# **SIEMENS**

Data sheet 3RT2046-1AL20



power contactor, AC-3e/AC-3, 95 A, 45 kW / 400 V, 3-pole, 230 V AC, 50/60 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S3  $\,$ 

product designation 9round type designation 9round 19round 19r	product brand name	SIRIUS
product type designation  General technical data  Staze of contactor  Sa product extension  • function module for communication • function module for communication • function module for communication • function module for rated value of the current • at AC in hot operating state per pole • at AC in hot operating state per pole • at AC in hot operating state per pole • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit value • of auxiliary circuit value • of auxili	•	
Size of contactor product extension • function module for communication • auxiliary switch • auxiliary switch • at AC in hot operating state • at AC in hot operating state per pole • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit rated value • of auxiliary circuit rated value • of auxiliary neministible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse • at AC • at AC  • at AC  • at AC  • of contactor with sine pulse • at AC • of contactor typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the conta		
size of contactor product extension • function module for communication • function module for communication • function module for communication • auxiliary switch  • at AC in hot operating state • at AC in hot operating state per pole • at AC in hot operating state per pole • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit rated value • of main circuit with degree of pollution 3 rated value • of main circuit rated value • of main circuit rated value • of main circuit rated value • of auxiliary switch blage for protective separation between oil and main contacts according to EN 60947-1  shock resistance at rectangular impulse • at AC • at	General technical data	
• function module for communication • auxiliary switch  • auxiliary switch  • at AC in hot operating state • at AC in hot operating state per pole • at AC in hot operating state per pole • at AC in hot operating state per pole • at AC in hot operating state per pole • at AC in main circuit with degree of pollution 3 rated value • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit vated value • of auxiliary circuit rated value • at AC •	size of contactor	\$3
• function module for communication • auxiliary switch  • auxiliary switch  • at AC in hot operating state • at AC in hot operating state per pole • at AC in hot operating state per pole • at AC in hot operating state per pole • at AC in hot operating state per pole • at AC in main circuit with degree of pollution 3 rated value • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit vated value • of auxiliary circuit rated value • at AC •		
• auxillary switch  power loss [W] for rated value of the current  • at AC in hot operating state per pole • without load current share typical • of main circuit with degree of pollution 3 rated value • of main circuit with degree of pollution 3 rated value • of main circuit with degree of pollution 3 rated value • of auxillary circuit rated value • of main circuit rated value • of auxillary switch stace value • of auxillary switch block typical • of the contactor with added electronically optimized auxillary switch block typical • of the contactor with added electronically optimized auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added electronically optimized auxillary switch block typical • of the contactor with added electronically optimized auxillary switch	•	No
at AC in hot operating state prole 6.6 W   • at AC in hot operating state prole 6.6 W   • without load current share typical 25 W    Insulation voltage   • of main circuit with degree of pollution 3 rated value 690 V    surge voltage resistance   • of main circuit rated value 8 K   • of auxiliary circuit rated value 6 k   • of main circuit rated value 8 K   • of auxiliary circuit rated value 9 K   • at AC 8   • at AC 9   • at AC 9   • at AC 9   • of contactor with sine pulse 9   • at AC 9   • of contactor typical 10   • of the contactor with added electronically optimized 9   • of the contactor with added electronically optimized 9   • of the contactor with added auxiliary switch block typical 10 000 000   • of the contactor with added auxiliary switch block typical 10 000 000   • of the contactor with added auxiliary switch block typical 10 000 000   • of the contactor with added auxiliary switch block typical 10 000 000   • of the contactor with added auxiliary switch block typical 10 000 000   • of the contactor with added auxiliary switch block typical 10 000 000   • of the contactor with added auxiliary switch block typical 10 000 000   • of the contactor with added auxiliary switch block typical 10 000 000   • of the contactor with added auxiliary switch block typical 10 000 000   • of the contactor with added auxiliary switch block typical 10 000 000   • of the contactor with added auxiliary switch block typical 10 000 000   • of the contactor with added auxiliary switch block typical 10 000 000    • of the contactor with added auxiliary switch block typical 10 000 000    • of the contactor with	auxiliary switch	Yes
at AC in hot operating state per pole  without load current share typical  without load current share typical  at AC in hot operating state per pole  without load current share typical  at AC in hot operating state per pole  of main circuit with degree of pollution 3 rated value  of auxiliary circuit with degree of pollution 3 rated value  of main circuit rated value  of main circuit rated value  of auxiliary circuit rated value  of at AC  at A	· ·	
insulation voltage of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit rated value of auxiliary sircuit rated value of the contactor with sine pulse of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added electronically optimized aux	at AC in hot operating state	19.8 W
insulation voltage  of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value 690 V  surge voltage resistance of main circuit rated value 8 kV of auxiliary circuit rated value 8 kV of auxiliary circuit rated value 8 kV  of auxiliary circuit rated value 8 kV  6 kV  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse ot AC 10.3g / 5 ms, 6g / 10 ms  shock resistance with sine pulse of contactor typical 10 000 000  of contactor typical 10 000 000  of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to EC 81346-2 Q Substance Prohibitance (Date) 03/01/2017  Ambient conditions installation altitude at height above sea level maximum 2 000 m  ambient temperature of during storage -55 +60 °C -6 during storage -6 during storage -6 caccording to IEC 60068-2-30 maximum  Main circuit  Main circuit  Main circuit  10 000 V  10 000 V  10 000 V  10 000 V  10 000 000  10 000 000  10 000 000  10 000 00	at AC in hot operating state per pole	6.6 W
of main circuit with degree of pollution 3 rated value     of auxiliary circuit with degree of pollution 3 rated value     surge voltage resistance     of main circuit rated value     of auxiliary circuit rated value     of kV  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse     ot AC     10.3g / 5 ms, 6g / 10 ms  shock resistance with sine pulse     of contactor typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor	without load current share typical	25 W
of auxiliary circuit with degree of pollution 3 rated value  surge voltage resistance     of main circuit rated value     of auxiliary circuit rated value      of auxiliary circuit rated value     of auxiliary circuit rated value      of auxiliary circuit rated value     of auxiliary circuit rated value     of auxiliary circuit rated value      of auxiliary circuit rated value     of auxiliary circuit rated va	insulation voltage	
surge voltage resistance  of main circuit rated value  of auxiliary circuit rated value  of auxiliary circuit rated value  of auxiliary circuit rated value  of avxiliary circuit rated value  of kV  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse  ot AC  10.3g / 5 ms, 6, g / 10 ms  shock resistance with sine pulse  ot AC  16.3g / 5 ms, 10.g / 10 ms  mechanical service life (operating cycles)  of contactor typical  of the contactor with added electronically optimized auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added electronically optimized  auxiliary switch block typical  of the contactor with added electronically optimized  auxiliary switch block typical  of the contactor with added electronically optimized  auxiliary switch block typical  of the contactor with added electronically optimized  auxiliary switch block typical  of the contactor w	<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	1 000 V
of main circuit rated value     of auxiliary circuit rated value     of auxiliary circuit rated value     of auxiliary circuit rated value     of kV  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse     oat AC     10.3g / 5 ms, 6.,g / 10 ms  shock resistance with sine pulse     oat AC     16.3g / 5 ms, 10.g / 10 ms  mechanical service life (operating cycles)     of contactor typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contac	<ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul>	690 V
of auxiliary circuit rated value     maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse	surge voltage resistance	
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse  • at AC  • at AC  • at AC  • of contactor with sine pulse  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added auxiliary switch bloc	of main circuit rated value	8 kV
shock resistance at rectangular impulse  at AC  to at AC	<ul> <li>of auxiliary circuit rated value</li> </ul>	6 kV
• at AC  shock resistance with sine pulse • at AC  16.3g / 5 ms, 10.g / 10 ms  mechanical service life (operating cycles) • of contactor typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical  10 000 000  reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum  ambient temperature • during operation • during storage • during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit		690 V
shock resistance with sine pulse	shock resistance at rectangular impulse	
at AC  mechanical service life (operating cycles)  of contactor typical  of the contactor with added electronically optimized auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  of during operation  of the contactor with added auxiliary switch block typical  10 000 000  2000  03/01/2017  Ambient conditions  installation altitude at height above sea level maximum  2 000 m  ambient temperature  of during operation  of the contactor with added electronically optimized auxiliary switch block typical  10 000 000  03/01/2017  Ambient conditions  installation altitude at height above sea level maximum  10 000 000  10 000 000  03/01/2017  Ambient conditions  installation altitude at height above sea level maximum  10 000 000  10 000 000  10 000 000  10 000 00	• at AC	10.3g / 5 ms, 6,.g / 10 ms
mechanical service life (operating cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  O3/01/2017  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  -55 +60 °C  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit	shock resistance with sine pulse	
of contactor typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     10 000 000  reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum 2 000 m  ambient temperature     oduring operation     during operation     during storage     relative humidity minimum 10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit  10 000 000  10	• at AC	16.3g / 5 ms, 10.g / 10 ms
of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     for the contactor with added auxiliary switch block typical     reference code according to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  2 000 m  ambient temperature     oduring operation     -25 +60 °C     oduring storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit  5 000 000  2 000  0	mechanical service life (operating cycles)	
auxiliary switch block typical  of the contactor with added auxiliary switch block typical  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature of during operation of during storage  relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit	<ul> <li>of contactor typical</li> </ul>	10 000 000
reference code according to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit		5 000 000
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit	<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000
installation altitude at height above sea level maximum  ambient temperature  during operation during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit  2 000 m  -25 +60 °C  -25 +80 °C  10 %  95 %	reference code according to IEC 81346-2	Q
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit	Substance Prohibitance (Date)	03/01/2017
ambient temperature  • during operation • during storage  -25 +60 °C  • during storage  -55 +80 °C  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit	Ambient conditions	
<ul> <li>during operation</li> <li>during storage</li> <li>telative humidity minimum</li> <li>maximum</li> <li>10 %</li> <li>10 %<td>installation altitude at height above sea level maximum</td><td>2 000 m</td></li></ul>	installation altitude at height above sea level maximum	2 000 m
• during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit	ambient temperature	
relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30 95 %  maximum  Main circuit	<ul> <li>during operation</li> </ul>	-25 +60 °C
relative humidity at 55 °C according to IEC 60068-2-30 95 % maximum  Main circuit	during storage	-55 +80 °C
maximum Main circuit	relative humidity minimum	10 %
		95 %
number of poles for main current circuit 3	Main circuit	
	number of poles for main current circuit	3

number of NO contacts for main contacts	3
operating voltage	
• at AC-3 rated value maximum	1 000 V
at AC-3e rated value maximum	1 000 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated	130 A
value	
• at AC-1	
<ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> </ul>	130 A
— up to 690 V at ambient temperature 60 °C rated	110 A
value	TIOA
• at AC-3	
— at 400 V rated value	95 A
— at 500 V rated value	95 A
— at 690 V rated value	78 A
— at 1000 V rated value	30 A
• at AC-3e	
— at 400 V rated value	95 A
— at 500 V rated value	95 A
— at 690 V rated value	78 A
— at 1000 V rated value	30 A
at AC-4 at 400 V rated value	80 A
at AC-5a up to 690 V rated value	114 A
at AC-5b up to 400 V rated value	95 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	84.4 A
— up to 400 V for current peak value n=20 rated value	84.4 A
— up to 500 V for current peak value n=20 rated value	84.4 A
— up to 690 V for current peak value n=20 rated value	58 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	56.3 A
— up to 400 V for current peak value n=30 rated value	56.3 A
— up to 500 V for current peak value n=30 rated value	56.3 A
— up to 690 V for current peak value n=30 rated value	56.3 A
minimum cross-section in main circuit at maximum AC-1 rated	50 mm <sup>2</sup>
value	
operational current for approx. 200000 operating cycles at	
AC-4	
• at 400 V rated value	42 A
at 690 V rated value	30 A
operational current	
at 1 current path at DC-1	
— at 24 V rated value	100 A
— at 60 V rated value	60 A
— at 110 V rated value	9 A
— at 220 V rated value	2 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.4 A
with 2 current paths in series at DC-1	
— at 24 V rated value	100 A
— at 60 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	10 A
— at 440 V rated value	1.8 A
— at 600 V rated value	1 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	100 A
— at 60 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	80 A
	4.5 A

	— at 600 V rated value	2.6 A
	• at 1 current path at DC-3 at DC-5	
### ### ### ### ### ### ### ### ### ##	— at 24 V rated value	40 A
	— at 60 V rated value	6 A
	— at 110 V rated value	2.5 A
With 2 current paths in series at DC-3 at DC-5	— at 220 V rated value	1 A
with 2 current paths in series at DC-3 at DC-5	— at 440 V rated value	0.15 A
	— at 600 V rated value	0.06 A
	<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
	— at 24 V rated value	100 A
	— at 60 V rated value	100 A
	— at 110 V rated value	100 A
■ with 3 current paths in series at DC-3 at DC-5     ■ at 24 V rated value     ■ at 10 V rated value     ■ at 10 V rated value     ■ at 10 V rated value     ■ at 220 V rated value     ■ at 400 V rated value     ■ at 60 V for current peak value n=30 rated value     ■ at 60 V for current peak value	— at 220 V rated value	7 A
with 3 current paths in series at DC-3 at DC-5	— at 440 V rated value	0.42 A
at 24 V rated value		0.16 A
	<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
	— at 24 V rated value	100 A
at 220 V rated value	— at 60 V rated value	100 A
operating power of the value	— at 110 V rated value	
Acc	— at 220 V rated value	35 A
operating power  at AC-2 at 400 V rated value  at AC-3  — at 230 V rated value — at 400 V rated value — at 690 V rated value — at 690 V rated value — at 1000 V rated value — at 230 V rated value — at 230 V rated value — at 400 V rated value — at 400 V rated value — at 690 V rated value — 37 kW  operating power for approx. 200000 operating cycles at AC-4  4 at 400 V rated value  operating apparent power at AC-6a  • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 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 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rat	— at 440 V rated value	0.8 A
at AC-2 at 400 V rated value 55 kW at 40-3 at 1000 V rated value 55 kW at 1000 V rated value 37 kW  at AC-3e at 230 V rated value 37 kW  at AC-3e at 200 V rated value 37 kW  at AC-3e at 200 V rated value 37 kW  at AC-3e at 200 V rated value 37 kW  at 900 V rated value 37 kW  at 900 V rated value 38 kW  at 900 V rated value 39 kW  at 900 V rated value 30 V rated value 37 kW  operating power for approx. 200000 operating cycles at AC-4  at 400 V rated value 22 kW  at 400 V rated value 22 kW  at 690 V rated value 22 kW  at 690 V rated value 22 kW  at 400 V rated value 37 kW  operating power for approx. 200000 operating cycles at AC-4  at 400 V rated value 22 kW  at 690 V rated value 38 kVA  up to 500 V for current peak value n=20 rated value 40 up to 500 V for current peak value n=20 rated value 40 up to 500 V for current peak value n=20 rated value 40 up to 500 V for current peak value n=30 rated value 40 up to 500 V for current peak value n=30 rated value 40 up to 500 V for current peak value n=30 rated value 40 up to 500 V for current peak value n=30 rated value 40 up to 500 V for current peak value n=30 rated value 40 up to 500 V for current peak value n=30 rated value 40 up to 500 V for current peak value n=30 rated value 40 vC  ilimited to 1 s switching at zero current maximum 4 limited to 5 s switching at zero current maximum 4 limited to 10 s switching at zero current maximum 4 limited to 10 s switching at zero current maximum 4 limited to 60 s switching at zero current maximum 4 limited to 60 s switching at zero current maximum 4 limited to 60 s switching at zero current maximum 5 limited to 60 s switching at zero current maximum 5 limited to 60 s switching at zero current maximum 6 limited to 60 s switching at zero current maximum 6 limited to 60 s switching at zero current maximum 6 limited to 60 s switching at zero current maximum 7 limited to 60 s switching at zero current maximum 8 limited to 60 s switching at zero current maximum 8 limit	— at 600 V rated value	0.35 A
at AC-3  at 230 V rated value  at 400 V rated value  55 kW  at 690 V rated value  55 kW  at 1000 V rated value  75 kW  37 kW  at AC-3e  at 230 V rated value  22 kW  at AC-3e  at 230 V rated value  22 kW  at AC-3e  at 230 V rated value  22 kW  at 690 V rated value  55 kW  at 690 V rated value  55 kW  at 690 V rated value  75 kW  37 kW  operating power for approx. 200000 operating cycles at AC-4  at 400 V rated value  22 kW  operating power for approx. 200000 operating cycles at AC-4  at 400 V rated value  22 kW  operating apparent power at AC-6a  up to 230 V for current peak value n=20 rated value  up to 400 V for current peak value n=20 rated value  up to 500 V for current peak value n=20 rated value  bup to 500 V for current peak value n=20 rated value  up to 500 V for current peak value n=20 rated value  69 kVA  operating apparent power 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  69 kVA  operating apparent power at AC-6a  up to 600 V for current peak value n=30 rated value  48 kVA  48 kVA  49 kVA  49 to 400 V for current peak value n=30 rated value  49 to 500 V for current peak value n=30 rated value  49 to 500 V for current peak value n=30 rated value  40 kVA  40 kVA  40 kVA  41 Use minimum cross-section acc. to AC-1 rated value  48 kV Use minimum cross-section acc. to AC-1 rated value  48 kV Use minimum cross-section acc. to AC-1 rated value  48 kV Use minimum cross-section acc. to AC-1 rated value  48 kV Use minimum cross-section acc. to AC-1 rated value  48 kV Use minimum cross-section acc. to AC-1 rated value  48 kV Use minimum cross-section acc. to AC-1 rated value  48 kV Use minimum cross-section acc. to AC-1 rated value  48 kV Use minimum cross-section acc. to AC-1 rated value  48 kV Use minimum cross-section acc. to AC-1 rated value  48 kV Use minimum cross-section acc. to AC-1 rated value	operating power	
- at 230 V rated value - at 400 V rated value - at 500 V rated value - at 690 V rated value - at 1000 V rated value - at 230 V rated value - at 2500 V rated value - at 2500 V rated value - at 500 V rated value - at 1000 V rated value - at 400 V rated value - at 400 V rated value - 22 kW - at 690 V rated value - 27.4 kW  operating apparent power at AC-6a - up to 230 V for current peak value n=20 rated value - up to 500 V for current peak value n=20 rated value - up to 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	• at AC-2 at 400 V rated value	45 kW
- at 400 V rated value - at 500 V rated value - at 690 V rated value - at 1000 V rated value - at 1000 V rated value - at 230 V rated value - at 230 V rated value - at 400 V rated value - at 690 V rated value - at 1000 V rated value - at 690 V rated value - 22 kW - at 400 V rated value - 22 kW - at 690 V rated value - 22 kW - at 690 V rated value - 27.4 kW  operating power for approx. 200000 operating cycles at AC-4  • at 400 V rated value - 27.4 kW  operating apparent power at AC-8a • up to 230 V for current peak value n=20 rated value - up to 690 V for current peak value n=20 rated value - up to 690 V for current peak value n=20 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for cu	• at AC-3	
- at 500 V rated value - at 890 V rated value - at 1000 V rated value  *at AC-3e  - at 230 V rated value - at 400 V rated value - at 690 V rated value - at 1000 V rated value - at 690 V rated value - at 1000 V rated value - at 690 V rated value - at 690 V rated value - at 1000 V rated value - at 400 V rated value  *at 400 V rated value  *at 400 V rated value - at 690 V rated value - up to 230 V for current peak value n=20 rated value - up to 600 V for current peak value n=20 rated value - up to 600 V for current peak value n=20 rated value - up to 600 V for current peak value n=20 rated value - up to 500 V for current peak value n=30 rated value - up to 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 600 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - up to 500 V for current peak value n=30 rated value - 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	— at 230 V rated value	22 kW
- at 690 V rated value - at 1000 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 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 690 V for current peak value n=	— at 400 V rated value	45 kW
- at 1000 V rated value  • at AC-3e  - at 230 V rated value  - at 400 V rated value  - at 500 V rated value  - at 690 V rated value  - at 1000 V rated value  - at 690 V rated value  - at 1000 V rated value  - at 400 V rated value  - at 1000 V rated value  - at 1000 V rated value  - at 400 V rated value  - at 690 V rated value  - at 690 V rated value  - at 400 V rated value  - at 690 V ra	— at 500 V rated value	55 kW
at AC-3e — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 500 V rated value — at 690 V rated value — at 1000 V rated value — at 400 V rated value — at 400 V rated value  22 kW  • at 400 V rated value • at 690 V rated value  • at 400 V rated value  10 peratting apparent power at AC-8a  • up to 230 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value  • up to 690 V for current peak value n=20 rated value  • up to 500 V for current peak value n=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  • ilmited to 1 s switching at zero current maximum  • ilmited to 5 s witching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maximum  • ilmited to 60 s switching at zero current maxim	— at 690 V rated value	75 kW
- at 230 V rated value - at 400 V rated value - at 400 V rated value - at 690 V rated value - at 1000 V rated value - at 400 V rated value - at 690 V rated value - 22 kW - at 690 V rated value - 22 kW - 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=20 rated value - at 690 V for current peak value n=30 rated value - at 690 V for current peak value	— at 1000 V rated value	37 kW
- at 400 V rated value - at 500 V rated value - at 690 V rated value - at 1000 V rated value - at 1000 V rated value - at 1000 V rated value - at 400 V rated value - at 690 V rated va	• at AC-3e	
- at 500 V rated value - at 690 V rated value - at 1000 V rated value - at 1000 V rated value  operating power for approx. 200000 operating cycles at AC-  4  • at 400 V rated value • at 690 V rated value • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • 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 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 • up to 690 V for current peak value n=30 rated value • timited 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 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 230 V rated value	
	— at 400 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 rocurrent 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 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=20 rated value • up to 230 V for current peak value n=20 rated value • up to 230 V for current peak value n=30 rated value • up to 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 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 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		
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  operating apparent power at AC-6a • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 230 V for current peak value n=20 rated value  operating apparent power at AC-6a • up to 230 V for current peak value n=30 rated value • up to 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 690 V for current peak value n=30 rated value • 17.3 kVA  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 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 at 690 V rated value 27.4 kW  operating apparent power at AC-6a  up to 230 V for current peak value n=20 rated value up to 400 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value up to 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 in cold operating state up to 40 °C  Ilmited 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 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		37 kW
<ul> <li>at 400 V rated value</li> <li>at 690 V rated value</li> <li>operating apparent power at AC-6a</li> <li>up to 230 V for current peak value n=20 rated value</li> <li>up to 400 V for current peak value n=20 rated value</li> <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>up to 230 V for current peak value n=20 rated value</li> <li>up to 230 V for current peak value n=20 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 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 500 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 10 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> </ul>		
• at 690 V rated value  operating apparent power at AC-6a  • up to 230 V for current peak value n=20 rated value  • up to 500 V for current peak value n=20 rated value  • up to 690 V for current peak value n=20 rated value  • up to 500 V for current peak value n=20 rated value  • up to 690 V for current peak value n=30 rated value  • up to 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 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 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		22 kW
operating apparent power at AC-6a  • up to 230 V for current peak value n=20 rated value  • up to 400 V for current peak value n=20 rated value  • up to 500 V for current peak value n=20 rated value  • up to 690 V for current peak value n=20 rated value  • up to 230 V for current peak value n=30 rated value  • up to 400 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 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		
• up to 230 V for current peak value n=20 rated value     • up to 400 V for current peak value n=20 rated value     • up to 500 V for current peak value n=20 rated value     • up to 690 V for current peak value n=20 rated value     • up to 690 V for current peak value n=20 rated value     • up to 230 V for current peak value n=30 rated value     • up to 400 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 500 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     •		21.1101
<ul> <li>up to 400 V for current peak value n=20 rated value</li> <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</li></ul>		33 kVA
up to 500 V for current peak value n=20 rated value     up to 690 V for current peak value n=20 rated value     operating apparent power at AC-6a         up to 230 V for current peak value n=30 rated value         up to 400 V for current peak value n=30 rated value         up to 500 V for current peak value n=30 rated value         up to 690 V for current peak value n=30 rated value         up to 690 V for current peak value n=30 rated value         short-time withstand current in cold operating state up to 40 °C          elimited to 1 s switching at zero current maximum         elimited to 5 s switching at zero current maximum         elimited to 10 s switching at zero current maximum         elimited to 30 s switching at zero current maximum         elimited to 60 s switching at zero current maximum         elimited to 60 s switching at zero current maximum         elimited to 60 s switching at zero current maximum         elimited to 60 s switching at zero current maximum         elimited to 60 s switching at zero current maximum         elimited to 60 s switching at zero current maximum         elimited to 60 s switching at zero current maximum         elimited to 60 s switching frequency         eat AC	·	
• up to 690 V for current peak value n=20 rated value  operating apparent power at AC-6a      • up to 230 V for current peak value n=30 rated value     • up to 400 V for current peak value n=30 rated value     • up to 500 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • up to 690 V for current peak value n=30 rated value     • 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 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 z	·	
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  5 hort-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		
<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>		
<ul> <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>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 to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>limited to 6</li></ul>		22.4 kVA
<ul> <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>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 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> </ul>		
<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 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 to 60 s switching at zero current maximum</li> <li>limited to 60 s switching at zero current maximum</li> <li>li</li></ul>		
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 at zero current maximum  • limited to 60 s switching frequency  • at AC  5 000 1/h		
Ilimited to 1 s switching at zero current maximum     Ilimited to 5 s switching at zero current maximum     Ilimited to 10 s switching at zero current maximum     Ilimited to 30 s switching at zero current maximum     Ilimited to 60 s switching at zero current maximum		
<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>limited to 60 s switching at zero current maximum</li> <li>mo-load switching frequency</li> <li>at AC</li> <li>1 297 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>486 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>486 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>5 000 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>mo-load switching frequency</li> <li>at AC</li> <li>yes minimum cross-section acc. to AC-1 rated value</li> <li>486 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>5 000 1/h</li> </ul>	<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	1 725 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <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>486 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>5 000 1/h</li> </ul>	<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	1 297 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>◆ limited to 60 s switching at zero current maximum</li> <li>1486 A; Use minimum cross-section acc. to AC-1 rated value</li> <li>15 000 1/h</li> </ul>	<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	946 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency  • at AC  5 000 1/h	<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	610 A; Use minimum cross-section acc. to AC-1 rated value
• at AC 5 000 1/h	• limited to 60 s switching at zero current maximum	486 A; Use minimum cross-section acc. to AC-1 rated value
	no-load switching frequency	
operating frequency	• at AC	5 000 1/h
operating nequency	operating frequency	
• at AC-1 maximum 900 1/h	• at AC-1 maximum	900 1/h

1400	050.4#
• at AC-2 maximum	350 1/h
• at AC-3 maximum	850 1/h
at AC-3e maximum	850 1/h
• at AC-4 maximum	250 1/h
Control circuit/ Control	40
type of voltage of the control supply voltage	AC
control supply voltage at AC	000 \
• at 50 Hz rated value	230 V
at 60 Hz rated value     operating range factor control supply voltage rated value of	230 V
magnet coil at AC	
● at 50 Hz	0.8 1.1
● at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	348 VA
• at 60 Hz	296 VA
inductive power factor with closing power of the coil	
● at 50 Hz	0.62
● at 60 Hz	0.55
apparent holding power of magnet coil at AC	
● at 50 Hz	25 VA
● at 60 Hz	18 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.35
● at 60 Hz	0.41
closing delay	
• at AC	13 50 ms
opening delay	
• at AC	10 21 ms
arcing time	10 20 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliany circuit	
Auxiliary circuit	1
Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact	1
number of NC contacts for auxiliary contacts instantaneous	1
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous	
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact	1
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum	1
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15	1 10 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15  • at 230 V rated value	1 10 A 6 A 3 A 2 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value	1 10 A 6 A 3 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value  operational current at DC-12	1 10 A 6 A 3 A 2 A 1 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value  operational current at DC-12 • at 24 V rated value	1 10 A 6 A 3 A 2 A 1 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value  operational current at DC-12 • at 24 V rated value • at 48 V rated value	1 10 A 6 A 3 A 2 A 1 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value	1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value • at 110 V rated value	1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value	1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 3 A 2 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 125 V rated value • at 220 V rated value	1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value	1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 3 A 2 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value	1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 24 V rated value	1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7
number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 24 V rated value • at 48 V rated value • at 48 V rated value	1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A
number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value	1 10 A 6 A 3 A 2 A 1 A  10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A
number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value	1 10 A 6 A 3 A 2 A 1 A  10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A
number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 220 V rated value • at 600 V rated value • at 125 V rated value	1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7
number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 600 V rated value • at 148 V rated value • at 110 V rated value • at 125 V rated value	1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A  10 A 2 A 2 A 1 A 0.9 A 0.3 A
number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 600 V rated value • at 600 V rated value • at 24 V rated value • at 25 V rated value • at 25 V rated value • at 27 V rated value • at 28 V rated value • at 29 V rated value • at 20 V rated value	1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 7 A 7 A 10 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 690 V rated value  • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 24 V rated value • at 24 V rated value • at 600 V rated value • at 100 V rated value • at 220 V rated value • at 24 V rated value • at 24 V rated value • at 25 V rated value • at 26 V rated value • at 27 V rated value • at 28 V rated value • at 29 V rated value • at 20 V rated value • at 30 V rated value	1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A  10 A 2 A 2 A 1 A 0.9 A 0.3 A
number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 600 V rated value • at 600 V rated value • at 24 V rated value • at 25 V rated value • at 25 V rated value • at 27 V rated value • at 28 V rated value • at 29 V rated value • at 20 V rated value	1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 7 A 7 A 10 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A

	00.4
at 480 V rated value	96 A
• at 600 V rated value	77 A
yielded mechanical performance [hp]	
for single-phase AC motor  A440/400 V retail value	40 h
— at 110/120 V rated value	10 hp
— at 230 V rated value	20 hp
• for 3-phase AC motor	
— at 200/208 V rated value	30 hp
— at 220/230 V rated value	30 hp
— at 460/480 V rated value	75 hp
— at 575/600 V rated value	75 hp
contact rating of auxiliary contacts according to UL	A600 / P600
Short-circuit protection	
design of the fuse link	
<ul> <li>for short-circuit protection of the main circuit</li> </ul>	
<ul> <li>— with type of coordination 1 required</li> </ul>	gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA)
— with type of assignment 2 required	gG: 160 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA)
for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
side-by-side mounting	Yes
height	140 mm
width	70 mm
depth	152 mm
required spacing	
<ul><li>with side-by-side mounting</li></ul>	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
for grounded parts	
— forwards	20 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
• for live parts	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm
Connections/ Terminals	
type of electrical connection	
for main current circuit	screw-type terminals
for auxiliary and control circuit	screw-type terminals
at contactor for auxiliary contacts	Screw-type terminals
• of magnet coil	Screw-type terminals
type of connectable conductor cross-sections for main contacts	
finely stranded with core end processing	2x (2.5 35 mm²), 1x (2.5 50 mm²)
connectable conductor cross-section for main contacts	
• solid	2.5 16 mm²
• stranded	6 70 mm²
finely stranded with core end processing	2.5 50 mm <sup>2</sup>
connectable conductor cross-section for auxiliary contacts	
solid or stranded	0.5 2.5 mm²
finely stranded with core end processing	0.5 2.5 mm²
type of connectable conductor cross-sections	5.5 ii. 2.6 iiiii
• for auxiliary contacts	
- for duxinary contacts	

2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	
2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	
2x (20 16), 2x (18 14)	
10 2	
20 14	
Yes	
No	
Yes	
1 000 000	
40 %	
73 %	
100 FIT	
20 a	
IP20	
finger-safe, for vertical contact from the front	

Certificates/ approvals

## **General Product Approval**



Confirmation





<u>KC</u>



EMC Functional Safety/Safety of chinery	la- Declaration of Conformity	Test Certificates
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Type Examination Certificate





Special Test Certificate

Type Test Certificates/Test Report

## Marine / Shipping







LRS



<u>firmations</u>





other	Railway	Dangerous Good	Environment
<u>Confirmation</u>	Vibration and Shock	Transport Information	Environmental Con-

#### 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=3RT2046-1AL20

#### Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2046-1AL20

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

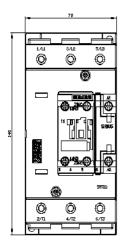
https://support.industry.siemens.com/cs/ww/en/ps/3RT2046-1AL20

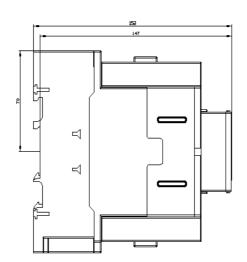
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2046-1AL20&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2046-1AL20&lang=en</a>

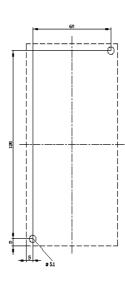
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2046-1AL20/char

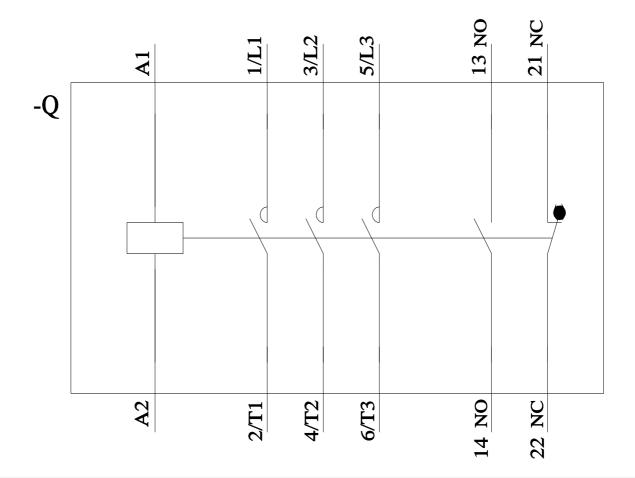
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2046-1AL20&objecttype=14&gridview=view1









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