# **SIEMENS**

Data sheet 3RT2023-1AR60



power contactor, AC-3e/AC-3, 9 A, 4 kW / 400 V, 3-pole, 400 V AC, 50 Hz / 400-440 V, 60 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S0

size of contactor product extension • function module for communication • function module for communication • auxiliary switch  power loss [W] for rated value of the current • at AC in hot operating state 0.6 W • at AC in hot operating state per pole • without load current share typical 2 W  insulation voltage • of main circuit with degree of pollution 3 rated value 690 V • of auxiliary circuit with degree of pollution 3 rated value 690 V  surge voltage resistance • of main circuit rated value 6 kV maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at AC 7,5g / 5 ms, 4,7g / 10 ms  shock resistance at rectangular impulse • at AC 11,8g / 5 ms, 7,4g / 10 ms  mechanical service life (operating cycles) • of contactor typical 0 to 000 000 • 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	product brand name	SIRIUS		
Size of contactor  product extension  • function module for communication • auxiliary switch  o at AC in hot operating state • at AC in hot operating state per pole • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit 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 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 electronically optimized auxiliary switch block typical • of the contactor with added electronically optimize	product designation	Power contactor		
size of contactor product extension • function module for communication • function module for communication • auxiliary switch  power loss [W] for rated value of the current • at AC in hot operating state 0.6 W • at AC in hot operating state per pole • without load current share typical 2 W  insulation voltage • of main circuit with degree of pollution 3 rated value 690 V • of auxiliary circuit with degree of pollution 3 rated value 690 V  surge voltage resistance • of main circuit rated value 6 kV maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at AC 7,5g / 5 ms, 4,7g / 10 ms  shock resistance at rectangular impulse • at AC 11,8g / 5 ms, 7,4g / 10 ms  mechanical service life (operating cycles) • of contactor typical 0 to 000 000 • 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	product type designation	3RT2		
product extension  • function module for communication • auxiliary switch  power loss [W] for rated value of the current • at AC in hot operating state 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 switch bloage for protective separation between oul and main condates according to EN 60947-1  shock resistance with sine pulse • at AC  7,5g / 5 ms, 4,7g / 10 ms  shock resistance with sine pulse • at AC  11,8g / 5 ms, 7,4g / 10 ms  mechanical sorvice life (operating cycles) • of contactor vith 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 contac	General technical data			
• function module for communication     • auxiliary switch     ves auxiliary switch     ves to in hot operating state     • at A C in hot operating state per pole     • at A C in hot operating state per pole     • at A C in hot operating state per pole     • without load current share typical     ves 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     • of auxiliary switch sole state of the	size of contactor	S0		
• 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  • 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 main circuit rated value • of auxiliary circuit rated value  • at AC  7.5g / 5 ms, 4,7g / 10 ms  shock resistance at rectangular impulse • at AC  11,8g / 5 ms, 7,4g / 10 ms  mechanical service life (operating cycles) • of contactor typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block	product extension			
power loss [W] for rated value of the current  at AC in hot operating state at AC in hot operating state prole without load current share typical of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit rated value of the contacts according to EN 60947-1 shock resistance at rectangular impulse 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 electronically optimized auxiliary switch block typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with ad	<ul> <li>function module for communication</li> </ul>	No		
at AC in hot operating state at AC in hot operating state per pole without load current share typical without load current share typical of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit rated value of main circuit rated value of main circuit rated value of wixiliary circuit rated value of the contactor with sine pulse of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch b	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 main circuit rated value of auxiliary contacts according to EN 60947-1  shock resistance at rectangular impulse of at AC  11,8g / 5 ms, 4,7g / 10 ms  shock resistance with sine pulse of contactor typical of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block ty	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  surge voltage resistance  of main circuit rated value  of auxiliary circuit rated value  of auxiliary circuit rated value  of auxiliary circuit rated value  of wold williary circuit rated value  of wold wold williary circuit rated value  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse  of at AC  7,5g / 5 ms, 4,7g / 10 ms  shock resistance with sine pulse  of contactor typical  of the contactor with added electronically optimized auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch blo	<ul> <li>at AC in hot operating state</li> </ul>	0.6 W		
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 kV  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse of at AC shock resistance with sine pulse of the Contactor 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 of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum ambient temperature of uring operation of uring uring uring uring operation of uring uring uring urin	<ul> <li>at AC in hot operating state per pole</li> </ul>	0.2 W		
of main circuit with degree of pollution 3 rated value     of auxiliary circuit with degree of pollution 3 rated value     surge voltage resistance     of main circuit rated value     of auxiliary circuit rated value     of the creatagular impulse     of auxiliary impulse     of auxiliary switch sine pulse     of at AC	<ul> <li>without load current share typical</li> </ul>	2 W		
of auxiliary circuit with degree of pollution 3 rated value     of main circuit rated value     of auxiliary circuit rated value     of kV      aximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1      shock resistance at rectangular impulse     ot AC	insulation voltage			
surge voltage resistance  of main circuit rated value  of auxiliary circuit rated value  of auxiliary circuit rated value  e of auxiliary circuit rated value  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse  o at AC  7,5g / 5 ms, 4,7g / 10 ms  shock resistance with sine pulse  o at AC  11,8g / 5 ms, 7,4g / 10 ms  mechanical service life (operating cycles)  of contactor typical  of the contactor with added electronically optimized auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  of the contactor with added auxiliary switch block typical  teference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  of during operation  of during storage  relative humidity minimum  10 %  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30  95 %	<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     of kV  maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse     ot AC     of contactor with sine pulse     of contactor 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	• of auxiliary circuit with degree of pollution 3 rated value	690 V		
of auxiliary circuit rated value     of auxiliary circuit rated value     maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1     shock resistance at rectangular impulse         • at AC	surge voltage resistance			
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1  shock resistance at rectangular impulse  • at AC  shock resistance with sine pulse  • at AC  11,8g / 5 ms, 4,7g / 10 ms  mechanical service life (operating cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  10 000 000   reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  10 000 000  2 000  2 000  2 000  2 000  2 000  2 000  3 000  3 000  4 000  4 000  5 000  6 000	<ul> <li>of main circuit rated value</li> </ul>	6 kV		
shock resistance at rectangular impulse	of auxiliary circuit rated value	6 kV		
• at AC  shock resistance with sine pulse • at AC  11,8g / 5 ms, 7,4g / 10 ms  mechanical service life (operating cycles) • of contactor typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  10 000 000  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature • during operation • during operation • during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30  95 %		400 V		
shock resistance with sine pulse  • at AC  11,8g / 5 ms, 7,4g / 10 ms  mechanical service life (operating cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  10 000 000  reference code according to IEC 81346-2  Q  Substance Prohibitance (Date)  10/01/2009  Ambient conditions  installation altitude at height above sea level maximum  2 000 m  ambient temperature  • during operation  • during storage  -25 +60 °C  -55 +80 °C  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30  95 %	shock resistance at rectangular impulse			
at AC  Interpretation and interpretation  at AC  Interpretation  Interpretati	• at AC	7,5g / 5 ms, 4,7g / 10 ms		
mechanical service life (operating cycles)  • of contactor typical  • of the contactor with added electronically optimized auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  • of the contactor with added auxiliary switch block typical  reference code according to IEC 81346-2  Q Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30  95 %	shock resistance with sine pulse			
of contactor typical     of the contactor with added electronically optimized auxiliary switch block typical     of the contactor with added auxiliary switch block typical     of the contactor with added auxiliary switch block typical     reference code according to IEC 81346-2     Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum     ambient temperature     oduring operation     oduring storage     relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30  10 000 000  10 000 000  10 000 000  10 000 00	• at AC	11,8g / 5 ms, 7,4g / 10 ms		
<ul> <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>10 000 000</li> <li>reference code according to IEC 81346-2</li> <li>Substance Prohibitance (Date)</li> <li>10/01/2009</li> <li>Ambient conditions</li> <li>installation altitude at height above sea level maximum</li> <li>ambient temperature</li> <li>during operation</li> <li>during storage</li> <li>-25 +60 °C</li> <li>during storage</li> <li>relative humidity minimum</li> <li>10 %</li> <li>relative humidity at 55 °C according to IEC 60068-2-30</li> <li>source of the contactor with added auxiliary switch block typical</li> <li>10 000 000</li> <li>10 000 000</li> <li>10 000 000</li> <li>10 000 000</li> <li>20 00 m</li> <li>20 00 m</li> <li>30 00 000</li> <li>40 00 00</li> <li>40</li></ul>	mechanical service life (operating cycles)			
auxiliary switch block typical  of the contactor with added auxiliary switch block typical  reference code according to IEC 81346-2  Q Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  of during operation  during storage  relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30  10 000 000  10/01/2009  10/01/2009  10/01/2009  10/01/2009	of contactor typical	10 000 000		
reference code according to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30  10/01/2009  2 000 m  2 000 m  -25 +60 °C  -55 +80 °C  95 %		5 000 000		
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30  10/01/2009  2 000 m  2 000 m  -25 +60 °C  -55 +80 °C  95 %	<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000		
installation altitude at height above sea level maximum  ambient temperature  during operation during storage  relative humidity minimum  relative humidity at 55 °C according to IEC 60068-2-30  installation altitude at height above sea level maximum  2 000 m  -25 +60 °C  -55 +80 °C  10 %	reference code according to IEC 81346-2	Q		
installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage  -25 +60 °C  -55 +80 °C  relative humidity minimum  10 %  relative humidity at 55 °C according to IEC 60068-2-30  95 %	Substance Prohibitance (Date)	10/01/2009		
ambient temperature	Ambient conditions			
<ul> <li>during operation</li> <li>during storage</li> <li>telative humidity minimum</li> <li>relative humidity at 55 °C according to IEC 60068-2-30</li> <li>during operation</li> <li>telative humidity minimum</li> <li>to %</li> <li>to %</li> </ul>	installation altitude at height above sea level maximum	2 000 m		
• during storage -55 +80 °C  relative humidity minimum 10 %  relative humidity at 55 °C according to IEC 60068-2-30 95 %	ambient temperature			
relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 95 %	<ul> <li>during operation</li> </ul>	-25 +60 °C		
relative humidity at 55 °C according to IEC 60068-2-30 95 %	during storage	-55 +80 °C		
relative humidity at 55 °C according to IEC 60068-2-30 95 %	relative humidity minimum	10 %		
IIIaxiiiiuiii	relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %		
Main circuit	Main circuit			
number of poles for main current circuit 3	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>	690 V
at AC-3e rated value maximum	690 V
operational current	
<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated</li> </ul>	40 A
value	
• at AC-1	
<ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> </ul>	40 A
— up to 690 V at ambient temperature 60 °C rated	35 A
value	
• at AC-3	
— at 400 V rated value	9 A
— at 500 V rated value	9 A
— at 690 V rated value	9 A
• at AC-3e	
— at 400 V rated value	9 A
— at 500 V rated value	9 A
— at 690 V rated value	9 A
• at AC-4 at 400 V rated value	8.5 A
• at AC-5a up to 690 V rated value	35.2 A
• at AC-5b up to 400 V rated value	7.4 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	11.4 A
— up to 400 V for current peak value n=20 rated value	11.4 A
— up to 500 V for current peak value n=20 rated value	9.1 A
— up to 690 V for current peak value n=20 rated value	9 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	7.6 A
— up to 400 V for current peak value n=30 rated value	7.6 A
— up to 500 V for current peak value n=30 rated value	6.1 A
— up to 690 V for current peak value n=30 rated value	6.1 A
minimum cross-section in main circuit at maximum AC-1 rated value	10 mm²
operational current for approx. 200000 operating cycles at	
AC-4	444
• at 400 V rated value	4.1 A
at 690 V rated value	3.3 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 60 V rated value	20 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
with 2 current paths in series at DC-1	05.4
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
with 3 current paths in series at DC-1	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	35 A
— at 440 V rated value	2.9 A
— at 600 V rated value	1.4 A
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	

at 24 V rated value	20. 4				
— at 24 V rated value	20 A				
— at 60 V rated value	5 A				
— at 220 V rated value	1 A				
— at 440 V rated value	0.09 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	35 A				
— at 60 V rated value	35 A				
— at 110 V rated value	15 A				
— at 220 V rated value	3 A				
— at 440 V rated value	0.27 A				
— at 600 V rated value	0.16 A				
with 3 current paths in series at DC-3 at DC-5					
— at 24 V rated value	35 A				
— at 60 V rated value	35 A				
— at 110 V rated value	35 A				
— at 220 V rated value	10 A				
— at 440 V rated value	0.6 A				
— at 600 V rated value	0.6 A				
operating power					
at AC-2 at 400 V rated value	4 kW				
• at AC-3					
— at 230 V rated value	2.2 kW				
— at 400 V rated value	4 kW				
— at 500 V rated value	4 kW				
— at 690 V rated value	7.5 kW				
• at AC-3e					
— at 230 V rated value	2.2 kW				
— at 400 V rated value	4 kW				
— at 500 V rated value	4 kW				
— at 690 V rated value	7.5 kW				
operating power for approx. 200000 operating cycles at AC-					
at 400 V rated value	2 kW				
at 690 V rated value	2.5 kW				
operating apparent power at AC-6a	Z.O NVV				
up to 230 V for current peak value n=20 rated value	4.5 kVA				
up to 400 V for current peak value n=20 rated value	7.8 kVA				
up to 500 V for current peak value n=20 rated value	7.8 kVA				
• up to 690 V for current peak value n=20 rated value	10.7 kVA				
operating apparent power at AC-6a					
up to 230 V for current peak value n=30 rated value	3 kVA				
up to 400 V for current peak value n=30 rated value  up to 400 V for current peak value n=30 rated value	5.2 kVA				
up to 500 V for current peak value n=30 rated value  up to 500 V for current peak value n=30 rated value	5.2 kVA 5.2 kVA				
ap to 500 v for current peak value 11-50 fated value	7.2 kVA				
• up to 690 V for current neak value n=30 rated value	/ / KVA				
up to 690 V for current peak value n=30 rated value  short-time withstand current in cold operating state up to	7.2 KVA				
up to 690 V for current peak value n=30 rated value  short-time withstand current in cold operating state up to 40 °C	7.2 KVA				
short-time withstand current in cold operating state up to	170 A; Use minimum cross-section acc. to AC-1 rated value				
short-time withstand current in cold operating state up to 40 $^{\circ}\text{C}$					
short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum	170 A; Use minimum cross-section acc. to AC-1 rated value				
short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  • limited to 5 s switching at zero current maximum	170 A; Use minimum cross-section acc. to AC-1 rated value 170 A; Use minimum cross-section acc. to AC-1 rated value				
short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  • limited to 5 s switching at zero current maximum  • limited to 10 s switching at zero current maximum	170 A; Use minimum cross-section acc. to AC-1 rated value 170 A; Use minimum cross-section acc. to AC-1 rated value 140 A; Use minimum cross-section acc. to AC-1 rated value				
short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  • limited to 5 s switching at zero current maximum  • limited to 10 s switching at zero current maximum  • limited to 30 s switching at zero current maximum	170 A; Use minimum cross-section acc. to AC-1 rated value 170 A; Use minimum cross-section acc. to AC-1 rated value 140 A; Use minimum cross-section acc. to AC-1 rated value 104 A; Use minimum cross-section acc. to AC-1 rated value				
short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  • limited to 5 s switching at zero current maximum  • limited to 10 s switching at zero current maximum  • limited to 30 s switching at zero current maximum  • limited to 60 s switching at zero current maximum	170 A; Use minimum cross-section acc. to AC-1 rated value 170 A; Use minimum cross-section acc. to AC-1 rated value 140 A; Use minimum cross-section acc. to AC-1 rated value 104 A; Use minimum cross-section acc. to AC-1 rated value				
short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  • limited to 5 s switching at zero current maximum  • limited to 10 s switching at zero current maximum  • limited to 30 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  no-load switching frequency	170 A; Use minimum cross-section acc. to AC-1 rated value 170 A; Use minimum cross-section acc. to AC-1 rated value 140 A; Use minimum cross-section acc. to AC-1 rated value 104 A; Use minimum cross-section acc. to AC-1 rated value 88 A; Use minimum cross-section acc. to AC-1 rated value				
short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  • limited to 5 s switching at zero current maximum  • limited to 10 s switching at zero current maximum  • limited to 30 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  no-load switching frequency  • at AC	170 A; Use minimum cross-section acc. to AC-1 rated value 170 A; Use minimum cross-section acc. to AC-1 rated value 140 A; Use minimum cross-section acc. to AC-1 rated value 104 A; Use minimum cross-section acc. to AC-1 rated value 88 A; Use minimum cross-section acc. to AC-1 rated value				
short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  • limited to 5 s switching at zero current maximum  • limited to 10 s switching at zero current maximum  • limited to 30 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  no-load switching frequency  • at AC  operating frequency	170 A; Use minimum cross-section acc. to AC-1 rated value 170 A; Use minimum cross-section acc. to AC-1 rated value 140 A; Use minimum cross-section acc. to AC-1 rated value 104 A; Use minimum cross-section acc. to AC-1 rated value 88 A; Use minimum cross-section acc. to AC-1 rated value 5 000 1/h				
short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum  • limited to 5 s switching at zero current maximum  • limited to 10 s switching at zero current maximum  • limited to 30 s switching at zero current maximum  • limited to 60 s switching at zero current maximum  no-load switching frequency  • at AC  operating frequency  • at AC-1 maximum	170 A; Use minimum cross-section acc. to AC-1 rated value 170 A; Use minimum cross-section acc. to AC-1 rated value 140 A; Use minimum cross-section acc. to AC-1 rated value 104 A; Use minimum cross-section acc. to AC-1 rated value 88 A; Use minimum cross-section acc. to AC-1 rated value 5 000 1/h				
short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum no-load switching frequency • at AC  operating frequency • at AC-1 maximum • at AC-2 maximum	170 A; Use minimum cross-section acc. to AC-1 rated value 170 A; Use minimum cross-section acc. to AC-1 rated value 140 A; Use minimum cross-section acc. to AC-1 rated value 104 A; Use minimum cross-section acc. to AC-1 rated value 88 A; Use minimum cross-section acc. to AC-1 rated value 5 000 1/h 1 000 1/h 1 000 1/h				
short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum no-load switching frequency • at AC  operating frequency • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum	170 A; Use minimum cross-section acc. to AC-1 rated value 170 A; Use minimum cross-section acc. to AC-1 rated value 140 A; Use minimum cross-section acc. to AC-1 rated value 104 A; Use minimum cross-section acc. to AC-1 rated value 88 A; Use minimum cross-section acc. to AC-1 rated value 5 000 1/h 1 000 1/h 1 000 1/h 1 000 1/h				
short-time withstand current in cold operating state up to 40 °C  • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum no-load switching frequency • at AC  operating frequency • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-3 e maximum	170 A; Use minimum cross-section acc. to AC-1 rated value 170 A; Use minimum cross-section acc. to AC-1 rated value 140 A; Use minimum cross-section acc. to AC-1 rated value 104 A; Use minimum cross-section acc. to AC-1 rated value 88 A; Use minimum cross-section acc. to AC-1 rated value 5 000 1/h 1 000 1/h 1 000 1/h 1 000 1/h 1 000 1/h				

type of voltage of the control supply voltage	AC			
control supply voltage at AC				
at 50 Hz rated value	400 V			
at 60 Hz rated value	400 440 V			
operating range factor control supply voltage rated value of magnet coil at AC				
● at 50 Hz	0.8 1.1			
● at 60 Hz	0.85 1.1			
apparent pick-up power of magnet coil at AC				
● at 50 Hz	68 VA			
● at 60 Hz	67 VA			
inductive power factor with closing power of the coil				
● at 50 Hz	0.72			
• at 60 Hz	0.74			
apparent holding power				
<ul> <li>at minimum rated control supply voltage at AC</li> </ul>				
— at 60 Hz	7.9 VA			
<ul> <li>at maximum rated control supply voltage at AC</li> </ul>				
— at 60 Hz	6.5 VA			
apparent holding power of magnet coil at AC				
● at 50 Hz	7.9 VA			
• at 60 Hz	6.5 VA			
inductive power factor with the holding power of the coil				
• at 50 Hz	0.25			
• at 60 Hz	0.28			
closing delay				
a at AC	8 40 ms			
• at AC				
• at AC opening delay				
	4 16 ms			
opening delay	4 16 ms 10 10 ms			
opening delay  • at AC  arcing time  control version of the switch operating mechanism				
opening delay  • at AC  arcing time  control version of the switch operating mechanism  auxiliary circuit	10 10 ms Standard A1 - A2			
opening delay  • at AC  arcing time  control version of the switch operating mechanism	10 10 ms			
opening delay  • at AC  arcing time  control version of the switch operating mechanism  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous contact	10 10 ms Standard A1 - A2  1			
opening delay  • at AC  arcing time  control version of the switch operating mechanism  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous	10 10 ms Standard A1 - A2			
opening delay  • at AC  arcing time  control version of the switch operating mechanism  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous contact	10 10 ms Standard A1 - A2  1			
opening delay     • at AC  arcing time  control version of the switch operating mechanism  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous contact  operational current at AC-12 maximum	10 10 ms Standard A1 - A2  1			
opening delay	10 10 ms Standard A1 - A2  1 1 1 10 A 10 A 3 A			
opening delay	10 10 ms Standard A1 - A2  1  1  10 A			
opening delay	10 10 ms Standard A1 - A2  1 1 1 10 A 10 A 3 A			
opening delay	10 10 ms Standard A1 - A2  1 1 1 10 A 10 A 3 A 2 A			
opening delay	10 10 ms Standard A1 - A2  1  1  10 A  10 A  3 A 2 A 1 A			
opening delay	10 10 ms Standard A1 - A2  1  1  10 A  10 A  3 A 2 A 1 A			
opening delay	10 10 ms Standard A1 - A2  1  1  10 A  10 A  3 A 2 A 1 A			
opening delay	10 10 ms Standard A1 - A2  1  1  10 A  10 A  3 A 2 A 1 A  10 A			
opening delay	10 10 ms Standard A1 - A2  1  1  10 A  10 A  3 A  2 A  1 A  10 A  6 A  6 A			
opening delay	10 10 ms Standard A1 - A2  1  1  10 A  10 A  3 A  2 A  1 A  10 A  6 A  6 A  6 A  3 A			
opening delay	10 10 ms Standard A1 - A2  1  1  10 A  10 A  3 A  2 A  1 A  10 A  6 A  6 A  6 A  3 A  2 A			
opening delay	10 10 ms Standard A1 - A2  1  1  10 A  10 A  3 A 2 A 1 A  10 A  6 A 6 A 6 A 3 A 2 A 1 A			
opening delay	10 10 ms Standard A1 - A2  1  1  10 A  10 A  3 A 2 A 1 A  10 A  6 A 6 A 6 A 3 A 2 A 1 A			
opening delay	10 10 ms Standard A1 - A2  1  1  10 A  10 A  3 A  2 A  1 A  10 A  6 A  6 A  6 A  3 A  2 A  1 A  0.15 A			
opening delay	10 10 ms Standard A1 - A2  1  1  10 A  10 A  3 A  2 A  1 A  10 A  6 A  6 A  6 A  3 A  2 A  1 A  0.15 A			
opening delay	10 10 ms Standard A1 - A2  1 1 1 10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 1 A 0.15 A			
opening delay	10 10 ms Standard A1 - A2  1 1 1 10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 7 A 1 A 0.15 A			
opening delay	10 10 ms Standard A1 - A2  1 1 1 10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A			
opening delay	10 10 ms Standard A1 - A2  1  1  10 A  10 A  3 A  2 A  1 A  10 A  6 A  6 A  6 A  3 A  2 A  1 A  0.15 A			
opening delay	10 10 ms Standard A1 - A2  1 1 1 10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A  10 A 2 A 2 A 1 A 0.9 A 0.3 A			

• at 480 V rated value	7.6 A			
at 600 V rated value	9 A			
yielded mechanical performance [hp]				
<ul> <li>for single-phase AC motor</li> </ul>				
— at 110/120 V rated value	1 hp			
— at 230 V rated value	1 hp			
<ul> <li>for 3-phase AC motor</li> </ul>				
— at 200/208 V rated value	2 hp			
— at 220/230 V rated value	3 hp			
— at 460/480 V rated value	5 hp			
— at 575/600 V rated value	7.5 hp			
contact rating of auxiliary contacts according to UL	A600 / P600			
Short-circuit protection				
design of the fuse link				
<ul> <li>for short-circuit protection of the main circuit</li> </ul>				
<ul> <li>— with type of coordination 1 required</li> </ul>	gG: 63A (690V,100kA), aM: 32A (690V,100kA), BS88: 63A (415V,80kA)			
<ul> <li>— with type of assignment 2 required</li> </ul>	gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80kA)			
• for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)			
Installation/ mounting/ dimensions				
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and			
	backward by +/- 22.5° on vertical mounting surface			
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715			
fastening method side-by-side mounting	Yes			
height	85 mm			
width	45 mm			
depth	97 mm			
required spacing				
<ul> <li>with side-by-side mounting</li> </ul>				
— forwards	10 mm			
— upwards	10 mm			
— downwards	10 mm			
— at the side	0 mm			
<ul> <li>for grounded parts</li> </ul>				
— forwards	10 mm			
— upwards	10 mm			
— at the side	6 mm			
— downwards	10 mm			
for live parts				
— forwards	10 mm			
— upwards	10 mm			
— downwards	10 mm			
— at the side	6 mm			
Connections/ Terminals				
type of electrical connection				
for main current circuit	screw-type terminals			
for auxiliary and control circuit	screw-type terminals			
at contactor for auxiliary contacts	Screw-type terminals			
of magnet coil	Screw-type terminals			
type of connectable conductor cross-sections				
for main contacts				
— solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)			
— solid or stranded	2x (1 2.5 mm²), 2x (2.5 10 mm²)			
finely stranded with core end processing	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²			
for AWG cables for main contacts	2x (16 12), 2x (14 8)			
connectable conductor cross-section for main contacts	, , ,			
• solid	1 10 mm²			
stranded	1 10 mm²			
finely stranded with core end processing	1 10 mm²			
connectable conductor cross-section for auxiliary contacts				
solid or stranded	0.5 2.5 mm²			

• finely stranded with core end processing	0.5 2.5 mm²				
type of connectable conductor cross-sections					
<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>for AWG cables for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14)				
AWG number as coded connectable conductor cross section					
• for main contacts	16 8				
<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				
suitability for use safety-related switching OFF	Yes; applies only to contactor operating mechanism				
proportion of dangerous failures					
<ul> <li>with low demand rate according to SN 31920</li> </ul>	40 %				
with high demand rate according to SN 31920	73 %				
B10 value with high demand rate according to SN 31920	1 000 000				
failure rate [FIT] with low demand rate according to SN 31920	100 FIT				
IEC 61508					
T1 value					
<ul> <li>for proof test interval or service life according to IEC 61508</li> </ul>	20 a				
Electrical Safety					
protection class IP on the front according to IEC 60529	IP20				

# Approvals Certificates

### **General Product Approval**





touch protection on the front according to IEC 60529

Confirmation



finger-safe, for vertical contact from the front





General Product Approval EM	V	Functional Saftey	Test Certificates
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<u>KC</u>





Type Examination Certificate Special Test Certificate

Type Test Certificates/Test Report

#### Marine / Shipping













other Environment

<u>Confirmation</u> <u>Environmental Confirmations</u>

## Further information

Information on the packaging https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2023-1AR60

Cax online generator

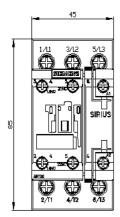
 $\underline{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT2023-1AR60}$ 

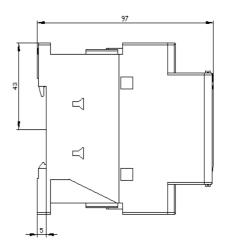
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) <a href="https://support.industry.siemens.com/cs/ww/en/ps/3RT2023-1AR60">https://support.industry.siemens.com/cs/ww/en/ps/3RT2023-1AR60</a>

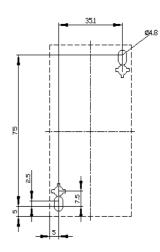
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2023-1AR60&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2023-1AR60&lang=en</a>

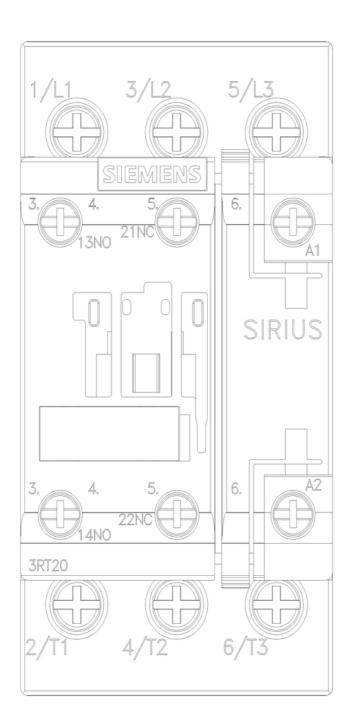
Characteristic: Tripping characteristics, I2t, Let-through current

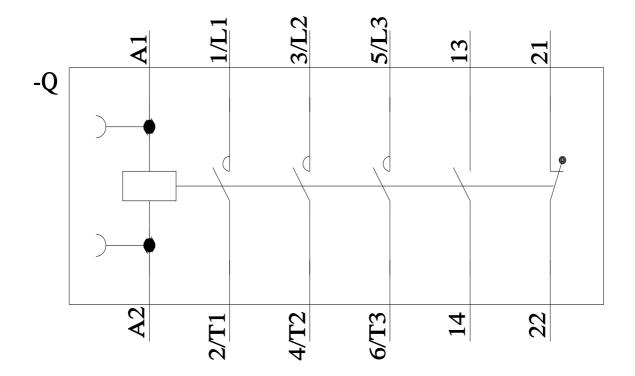
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2023-1AR60&objecttype=14&gridview=view1











last modified: 1/17/2024 🖸