## **SIEMENS**

Data sheet 3RT2036-3NF30



power contactor, AC-3 51 A, 22 kW / 400 V 1 NO + 1 NC, 84-155 V AC / DC with varistor, 3-pole, size S2, spring-loaded terminal

product designation Power contactor Product type designation RT2  General technical data size of contactor product extension for function module for communication for function module for communication auxiliary switch Yes power loss [W] for rated value of the current at AC in hot operating state per pole without load current sharet typical 2 W Insulation voltage for main circuit with degree of pollution 3 rated value and availary circuit with degree of pollution 3 rated value for auxiliary circuit with degree of pollution 3 rated value for auxiliary circuit with degree of pollution 3 rated value for auxiliary circuit rated value for auxiliary switch sine pulse for at a C for auxiliary switch sine pulse for at a C for auxiliary switch sine pulse for auxiliary switch block typical for the contactor with added electronically optimized for auxiliary switch block typical for the contactor with added auxiliary switch block typical for the contactor with added auxiliary switch block typical for the contactor with added auxiliary switch block typical for the contactor with added auxiliary switch block typical for the contactor with added auxiliary switch block typical for the contactor with added auxiliary switch block for the conta	product brand name	SIRIUS
Second contactor   Second cont	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  • 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 anxiliary circuit with degree of pollution 3 rated value  • of anxiliary circuit with degree of pollution 3 rated value  • of main circuit value devalue  • of main circuit rated value  • of main circuit rated value  • of main circuit rated value  • of auxiliary circuit rated value  • of waximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse  • at AC  • at DC  7.7g / 5 ms, 4.5g / 10 ms  7.7g / 5 ms, 4.5g / 10 ms  shock resistance with sine pulse  • at AC  • at DC  12g / 5 ms, 7g / 10 ms  12g	product type designation	3RT2
product extension  • function module for communication • auxilliary 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 with degree of pollution 3 rated value • of main circuit rated value • of main circuit rated value • of main circuit rated value • of auxiliary circuit rated value • of x, y,	General technical data	
• 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 • 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 circuit rated value • of main circuit rated value • of auxiliary circuit rated value • of xight and	size of contactor	S2
auxiliary 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 rated value of main circuit rated value of main circuit rated value of auxiliary circuit rated value  of auxiliary circuit rated value  of main circuit rated value  of auxiliary circuit rated value  of auxiliary circuit rated value  of without load current share typical  of with the degree of pollution 3 rated value  of with the degree of pollution 3 rated value  of auxiliary circuit rated value  of auxiliary circuit rated value  of with the degree of pollution 3 rated value  of with value  surge voltage resistance of with degree of pollution 3 rated value  of with curvit ated value  of with organization  of with value  of with value  of with value  of with rated value  of with value  10 W  of with value  of with 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)  of with value  of uning operation  of with value  12 W  4 W  4 W  4 W  4 W  4 W  6 W  6 KV  6 KV  6 KV  6 KV  7.7g / 5 ms, 4.5g / 10 ms  7.7g / 5 ms, 7g / 10 ms  10 ms  10 ms  10 000 000  10 000 000  10 000 000  10 000 00	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 • 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 value  surge voltage resistance • of main circuit rated value • of auxiliary circuit rated value • at AC • at DC  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 • 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  Quo 000 m  Ambient conditions installation altitude at height above sea level maximum • during operation  - 25 +60 °C	<ul> <li>function module for communication</li> </ul>	No
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  surge voltage resistance  of main circuit rated value  of auxiliary circuit rated value  of at AC  of T.7g / 5 ms, 4.5g / 10 ms  7.7g / 5 ms, 4.5g / 10 ms  shock resistance with sine pulse  of AC  of DC  shock resistance with sine pulse  of the 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  Qualitation altitude at height above sea level maximum  ambient temperature  of during operation  12 W  4 W  4 W  4 W  4 W  690 V  690 V  690 V  640 V  690 V  68V  6V  6V  6V  6V  6V  6V  6V  6V	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 of auxiliary circuit rated value of avxiliary circuit rated value of auxiliary circuit rated value of at AC o	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 a with contacts according to EN 60947-1 shock resistance at rectangular impulse of at AC of at DC of x,7g / 5 ms, 4.5g / 10 ms of x,7g / 5 ms, 4.5g / 10 ms of x,7g / 5 ms, 7g / 10 ms of x,7g / 5 ms, 7g / 10 ms of x,7g / 5 ms, 7g / 10 ms of x,7g / 5 ms, 7g / 10 ms of x,7g / 5 ms, 7g / 10 ms of x,7g / 5 ms, 7g / 10 ms of x,7g / 5 ms, 7g / 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 typical of the contactor with added auxiliary switch block typical	<ul> <li>at AC in hot operating state</li> </ul>	12 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  surge voltage resistance • of main circuit rated value • of auxiliary circuit rated value • of auxiliary circuit rated value  • of auxiliary circuit rated value  • of auxiliary circuit rated value  6 kV  6 kV  8 kV  400 V  200 V  400 V  5 maximum permissible voltage for safe isolation between coll and main contacts according to EN 60947-1  shock resistance at rectangular impulse • at AC • at DC  7.7g / 5 ms, 4.5g / 10 ms  shock resistance with sine pulse • at AC • at DC  12g / 5 ms, 7g / 10 ms  12g / 5 ms, 7g / 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 • 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	<ul> <li>at AC in hot operating state per pole</li> </ul>	4 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     aximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse     of at AC     of contactor with sine pulse     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 auxiliary switch block typical	<ul> <li>without load current share typical</li> </ul>	2 W
of auxiliary circuit with degree of pollution 3 rated value  surge voltage resistance     of main circuit rated value     of auxiliary conditions      of contactor with saine pulse     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	insulation voltage	
surge voltage resistance  of main circuit rated value  of auxiliary circuit rated value  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  ot at AC  ot AC  r.7g / 5 ms, 4.5g / 10 ms  shock resistance with sine pulse  ot at AC  ot AC  12g / 5 ms, 7g / 10 ms  shock resistance with sine pulse  ot at AC  ot AC  12g / 5 ms, 7g / 10 ms  mechanical service life (switching cycles)  of contactor typical  of the 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	<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 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     o at DC      shock resistance with sine pulse     o at AC     o at DC      shock resistance with sine pulse     o at AC     o 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		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  shock resistance with sine pulse     oat AC     oat DC  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  6 kV  400 V	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  at AC • at DC  at AC • at DC  12g / 5 ms, 4.5g / 10 ms  12g / 5 ms, 7g / 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  400 V  400 V  400 V  400 V  7.7g / 5 ms, 4.5g / 10 ms  12g / 5 ms, 7g / 10 ms  12g / 5 ms,	<ul> <li>of main circuit rated value</li> </ul>	6 kV
shock resistance at rectangular impulse  • at AC  • at DC  • at AC  • at DC  • at AC  • at DC  • at DC  • at AC  • at DC  • of contactor 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 contact	of auxiliary circuit rated value	6 kV
<ul> <li>at AC</li> <li>at DC</li> <li>7.7g / 5 ms, 4.5g / 10 ms</li> <li>shock resistance with sine pulse</li> <li>at AC</li> <li>at DC</li> <li>12g / 5 ms, 7g / 10 ms</li> <li>at DC</li> <li>12g / 5 ms, 7g / 10 ms</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>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>Q</li> <li>Substance Prohibitance (Date)</li> <li>10/01/2014</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>		400 V
• at DC  shock resistance with sine pulse  • at AC  • 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  • during operation  7.7g / 5 ms, 4.5g / 10 ms  12g / 5 ms, 7g / 10 ms  10 000 000  10 000 000  10 000 000  10 000 00	shock resistance at rectangular impulse	
shock resistance with sine pulse  • at AC  • at DC  12g / 5 ms, 7g / 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  Q  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  12g / 5 ms, 7g / 10 ms  10 000 000  10 000 000  10 000 000  10 000 00	• at AC	7.7g / 5 ms, 4.5g / 10 ms
<ul> <li>at AC</li> <li>at DC</li> <li>12g / 5 ms, 7g / 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	7.7g / 5 ms, 4.5g / 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  12g / 5 ms, 7g / 10 ms  10 000 000  5 000 000  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 typical  reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  Involved  Involv	• at AC	12g / 5 ms, 7g / 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	12g / 5 ms, 7g / 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  10/01/2014  2 000 m  2 000 m	<ul> <li>of contactor typical</li> </ul>	10 000 000
reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/01/2014  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  10/01/2014  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)	10/01/2014
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 minimum relative humidity at 55 °C according to IEC 60068-2-30	95 %
maximum	00 /0
Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
at AC-3 rated value maximum	690 V
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 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>	70 A
<ul> <li>— up to 690 V at ambient temperature 40 °C rated value</li> <li>— up to 690 V at ambient temperature 60 °C</li> </ul>	70 A 60 A
rated value	
• at AC-3	
— at 400 V rated value	51 A
— at 500 V rated value	51 A
— at 690 V rated value	24 A
• at AC-3e	
— at 400 V rated value	51 A
— at 500 V rated value	51 A
— at 690 V rated value	24 A
<ul> <li>at AC-4 at 400 V rated value</li> </ul>	41 A
<ul> <li>at AC-5a up to 690 V rated value</li> </ul>	61.6 A
<ul> <li>at AC-5b up to 400 V rated value</li> </ul>	41.5 A
• at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	43.2 A
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	43.2 A
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	43.2 A
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	24 A
• at AC-6a	
<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	28.8 A
— up to 400 V for current peak value n=30 rated value	28.8 A
— up to 500 V for current peak value n=30 rated value	28.8 A
up to 690 V for current peak value n=30 rated value	24 A
minimum cross-section in main circuit at maximum AC-1 rated value	25 mm²
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	24 A
• at 690 V rated value	20 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	55 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	55 A
— at 110 V rated value	45 A
— at 220 V rated value	5 A

— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	55 A
— at 110 V rated value	55 A
— at 220 V rated value	45 A
— at 440 V rated value	2.9 A
— at 600 V rated value	1.4 A
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 110 V rated value	2.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.1 A
— at 600 V rated value	0.06 A
with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	55 A
— at 110 V rated value	25 A
— at 220 V rated value	5 A
— at 440 V rated value	0.27 A
— at 600 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	55 A
— at 110 V rated value	55 A
— at 220 V rated value	25 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.35 A
operating power	
at AC-2 at 400 V rated value	22 kW
• at AC-3	
— at 230 V rated value	15 kW
— at 400 V rated value	22 kW
— at 500 V rated value	30 kW
— at 690 V rated value	22 kW
• at AC-3e	ZZ IVVV
— at 400 V rated value	22 kW
— at 500 V rated value	30 kW
— at 690 V rated value	22 kW
operating power for approx. 200000 operating cycles at AC-4	
at 400 V rated value	12.6 kW
at 690 V rated value	18.2 kW
	10.2 NVV
operating apparent power at AC-6a	17.2 b\/A
up to 230 V for current peak value n=20 rated value     up to 400 V for current peak value n=20 rated value.	17.2 kVA
• up to 400 V for current peak value n=20 rated value	29.9 kVA
• up to 500 V for current peak value n=20 rated value	37.4 kVA
up to 690 V for current peak value n=20 rated value	28.6 kVA
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	11.4 kVA
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	19.9 kVA
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	24.9 kVA
• up to 690 V for current peak value n=30 rated value	28.6 kVA
short-time withstand current in cold operating state up to 40 °C	
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	937 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	697 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	468 A; Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum	282 A; Use minimum cross-section acc. to AC-1 rated value
limited to 60 s switching at zero current maximum	229 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	voo minimum olooo oodiidh dool to NO-1 lated value
• at AC	1 500 1/h
• at DC	1 500 1/h
dt DO	1 000 1/11

operating frequency	
• at AC-1 maximum	1 000 1/h
<ul> <li>at AC-2 maximum</li> </ul>	600 1/h
<ul> <li>at AC-3 maximum</li> </ul>	800 1/h
<ul> <li>at AC-3e maximum</li> </ul>	800 1/h
at AC-4 maximum	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>	83 155 V
<ul> <li>at 60 Hz rated value</li> </ul>	83 155 V
control supply voltage at DC	
rated value	83 155 V
operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.8
full-scale value	1.1
operating range factor control supply voltage rated value of magnet coil at AC	
● at 50 Hz	0.8 1.1
● at 60 Hz	0.8 1.1
design of the surge suppressor	with varistor
inrush current peak	1.5 A
duration of inrush current peak	50 μs
locked-rotor current mean value	0.45 A
locked-rotor current peak	0.8 A
duration of locked-rotor current	230 ms
holding current mean value	12 mA
apparent pick-up power of magnet coil at AC	
• at 50 Hz	40 VA
• at 60 Hz	40 VA
apparent holding power of magnet coil at AC	
• at 50 Hz	2 VA
• at 60 Hz	2 VA
closing power of magnet coil at DC	23 W
holding power of magnet coil at DC	1 W
closing delay	
• at AC	35 110 ms
• at DC	35 110 ms
opening delay	
• at AC	30 55 ms
• at DC	30 55 ms
arcing time	10 20 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous 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	10 A
at 400 V rated value	3 A
at 500 V rated value	2 A
at 690 V rated value	1 A
operational current at DC-12	
• at 24 V rated value	10 A
• at 48 V rated value	6 A
• at 60 V rated value	6 A
• at 110 V rated value	3 A
at 125 V rated value	2 A

at 220 V rated value	1 A
• at 600 V rated value	0.15 A
operational current at DC-13	
at 24 V rated value	10 A
at 48 V rated value	2 A
at 60 V rated value	2 A
at 110 V rated value	1 A
at 125 V rated value	0.9 A
at 220 V rated value	0.3 A
at 600 V rated value	0.1 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	52 A
at 600 V rated value	52 A
yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
<ul> <li>— at 110/120 V rated value</li> </ul>	3 hp
— at 230 V rated value	10 hp
• for 3-phase AC motor	
— at 200/208 V rated value	15 hp
— at 220/230 V rated value	15 hp
— at 460/480 V rated value	40 hp
— at 575/600 V rated value	50 hp
contact rating of auxiliary contacts according to UL	A600 / P600
Short-circuit protection	7,000 / 1 000
design of the fuse link	
for short-circuit protection of the main circuit	
<ul> <li>— with type of coordination 1 required</li> </ul>	gG: 160 A (690 V, 100 kA), aM: 80 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA)
<ul> <li>— with type of assignment 2 required</li> </ul>	gG: 80A (690V,100kA), aM: 50A (690V,100kA), BS88: 63A (415V,80kA)
<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
The second secon	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
<ul><li>side-by-side mounting</li></ul>	Yes
height	***
width	114 mm
	114 mm 55 mm
depth	55 mm
depth required spacing	55 mm
depth required spacing • with side-by-side mounting	55 mm 130 mm
depth required spacing • with side-by-side mounting — forwards	55 mm 130 mm
depth required spacing  • with side-by-side mounting — forwards — upwards	55 mm 130 mm 10 mm 10 mm
depth required spacing  • with side-by-side mounting — forwards — upwards — downwards	55 mm 130 mm 10 mm 10 mm 10 mm
depth  required spacing  • with side-by-side mounting  — forwards  — upwards  — downwards  — at the side	55 mm 130 mm 10 mm 10 mm
depth  required spacing  with side-by-side mounting  forwards  upwards  downwards  at the side  for grounded parts	55 mm 130 mm  10 mm 10 mm 10 mm 0 mm
depth required spacing  • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — forwards	55 mm 130 mm  10 mm 10 mm 10 mm 0 mm
depth  required spacing  • with side-by-side mounting  — forwards  — upwards  — downwards  — at the side  • for grounded parts  — forwards  — upwards	55 mm 130 mm  10 mm 10 mm 10 mm 0 mm 10 mm
depth  required spacing  • with side-by-side mounting  — forwards  — upwards  — downwards  — at the side  • for grounded parts  — forwards	55 mm 130 mm  10 mm 10 mm 10 mm 0 mm  10 mm 6 mm
depth required spacing  • with side-by-side mounting — forwards — upwards — downwards — at the side  • for grounded parts — forwards — upwards — upwards	55 mm 130 mm  10 mm 10 mm 10 mm 0 mm 10 mm
depth  required spacing  with side-by-side mounting  forwards  upwards  downwards  at the side  for grounded parts  forwards  upwards  at the side	55 mm 130 mm  10 mm 10 mm 10 mm 0 mm  10 mm 6 mm
depth  required spacing  with side-by-side mounting  forwards  upwards  downwards  at the side  for grounded parts  forwards  upwards  at the side  at the side  downwards  downwards  downwards  downwards	55 mm 130 mm  10 mm 10 mm 10 mm 0 mm  10 mm 6 mm
depth  required spacing  with side-by-side mounting  forwards  upwards  downwards  at the side  for grounded parts  forwards  upwards  downwards  for drounded parts  forwards  upwards  upwards  downwards  for live parts	55 mm 130 mm  10 mm 10 mm 10 mm 0 mm  10 mm 10 mm 10 mm 10 mm 10 mm
depth  required spacing  • with side-by-side mounting  — forwards  — upwards  — downwards  — at the side  • for grounded parts  — forwards  — upwards  — upwards  — at the side  — downwards  — at forwards  — at forwards  — at forwards  — forwards  — at forwards  — forwards	55 mm 130 mm  10 mm 10 mm 10 mm 0 mm  10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm
depth  required spacing  • with side-by-side mounting  — forwards  — upwards  — downwards  — at the side  • for grounded parts  — forwards  — upwards  — upwards  — outpeards  — at the side  — forwards  — at the side  — downwards  • for live parts  — forwards  — upwards  — upwards	55 mm 130 mm  10 mm 10 mm 10 mm 0 mm  10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm
depth  required spacing  with side-by-side mounting  forwards  upwards  downwards  at the side  for grounded parts  forwards  upwards  upwards  at the side  for grounded parts  forwards  upwards  at the side  downwards  for live parts  forwards  upwards  downwards  for lowards  downwards  downwards  downwards  downwards  downwards  downwards	55 mm 130 mm  10 mm 10 mm 10 mm 0 mm  10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm

for main current circuit	screw-type terminals
	•
<ul><li>for auxiliary and control circuit</li><li>at contactor for auxiliary contacts</li></ul>	spring-loaded terminals
	Spring-type terminals
of magnet coil  type of connectable conductor cross sections	Spring-type terminals
type of connectable conductor cross-sections	
• for main contacts	Ov. (4 OF mans?) Av. (4 FO mans?)
— solid or stranded	2x (1 35 mm²), 1x (1 50 mm²)
— finely stranded with core end processing	2x (1 25 mm²), 1x (1 35 mm²)
at AWG cables for main contacts	2x (18 2), 1x (18 1)
connectable conductor cross-section for main contacts	
finely stranded with core end processing	1 35 mm²
connectable conductor cross-section for auxiliary contacts	
<ul> <li>solid or stranded</li> </ul>	0.5 2.5 mm <sup>2</sup>
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 1.5 mm <sup>2</sup>
finely stranded without core end processing	0.5 2.5 mm <sup>2</sup>
type of connectable conductor cross-sections	
<ul> <li>for auxiliary contacts</li> </ul>	
<ul><li>— solid or stranded</li></ul>	2x (0.5 2.5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²)
<ul> <li>finely stranded without core end processing</li> </ul>	2x (0.5 2.5 mm²)
<ul> <li>at AWG cables for auxiliary contacts</li> </ul>	2x (20 14)
at AVVO cables for auxiliary contacts	ZX (20 14)
AWG number as coded connectable conductor cross section	ZA (20 14)
AWG number as coded connectable conductor cross	18 1
AWG number as coded connectable conductor cross section	
AWG number as coded connectable conductor cross section  • for main contacts	18 1
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts	18 1
AWG number as coded connectable conductor cross section  • for main contacts  • for auxiliary contacts  Safety related data	18 1
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  Safety related data  product function	18 1 20 14
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  Safety related data  product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-	18 1 20 14 Yes
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  Safety related data  product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1	18 1 20 14 Yes No
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  Safety related data  product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1  B10 value with high demand rate according to SN 31920	18 1 20 14 Yes No
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  Safety related data  product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1  B10 value with high demand rate according to SN 31920  proportion of dangerous failures	18 1 20 14 Yes No 1 000 000
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  Safety related data  product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1  B10 value with high demand rate according to SN 31920  proportion of dangerous failures • with low demand rate according to SN 31920	18 1 20 14 Yes No 1 000 000
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  Safety related data  product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1  B10 value with high demand rate according to SN 31920  proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN	18 1 20 14 Yes No 1 000 000 40 % 73 %
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  Safety related data  product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1  B10 value with high demand rate according to SN 31920  proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920  T1 value for proof test interval or service life according to	18 1 20 14 Yes No 1 000 000 40 % 73 % 100 FIT
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  Safety related data  product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1  B10 value with high demand rate according to SN 31920  proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920  T1 value for proof test interval or service life according to IEC 61508  protection class IP on the front according to IEC	18 1 20 14 Yes No 1 000 000 40 % 73 % 100 FIT
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  Safety related data  product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1  B10 value with high demand rate according to SN 31920  proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920  T1 value for proof test interval or service life according to IEC 61508  protection class IP on the front according to IEC 60529	18 1 20 14 Yes No 1 000 000 40 % 73 % 100 FIT 20 y
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  Safety related data  product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1  B10 value with high demand rate according to SN 31920  proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920  T1 value for proof test interval or service life according to IEC 61508  protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529	18 1 20 14 Yes No 1 000 000 40 % 73 % 100 FIT 20 y

## **General Product Approval**



Confirmation





Miscellaneous

<u>KC</u>

General Product Approval

**EMC** 

Functional Safety/Safety of Machinery

**Declaration of Conformity** 

**Test Certificates** 

EAC



Type Examination Certificate



Type Test Certificates/Test Report

**Test Certificates** 

Marine / Shipping

Special Test Certificate











Marine / Shipping other Railway Dangerous Good





Confirmation

Confirmation

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=3RT2036-3NF30

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2036-3NF30

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2036-3NF30

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2036-3NF30&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT2036-3NF30/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2036-3NF30&objecttype=14&gridview=view1

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