for current peak value pr=30 rated value — up to 500 V for current peak value pr=30 rated value — up to 500 V for current peak value pr=30 rated value — up to 500 V for current peak value pr=30 rated value — up to 500 V for current peak value pr=30 rated value — at 400 V rated value — at 600	value	80 A
at AC-3e  at 400 V rated value  at 500 V rated value  at 500 V rated value  at 600 V rated value  at 600 V rated value  58 A  at AC-3e  at AC-3e  at AC-3e  at AC-5e  at AC-5e  at AC-6a  at AC-6a  at AC-6a  at pto 590 V for current peak value n=20 rated value  at AC-6a  at AC-6a  at AC-6a  at pto 500 V for current peak value n=20 rated value  at b to 500 V for current peak value n=20 rated value  at AC-6a  at AC-		
■ at AC-3e  — at 400 V rated value — at 500 V rated value — at 690 V rated value 58 A  at AC-4 at 400 V rated value 55 A  • at AC-5e up to 590 V rated value • at AC-5b up to 400 V rated value • at AC-5b up to 400 V rated value • at AC-5b up to 400 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=20 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 230 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 600 V for current peak value n=30 rated value — up to 600 V for current peak value n=30 rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value  • at 1 current path at DC-1  — at 24 V rated value — at 60 V rated value — at 20 V rated value — at 20 V rated value — at 20 V rated value — at 60 V rated value — at 60 V rated value — at 10 V rated valu		
		58 A
- at 500 V rated value		00 A
■ at AC-4 at 400 V rated value		
at AC-4 at 400 V rated value at AC-5a up to 690 V rated value at AC-5a up to 690 V rated value at AC-5a  — 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=20 rated value — up to 500 V for current peak value n=30 rated value — up to 400 V for current peak value n=30 rated value — up to 230 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 500 V for current peak value n=30 rated value — at 600 V rated value  at 600 V rated value — at 24 V rated value — at 600 V		
at AC-5a up to 690 V rated value     at AC-5b up to 400 V rated value     at AC-5b up to 400 V rated value     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 590 V for current peak value n=20 rated value     — up to 590 V for current peak value n=20 rated value     — up to 230 V for current peak value n=20 rated value     — up to 590 V for current peak value n=30 rated value     — up to 230 V for current peak value n=30 rated value     — up to 590 V for current peak value n=30 rated value     — up to 590 V for current peak value n=30 rated value     — up to 590 V for current peak value n=30 rated value     — up to 590 V for current peak value n=30 rated value     — up to 590 V for current peak value n=30 rated value     — up to 590 V for current peak value n=30 rated value     — up to 590 V for current peak value n=30 rated value     — up to 590 V for current peak value n=30 rated value     — up to 590 V for current peak value n=30 rated value     — up to 590 V for current peak value n=30 rated value     — up to 590 V for current peak value n=30 rated value     — at 400 V rated value     — at 600		
at AC-5b up to 400 V rated value     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 500 V for current peak value n=20 rated value     — up to 500 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     minimum cross-section in main circuit at maximum AC-1 rated value  minimum cross-section in main circuit at maximum AC-1 rated value  operational current for approx. 200000 operating cycles at AC-4     at 400 V rated value     24 A  operational current  • at 1 current path at DC-1  — at 24 V rated value     35 A  — at 110 V rated value     35 A  — at 410 V rated value     35 A  — at 440 V rated value     36 A  — at 440 V rated value     37 A  — at 440 V rated value     38 A  • at 60 V rated value     39 A  — at 440 V rated value     30 A  — at 60 V rated value     30 A  • at 60 V rated value  — at 60 V rated v		
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 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 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     — at 400 V rated value     — at 690 V rated value     — at 690 V rated value     — at 600 V rated value     — at 220 V rated value     — at 600 V rated value     — at 600 V rated value     — at 600 V rated value     — at 220 V rated value     — at 600 V rated val		
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 690 V for current peak value n=30 rated value up to 230 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 at 400 V rated value at 400 V rated value at 4400 V rated value at 24 V rated value at 24 V rated value at 24 V rated value at 440 V rated value at 440 V rated value at 600 V rate		00.77
up to 400 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 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 up to 690 V for current peak value n=30 rated value at 400 V rated value at 690 V rated value at 690 V rated value at 220 V rated value at 220 V rated value at 440 V rated value at 440 V rated value at 600 V rated value at 400 V rated value at 600 V rated value		70 A
- up to 500 V for current peak value n=20 rated value - up to 690 V for current peak value n=20 rated value • 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 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 - operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 600 V rated value - at 24 V rated value - at 220 V rated value - at 220 V rated value - at 440 V rated value - at 440 V rated value - at 600 V rated value		
- up to 690 V for current peak value n=20 rated value  ■ at AC-6a  - up to 230 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 - operational current for approx. 200000 operating cycles at AC-4  ■ at 400 V rated value ■ at 690 V rated value ■ at 600 V rated value - at 60 V rated value - at 24 V rated value - at 440 V rated value - at 600 V rated value - at 220 V rated value - at 600 V rated value		
• 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 46.7 A — up to 690 V for current peak value n=30 rated value  minimum cross-section in main circuit at maximum AC-1 rated value  operational current for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value  • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value — at 110 V rated value — at 110 V rated value — at 440 V rated value — at 440 V rated value — at 440 V rated value — at 60 V rated value — at 24 V rated value — at 25 A  • with 2 current paths in series at DC-1  — at 24 V rated value — at 27 V rated value — at 40 V rated value — at 440 V rated value — at 55 A — at 56 A — at 57 A — at 58 A — at 57 A — at 58 A		
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value up to 590 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 value  minimum cross-section in main circuit at maximum AC-1 rated value operational current for approx. 200000 operating cycles at AC-4  at 400 V rated value at 690 V rated value at 24 V rated value at 24 V rated value at 24 V rated value at 600 V rated value at 220 V rated value at 440 V rated value at 600 V rated value at 24 V rated value at 600 V rated value at 24 V rated value at 25 A  at 20 V rated value at 440 V rated value at 600 V 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 mm²         operational current for approx. 200000 operating cycles at AC-4       at 400 V rated value         • 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       1 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       55 A         — at 24 V rated value       45 A         — at 110 V rated value       45 A         — at 220 V rated value       5 A         — at 220 V rated value       5 A         — at 40 V rated value       45 A         — at 24 V rated value       5 A         — at 440 V rated value       5 A         — at 440 V rated value       5 A         — at 600 V rated value       1 A         — at 600 V rated value       5 A         — at 600 V rated value       6 A         — at 600 V rated value       6 A         — at 600		
minimum cross-section in main circuit at maximum AC-1 rated value         35 mm²           operational current for approx. 200000 operating cycles at AC-4	·	
AC-4         • at 400 V rated value         • at 690 V rated value         • at 1 current path at DC-1             — at 24 V rated value             — at 60 V rated value             — at 110 V rated value             — at 220 V rated value             — at 440 V rated value             — at 440 V rated value             — at 460 V rated value             — at 440 V rated value             — at 440 V rated value             — at 450 V rated value             — at 600 V rated value             — at 600 V rated value             — at 22 V rated value             — at 22 V rated value             — at 24 V rated value             — at 60 V rated value             — at 60 V rated value             — at 60 V rated value             — at 440 V rated value             — at 220 V rated value             — at 440 V rated value             — at 600 V rated value             — at 440 V rated value             — at 440 V rated value             — at 440 V rated value             — at 600 V rated value             — at 600 V rated value             — at 440 V rated value             — at 600 V rated value	minimum cross-section in main circuit at maximum AC-1 rated	
• at 690 V rated value  operational current  • at 1 current path at DC-1  — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 60 V rated value — at 600		
operational current	• at 400 V rated value	30 A
• at 1 current path at DC-1  — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at 600 V rated value — at 60 V rated value — at 40 V rated value — at 45 A — at 110 V rated value — at 440 V rated value — at 600 V rated value • with 3 current paths in series at DC-1	at 690 V rated value	24 A
- at 24 V rated value 55 A - at 60 V rated value 23 A - at 110 V rated value 4.5 A - at 220 V rated value 1 A - at 440 V rated value 0.4 A - at 600 V rated value 0.25 A  • with 2 current paths in series at DC-1 - at 24 V rated value 55 A - at 60 V rated value 45 A - at 110 V rated value 45 A - at 110 V rated value 55 A - at 440 V rated value 45 A - at 220 V rated value 55 A - at 600 V rated value 10 A - at 600 V rated	operational current	
- at 60 V rated value 23 A - at 110 V rated value 4.5 A - at 220 V rated value 1 A - at 440 V rated value 0.4 A - at 600 V rated value 0.25 A  • with 2 current paths in series at DC-1 - at 24 V rated value 55 A - at 60 V rated value 45 A - at 110 V rated value 45 A - at 220 V rated value 55 A - at 440 V rated value 1 A - at 600 V rated value 5 A - at 440 V rated value 1 A - at 600 V rated value 1 A	• at 1 current path at DC-1	
- at 110 V rated value 4.5 A - at 220 V rated value 1 A - at 440 V rated value 0.4 A - at 600 V rated value 0.25 A  • with 2 current paths in series at DC-1  - at 24 V rated value 55 A - at 60 V rated value 45 A - at 110 V rated value 45 A - at 220 V rated value 5 A - at 440 V rated value 5 A - at 440 V rated value 1 A - at 600 V rated value 0.8 A  • with 3 current paths in series at DC-1	— at 24 V rated value	55 A
- at 220 V rated value - at 440 V rated value 0.4 A - at 600 V rated value 0.25 A  • with 2 current paths in series at DC-1  - at 24 V rated value 55 A - at 60 V rated value 45 A - at 110 V rated value 45 A - at 220 V rated value 5 A - at 440 V rated value 1 A - at 600 V rated value 0.8 A	— at 60 V rated value	23 A
<ul> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> <li>• with 2 current paths in series at DC-1</li> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul>	— at 110 V rated value	4.5 A
<ul> <li>at 600 V rated value</li> <li>with 2 current paths in series at DC-1</li> <li>at 24 V rated value</li> <li>at 60 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 45 A</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>with 3 current paths in series at DC-1</li> </ul>	— at 220 V rated value	1 A
• with 2 current paths in series at DC-1  — at 24 V rated value 55 A  — at 60 V rated value 45 A  — at 110 V rated value 45 A  — at 220 V rated value 5 A  — at 440 V rated value 1 A  — at 600 V rated value 0.8 A  • with 3 current paths in series at DC-1	— at 440 V rated value	0.4 A
- at 24 V rated value 55 A  - at 60 V rated value 45 A  - at 110 V rated value 45 A  - at 220 V rated value 5 A  - at 440 V rated value 1 A  - at 600 V rated value 0.8 A  • with 3 current paths in series at DC-1	— at 600 V rated value	0.25 A
- at 60 V rated value 45 A  - at 110 V rated value 5 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	<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
- at 110 V rated value 45 A - at 220 V rated value 5 A - at 440 V rated value 1 A - at 600 V rated value 0.8 A  • with 3 current paths in series at DC-1		
<ul> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>with 3 current paths in series at DC-1</li> </ul>	— at 60 V rated value	
<ul> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> <li>• with 3 current paths in series at DC-1</li> </ul>	— at 110 V rated value	
— at 600 V rated value 0.8 A  • with 3 current paths in series at DC-1		
• with 3 current paths in series at DC-1		
		0.8 A
— at 24 V rated value 55 A	-	
	— at 24 V rated value	55 A

	-t 00 \/t-dl	55.4
	— at 60 V rated value	55 A
- at 12 current path at DC-3 at DC-5 - at 24 V rated value		
		1.4 A
	•	05.4
- with 2 current paths in series at DC-3 at DC-5  - at 24 V rated value - at 110 V rated value - at 25 V rated value - at 26 V rated value - at 27 V rated value - at 40 V rated value - at 40 V rated value - at 600 V rated value -		
		0.06 A
	·	FF A
- at 110 V rated value		
- at 220 V rated value		
with 3 current paths in series at DC-3 at DC-5		
with 3 current paths in series at DC-3 at DC-6		
		0.16 A
	•	EE A
Operating power   at AC-2 at 400 V rated value   22 kW   - at 230 V rated value   37 kW   - at 230 V rated value   37 kW   - at 500 V rated value   37 kW   - at 690 V rated value   45 kW   - at 690 V rated value   37 kW   - at 690 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   - at 690 V rated value   45 kW   - at 690 V rated value   21 k kW   - at 690 V rated value   21 k kW   - at 690 V rated value   21 k kW   - at 690 V rated value   21 k kW   - at 690 V rated value   21 k kW   - at 690 V rated value   20 rated value		
operating power  • at AC-2 at 400 V rated value  • at AC-3  — at 230 V rated value  — at 400 V rated value  — at 400 V rated value  — at 690 V rated value  — at 400 V rated value  — at 500 V rated value  — at 400 V rated value  — at 690 V rated value  operating power for approx. 200000 operating cycles at AC-4  • at 400 V rated value  operating apparent power at AC-8a  • 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=30 rated value  • up to 500 V for		
at AC-2 at 400 V rated value at AC-3 at AC-3e at 230 V rated value at AC-3e at 230 V rated value at AC-3e at 230 V rated value at AC-3e at 500 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 690 V rated value  at 690 V rated value  at AC-3e  at 230 V rated value  at AC-3e  at 230 V rated value  at 400 V rated value  at 400 V rated value  at 690 V rated value  at 690 V rated value  37 kW  at 500 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  poperating power for approx. 200000 operating cycles at AC-  4 at 400 V rated value  21.8 kW  operating apparent power at AC-8a  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=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  sup 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 500 V for current peak value n=30 rated value  in mited to 1 s switching at zero current maximum  il mited to 30 s switching at zero current maximum  il mited to 30 s switching at zero current maximum  il mited to 30 s switching at zero current maximum  il mited to 30 s switching at zero current maximum  il mited to 30 s switching at zero current maximum  il mited to 30 s switching at zero current maximum  il mited to 30 s switching at zero current maximum  il mited to 30 s switching at zero current maximum  il mited to 30 s switching at zero current maximum  il mited to 30 s switching at zero current maximum  il mited to 30 s switching at zero current maximum  il mited to 30 s switching at zero current maximum  il mited to 30 s switching at zero current maximum  il mited to 30 s switching at zero current maximum  il mited to 30 s switching at zero current maximum  il mited to 30 s switching at zero current maxim		27 144
- at 230 V rated value - at 400 V rated value - at 590 V rated value - at 400 V rated value - at 400 V rated value - at 230 V rated value - at 400 V rated value - at 400 V rated value - at 400 V rated value - at 590 V rated value - at 590 V rated value - at 690 V for current peak value n=20 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 600 V for current peak value n=30 rated value - at 600 V for current peak value n=30 rated value - at 600 V for current peak value n=30 rated value - at 600 V for current peak value n=30 rated value - at 600 V for current peak value n=30 rated value - at 600 V for current peak value n=30 rated value - at 600 V for c		37 KVV
- at 400 V rated value - at 500 V rated value - at 690 V rated value - at AC-3e - at 230 V rated value - at 400 V rated value - at 500 V rated value - at 400 V rated value - at 500 V rated value - at 690 V for current peak value n=20 rated value - at 690 V for current peak value n=20 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 600 V A - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value n=30 rated value - at 600 V A - at 690 V		22 MM
- at 500 V rated value - 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 ratevalue - at 690 V rated value - at 690 V rated value - at 690 V		
- 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  • up to 400 V for current peak value n=20 rated value  • up to 600 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=30 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 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 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 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		
at ACC-3e — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 500 V rated value — at 690 V rated value		
- 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 690 V 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=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 • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero cu		40 ///
- 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-4  • at 400 V rated value • at 690 V 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 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 • limited to 1 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 50 s switching at zero current maximum • limited to 50 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 50 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum		22 kW
- 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 • at 690 V rated value • at 690 V ror 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 230 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 • lup to 690 V for current peak value n=30 rated value • limited to 1 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching at zero current maximum • limited to 60 s switching		
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operating apparent power at AC-6a  • 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 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  • limited to 1 s switching at zero current maximum  • limited to 5 s switching at zero current maximum  • limited to 10 s switching at zero current maximum  • limited to 30 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum	• at 400 V rated value	15.8 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     • 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 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 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     • limited to 1 s switching at zero current maximum     • limited to 5 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 30 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     •	at 690 V rated value	21.8 kW
<ul> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>operating apparent power at AC-6a</li> <li>up to 230 V for current peak value n=30 rated value</li> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>short-time withstand current in cold operating state up to 40 °C</li> <li>limited to 1 s switching at zero current maximum</li> <li>limited to 5 s switching at zero current maximum</li> <li>limited to 10 s switching at zero current maximum</li> <li>limited to 30 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s sw</li></ul>	operating apparent power at AC-6a	
• 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 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     • limited to 5 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 30 s switching at zero current maximum     • limited to 30 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching frequency     • at AC     • at DC	• up to 400 V for current peak value n=20 rated value	48 400 VA
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  55 800 VA  short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  • limited to 5 s switching at zero current maximum  • limited to 10 s switching at zero current maximum  • limited to 30 s switching at zero current maximum  • limited to 30 s switching at zero current maximum  • limited to 60 s switching at zero current maximum	• up to 500 V for current peak value n=20 rated value	60 600 VA
<ul> <li>up to 230 V for current peak value n=30 rated value</li> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>short-time withstand current in cold operating state up to 40 °C</li> <li>limited to 1 s switching at zero current maximum</li> <li>limited to 5 s switching at zero current maximum</li> <li>limited to 10 s switching at zero current maximum</li> <li>limited to 30 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited</li></ul>	• up to 690 V for current peak value n=20 rated value	69 300 VA
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 short-time withstand current in cold operating state up to 40 °C  limited to 1 s switching at zero current maximum limited to 5 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching	operating apparent power at AC-6a	
up to 500 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  limited to 5 s switching at zero current maximum  limited to 10 s switching at zero current maximum  limited to 30 s switching at zero current maximum  limited to 60 s switching at zero current maximum  limited to 60 s switching at zero current maximum  limited to 60 s switching at zero current maximum  also be a 40 400 VA  55 800 VA  1 298 A; Use minimum cross-section acc. to AC-1 rated value  640 A; Use minimum cross-section acc. to AC-1 rated value  414 A; Use minimum cross-section acc. to AC-1 rated value  333 A; Use minimum cross-section acc. to AC-1 rated value  1 000 1/h  1 000 1/h	• up to 230 V for current peak value n=30 rated value	18 600 VA
<ul> <li>up to 690 V for current peak value n=30 rated value</li> <li>short-time withstand current in cold operating state up to 40 °C</li> <li>limited to 1 s switching at zero current maximum</li> <li>limited to 5 s switching at zero current maximum</li> <li>limited to 10 s switching at zero current maximum</li> <li>limited to 30 s switching at zero current maximum</li> <li>limited to 30 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching frequency</li> <li>at AC</li> <li>at DC</li> <li>1 000 1/h</li> <li>1 000 1/h</li> <li>1 000 1/h</li> </ul>	• up to 400 V for current peak value n=30 rated value	32 300 VA
short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  • limited to 5 s switching at zero current maximum  • limited to 10 s switching at zero current maximum  • limited to 30 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  • limited to 60 s switching frequency  • at AC  • at DC  1 298 A; Use minimum cross-section acc. to AC-1 rated value  640 A; Use minimum cross-section acc. to AC-1 rated value  333 A; Use minimum cross-section acc. to AC-1 rated value  1 000 1/h  1 000 1/h	• up to 500 V for current peak value n=30 rated value	40 400 VA
• limited to 1 s switching at zero current maximum     • limited to 5 s switching at zero current maximum     • limited to 10 s switching at zero current maximum     • limited to 30 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • limited to 60 s switching at zero current maximum     • at AC     • at DC     • at DC	• up to 690 V for current peak value n=30 rated value	55 800 VA
<ul> <li>limited to 5 s switching at zero current maximum</li> <li>limited to 10 s switching at zero current maximum</li> <li>limited to 30 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>no-load switching frequency</li> <li>at AC</li> <li>at DC</li> <li>1 000 1/h</li> <li>1 000 1/h</li> <li>1 000 1/h</li> </ul>		
<ul> <li>limited to 10 s switching at zero current maximum</li> <li>limited to 30 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>no-load switching frequency</li> <li>at AC</li> <li>at DC</li> <li>1 000 1/h</li> <li>1 000 1/h</li> <li>1 000 1/h</li> </ul>	<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	1 298 A; Use minimum cross-section acc. to AC-1 rated value
Ilimited to 30 s switching at zero current maximum     Ilimited to 60 s switching at zero current maximum      Ilimited to 60 s switching at zero current maximum      Imited to 60 s switching at zero current maximum      Inoload switching frequency	<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	898 A; Use minimum cross-section acc. to AC-1 rated value
Ilimited to 60 s switching at zero current maximum      no-load switching frequency     at AC     at DC      1 000 1/h     1 000 1/h	<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	640 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency         ● at AC       1 000 1/h         ● at DC       1 000 1/h	<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	414 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>at AC</li> <li>at DC</li> <li>1 000 1/h</li> <li>1 000 1/h</li> </ul>	Iimited to 60 s switching at zero current maximum	333 A; Use minimum cross-section acc. to AC-1 rated value
• at DC 1 000 1/h	no-load switching frequency	
	• at AC	1 000 1/h
operating frequency		1 000 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	175 280 V
at 60 Hz rated value	175 280 V
control supply voltage at DC	
rated value	175 280 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
type of PLC-control input according to IEC 60947-1	Type 1
consumed current at PLC-control input according to IEC 60947-1 maximum	11 mA
voltage at PLC-control input rated value	24 V
operating range factor of the voltage at PLC-control input	0.8 1.1
design of the surge suppressor	with varistor
inrush current peak	43 A
duration of inrush current peak	10 µs
locked-rotor current mean value	0.18 A
locked-rotor current peak	0.42 A
duration of locked-rotor current	230 ms
holding current mean value	0.01 A
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	OVA
— at 50 Hz	2 VA
— at 60 Hz	2 VA
apparent holding power of magnet coil at AC	2 \/ A
• at 50 Hz • at 60 Hz	2 VA 2 VA
	Z 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	40 W
holding power of magnet coil at DC	1.6 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
recovery time after power failure typical	2.1 s
arcing time	10 20 ms
-	
control version of the switch operating mechanism	Fail-safe PLC input (F-PLC-IN)

Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous	1
contact	
number of NO contacts for auxiliary contacts instantaneous contact	0
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	
• 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
Chart singuit protection	
Short-circuit protection	
design of the fuse link	
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)
design of the fuse link  ● for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required	kA) gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)
<ul> <li>design of the fuse link</li> <li>for short-circuit protection of the main circuit         <ul> <li>with type of coordination 1 required</li> </ul> </li> <li>with type of assignment 2 required</li> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	kA)
design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions	G: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)
<ul> <li>design of the fuse link</li> <li>for short-circuit protection of the main circuit         <ul> <li>with type of coordination 1 required</li> </ul> </li> <li>with type of assignment 2 required</li> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	KA) gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)
design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method	gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position	gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes
design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting  height	gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 114 mm
design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting  height  width	G: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 114 mm 55 mm
design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting  height  width  depth	G: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 114 mm
design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting  height  width  depth  required spacing	G: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 114 mm 55 mm
design of the fuse link	G: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm
design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting  height  width  depth  required spacing  • with side-by-side mounting  — forwards	G: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm
design of the fuse link	G: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA) gG: 10 A (500 V, 1 kA)  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm

— at the side	0 mm
<ul> <li>for grounded parts</li> </ul>	
— 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
<ul> <li>for auxiliary and control circuit</li> </ul>	spring-loaded terminals
<ul> <li>at contactor for auxiliary contacts</li> </ul>	Spring-type terminals
of magnet coil	Spring-type terminals
type of connectable conductor cross-sections for main contacts	
solid or stranded	2x (1 35 mm²), 1x (1 50 mm²)
finely stranded with core end processing	2x (1 25 mm²), 1x (1 35 mm²)
connectable conductor cross-section for main contacts	
<ul> <li>finely stranded with core end processing</li> </ul>	1 35 mm²
connectable conductor cross-section for auxiliary contacts	
• solid or stranded	0.5 2.5 mm²
finely stranded with core end processing	0.5 1.5 mm²
finely stranded without core end processing	0.5 2.5 mm²
type of connectable conductor cross-sections	- C <u>- C</u>
for auxiliary contacts	
— solid or stranded	2x (0.5 2.5 mm²)
finely stranded with core end processing	2x (0.5 1.5 mm²)
— finely stranded without core end processing	2x (0.5 2.5 mm²)
— linely strainacd without core cha processing	ZX (0.5 Z.5 IIIII )
for AWG cables for auxiliary contacts	2x (20 14)
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross	
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section	2x (20 14)
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     for main contacts	2x (20 14) 18 1
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     for main contacts     for auxiliary contacts	2x (20 14) 18 1
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     for main contacts     for auxiliary contacts  Safety related data	2x (20 14) 18 1
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     for main contacts     for auxiliary contacts  Safety related data  product function	2x (20 14)  18 1 20 14
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     for main contacts     for auxiliary contacts  Safety related data  product function     mirror contact according to IEC 60947-4-1	2x (20 14)  18 1 20 14  Yes
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     for main contacts     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	2x (20 14)  18 1 20 14  Yes No
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     for main contacts     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  safety device type according to IEC 61508-2	2x (20 14)  18 1 20 14  Yes No Type B
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     for main contacts     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 safety device type according to IEC 61508-2 suitability for use safety-related switching OFF	2x (20 14)  18 1 20 14  Yes No Type B Yes
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     for main contacts     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  safety device type according to IEC 61508-2  suitability for use safety-related switching OFF  B10 value with high demand rate according to SN 31920	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     for main contacts     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 safety device type according to IEC 61508-2 suitability for use safety-related switching OFF  B10 value with high demand rate according to SN 31920 Safety Integrity Level (SIL) according to IEC 61508	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000 2
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section         • for main contacts         • 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  safety device type according to IEC 61508-2 suitability for use safety-related switching OFF  B10 value with high demand rate according to SN 31920 Safety Integrity Level (SIL) according to IEC 61508  SIL Claim Limit (subsystem) according to EN 62061 performance level (PL) according to EN ISO 13849-1	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000 2
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section         • for main contacts         • 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  safety device type according to IEC 61508-2  suitability for use safety-related switching OFF  B10 value with high demand rate according to SN 31920  Safety Integrity Level (SIL) according to IEC 61508  SIL Claim Limit (subsystem) according to EN 62061  performance level (PL) according to EN ISO 13849-1  category according to EN ISO 13849-1	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000 2 2 C
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section         • for main contacts         • 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  safety device type according to IEC 61508-2 suitability for use safety-related switching OFF  B10 value with high demand rate according to SN 31920 Safety Integrity Level (SIL) according to IEC 61508  SIL Claim Limit (subsystem) according to EN 62061 performance level (PL) according to EN ISO 13849-1	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000 2 2 2 C 2
• for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     • for main contacts     • 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  safety device type according to IEC 61508-2  suitability for use safety-related switching OFF  B10 value with high demand rate according to SN 31920  Safety Integrity Level (SIL) according to IEC 61508  SIL Claim Limit (subsystem) according to EN 62061  performance level (PL) according to EN ISO 13849-1  category according to EN ISO 13849-1  stop category according to EN 60204-1  diagnostics test interval by internal test function maximum	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000 2 2 C 2 0
• for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     • for main contacts     • 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 safety device type according to IEC 61508-2 suitability for use safety-related switching OFF B10 value with high demand rate according to SN 31920 Safety Integrity Level (SIL) according to IEC 61508 SIL Claim Limit (subsystem) according to EN 62061 performance level (PL) according to EN ISO 13849-1 category according to EN ISO 13849-1 stop category according to EN 60204-1 diagnostics test interval by internal test function maximum proportion of dangerous failures	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000 2 2 C 2 0
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section         • for main contacts         • 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  safety device type according to IEC 61508-2 suitability for use safety-related switching OFF  B10 value with high demand rate according to SN 31920 Safety Integrity Level (SIL) according to IEC 61508  SIL Claim Limit (subsystem) according to EN 62061 performance level (PL) according to EN ISO 13849-1 category according to EN ISO 13849-1 stop category according to EN 60204-1 diagnostics test interval by internal test function maximum proportion of dangerous failures         • with low demand rate according to SN 31920	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000 2 2 0 2 0 28 800 s
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section         • for main contacts         • 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  safety device type according to IEC 61508-2 suitability for use safety-related switching OFF  B10 value with high demand rate according to SN 31920 Safety Integrity Level (SIL) according to IEC 61508  SIL Claim Limit (subsystem) according to EN 62061 performance level (PL) according to EN ISO 13849-1 category according to EN ISO 13849-1 stop category according to EN 60204-1 diagnostics test interval by internal test function maximum proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000 2 2 C 2 0 28 800 s
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section         • for main contacts         • 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  safety device type according to IEC 61508-2 suitability for use safety-related switching OFF  B10 value with high demand rate according to SN 31920 Safety Integrity Level (SIL) according to IEC 61508 SIL Claim Limit (subsystem) according to EN 62061 performance level (PL) according to EN ISO 13849-1 category according to EN ISO 13849-1 stop category according to EN 60204-1 diagnostics test interval by internal test function maximum proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to EN 62061	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000 2 2 2 0 0 28 800 s
• for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     • for main contacts     • 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  safety device type according to IEC 61508-2  suitability for use safety-related switching OFF  B10 value with high demand rate according to SN 31920  Safety Integrity Level (SIL) according to IEC 61508  SIL Claim Limit (subsystem) according to EN 62061  performance level (PL) according to EN ISO 13849-1  category according to EN ISO 13849-1  stop category according to EN 60204-1  diagnostics test interval by internal test function maximum proportion of dangerous failures     • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  PFHD with high demand rate according to SN 31920  PFHD with high demand rate according to SN 31920	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000 2 2 2 0 0 28 800 s  40 % 73 % 7.7E-8 1/h 100 FIT
• for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     • for main contacts     • 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  safety device type according to IEC 61508-2  suitability for use safety-related switching OFF  B10 value with high demand rate according to SN 31920  Safety Integrity Level (SIL) according to IEC 61508  SIL Claim Limit (subsystem) according to EN 62061  performance level (PL) according to EN ISO 13849-1  category according to EN ISO 13849-1  stop category according to EN 60204-1  diagnostics test interval by internal test function maximum proportion of dangerous failures     • with low demand rate according to SN 31920  • with high demand rate according to EN 62061  failure rate [FIT] with low demand rate according to SN 31920  Safe failure fraction (SFF)	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000 2 2 2 C 2 0 28 800 s  40 % 73 % 7.7E-8 1/h 100 FIT 96 %
• for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     • for main contacts     • 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  safety device type according to IEC 61508-2  suitability for use safety-related switching OFF  B10 value with high demand rate according to SN 31920  Safety Integrity Level (SIL) according to IEC 61508  SIL Claim Limit (subsystem) according to EN 62061  performance level (PL) according to EN ISO 13849-1  category according to EN ISO 13849-1  stop category according to EN 60204-1  diagnostics test interval by internal test function maximum proportion of dangerous failures     • with low demand rate according to SN 31920  PFHD with high demand rate according to EN 62061  failure rate [FIT] with low demand rate according to SN 31920  Safe failure fraction (SFF)  PFDavg with low demand rate according to IEC 61508	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000 2 2 2 C 2 0 28 800 s  40 % 73 % 7.7E-8 1/h 100 FIT 96 % 0.0067
• for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     • for main contacts     • 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  safety device type according to IEC 61508-2 suitability for use safety-related switching OFF  B10 value with high demand rate according to SN 31920 Safety Integrity Level (SIL) according to IEC 61508  SIL Claim Limit (subsystem) according to EN 62061 performance level (PL) according to EN ISO 13849-1 category according to EN ISO 13849-1 stop category according to EN 60204-1 diagnostics test interval by internal test function maximum proportion of dangerous failures     • with low demand rate according to SN 31920  PFHD with high demand rate according to EN 62061 failure rate [FIT] with low demand rate according to SN 31920 Safe failure fraction (SFF) PFDavg with low demand rate according to IEC 61508 MTBF	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000 2 2 2 c 2 0 28 800 s  40 % 73 % 7.7E-8 1/h 100 FIT 96 % 0.0067 52 a
• for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     • for main contacts     • 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  safety device type according to IEC 61508-2 suitability for use safety-related switching OFF  B10 value with high demand rate according to SN 31920 Safety Integrity Level (SIL) according to IEC 61508 SIL Claim Limit (subsystem) according to EN 62061 performance level (PL) according to EN ISO 13849-1 category according to EN ISO 13849-1 stop category according to EN 60204-1 diagnostics test interval by internal test function maximum proportion of dangerous failures     • with low demand rate according to SN 31920 PFHD with high demand rate according to EN 62061 failure rate [FIT] with low demand rate according to SN 31920 Safe failure fraction (SFF) PFDavg with low demand rate according to IEC 61508 MTBF hardware fault tolerance according to IEC 61508	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000 2 2 2 C 2 0 28 800 s  40 % 73 % 7.7E-8 1/h 100 FIT 96 % 0.0067 52 a 0
• for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     • for main contacts     • 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  safety device type according to IEC 61508-2 suitability for use safety-related switching OFF  B10 value with high demand rate according to SN 31920 Safety Integrity Level (SIL) according to IEC 61508  SIL Claim Limit (subsystem) according to EN 62061 performance level (PL) according to EN ISO 13849-1 category according to EN ISO 13849-1 stop category according to EN 60204-1 diagnostics test interval by internal test function maximum proportion of dangerous failures     • with low demand rate according to SN 31920  PFHD with high demand rate according to EN 62061 failure rate [FIT] with low demand rate according to SN 31920 Safe failure fraction (SFF) PFDavg with low demand rate according to IEC 61508 MTBF	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000 2 2 2 c 2 0 28 800 s  40 % 73 % 7.7E-8 1/h 100 FIT 96 % 0.0067 52 a
• for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     • for main contacts     • 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  safety device type according to IEC 61508-2  suitability for use safety-related switching OFF  B10 value with high demand rate according to SN 31920  Safety Integrity Level (SIL) according to IEC 61508  SIL Claim Limit (subsystem) according to EN 62061  performance level (PL) according to EN ISO 13849-1  category according to EN ISO 13849-1  stop category according to EN 60204-1  diagnostics test interval by internal test function maximum proportion of dangerous failures     • with low demand rate according to SN 31920  • with high demand rate according to EN 62061  failure rate [FIT] with low demand rate according to SN 31920  Safe failure fraction (SFF)  PFDavg with low demand rate according to IEC 61508  MTBF  hardware fault tolerance according to IEC 61508  T1 value for proof test interval or service life according to IEC	2x (20 14)  18 1 20 14  Yes No Type B Yes 1 000 000 2 2 2 C 2 0 28 800 s  40 % 73 % 7.7E-8 1/h 100 FIT 96 % 0.0067 52 a 0

#### Certificates/ approvals

#### **General Product Approval**





Confirmation



<u>KC</u>



EMC

Functional Safety/Safety of Machinery

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping



Type Examination Certificate





Type Test Certificates/Test Report



Marine / Shipping









Confirmation

other

Vibration and Shock

Railway

### Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RT2038-3SP30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2038-3SP30

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-3SP30

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

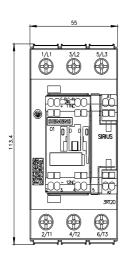
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2038-3SP30&lang=en

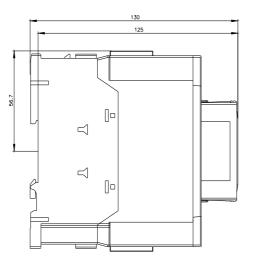
Characteristic: Tripping characteristics, I2t, Let-through current

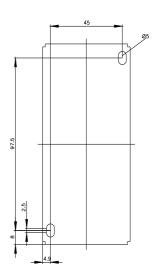
https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-3SP30/char

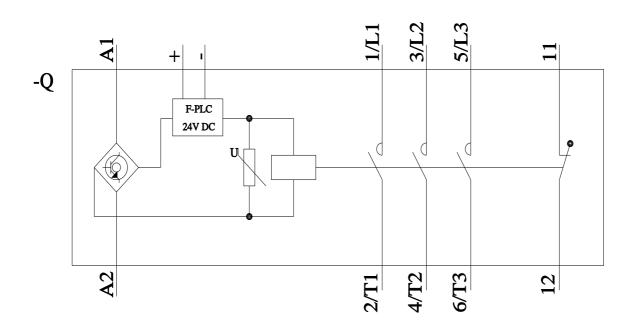
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2038-3SP30&objecttype=14&gridview=view1









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8/15/2023



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