# **SIEMENS**

Data sheet 3RT2023-1AV60



power contactor, AC-3 9 A, 4 kW / 400 V 1 NO + 1 NC, 480 V AC, 60 Hz 3-pole, Size S0 screw terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S0
product extension	
<ul> <li>function module for communication</li> </ul>	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	0.6 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	0.2 W
<ul> <li>without load current share typical</li> </ul>	7.2 W
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 V
<ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul>	690 V
surge voltage resistance	
<ul> <li>of main circuit rated value</li> </ul>	6 kV
of auxiliary circuit rated value	6 kV
maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• 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 service life (switching cycles)	
<ul> <li>of contactor typical</li> </ul>	10 000 000
<ul> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> </ul>	5 000 000
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	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	
<ul> <li>during operation</li> </ul>	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %

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
at AC-3e rated value maximum	690 V
operational current	
at AC-1 at 400 V at ambient temperature 40 °C rated value	40 A
• 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 value	35 A
• 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
<ul> <li>at AC-4 at 400 V rated value</li> </ul>	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
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	11.4 A
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	9.1 A
— up to 690 V for current peak value n=20 rated value  value	9 A
<ul> <li>at AC-6a</li> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	7.6 A
— up to 400 V for current peak value n=30 rated value	7.6 A
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	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 operational current for approx. 200000 operating	10 mm <sup>2</sup>
cycles at AC-4	
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 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	
— at 24 V rated value	35 A
— at 24 V rated value  — at 110 V rated value	35 A
— at 110 V rated value  — 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	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 A
— at 110 V rated value	2.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.09 A
— at 600 V rated value	0.06 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 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 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	5.071
at AC-2 at 400 V rated value	4 kW
• at AC-3	TIVV
— at 230 V rated value	2.2 kW
— at 250 V rated value  — 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	2.2 k/M
— 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  operating power for approx. 200000 operating cycles	7.5 kW
at AC-4	
• at 400 V rated value	2 kW
at 690 V rated value	2.5 kW
operating apparent power at AC-6a	
• 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	5.2 kVA
up to 500 V for current peak value n=30 rated value	5.2 kVA
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	7.2 kVA
short-time withstand current in cold operating state	7.12 X77 X
up to 40 °C	
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	170 A; Use minimum cross-section acc. to AC-1 rated value
limited to 5 s switching at zero current maximum	170 A; Use minimum cross-section acc. to AC-1 rated value
limited to 10 s switching at zero current maximum	122 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	78 A; Use minimum cross-section acc. to AC-1 rated value
Iimited to 60 s switching at zero current maximum	68 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	5 000 1/h
operating frequency	
at AC-1 maximum	1 000 1/h
• at AC-2 maximum	1 000 1/h
→ at no ∠ maximum	1 000 1/11

# af AC-3 maximum	at AC 2 manufacture	4 000 4 lb
at AC-4 maximum  (control circult/ Control  (type of voltage of the control supply voltage control supply voltage at AC at 60 Hz rade value  apparent pick-up power of magnet coil at AC at 60 Hz at 60 H		
South of circuit Control supply voltage of the control supply voltage at AC		
Sype of voltage of the control supply voltage   AC		300 1/n
Control supply voltage at AC		
a st 50 Hz rated value operating range factor control supply voltage rated value of magnet coll at AC  a st 50 Hz  inductive power factor with closing power of the coll a st 60 Hz  apparent holding power of magnet coll at AC  at 50 Hz  apparent holding power of magnet coll at AC  at 50 Hz  between factor with the holding power of the coll at 60 Hz  closing delay at AC  at AC  copening delay at AC  at AC  copening delay at AC  at AC  correct of the switch operating mechanism  Auxiliary circuit  control version of the switch operating mechanism  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact i		AC
operating range factor control supply voltage rated value of magnet coil at AC * at 60 Hz * at 60 H		
value of magnet coil at AC  a 16 0 Hz  sparent pick-up power of magnet coil at AC  a 16 0 Hz  inductive power factor with closing power of the coil  at 60 Hz  sparent holding power of magnet coil at AC  a 16 0 Hz  to a 16 0 Hz  coil at 60 Hz  coi		480 V
# ait 60 Hz		
apparent pick-up power of magnet coll at AC	_	0.05
a at 60 Hz		0.85 1.1
Inductive power factor with closing power of the coil apparent holding power of magnet coil at AC		
a at 60 Hz apparent holding power of magnet coil at AC a at 60 Hz coil a at 60 Hz cosing delay at AC archage at AC archage at AC archage at AC archage between the switch operating mechanism control version of the switch operating mechanism control version of the switch operating mechanism control version of the switch operating mechanism Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact coperational current at AC-12 maximum operational current at AC-12 maximum operational current at AC-12 maximum operational current at AC-12 waximum at 480 V rated value at 480 V rated value at 690 V rated value at 690 V rated value at 680 V rated value at 48 V rated value at 48 V rated value at 48 V rated value at 110 V rated value at 2A at 20 V rated value at 2A at 20 V rated value at 48 V rated value at 48 V rated value at 48 V rated value at 20 V rated value at 60 0 V rat		/3 VA
apparent holding power of magnet coil at AC  • at 60 Hz  inductive power factor with the holding power of the coil  • at 60 Hz  closing delay • at AC  • at AL  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact  number of NC contacts for auxiliary contacts instantaneous contact  number of NC contacts for auxiliary contacts instantaneous contact  number of NC contacts for auxiliary contacts instantaneous contact  number of NC contacts for auxiliary contacts instantaneous contact  number of NC contacts for auxiliary contacts instantaneous contact  10  operational current at AC-12 maximum  operational current at DC-12  • at 230 V rated value  • at 600 V rated value  • at 600 V rated value  • at 600 V rated value  • at 64 V rated value  • at 48 V rated value  • at 110 V rated value  • at 220 V rated value  • at 110 V rated value  • at 24 V rated value  • at 25 V rated value  • at 600 V rated value  • at 100 V rated value  • at 100 V rated value  • at 600 V rated value  • at 100 V rated value  • at 600 V rated value  • at 100 V rated value  • at 220 V rated value  • at 100 V rated value  • at 200 V rated value  • at 100 V rat		0.70
act 60 Hz		0.76
Inductive power factor with the holding power of the coil  at 80 Hz  closing delay at AC pening delay at AC  to at AC  copening 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 contact operational current at AC-15 at 230 V rated value at 800 V rated value at 800 V rated value at 800 V rated value be at 800 V rated value at 800 V rated value be at 800 V rated value at 800 V rated value be at 800 V rated value at 800 V rated value be at 800 V rated value at 800 V rated value be at 800 V rated va		
at 60 Hz   closing delay   at 60 Hz   closing delay   at 60 Hz   closing delay   at AC   during delay   during del		7.2 VA
coing delay		
• at AC		0.28
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 NC contacts for auxiliary contacts instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 48 V rated value • at 48 V rated value • at 110 V rated value • at 120 V rated value • at 220 V rated value • at 30 V rated value • at 30 V rated value • at 48 V rated value • at 60 V rated value • at 120 V rated val		0.20
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  number of NO contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous contact  number of NO contacts for auxiliary contacts instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 4500 V rated value • at 500 V rated value • at 690 V rated value • at 48 V rated value • at 48 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 320 V rated value • at 48 V rated value • at 48 V rated value • at 48 V rated value • at 600 V rated value • at 110 V rated value • at 110 V rated value • at 220 V rated value • at 320 V rated value • at 320 V rated value • at 48 V rated value • at 48 V rated value • at 400 V rated value • at 600 V rated valu		8 40 me
arcing time		0 +0 III 0
arcing time control version of the switch operating mechanism  Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NC contacts for auxiliary contacts instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 690 V rated value • at 690 V rated value • at 48 V rated value • at 48 V rated value • at 110 V rated value • at 122 V rated value • at 125 V rated value • at 220 V rated value • at 24 V rated value • at 250 V rated value • at 250 V rated value • at 250 V rated value • at 110 V rated value • at 110 V rated value • at 110 V rated value • at 250 V rated value • at 250 V rated value • at 27 V rated value • at 28 V rated value • at 28 V rated value • at 29 V rated value • at 20 V rated value • at 60 V rated value • at 20		4 16 mg
Control version of the switch operating mechanism  Auxiliary circuit  number of NC contacts for auxiliary contacts instantaneous contact  number of NC contacts for auxiliary contacts instantaneous contact  operational current at AC-12 maximum  operational current at AC-15  • at 230 V rated value  • at 690 V rated value  • at 690 V rated value  • at 49 V rated value  • at 49 V rated value  • at 40 V rated value  • at 60 V rated value  • at 10 V rated value  • at 110 V rated value  • at 220 V rated value  • at 250 V rated value  • at 150 V rated value  • at 250 V rated value  • at 350 V rated value  • at 48 V rated value  • at 48 V rated value  • at 48 V rated value  • at 40 V rated value  • at 60 V rated value  • at 20 V rated value		
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 operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 600 V rated value • at 690 V rated value • at 48 V rated value • at 48 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 125 V rated value • at 220 V rated value • at 110 V rated value • at 110 V rated value • at 24 V rated value • at 110 V rated value • at 20 V rated value • at 60 V rated value • at 20 V rated value • at 60 V	-	
number of NC contacts for auxillary contacts instantaneous contact number of NO contacts for auxillary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value • at 690 V rated value • at 600 V rated value • at 40 V rated value • at 110 V rated value • at 110 V rated value • at 122 V rated value • at 220 V rated value • at 220 V rated value • at 600 V rated value • at 40 V rated value • at 600 V rated value • at 40 V rated value • at 60 V rated value • at 20 V rated value • at 20 V rated value • at 40 V rated value • at 20 V rated value • at 20 V rated value • at 10 V rated value • at 40 V rated value • at 60 V rated value • at 6		Statitual (I A I - AZ
instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-15  • at 230 V rated value • at 400 V rated value • at 690 V rated value • at 690 V rated value • at 690 V rated value • at 60 V rated value • at 10 V rated value • at 10 V rated value • at 25 V rated value • at 25 V rated value • at 260 V rated value • at 600 V rated value • at 600 V rated value • at 27 V rated value • at 600 V rated value • at 800 V rated value • at 10 V rated value • at 20 V rated value • at 60 V rated value • at 10 V rated value • at 120 V rated value • at 480 V rated value • at 600 V rated value • at 480 V rated value • at 600 V rated value		
Operational current at AC-12 maximum		1
operational current at AC-15		1
<ul> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> <li>at 24 V rated value</li> <li>at 60 V rated value</li> <li>at 10 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 24 V rated value</li> <li>at 25 V rated value</li> <li>at 24 V rated value</li> <li>at 25 V rated value</li> <li>at 24 V rated value</li> <li>at 25 V rated value</li> <li>at 25 V rated value</li> <li>at 20 V rated value</li> <li>at 25 V rated value</li> <li>at 20 V rated value</li> <li>at 30 V rated value</li> <li>at 30 V rated value</li> <li>at 48 V rated value</li> <li>at 600 V rated va</li></ul>	operational current at AC-12 maximum	10 A
at 400 V rated value     at 500 V rated value     at 690 V rated value     at 690 V rated value     at 24 V rated value     at 24 V rated value     at 48 V rated value     at 48 V rated value     at 110 V rated value     at 220 V rated value     at 24 V rated value     at 600 V rated value     at 600 V rated value     at 24 V rated value     at 24 V rated value     at 34 V rated value     at 48 V rated value     at 48 V rated value     at 60 V rated value     at 110 V rated value     at 20 V rated value     at 125 V rated value     at 20 V rated value     at 20 V rated value     at 60 V rated value     at 60 V rated value     at 480 V rated value     at 60 V rated V rated Value     at 60 V rated Value     at 60 V rated Value     at 60 V rated Value	operational current at AC-15	
• at 500 V rated value	• at 230 V rated value	10 A
• at 690 V rated value 10 A  operational current at DC-12  • at 24 V rated value 6 A • at 60 V rated value 3 A • at 110 V rated value 2 A • at 220 V rated value 1 A • at 600 V rated value 1 A • at 600 V rated value 2 A • at 220 V rated value 1 A • at 600 V rated value 1 A • at 600 V rated value 1 A • at 600 V rated value 2 A • at 220 V rated value 2 A • at 24 V rated value 2 A • at 60 V rated value 3 A • at 110 V rated value 1 A • at 125 V rated value 1 A • at 125 V rated value 1 A • at 120 V rated value 1 A • at 220 V rated value 1 A • at 220 V rated value 1 A • at 600 V rated Value 1	• at 400 V rated value	3 A
operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 220 V rated value • at 60 V rated value • at 60 V rated value • at 80 V rated value • at 80 V rated value • at 600 V rated value • at 125 V rated value • at 148 V rated value • at 148 V rated value • at 10 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value • at 600 V rated value • 7.6 A • at 600 V rated value • at 480 V rated value • at 600 V rated value	<ul> <li>at 500 V rated value</li> </ul>	2 A
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 220 V rated value</li> <li>at 24 V rated value</li> <li>operational current at DC-13</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 200 V rated value</li> <li>at 3 A</li> <li>at 600 V rated value</li> <li>at 3 A</li> <li>at 600 V rated value</li> <li>at 3 A</li> <li>at 600 V rated value</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li></li></ul>	at 690 V rated value	1 A
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>operational current at DC-13</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 200 V rated value</li> <li>at 600 V rated value</li> <li>full-load current (FLA) for 3-phase AC motor</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>full-load current (FLA) for 3-phase AC motor</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>full-load current (FLA) for 3-phase AC motor</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>for single-phase AC motor</li> </ul>	operational current at DC-12	
<ul> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>operational current at DC-13</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 60 V rated value</li> <li>at 10 V rated value</li> <li>at 110 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 200 V rated value</li> <li>at 600 V rated value</li> <li>7.6 A</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>at 600</li></ul>	at 24 V rated value	10 A
<ul> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>1 A</li> <li>at 600 V rated value</li> <li>0.15 A</li> <li>operational current at DC-13</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 100 V rated value</li> <li>at 100 V rated value</li> <li>at 100 V rated value</li> <li>at 200 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li></ul>	at 48 V rated value	6 A
<ul> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>1 A</li> <li>at 600 V rated value</li> <li>0.15 A</li> <li>operational current at DC-13         <ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 200 V rated value</li> </ul> </li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li></ul>	at 60 V rated value	6 A
<ul> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>1 A</li> <li>at 600 V rated value</li> <li>0.15 A</li> <li>operational current at DC-13         <ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 200 V rated value</li> </ul> </li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li></ul>	at 110 V rated value	3 A
<ul> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>operational current at DC-13</li> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 7.6 A</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 7.6 A</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 7.6 A</li> <li>at 600 V rated value</li> <li>at 7.6 A</li> <li>at 7.</li></ul>		
at 600 V rated value  operational current at DC-13  at 24 V rated value  at 48 V rated value  at 60 V rated value  at 110 V rated value  at 110 V rated value  at 125 V rated value  at 125 V rated value  at 220 V rated value  at 600 V rated value  o.3 A  at 600 V rated value  o.1 A  contact reliability of auxiliary contacts  full-load current (FLA) for 3-phase AC motor  at 480 V rated value  at 600 V rated value  o.1 A  7.6 A  yielded mechanical performance [hp]  for single-phase AC motor		
operational current at DC-13  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value  O.1 A  contact reliability of auxiliary contacts  full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value		
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li></li></ul>		
<ul> <li>at 48 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>1 faulty switching per 100 million (17 V, 1 mA)</li> </ul> UL/CSA ratings full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>for single-phase AC motor</li> </ul>	•	10 A
<ul> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <l< td=""><td></td><td></td></l<></ul>		
<ul> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> <li>1 faulty switching per 100 million (17 V, 1 mA)</li> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>yielded mechanical performance [hp]</li> <li>for single-phase AC motor</li> </ul>		
<ul> <li>at 125 V rated value</li> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> <li>1 faulty switching per 100 million (17 V, 1 mA)</li> </ul> UL/CSA ratings full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>at 600 V rated value</li> <li>yielded mechanical performance [hp]</li> <li>for single-phase AC motor</li> </ul>		
<ul> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> <li>1 faulty switching per 100 million (17 V, 1 mA)</li> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>9 A</li> <li>yielded mechanical performance [hp]</li> <li>for single-phase AC motor</li> </ul>		
at 600 V rated value     contact reliability of auxiliary contacts  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor      at 480 V rated value     at 600 V rated value  yielded mechanical performance [hp]  for single-phase AC motor  0.1 A  1 faulty switching per 100 million (17 V, 1 mA)  7.6 A  9 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  • at 600 V rated value  yielded mechanical performance [hp]  • for single-phase AC motor		
UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  yielded mechanical performance [hp]  • for single-phase AC motor		
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  yielded mechanical performance [hp]  • for single-phase AC motor		Tradity Switching per 100 million (17 V, 1 mA)
<ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>yielded mechanical performance [hp]</li> <li>for single-phase AC motor</li> </ul>	-	
at 600 V rated value  yielded mechanical performance [hp]      for single-phase AC motor  9 A		
yielded mechanical performance [hp]  • for single-phase AC motor		
• for single-phase AC motor		9 A
at 110/120 \/ rated value		
· ·	— at 110/120 V rated value	1 hp
— at 230 V rated value 1 hp	— at 230 V rated value	1 hp

• for 3-phase AC motor	
— at 200/208 V rated value	2 hp
<ul> <li>at 220/230 V rated value</li> </ul>	3 hp
<ul> <li>— at 460/480 V rated value</li> </ul>	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)
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
• side-by-side mounting	Yes
height	85 mm
width	45 mm
depth	97 mm
required spacing	
with side-by-side mounting	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
for grounded parts	
— forwards	10 mm
— upwards	10 mm
— at the side	6 mm
— downwards	10 mm
• for live parts	10 111111
— forwards	10 mm
	10 mm
— upwards — downwards	10 mm
— at the side	
	6 mm
Connections/ Terminals	
type of electrical connection	corous typo terminals
for main current circuit     for auxiliant and control 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	0 (4 05 2) 0 (05 42 2)
— 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
at 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 connectable conductor cross-section for auxiliary	1 10 mm²
contacts	
solid or stranded	0.5 2.5 mm <sup>2</sup>
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>at AWG cables for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14)
AWG number as coded connectable conductor cross section	
<ul> <li>for main contacts</li> </ul>	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
B10 value with high demand rate according to SN 31920	450 000
proportion of dangerous failures	
<ul> <li>with low demand rate according to SN 31920</li> </ul>	40 %
<ul> <li>with high demand rate according to SN 31920</li> </ul>	73 %
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
T1 value for proof test interval or service life according to IEC 61508	20 y
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
suitability for use	
<ul> <li>safety-related switching OFF</li> </ul>	Yes

## Certificates/ approvals

#### **General Product Approval**





Confirmation



<u>KC</u>



Functional
Safety/Safety of Declaration of Conformity
Machinery

Test Certificates



Type Examination Certificate



Special Test Certificate

Type Test Certificates/Test Report

### Marine / Shipping













#### other

Confirmation



Confirmation

#### urther 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=3RT2023-1AV60

#### Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2023-1AV60

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

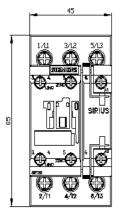
https://support.industry.siemens.com/cs/ww/en/ps/3RT2023-1AV60

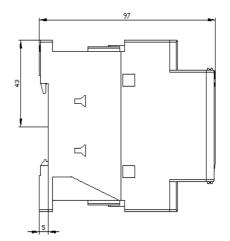
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2023-1AV60&lang=en

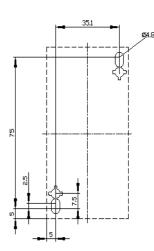
Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT2023-1AV60/char

Further characteristics (e.g. electrical endurance, switching frequency)
<a href="http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2023-1AV60&objecttype=14&gridview=view1">http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2023-1AV60&objecttype=14&gridview=view1</a>







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