# **SIEMENS**

Data sheet 3RT2046-1AN60



power contactor, AC-3e/AC-3, 95 A, 45 kW / 400 V, 3-pole, 200 V AC, 50 Hz / 200-220 V, 60 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S3  $\,$ 

product designation   Power contactor   SRT2   SRT2	product brand name	SIRIUS
product type designation General technical data Size of contactor Size of contactor  **Unuction module for communication **Question years (incident module for communication years (incident module for years (incident module for years) **Question years (incident module for years) *	•	
Size of contactor    Sa   Sa	. •	
product extension  • function module for communication • auxilliary switch  power loss [W] 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 without load current share typical  insulation voltage • of main circuit with degree of pollution 3 rated value • of auxilliary circuit with degree of pollution 3 rated value • of auxilliary circuit with degree of pollution 3 rated value • of main circuit rated value • of main circuit rated value • of main circuit rated value • of auxilliary circuit with degree of pollution 3 rated value • of auxilliary circuit with degree of pollution 3 rated value • of auxilliary circuit value value • of auxilliary circuit value • of auxilliary switch block by circuit • of ontactor with added electronically optimized auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxilliary switch block typical • of the contactor with added auxilliary switch block typical • of the contactor with added auxilliary switch block typical • of the contactor with added auxilliary switch block typical • of the contactor with added auxilliary switch block typical • of the contactor with added auxilliary switch block typical • of the contactor with added auxilliary switch block typical • of the contactor with added auxilliary switch block typical • of the contactor with added	General technical data	
• function module for communication • auxiliary switch  ves  power loss [W] for rated value of the current • 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 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 with degree of pollution 3 rated value • of auxiliary circuit vated value • of auxiliary circuit rated value • at AC  10.3g / 5 ms, 6, g / 10 ms  shock resistance with sine pulse • at AC  10.3g / 5 ms, 6, g / 10 ms  shock resistance with sine pulse • at AC  10.3g / 5 ms, 10.g / 10 ms  mechanical service life (operating cycles) • of contactor lypical • 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  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  Auxiliary switch block according to IEC 81346-2  Q  Substance Prohibitance (Date)  • of uring operation • during speration	size of contactor	\$3
• auxiliary switch  power loss [W] for rated value of the current  • 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 • at AC  10.3g / 5 ms, 6, g / 10 ms  shock resistance at rectangular impulse • at AC  10.3g / 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	product extension	
power loss [W] for rated value of the current  at AC in hot operating state prole at AC in hot operating state prole of hint outload 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 rated value of auxiliary switch since pulse of contactor typical of the contactor with sine pulse of ontactor 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 t	function module for communication	No
at AC in hot operating state per pole 6.6 W   at AC in hot operating state per pole 6.6 W   awithout load current share typical 8.8 W    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 main circuit rated value   at AC	auxiliary switch	Yes
at AC in hot operating state per pole without load current share typical without load current share typical at AC in 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 main circuit rated value of main circuit rated value of auxiliary circuit rated value of at AC of auxiliary circuit rated value 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 contact	power loss [W] for rated value of the current	
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 rated value  of main circuit rated value  of auxiliary circuit rated value  of at AC  10.3g / 5 ms, 6, g / 10 ms  shock resistance at rectangular impulse  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 auxi	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 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 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 operation of the contactor with added auxiliary switch block typical of the contactor with added of the contactor with added 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 operation of the contactor with added auxiliary switch block typical of the contactor with added of the contactor with a	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 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	without load current share typical	8.8 W
of auxiliary circuit with degree of pollution 3 rated value  surge voltage resistance     of main circuit rated value     of of auxiliary circuit rated value     of auxiliary circuit rated value     of of auxiliary circuit rated value     of of auxiliary circuit rated value      of of auxiliary circuit rated value     of the contact according to EN 60947-1  shock resistance at rectangular impulse     of at AC     of sontactor typical     of contactor typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary	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	• of main circuit with degree of pollution 3 rated value	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  10.3g / 5 ms, 6g / 10 ms  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  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  relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30  maximum  Main circuit  690 V  10.3g / 5 ms, 6g / 10 ms  10.3g / 5 ms, 10.g / 10 ms  10.3g / 10 ms  10.3g / 5 ms, 10.g / 10 ms  10.3g / 10 ms  10.0g / 10 ms  10.	of main circuit rated value	8 kV
shock resistance at rectangular impulse  at AC  shock resistance with sine pulse  at AC  10.3g / 5 ms, 6,.g / 10 ms  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  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  10 000 000  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  30/01/2017  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  2 000  2 000  30/01/2017  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  2 000  3 000 000  4 000 000  7 000 000  7 000 000  7 000 000	of auxiliary circuit rated value	6 kV
at AC  shock resistance with sine pulse  at AC  16.3g / 5 ms, 6g / 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  10 000 000  peference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  ogovernment  2 000 m  ambient temperature  of during operation  of the contactor with added auxiliary switch block typical  2 000 m  ambient temperature  of during operation  of the contactor with added auxiliary switch block typical  2 000 m  ambient temperature  of during operation  of the contactor with added auxiliary switch block typical  10 000 000  2 000  0 000		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	• 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)  Ambient conditions  installation altitude at height above sea level maximum  2 000 m  ambient temperature  • during operation  • during storage  -55 +80 °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     -25 +60 °C     oduring storage     -55 +80 °C  relative humidity minimum 10 %  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit  10 000 000  10 000 000  10 000 000  10 000 00	• 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      reference code according to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature     oduring operation     during storage  relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit  5 000 000  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  during storage  relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30 maximum  Main circuit  10 000 000  2 Q  Q  2 000 m  2 000 m  10 000 000  10 000 000  10 000 000  10 000 00	<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 9 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  41	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 690 V rated value • at 690 V rated value • up to 230 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 500 V for current peak value n=30 ra	— 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 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 cu	— 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     • 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		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 frequency  • at AC  1 725 A; Use minimum cross-section acc. to AC-1 rated value  946 A; Use minimum cross-section acc. to AC-1 rated value  85 000 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

• 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	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
<ul> <li>at 50 Hz rated value</li> </ul>	200 V
at 60 Hz rated value	200 220 V
operating range factor control supply voltage rated value of 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	
<ul> <li>at minimum rated control supply voltage at AC</li> </ul>	
— at 60 Hz	18 VA
<ul> <li>at maximum rated control supply voltage at AC</li> </ul>	
— at 60 Hz	18 VA
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
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	1
number of NO contacts for auxiliary contacts instantaneous contact	1
operational current at AC-12 maximum	10 A
operational current at AC-15	
at 230 V rated value     at 400 V rated value	6.4
at 400 V rated value	3.4
at 500 V rated value     At 600 V rated value	2 A
at 690 V rated value	1 A
operational current at DC-12	10.4
at 24 V rated value	10 A
at 48 V rated value	6 A
at 60 V rated value     at 110 V rated value	6 A 3 A
<ul><li>at 110 V rated value</li><li>at 125 V rated value</li></ul>	2 A
	1 A
at 220 V rated value     at 600 V rated value	
at 600 V rated value	0.15 A
operational current at DC-13	10 /
at 24 V rated value     at 48 V rated value	10 A
at 48 V rated value	2 A
at 60 V rated value     at 110 V rated value	2 A
at 110 V rated value     at 125 V rated value	1 A
• at 125 V rated value	0.9 A

1000 1/4 1 1 1	201
• at 220 V rated value	0.3 A
at 600 V rated value	0.1 A  1 foulty quitabing per 100 million (17.1/, 1 mA)
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	96 A
<ul><li>at 480 V rated value</li><li>at 600 V rated value</li></ul>	77 A
vielded mechanical performance [hp]	11.0
• for single-phase AC motor	
— 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
— with type of assignment 2 required	kA) 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	
with side-by-side mounting	
— forwards	20 mm
— upwards	10 mm
— downwards — at the side	10 mm 0 mm
for grounded parts	O IIIIII
— 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
<ul> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals
<ul> <li>at contactor for auxiliary contacts</li> </ul>	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
<ul> <li>finely stranded with core end processing</li> </ul>	2.5 50 mm <sup>2</sup>

connectable conductor cross-section for auxiliary contacts	
<ul> <li>solid or stranded</li> </ul>	0.5 2.5 mm²
finely stranded with core end processing	0.5 2.5 mm <sup>2</sup>
type of connectable conductor cross-sections	
for auxiliary contacts	
<ul> <li>solid or stranded</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>for AWG cables for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14)
AWG number as coded connectable conductor cross section	
<ul> <li>for main contacts</li> </ul>	10 2
<ul> <li>for auxiliary contacts</li> </ul>	20 14
Safety related data	
product function	
<ul> <li>mirror contact according to IEC 60947-4-1</li> </ul>	Yes
<ul> <li>positively driven operation according to IEC 60947-5-1</li> </ul>	No
suitability for use safety-related switching OFF	Yes
B10 value with high demand rate according to SN 31920	1 000 000
proportion of dangerous failures	
<ul> <li>with low demand rate according to SN 31920</li> </ul>	40 %
with high demand rate according to SN 31920	73 %
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
T1 value for proof test interval or service life according to IEC 61508	20 a
protection class IP on the front according to IEC 60529	IP20

#### Certificates/ approvals

#### **General Product Approval**





Confirmation



<u>KC</u>



EMC Safe	nctional fety/Safety of Ma- nery	Declaration of Conformity	Test Certificates
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Type Examination Cer**tificate** 





Special Test Certific-<u>ate</u>

Type Test Certificates/Test Report

### Marine / Shipping













other	Railway	Dangerous Good	Environment
Confirmation	Vibration and Shock	Transport Information	Environmental Confirmations

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

 $\underline{\text{https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business}}$ 

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=3RT2046-1AN60

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2046-1AN60

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

 $\underline{\text{https://support.industry.siemens.com/cs/ww/en/ps/3RT2046-1AN60}}$ 

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

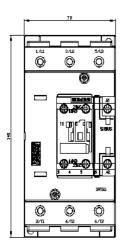
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2046-1AN60&lang=en

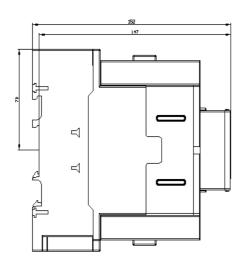
Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT2046-1AN60/char

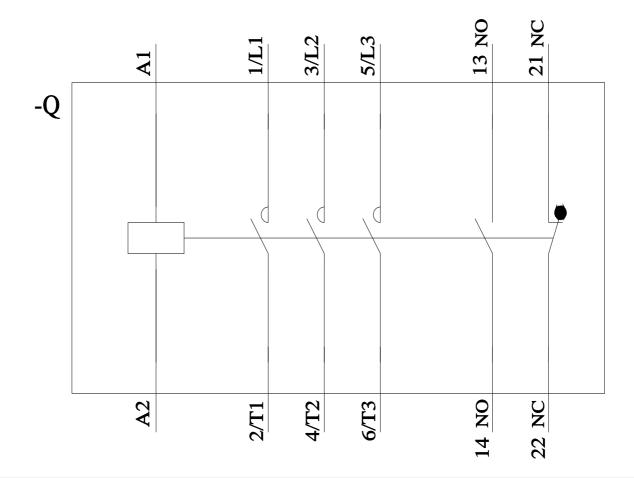
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2046-1AN60&objecttype=14&gridview=view1









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