## **SIEMENS**

## **Data sheet**

3RT2046-1NB30-0UA0



power contactor, AC-3 95 A, 45 kW / 400 V 1 NO + 1 NC, 20-33 V AC/DC 3-pole, 3 NO, Size S3 screw terminal integrated varistor

product type designation product type designation general technical data  size of contactor product extension  • function module for communication • auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state per pole • without load current share typical 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 with degree of pollution 3 rated value • of auxiliary circuit rated value  **a type of a value of the current  **a type of a value of the	product brand name	SIRIUS
Size of contactor	product designation	Power contactor
size of contactor product extension • function module for communication • 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 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 sissince at rectangular impulse • at AC • at DC • othactor 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  Substance Prohibitance (Date) • 0300 m  ambient temperature • during operation	product type designation	3RT2
product extension • function module for communication • auxillary switch  power loss [W] for rated value of the current • 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 tated value • of auxiliary circuit rated value • of main circuit rated value • of main circuit rated value • of main circuit rated value • of auxiliary switch lock • at AC • at DC • at DC • at AC • at C • 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 • of substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum  ambient temperature • during operation	General technical data	
• function module for communication     • auxiliary switch     power loss [W] for rated value of the current     • at AC in hot operating state	size of contactor	S3
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 main circuit rated value     of auxiliary circuit rated value     of main circuit rated value     of auxiliary switch block typical     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	product extension	
power loss [W] for rated value of the current  at AC in hot operating state at AC in hot operating state per pole bwithout 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 surge voltage resistance of main circuit rated value of auxiliary circuit rated value of the contactor with added electronically optimized 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 of during operation  19.8 W  6.6 W  9.8 W  1000 V  6.6 W  6.90 V  690	<ul> <li>function module for communication</li> </ul>	No
at AC in hot operating state per pole  bit 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 trated value  of auxiliary circuit rated value  of with outload coording to EN 60947-1  shock resistance at rectangular impulse  at AC  at DC  shock resistance with sine pulse  at AC  of contactor with sine pulse  of the Contactor with added electronically optimized auxiliary switch block typical  of the contactor with added duxiliary switch block typical  of the contactor with added auxiliary switch block typical  reference code according to IEC 81346-2  Question of the contactor (Date)  Ambient conditions  installation altitude at height above sea level maximum  auxiliary sarich to peration  10 000 000  auxiliary circuit with degree of pollution 3 rated value  10 000 000  40 000 000  10 000 000  10 000 000  10 000 00	auxiliary switch	Yes
at AC in hot operating state per pole without load current share typical 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 surge voltage resistance of main circuit rated value surge voltage resistance of main circuit rated value of auxiliary circuit rated value of avxiliary circuit rated value of avxiliary circuit rated value of avxiliary circuit rated value of auxiliary circuit rated value of at AC of a	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 with degree of pollution 3 rated value of auxiliary circuit rated value of main circuit rated value of auxiliary circuit rated value of the contactor with sine pulse of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical	<ul> <li>at AC in hot operating state</li> </ul>	19.8 W
insulation voltage	<ul> <li>at AC in hot operating state per pole</li> </ul>	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 substance of a for safe isolation between coil and main contacts according to EN 60947-1     shock resistance at rectangular impulse     of at AC     of 2 f sms, 4.0 g / 10 ms     of 7 g / 5 ms, 4.0 g / 10 ms     of 7 g / 5 ms, 6.3 g / 10 ms     of 6.7 g / 5 ms, 6.3 g / 10 ms     of 6.7 g / 5 ms, 6.3 g / 10 ms     of at DC     of at DC     of 6.7 g / 5 ms, 6.3 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     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 typic	<ul> <li>without load current share typical</li> </ul>	3.5 W
of auxiliary circuit with degree of pollution 3 rated value  surge voltage resistance     of main circuit rated value     of auxiliary contactor is afect so follows and so follows and so follows are contacted auxiliary solution between coil and main contacted auxiliary solution between coil and main 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	insulation voltage	
surge voltage resistance	<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     amaximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1      shock resistance at rectangular impulse     o at AC     ot AC A		690 V
of auxiliary circuit rated value     maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse     oat AC     oat DC     oat DC     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 IEC 81346-2     Substance Prohibitance (Date)     installation altitude at height above sea level maximum     ambient temperature     oduring operation      od the contactor vitage of the contactor with added auxiliary switch block typical     conditions     installation altitude at height above sea level maximum     of the contactor     outing operation      of the contactor with added auxiliary switch block typical     outing operation      of the contactor with added auxiliary switch block typical     outing operation      outing operation      of the contactor with added auxiliary switch block typical     outing operation	surge voltage resistance	
maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse  • at AC • at DC  shock resistance with sine pulse • at AC • at DC  shock resistance with sine pulse • at AC • at DC  shock resistance with sine pulse • at AC • at DC  10.6 g / 5 ms, 4.0 g / 10 ms  10.6 g / 5 ms, 6.3 g / 10 ms  10.6 g / 5 ms, 6.3 g / 10 ms  mechanical service life (switching 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  reference code according to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature • during operation  690 V  6.7 g / 5 ms, 4.0 g / 10 ms  6.7 g / 5 ms, 4.0 g / 10 ms  10.6 g / 5 ms, 6.3 g / 10 ms  10.6 g	<ul> <li>of main circuit rated value</li> </ul>	8 kV
shock resistance at rectangular impulse  at AC  at DC  shock resistance with sine pulse  at AC  at DC  shock resistance with sine pulse  at AC  at DC  10.6 g / 5 ms, 4.0 g / 10 ms  10.6 g / 5 ms, 6.3 g / 10 ms  10.6	of auxiliary circuit rated value	6 kV
<ul> <li>at AC</li> <li>at DC</li> <li>5 mock resistance with sine pulse</li> <li>at AC</li> <li>at AC</li> <li>at DC</li> <li>at DC</li> <li>at DC</li> <li>10.6 g / 5 ms, 6.3 g / 10 ms</li> <li>at DC</li> <li>10.6 g / 5 ms, 6.3 g / 10 ms</li> <li>of contactor typical (switching cycles)</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with ad</li></ul>		690 V
at DC      shock resistance with sine pulse     at AC     at DC      at	shock resistance at rectangular impulse	
shock resistance with sine pulse  • at AC  • at DC  10.6 g / 5 ms, 6.3 g / 10 ms  mechanical service life (switching cycles)  • 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 IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  10.6 g / 5 ms, 6.3 g / 10 ms  10.6 g / 5 ms, 6.3 g / 10 ms  10.6 g / 5 ms, 6.3 g / 10 ms  10.6 g / 5 ms, 6.3 g / 10 ms  10.6 g / 5 ms, 6.3 g / 10 ms  10.6 g / 5 ms, 6.3 g / 10 ms  10.6 g / 5 ms, 6.3 g / 10 ms  10.000 000  10.	• at AC	6.7 g / 5 ms, 4.0 g / 10 ms
<ul> <li>at AC</li> <li>at DC</li> <li>10.6 g / 5 ms, 6.3 g / 10 ms</li> <li>mechanical service life (switching cycles)</li> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>reference code according to IEC 81346-2</li> <li>Substance Prohibitance (Date)</li> <li>Ambient conditions</li> <li>installation altitude at height above sea level maximum</li> <li>ambient temperature</li> <li>during operation</li> <li>-25 +60 °C</li> </ul>	• at DC	6.7 g / 5 ms, 4.0 g / 10 ms
at DC     mechanical service life (switching 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      reference code according to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature     oduring operation  10.6 g / 5 ms, 6.3 g / 10 ms  10 000 000  5 000 000  20 000  10 000 000  10 000 000  10 000 00	shock resistance with sine pulse	
mechanical service life (switching cycles)  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 IEC 81346-2 Q Substance Prohibitance (Date)  O3/01/2017  Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation  10 000 000 10	• at AC	10.6 g / 5 ms, 6.3 g / 10 ms
<ul> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>reference code according to IEC 81346-2</li> <li>Substance Prohibitance (Date)</li> <li>Ambient conditions</li> <li>installation altitude at height above sea level maximum</li> <li>ambient temperature</li> <li>during operation</li> <li>10 000 000</li> <li>2 000 000</li> </ul>	• at DC	10.6 g / 5 ms, 6.3 g / 10 ms
of the contactor with added electronically optimized 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  5 000 000  10 000 000  10 000 000  10 000 00	mechanical service life (switching cycles)	
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 of during operation  10 000 000  10 000 000  03/01/2017  2 000 m	<ul> <li>of contactor typical</li> </ul>	10 000 000
reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 03/01/2017  Ambient conditions installation altitude at height above sea level maximum 2 000 m  ambient temperature  • during operation -25 +60 °C		5 000 000
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  o 3/01/2017  2 000 m  -25 +60 °C		10 000 000
Ambient conditions  installation altitude at height above sea level maximum 2 000 m  ambient temperature  • during operation -25 +60 °C	reference code according to IEC 81346-2	Q
installation altitude at height above sea level maximum  ambient temperature  ● during operation  2 000 m  -25 +60 °C	Substance Prohibitance (Date)	03/01/2017
ambient temperature         ● during operation         -25 +60 °C	Ambient conditions	
• during operation -25 +60 °C	installation altitude at height above sea level maximum	2 000 m
	ambient temperature	
• during storage -55 +80 °C	<ul> <li>during operation</li> </ul>	-25 +60 °C
	during storage	-55 +80 °C

relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
lain circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
<ul> <li>at AC-3 rated value maximum</li> </ul>	1 000 V
<ul> <li>at AC-3e rated value maximum</li> </ul>	1 000 V
operational current	
<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated value</li> <li>at AC-1</li> </ul>	130 A
— up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	130 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	110 A
• 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
<ul> <li>at AC-4 at 400 V rated value</li> </ul>	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
<ul> <li>up to 690 V for current peak value n=20 rated value</li> <li>at AC-6a</li> </ul>	58 A
— up to 230 V for current peak value n=30 rated value  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 value	50 mm²
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 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
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	100 A

	— at 110 V rated value	100 A
at 600 V rated value at 110 V rated value at 220 V rated value	— at 220 V rated value	10 A
with 3 current paths in series at DC-1	— at 440 V rated value	1.8 A
	— at 600 V rated value	1 A
at 110 V rated value	<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
at 220 V rated value	— at 24 V rated value	100 A
	— at 110 V rated value	100 A
at 600 V rated value at 11 0 V rated value at 24 V rated value at 24 V rated value at 24 V rated value at 250 V rated value at 400 V rated value at 400 V rated value at 400 V rated value at 600 V rated va	— at 220 V rated value	80 A
- at 12 V rated value	— at 440 V rated value	4.5 A
	— at 600 V rated value	2.6 A
- at 110 V rated value	• at 1 current path at DC-3 at DC-5	
	— at 24 V rated value	40 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
alt 110 V rated value	<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
at 220 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         100 A           — at 24 V rated value         100 A           — at 44 V or Yated value         35 A           — at 440 V rated value         0.8 A           — at 600 V rated value         0.35 A           operating power         4 K V           • at AC-3         4 5 kW           — at 230 V rated value         45 kW           — at 400 V rated value         45 kW           — at 500 V rated value         55 kW           — at 600 V rated value         75 kW           — at 1000 V rated value         37 kW           • at AC-3e         45 kW           — at 230 V rated value         45 kW           • at AC-3e         45 kW           — at 400 V rated value         22 kW           • at 500 V rated value         45 kW           — at 500 V rated value         22 kW           — at 690 V rated value         75 kW           — at 1000 V rated value         28 kW           — at 100 V rated value         28 kW           • at 690 V rated value         20 kW           • up to 230 V for current peak value n=20 rated value         38 kVA           • up to 230 V for current peak value n=20 rated value         40 kW <td>— at 220 V rated value</td> <td>7 A</td>	— at 220 V rated value	7 A
with 3 current paths in series at DC-3 at DC-5     — at 24 V rated value     — at 110 V rated value     — at 220 V rated value     — at 220 V rated value     — at 440 V rated value     — at 600 V rated value     • at AC-2 at 400 V rated value     • at AC-2 at 400 V rated value     • at AC-3     — at 230 V rated value     — at 400 V rated value     — at 400 V rated value     — at 400 V rated value     — at 690 V rated value     — at 690 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 1000 V rated value     — at 1000 V rated value     — at 230 V rated value     — at 230 V rated value     — at 240 V rated value     — at 500 V rated value     — at 500 V rated value     — at 500 V rated value     — at 690 V rated value     — at 500 V rated value     — at 690 V rated value     — at 500 V rated value     — at 690 V rated value     — at 500 V rated value     — at 690 V rated value     — at 500 V rated value     — at 400 V ror current peak value n=20 rated value     — at 900 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 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 pe	— at 440 V rated value	0.42 A
- at 24 V rated value 100 A 100 A 220 V rated value 100 A 35 A 35 A 36 A 36 A 36 A 36 A 36 A 36	— at 600 V rated value	0.16 A
- at 24 V rated value 100 A 100 A 220 V rated value 100 A 35 A 35 A 36 A 36 A 36 A 36 A 36 A 36	• with 3 current paths in series at DC-3 at DC-5	
- at 220 V rated value	-	100 A
at 440 V rated value	— at 110 V rated value	100 A
operating power  • at AC-2 at 400 V rated value  • at AC-3  — at 230 V rated value — at 500 V rated value — at 690 V rated value — at 1000 V rated value — at 230 V rated value — at 400 V rated value — at 400 V rated value — at 1000 V rated value — at 230 V rated value — at 230 V rated value — at 230 V rated value — at 400 V rated value — at 690 V rated value — at 690 V rated value — at 900 V rated value — at 900 V rated value — at 900 V rated value — at 690 V rated value — at 900 V rated value — at 690 V rated value — at 690 V rated value — at 900 V rated value — at 900 V rated value — at 690 V rated value — at 900 V rated value — at 690 V rated value — at 690 V rated value — at 900 V rated value — at 690 V rated value — at 500 V rated value — at 690 V rated value — at 6	— at 220 V rated value	35 A
e at AC-2 at 400 V rated value e at AC-3  — at 230 V rated value 22 kW  — at 500 V rated value 37 kW  e at AC-3e  — at 230 V rated value 37 kW  e at AC-3e  — at 1000 V rated value 37 kW  e at AC-3e  — at 230 V rated value 37 kW  e at AC-3e  — at 230 V rated value 37 kW  e at AC-3e  — at 400 V rated value 45 kW  — at 500 V rated value 37 kW  e at AC-4  — at 690 V rated value 35 kW  — at 690 V rated value 37 kW  e at 690 V rated value 37 kW  22 kW  — at 1000 V rated value 37 kW  e at 690 V rated value 22 kW  24 kW  25 kW  27 k kW  e at 400 V rated value 90 rating power for approx. 200000 operating cycles at AC-4  e at 400 V rated value 90 rating apparent power at AC-6a  e up to 230 V for current peak value n=20 rated value 9 up to 500 V for current peak value n=20 rated value 9 up to 500 V for current peak value n=20 rated value 9 up to 200 V for current peak value n=30 rated value 9 up to 500 V for current peak value n=30 rated value 9 up to 690 V for current peak value n=30 rated value 9 up to 690 V for current peak value n=30 rated value 9 up to 690 V for current peak value n=30 rated value 9 up to 690 V for current peak value n=30 rated value 9 up to 690 V for current peak value n=30 rated value 9 up to 690 V for current peak value n=30 rated value 9 up to 690 V for current peak value n=30 rated value 9 up to 690 V for current peak value n=30 rated value 9 up to 690 V for current peak value n=30 rated value 9 up to 690 V for current peak value n=30 rated value 9 up to 690 V for current peak value n=30 rated value 9 up to 690 V for current peak value n=30 rated value 9 up to 690 V for current peak value n=30 rated value 9 up to 690 V for current peak value n=30 rated value 1725 A; Use minimum cross-section acc. to AC-1 rated value	— at 440 V rated value	0.8 A
at AC-2 at 400 V rated value at AC-3  — at 230 V rated value — at 690 V rated value — at 690 V rated value — at 230 V rated value — at 230 V rated value — at 1000 V rated value — at 230 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  9 at 690 V rated value  22 kW  27 kW  operating power for approx. 200000 operating cycles at AC-4  • at 400 V rated value  9 at 690 V rated value  9 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 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 690 V for current	— at 600 V rated value	0.35 A
at AC-3  — at 230 V rated value — at 400 V rated value — at 690 V rated value — at 690 V rated value — at 1000 V rated value — at 1000 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value — at 690 V rated value — at 1000 V rated value — at 690 V rated value — at 1000 V rated value — at 1000 V rated value — at 690 V 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 690 V rated value - at 1000 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 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 690 V rated	• 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 400 V rated value - at 500 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	• at AC-3	
- 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 230 V rated value - at 500 V rated value - at 500 V rated value - at 690 V rated value - at 690 V rated value - at 690 V rated value - at 1000 V rated value - at 400 V rated value - at 690 V rate	— at 230 V rated value	22 kW
- at 690 V rated value - at 1000 V rated value 37 kW  • at AC-3e - at 230 V rated value 22 kW - at 400 V rated value 55 kW - at 690 V rated value 75 kW - at 1000 V rated value 90 v rated value 91 to 230 V rated value 91 to 230 V for current peak value n=20 rated value 91 up to 230 V for current peak value n=20 rated value 91 to 500 V for current peak value n=20 rated value 91 to 500 V for current peak value n=20 rated value 91 to 500 V for current peak value n=20 rated value 91 to 230 V for current peak value n=20 rated value 91 to 230 V for current peak value n=20 rated value 92 to 400 V for current peak value n=20 rated value 92 to 400 V for current peak value n=30 rated value 94 to 400 V for current peak value n=30 rated value 94 to 400 V for current peak value n=30 rated value 95 to 500 V for current peak value n=30 rated value 96 to 500 V for current peak value n=30 rated value 97 to 500 V for current peak value n=30 rated value 98 to 400 V for current peak value n=30 rated value 90 to 690 V for current peak value n=30 rated value 90 to 690 V for current peak value n=30 rated value 90 to 690 V for current peak value n=30 rated value 90 to 690 V for current peak value n=30 rated value 90 to 690 V for current peak value n=30 rated value 90 to 690 V for current peak value n=30 rated value 90 to 690 V for current peak value n=30 rated value 90 to 690 V for current peak value n=30 rated value 90 to 690 V for current peak value n=30 rated value 90 to 690 V for current peak value n=30 rated value 90 to 690 V for current peak value n=30 rated value 91 to 400 V for current peak value n=30 rated value 91 to 400 V for current peak value n=30 rated value 91 to 400 V for current peak value n=30 rated value	— 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 400 V rated value  - at 400 V rated value  • at 690 V rated value  • at 400 V rated value  • at 690 V rated value  • up to 230 V for current peak value n=20 rated value  • up to 500 V for current peak value n=20 rated value  • up to 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=30 rated value  • up to 690 V for current peak value n=30 rated value	— at 500 V rated value	55 kW
<ul> <li>at AC-3e</li> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 550 V rated value</li> <li>— at 690 V rated value</li> <li>— at 1000 V rated value</li> <li>— at 1000 V rated value</li> <li>— at 1000 V rated value</li> <li>— at 400 V rated value</li> <li>at AC-4</li> <li>• at 400 V rated value</li> <li>• at 690 V rated value</li> <li>• up to 500 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 500 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 690 V for current peak value n=20 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 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>• 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 600 V for current peak value n=30 rated value</li> <li>• and the following the follo</li></ul>	— at 690 V rated value	75 kW
- 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 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 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=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 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value	— 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 400 V rated value - at 690 V rated value - at 400 V rated value - at 690 V rated val	• at AC-3e	
- at 500 V rated value - at 690 V rated value - at 1000 V rated value 37 kW  operating power for approx. 200000 operating cycles at AC-4  • at 400 V rated value • at 690 V rated value • 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 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 500 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 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 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 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 • limited to 1 s switching at zero current maximum  1 725 A; Use minimum cross-section acc. to AC-1 rated value	— at 230 V rated value	22 kW
- at 690 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 • at 690 V rated value  • at 690 V rated value • at 690 V rated value  • at 690 V rated value  • at 690 V rated value  • at 690 V rated value  • at 690 V rated value  • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated va	— at 400 V rated value	45 kW
- 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  operating apparent power at AC-6a • up to 230 V for current peak value n=20 rated value • up to 400 V for current peak value n=20 rated value • up to 500 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 690 V for current peak value n=20 rated value • up to 230 V for current peak value n=20 rated value  operating apparent power at AC-6a • up to 230 V for current peak value n=30 rated value • up to 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • 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 • 1 725 A; Use minimum cross-section acc. to AC-1 rated value	— at 500 V rated value	55 kW
operating power for approx. 200000 operating cycles at AC-4  • 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 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 400 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  1 725 A; Use minimum cross-section acc. to AC-1 rated value	— at 690 V rated value	75 kW
at AC-4  • at 400 V rated value  • at 690 V rated value  22 kW  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 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=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 400 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 500 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  • up to 690 V for current peak value n=30 rated value  1725 A; Use minimum cross-section acc. to AC-1 rated value	— at 1000 V rated value	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>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>aup to 690 V for current peak value n=30 rated value</li> <li>48.7 kVA</li> <li>67.3 kVA</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>1 725 A; Use minimum cross-section acc. to AC-1 rated value</li> </ul>		
<ul> <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=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>1 725 A; Use minimum cross-section acc. to AC-1 rated value</li> </ul>		
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 400 V for current peak value n=30 rated value • up to 500 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value • up to 690 V for current peak value n=30 rated value  short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum  1 725 A; Use minimum cross-section acc. to AC-1 rated value		
<ul> <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=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 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>aup to 690 V for current peak value n=30 rated value</li> <li>bup to 40 °C</li> <li>limited to 1 s switching at zero current maximum</li> <li>1 725 A; Use minimum cross-section acc. to AC-1 rated value</li> </ul>		27.4 kW
<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>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>1 725 A; Use minimum cross-section acc. to AC-1 rated value</li> </ul>		
<ul> <li>up to 500 V for current peak value n=20 rated value</li> <li>up to 690 V for current peak value n=20 rated value</li> <li>operating apparent power at AC-6a</li> <li>up to 230 V for current peak value n=30 rated value</li> <li>up to 400 V for current peak value n=30 rated value</li> <li>up to 500 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> <li>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>1 725 A; Use minimum cross-section acc. to AC-1 rated value</li> </ul>		
<ul> <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>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>69 kVA</li> <li>22.4 kVA</li> <li>39 kVA</li> <li>48.7 kVA</li> <li>67.3 kVA</li> <li>67.3 kVA</li> <li>1 725 A; Use minimum cross-section acc. to AC-1 rated value</li> </ul>		
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  • limited to 1 s switching at zero current maximum  1 725 A; Use minimum cross-section acc. to AC-1 rated value		
<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>67.3 kVA</li> <li>short-time withstand current in cold operating state</li> <li>up to 40 °C</li> <li>limited to 1 s switching at zero current maximum</li> <li>1 725 A; Use minimum cross-section acc. to AC-1 rated value</li> </ul>		69 kVA
<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>39 kVA</li> <li>48.7 kVA</li> <li>67.3 kVA</li> <li>1 725 A; Use minimum cross-section acc. to AC-1 rated value</li> </ul>		00.411/4
<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>48.7 kVA</li> <li>67.3 kVA</li> <li>1 725 A; Use minimum cross-section acc. to AC-1 rated value</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>1 725 A; Use minimum cross-section acc. to AC-1 rated value</li> </ul>		
short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  1 725 A; Use minimum cross-section acc. to AC-1 rated value		
up to 40 °C  ● limited to 1 s switching at zero current maximum  1 725 A; Use minimum cross-section acc. to AC-1 rated value		67.3 KVA
	up to 40 °C	
<ul> <li>limited to 5 s switching at zero current maximum</li> <li>1 297 A; Use minimum cross-section acc. to AC-1 rated value</li> </ul>		
● limited to 10 s switching at zero current maximum 946 A; Use minimum cross-section acc. to AC-1 rated value	<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

<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	
Iimited to 60 s switching at zero current maximum	486 A; Use minimum cross-section acc. to AC-1 rated value	
no-load switching frequency		
• at AC	1 000 1/h	
• at DC	1 000 1/h	
operating frequency		
<ul><li>at AC-1 maximum</li></ul>	900 1/h	
<ul> <li>at AC-2 maximum</li> </ul>	350 1/h	
<ul> <li>at AC-3 maximum</li> </ul>	850 1/h	
<ul> <li>at AC-3e maximum</li> </ul>	850 1/h	
<ul><li>at AC-4 maximum</li></ul>	250 1/h	
Control circuit/ Control		
type of voltage of the control supply voltage	AC/DC	
control supply voltage at AC		
<ul> <li>at 50 Hz rated value</li> </ul>	20 33 V	
at 60 Hz rated value	20 33 V	
control supply voltage at DC		
rated value	20 33 V	
operating range factor control supply voltage rated value of magnet coil at DC		
• initial value	0.8	
full-scale value	1.1	
operating range factor control supply voltage rated value of magnet coil at AC		
● at 50 Hz	0.8 1.1	
● at 60 Hz	0.8 1.1	
design of the surge suppressor	with varistor	
inrush current peak	6.5 A	
duration of inrush current peak	50 μs	
locked-rotor current mean value	3.2 A	
locked-rotor current peak	6.5 A	
duration of locked-rotor current	150 ms	
holding current mean value	75 mA	
apparent pick-up power of magnet coil at AC  • at 50 Hz	151 VA	
• at 60 Hz	151 VA	
apparent holding power of magnet coil at AC	101 VA	
• at 50 Hz	3.5 VA	
• at 60 Hz	3.5 VA	
closing power of magnet coil at DC	76 W	
holding power of magnet coil at DC	2.7 W	
closing delay	2	
• at AC	50 70 ms	
• at DC	50 70 ms	
opening delay		
• at AC	38 57 ms	
• at DC	38 57 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	6 A	
• at 400 V rated value	3 A	
at 500 V rated value	2 A	
at 690 V rated value	1 A	
operational current at DC-12		

<ul> <li>at 24 V rated value</li> </ul>	10 A	
<ul> <li>at 48 V rated value</li> </ul>	6 A	
<ul> <li>at 60 V rated value</li> </ul>	6 A	
<ul> <li>at 110 V rated value</li> </ul>	3 A	
<ul> <li>at 125 V rated value</li> </ul>	2 A	
<ul> <li>at 220 V rated value</li> </ul>	1 A	
<ul> <li>at 600 V rated value</li> </ul>	0.15 A	
operational current at DC-13		
at 24 V rated value	10 A	
at 48 V rated value	2 A	
at 60 V rated value	2 A	
at 110 V rated value	1 A	
at 125 V rated value	0.9 A	
at 220 V rated value	0.3 A	
• at 600 V rated value	0.1 A	
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)	
UL/CSA ratings		
full-load current (FLA) for 3-phase AC motor		
• at 480 V rated value	96 A	
at 400 V rated value     at 600 V rated value	77 A	
yielded mechanical performance [hp]		
• for 3-phase AC motor	25 ha	
— at 200/208 V rated value	25 hp	
— at 220/230 V rated value	30 hp	
— at 460/480 V rated value	50 hp	
— at 575/600 V rated value	50 hp	
contact rating of auxiliary contacts according to UL	A600 / P600	
Short-circuit protection		
design of the fuse link		
for short-circuit protection of the main circuit		
<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)	
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	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 standard mounting 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	
<ul> <li>for grounded parts</li> </ul>		
— 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	
at contactor for auxiliary contacts	Screw-type terminals	
of magnet coil	Screw-type terminals	
type of connectable conductor cross-sections	VI. VI.	
for main contacts		
<ul> <li>finely stranded with core end processing</li> </ul>	2x (2.5 35 mm²), 1x (2.5 50 mm²)	
at AWG cables for main contacts	2x (10 1/0), 1x (10 2)	
connectable conductor cross-section for main		
contacts		
• solid	2.5 16 mm²	
<ul><li>stranded</li></ul>	6 70 mm²	
<ul> <li>finely stranded with core end processing</li> </ul>	2.5 50 mm²	
connectable conductor cross-section for auxiliary contacts		
<ul> <li>solid or stranded</li> </ul>	0.5 2.5 mm²	
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm²	
type of connectable conductor cross-sections		
<ul> <li>for auxiliary contacts</li> </ul>		
<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>at 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	
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 %	
<ul> <li>with high demand rate according to SN 31920</li> </ul>	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 y	
protection class IP on the front according to IEC 60529	IP20	
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front	
suitability for use		
safety-related switching on	No	
safety-related switching OFF	Yes	
Certificates/ approvals		

**®** 

General Product Approval

Confirmation



<u>KC</u>





EMC

Functional Safety/Safety of Decl Machinery	laration of Conformity	Test Certificates	Marine / Shipping
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Type Examination Certificate





Special Test Certificate

Type Test Certificates/Test Report



Marine / Shipping

other











Confirmation

Railway

**Dangerous Good** 

Vibration and Shock

<u>Transport Information</u>

## **Further information**

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=3RT2046-1NB30-0UA0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2046-1NB30-0UA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2046-1NB30-0UA0

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

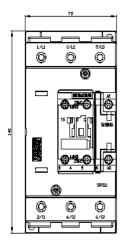
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2046-1NB30-0UA0\&lang=en}}$ 

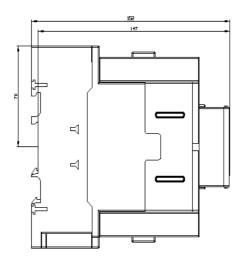
Characteristic: Tripping characteristics, I2t, Let-through current

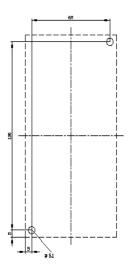
 $\underline{https://support.industry.siemens.com/cs/ww/en/ps/3RT2046-1NB30-0UA0/char}$ 

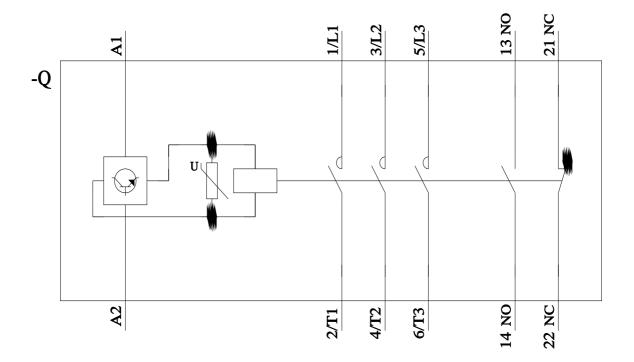
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2046-1NB30-0UA0&objecttype=14&gridview=view1









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