## SIEMENS

## Data sheet

## 3RT2016-1AT61



Power contactor, AC-3 9 A, 4 kW / 400 V 1 NO, 600 V AC, 60 Hz 3-pole, Size S00 screw terminal

product brand name	SIRIUS			
product brand name product designation	Power contactor			
product designation	3RT2			
General technical data				
	000			
size of contactor	S00			
product extension				
function module for communication	No			
auxiliary switch	Yes			
power loss [W] for rated value of the current				
at AC in hot operating state	0.9 W			
at AC in hot operating state per pole	0.3 W			
without load current share typical	4.8 W			
insulation voltage	200.14			
of main circuit with degree of pollution 3 rated value	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			
<ul> <li>of auxiliary circuit rated value</li> </ul>	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	6,7g / 5 ms, 4,2g / 10 ms			
shock resistance with sine pulse				
• at AC	10,5g / 5 ms, 6,6g / 10 ms			
mechanical service life (switching cycles)				
<ul> <li>of contactor typical</li> </ul>	30 000 000			
<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	
<ul> <li>at AC-3 rated value maximum</li> </ul>	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> </ul>	22 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	22 A
— up to 690 V at ambient temperature 60 °C rated value	20 A
• at AC-3	
— at 400 V rated value	9 A
— at 500 V rated value	7.7 A
— at 690 V rated value	6.7 A
● at AC-3e	
— at 400 V rated value	9 A
— at 500 V rated value	7.7 A
— at 690 V rated value	6.7 A
• at AC-4 at 400 V rated value	8.5 A
<ul> <li>at AC-5a up to 690 V rated value</li> </ul>	19.4 A
• at AC-5b up to 400 V rated value	7.4 A
• at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	5.3 A
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	5.3 A
— up to 500 V for current peak value n=20 rated value	5.3 A
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	5 A
<ul> <li>at AC-6a         <ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul> </li> </ul>	3.5 A
<ul> <li>— up to 400 V for current peak value n=30 rated value</li> </ul>	3.5 A
<ul> <li>— up to 500 V for current peak value n=30 rated value</li> </ul>	3.6 A
— up to 690 V for current peak value n=30 rated value	3.3 A
minimum cross-section in main circuit at maximum AC-1 rated value operational current for approx. 200000 operating	4 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	20 A
— at 110 V rated value	2.1 A
— at 220 V rated value	0.8 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
with 2 current paths in series at DC-1	
- at 24 V rated value	20 A
	20 A 12 A
— at 110 V rated value	
— at 220 V rated value	1.6 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.7 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	

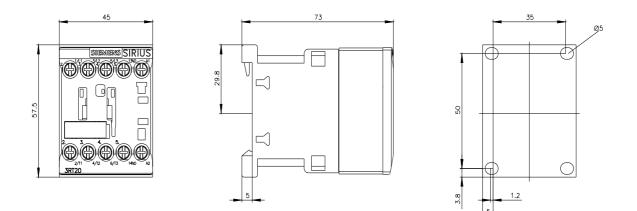
	20.4
— at 24 V rated value	20 A
— at 110 V rated value	20 A
— at 220 V rated value	20 A
— at 440 V rated value	1.3 A
— at 600 V rated value	1 A
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	20 A
— at 110 V rated value	0.1 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	20 A
— at 110 V rated value	0.35 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	20 A
— at 110 V rated value	20 A
— at 220 V rated value	1.5 A
— at 440 V rated value	0.2 A
— at 600 V rated value	0.2 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	5.5 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	5 kW
operating power for approx. 200000 operating cycles at AC-4	
at 400 V rated value	2 kW
at 690 V rated value	2.5 kW
operating apparent power at AC-6a	2.5 KW
• up to 230 V for current peak value n=20 rated value	2 kVA
• up to 400 V for current peak value n=20 rated value	3.6 kVA
• up to 500 V for current peak value n=20 rated value	4.6 kVA
• up to 690 V for current peak value n=20 rated value	5.9 kVA
operating apparent power at AC-6a	0.0 KVA
• up to 230 V for current peak value n=30 rated value	1.3 kVA
• up to 400 V for current peak value n=30 rated value	2.4 kVA
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	3.1 kVA
<ul> <li>up to 600 V for current peak value n=30 rated value</li> <li>up to 690 V for current peak value n=30 rated value</li> </ul>	4 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>	155 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	111 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	86 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	66 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	55 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	10 000 1/h
operating frequency	
<ul> <li>at AC-1 maximum</li> </ul>	1 000 1/h
• at AC-2 maximum	750 1/h
<ul> <li>at AC-3 maximum</li> </ul>	750 1/h
• at AC-3e maximum	750 1/h
• at AC-4 maximum	250 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC

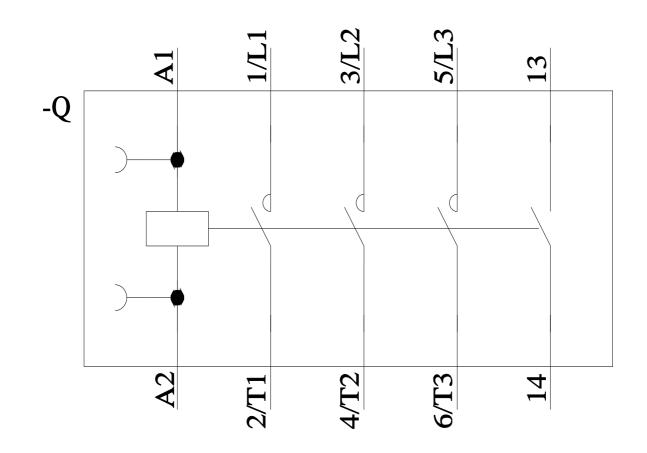
control supply voltage at AC       600 V         operating range factor control supply voltage rated value of magnet coil at AC       0.85 1.1         apparent pick-up power of magnet coil at AC       0.85 1.1         at 00 Hz       31.7 VA         Inductive power factor with closing power of the coil       0.81         at 80 Hz       0.81         apparent holding power of magnet coil at AC       4.8 VA         inductive power factor with the holding power of the coil       0.81         at 0 Hz       0.25         closing delay       9 35 ms         • at 0 Hz       0.15 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       10 A         operational current at AC-15       1         • at 300 V rated value       3A         • at 300 V rated value       3A         • at 300 V rated value       10 A         operational current at AC-15       1         • at 300 V rated value       1A         • at 300 V rated value       3A         • at 3	
operating range factor control supply voltage rated value of magnet coil at AC         0.85 1.1           apparent pick-up power of magnet coil at AC         31.7 VA           Inductive power factor with closing power of the coil at 60 Hz         0.81           apparent holding power of magnet coil at AC         0.81           apparent holding power of magnet coil at AC         0.81           at ab 0 Hz         0.25           closing delay         0.25           et at 0 Hz         0.15 ms           opening delay         0	
value of magnet coil at AC       0.851.1         apparent pick-up power of magnet coil at AC       31.7 VA         inductive power factor with closing power of the coil       0.81         apparent holding power of magnet coil at AC       0.81         apparent holding power of magnet coil at AC       48 VA         inductive power factor with the holding power of the coil       0.25         closing delay       0.25         closing delay       0.35 ms         at AC       713 ms         arcing time       1015 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       1015 ms         number of NO contacts for auxiliary contacts       1         instantaneous contact       10.A         operational current at AC-12 maximum       10 A         operational current at BC-12	
• at 60 Hz     0.85 1.1       apparent pick-up power of magnet coil at AC     31.7 VA       inductive power factor with closing power of the coil     0.81       apparent holding power of magnet coil at AC     0.81       apparent holding power of magnet coil at AC     0.81       at 60 Hz     0.81       apparent holding power factor with the holding power of the coil     0.81       at 60 Hz     0.25       closing delay     0.25       closing delay     0.35 ms       • at AC     7 13 ms       arcing time     10 15 ms       control version of the switch operating mechanism     Standard A1 - A2       Avxiliary circuit     10.A       operational current at AC-12 maximum     10 A       operational current at AC-15     1       • at 600 V rated value     1A       • at 600 V rated value     2A       • at 600 V rated value     1A       • at 600 V rated value     6A       • at 600 V rated value     1A       • at 600 V rated value     1A <t< td=""><td></td></t<>	
apparent plck-up power of magnet coil at AC       a1:0 Hz         inductive power factor with closing power of the coil       0.81         apparent holding power of magnet coil at AC       0.81         a at 60 Hz       0.81         apparent holding power of magnet coil at AC       4.8 VA         inductive power factor with the holding power of the coil       0.25         closing delay       935 ms         • at AC       713 ms         arcing time       1015 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       10 A         number of NO contacts for auxiliary contacts       1         instantianeous contact       1         operational current at AC-12 maximum       10 A         operational current at AC-12       10 A         • at 200 V rated value       2 A         • at 600 V rated value       2 A         • at 600 V rated value       1 A         operational current at DC-12       0 A         • at 24 V rated value       1 A         operational current at DC-13       1 A         • at 20 V rated value       1 A         • at 20 V rated value       1 A         • at 20 V rated value       2 A	
a at 60 Hz     31.7 VA       inductive power factor with closing power of the coil     0.81       apparent holding power of magnet coil at AC     4.8 VA       inductive power factor with the holding power of the coil     0.25       closing delay     0.25       et 60 Hz     0.25       closing delay     0.15 ms       et AC     7 13 ms       arcing time     1015 ms       control version of the switch operating mechanism     Standard A1 - A2       Auxiliary circuit     10 A       operational current at AC-12 maximum     10 A       operational current at AC-15     1       et 230 V rated value     2A       et 3200 V rated value     3A       et 400 V rated value     1A       operational current at AC-12 maximum     10 A       operational current at DC-12     1A       et 3200 V rated value     3A       et 320 V rated value     3A       et 320 V rated value     1A       operational current at DC-12     1A       et 320 V rated value     3A       et 320 V rated value     3	
Inductive power factor with closing power of the coll     0.81       apparent holding power of magnet coll at AC     0.81       • at 60 Hz     0.81       Inductive power factor with the holding power of the coll     0.25       closing delay     935 ms       • at AC     935 ms       operating time     1015 ms       control version of the switch operating mechanism     Standard A1 - A2       Auxiliary circuit     10 A       mumber of NO contacts for auxiliary contacts     1       instantaneous contact     1       operational current at AC-15     0.4       • at 200 V rated value     1A       • at 200 V rated value     1A       operational current at DC-12     1A       • at 200 V rated value     1A       operational current at DC-12     1A       • at 200 V rated value     1A       operational current at DC-12     0A       • at 22 V rated value     1A       operational current at DC-13     3A       • at 20 V rated value     1A       operational current at DC-13     1A       • at 20 V rated value     2A       • at 215 V rated value     1A       operational current at DC-13     1A       • at 20 V rated value     2A       • at 20 V rated value     2A	
• at 60 Hz     0.81       apparent holding power of magnet coll at AC     4.8 VA       inductive power factor with the holding power of the coll     0.25       closing delay     0.25       • at AC     935 ms       opening delay     1015 ms       • at AC     713 ms       arcing time     1015 ms       control version of the switch operating mechanism     Standard A1 - A2       Auxillary circuit     1015 ms       rumber of NO contacts for auxiliary contacts     1       instantaneous contact     10 A       operational current at AC-12 maximum     10 A       e at 200 V rated value     2 A       e at 200 V rated value     3 A       e at 60 V rated value     2 A       e at 60 V rated value     3 A       e at 20 V rated value     2 A       e at 20 V rate	
apparent holding power of magnet coil at AC       4.8 VA         • at 80 Hz       4.8 VA         inductive power factor with the holding power of the       0.25         closing delay       9 35 ms         • at 60 Hz       0.25         closing delay       9 35 ms         • at AC       9 35 ms         opening delay       10 15 ms         • at AC       1         arcing time       10 15 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       10 A         number of NO contacts for auxiliary contacts       1         instantaneous contact       10 A         operational current at AC-12 maximum       10 A         operational current at AC-12 maximum       10 A         operational current at AC-12       2 A         • at 630 V rated value       3 A         • at 630 V rated value       6 A         • at 630 V rated value       6 A         • at 44 V rated value       1 A         operational current at DC-12       1 A         • at 630 V rated value       0 A         • at 10 V rated value       2 A         • at 60 V rated value       0 A         • at 10 V rated va	
• at 60 Hz     4.8 VA       inductive power factor with the holding power of the coll     0.25       closing delay     0.25       • at AC     9 35 ms       opening delay     7 13 ms       • at AC     10 15 ms       control version of the switch operating mechanism     Standard A1 - A2       Auxiliary circuit     10 15 ms       number of NO contacts for auxiliary contacts     1       operational current at AC-12 maximum     10 A       operational current at AC-15     4.8 VA       • at 230 V rated value     3 A       • at 600 V rated value     10 A       • at 600 V rated value     3 A       • at 610 V rated value     10 A       • at 20 V rated value     10 A       • at 84 V rated value     10 A       • at 20 V rated value     10 A       • at 20 V rated value     10 A       • at 20 V rated value     10 A       • at 60 V rated value     10 A       • at 20 V rated value     10 A       • at 80 V rated value     10 A       • at 80 V rated value     10 A       • at 20 V rated value     10 A       • at 80 V rated value	
coling delay       0.25         closing delay       935 ms         opening delay       713 ms         • et A.C       713 ms         arcing time       1015 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       1015 ms         number of NO contacts for auxiliary contacts instantaneous contact       1         operational current at AC-12 maximum       10.A         operational current at AC-12 maximum       10.A         operational current at DC-12       10	
coling delay       0.25         closing delay       935 ms         opening delay       713 ms         • et A.C       713 ms         arcing time       1015 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       1015 ms         number of NO contacts for auxiliary contacts instantaneous contact       1         operational current at AC-12 maximum       10.A         operational current at AC-12 maximum       10.A         operational current at DC-12       10	
closing delay       935 ms         opening delay       1         • at AC       713 ms         arcing time       1015 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       1         number of NO contacts for auxiliary contacts       1         instantaneous contact       1         operational current at AC-12 maximum       10 A         operational current at AC-15       1         • at 250 V rated value       3A         • at 600 V rated value       1A         operational current at DC-12       1A         • at 600 V rated value       6A         • at 10 V rated value       6A         • at 10 V rated value       1A         operational current at DC-12       1A         • at 48 V rated value       6A         • at 10 V rated value       1A         operational current at DC-13       1A         • at 220 V rated value       1A         operational current at DC-13       1A         • at 250 V rated value       1A         • at 60 V rated value       1A         • at 60 V rated value       1A         • at 60 V rated value       1A	
• at AC     9 36 ms       opening delay     7 13 ms       arcing time     10 15 ms       control version of the switch operating mechanism     Standard A1 - A2       Auxiliary circuit     1       number of NO contacts for auxiliary contacts     1       instantaneous contact     10 A       operational current at AC-12 maximum     10 A       operational current at AC-15     1       • at 230 V rated value     10 A       • at 600 V rated value     2 A       • at 600 V rated value     10 A       operational current at DC-12     1       • at 24 V rated value     10 A       operational current at DC-12     1       • at 25 V rated value     10 A       • at 24 V rated value     10 A       • at 125 V rated value     10 A       • at 110 V rated value     2 A       • at 600 V rated value     2 A       • at 25 V rated value     2 A       • at 25 V rated value     2 A       • at 600 V rated value     2 A       • at 25 V rated value     2 A       • at 25 V rated value     2 A       • at 25 V rated value     2 A       • at 20 V rated value     2 A       • at 20 V rated value     2 A       • at 20 V rated value     2 A	
opening delay.• at AC7 13 msarcing time10 15 mscontrol version of the switch operating mechanismStandard A1 - A2Auxiliary circuit1number of NO contacts for auxiliary contacts1operational current at AC-12 maximum10 Aoperational current at AC-151• at 230 V rated value10 A• at 230 V rated value10 A• at 400 V rated value2 A• at 690 V rated value10 A• at 690 V rated value6 A• at 240 V rated value10 A• at 240 V rated value10 A• at 240 V rated value10 A• at 690 V rated value10 A• at 240 V rated value6 A• at 250 V rated value10 A• at 240 V rated value2 A• at 250 V rated value10 A• at 260 V rated value2 A• at 270 V rated value10 A• at 280 V rated value2 A• at 280 V rated value2 A• at 280 V rated value2 A• at 480 V rated value2 A• at 100 V rated value2 A• at 220 V rated value3 A• at 220 V rated value0.1 A• at 220 V rated value0.1 A• at 280 V rated value0.1 A• at 280 V rated value0.1 A• at 280 V rated value0.1 A• at 480 V rated value0.1 A• at 480 V rated value9 A• at 480 V rated value9 A• at 480 V rated value9	
• at AC     7 13 ms       arcing time     10 15 ms       control version of the switch operating mechanism     Standard A1 - A2       Auxiliary circuit     1       number of NO contacts for auxiliary contacts instantaneous contact     1       operational current at AC-12 maximum     10 A       operational current at AC-15     0       • at 200 V rated value     3A       • at 600 V rated value     1A       operational current at DC-12     1       • at 60 V rated value     1A       • at 40 value     10 A       • at 40 V rated value     1A       • at 40 V rated value     1A       • at 40 V rated value     1A       • at 60 V rated value     1A       • at 10 V rated value     1A       • at 210 V rated value     1A       • at 60 V rated value     1A       • at 60 V rated value     1A       • at 22 V rated value     1A       • at 60 V rated value     2A       • at 40 V rated value     2A       • at 40 V rat	
arcing time       10 15 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       1         number of NO contacts for auxiliary contacts       1         instantaneous contact       10 A         operational current at AC-12 maximum       10 A         operational current at AC-15       1         • at 230 V rated value       3 A         • at 400 V rated value       3 A         • at 500 V rated value       1 A         operational current at DC-12       10 A         • at 40 V rated value       6 A         • at 40 V rated value       6 A         • at 40 V rated value       10 A         operational current at DC-12       10 A         • at 40 V rated value       6 A         • at 40 V rated value       6 A         • at 20 V rated value       1 A         operational current at DC-13       0.15 A         operational current at DC-13       0 A         • at 24 V rated value       2 A         • at 48 V rated value       2 A         • at 48 V rated value       2 A         • at 20 V rated value       2 A         • at 20 V rated value       3 A         • at 20 V rated value	
Control version of the switch operating mechanism     Standard A1 - A2       Auxiliary circuit     Imber of NO contacts for auxiliary contacts     1       instantaneous contact     1       operational current at AC-12 maximum     10 A       operational current at AC-15     0 A       • at 200 V rated value     2 A       • at 600 V rated value     2 A       • at 600 V rated value     10 A       operational current at DC-12     0 A       • at 24 V rated value     10 A       • at 40 V rated value     2 A       • at 40 V rated value     10 A       • at 40 V rated value     10 A       • at 60 V rated value     2 A       • at 60 V rated value     10 A       • at 24 V rated value     10 A       • at 10 V rated value     10 A       • at 10 V rated value     10 A       • at 20 V rated value     10 A       • at 40 V rated value     10 A       • at 100 V r	
Auxiliary circuit         number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum       10 A         operational current at AC-15       10 A         • at 230 V rated value       3 A         • at 400 V rated value       2 A         • at 690 V rated value       10 A         • at 690 V rated value       10 A         • at 420 V rated value       10 A         • at 42 V rated value       10 A         • at 42 V rated value       6 A         • at 42 V rated value       6 A         • at 125 V rated value       10 A         • at 20 V rated value       10 A         • at 24 V rated value       10 A         • at 20 V rated value       0.9 A <td></td>	
number of NO contacts for auxiliary contacts instantaneous contact       1         operational current at AC-12 maximum       10 A         operational current at AC-15       10 A         • at 230 V rated value       3 A         • at 630 V rated value       2 A         • at 630 V rated value       1 A         operational current at DC-12       10 A         • at 480 V rated value       6 A         • at 480 V rated value       6 A         • at 480 V rated value       6 A         • at 60 V rated value       6 A         • at 60 V rated value       1 A         operational current at DC-12       10 A         • at 60 V rated value       6 A         • at 60 V rated value       1 A         • at 60 V rated value       2 A         • at 60 V rated value       2 A         • at 60 V rated value       2 A         • at 60 V rated value       0.15 A         operational current at DC-13       0 A         • at 60 V rated value       2 A         • at 60 V rated value       2 A         • at 60 V rated value       0.9 A         • at 60 V rated value       0.1 A         contact fielability of auxiliary contacts       1 faulty switching per 100 million (17 V, 1 mA)	
instantaneous contact       0         operational current at AC-12 maximum       10 A         operational current at AC-15       10 A         • at 230 V rated value       3 A         • at 500 V rated value       2 A         • at 690 V rated value       10 A         operational current at DC-12       10 A         • at 48 V rated value       10 A         • at 48 V rated value       6 A         • at 48 V rated value       6 A         • at 24 V rated value       6 A         • at 24 V rated value       10 A         • at 24 V rated value       6 A         • at 24 V rated value       6 A         • at 24 V rated value       10 A         • at 24 V rated value       10 A         • at 24 V rated value       10 A         • at 25 V rated value       2 A         • at 20 V rated value       1 A         • at 20 V rated value       10 A         • at 24 V rated value       10 A         • at 24 V rated value       10 A         • at 60 V rated value       2 A         • at 60 V rated value       2 A         • at 60 V rated value       0.3 A         • at 25 V rated value       0.1 A         contect reliability	
operational current at AC-15• at 230 V rated value10 A• at 400 V rated value3 A• at 600 V rated value2 A• at 690 V rated value1 Aoperational current at DC-1210 A• at 24 V rated value6 A• at 48 V rated value6 A• at 10 V rated value3 A• at 20 V rated value10 A• at 24 V rated value6 A• at 10 V rated value2 A• at 10 V rated value2 A• at 20 V rated value1 A• at 20 V rated value2 A• at 220 V rated value1 A• at 24 V rated value0.15 Aoperational current at DC-1310 A• at 48 V rated value2 A• at 24 V rated value2 A• at 24 V rated value2 A• at 25 V rated value10 A• at 26 V rated value2 A• at 27 V rated value2 A• at 60 V rated value2 A• at 20 V rated value0.9 A• at 220 V rated value0.1 A• at 220 V rated value0.1 A• at 600 V rated value0.1 A• at 600 V rated value1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratings7.6 A• at 600 V rated value9 A• yielded mechanical performance [hp]9 A	
• at 230 V rated value10 A• at 400 V rated value3 A• at 500 V rated value2 A• at 690 V rated value1 Aoperational current at DC-12	
• 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       0 A         • at 48 V rated value       6 A         • at 48 V rated value       6 A         • at 60 V rated value       6 A         • at 10 V rated value       3 A         • at 220 V rated value       3 A         • at 220 V rated value       0.15 A         operational current at DC-13       0.15 A         • at 60 V rated value       0 A         • at 60 V rated value       0.15 A         operational current at DC-13       0.15 A         • at 24 V rated value       0.4         • at 24 V rated value       0.15 A         operational current at DC-13       0.15 A         • at 24 V rated value       0.15 A         operational current at DC-13       0.10 A         • at 20 V rated value       0.1 A         • at 22 V rated value       0.3 A         • at 10 V rated value       0.1 A         contact reliability of auxiliary contacts       1 faulty switching per 100 million (17 V, 1 mA)         UL/CSA ratings       1         full-load current (FLA) for 3-phase AC motor       7.6 A	
• at 500 V rated value       2 A         • at 690 V rated value       1 A         operational current at DC-12       10 A         • at 24 V rated value       6 A         • at 48 V rated value       6 A         • at 60 V rated value       6 A         • at 10 V rated value       6 A         • at 125 V rated value       2 A         • at 220 V rated value       1 A         • at 220 V rated value       0.15 A         operational current at DC-13       10 A         • at 24 V rated value       0.15 A         operational current at DC-13       10 A         • at 24 V rated value       0.15 A         operational current at DC-13       10 A         • at 60 V rated value       2 A         • at 10 V rated value       2 A         • at 60 V rated value       2 A         • at 10 V rated value       0.9 A         • at 220 V rated value       0.1 A         contact reliability of auxiliary contacts       1 faulty switching per 100 million (17 V, 1 mA)         ULCSA ratings       7.6 A         • at 80 V rated value       9 A         • yielded mechanical performance [hp]       9 A	
e at 690 V rated value1 Aoperational current at DC-1210 A• at 24 V rated value6 A• at 48 V rated value6 A• at 60 V rated value6 A• at 10 V rated value3 A• at 125 V rated value2 A• at 220 V rated value0.15 Aoperational current at DC-130 A• at 24 V rated value10 A• at 24 V rated value0.15 Aoperational current at DC-1310 A• at 24 V rated value2 A• at 600 V rated value10 A• at 24 V rated value0.15 Aoperational current at DC-1310 A• at 24 V rated value0.15 Aoperational current at DC-1310 A• at 24 V rated value0.15 Aoperational current at DC-1310 A• at 25 V rated value0.1 A• at 26 V rated value0.9 A• at 100 V rated value0.3 A• at 220 V rated value0.1 A• at 600 V rated value0.1 A• at 600 V rated value0.1 A• at 600 V rated value0.1 A• at 480 V rated value7.6 A• at 480 V rated value9 A• yielded mechanical performance [tp]9 A• for single-phase AC motor9 A	
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• at 48 V rated value6 A• at 60 V rated value6 A• at 110 V rated value3 A• at 125 V rated value2 A• at 220 V rated value1 A• at 600 V rated value0.15 Aoperational current at DC-13	
<ul> <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 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 600 V rated value</li> <li>at 600 V rated value</li> <li>at 24 V rated value</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 60 V rated value</li> <li>at 48 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 220 V rated value</li> <li>at 220 V rated value</li> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>back ratings</li> </ul>	
• at 110 V rated value3 A• at 125 V rated value2 A• at 220 V rated value1 A• at 600 V rated value0.15 Aoperational current at DC-1310 A• at 24 V rated value2 A• at 48 V rated value2 A• at 60 V rated value2 A• at 60 V rated value2 A• at 60 V rated value2 A• at 10 V rated value1 A• at 25 V rated value0.9 A• at 220 V rated value0.3 A• at 220 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratings7.6 A• at 600 V rated value9 A• at 600 V rated value9 A	
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<ul> <li>at 220 V rated value</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>10 A</li> <li>at 48 V rated value</li> <li>2 A</li> <li>at 60 V rated value</li> <li>2 A</li> <li>at 110 V rated value</li> <li>1 A</li> <li>at 125 V rated value</li> <li>0.9 A</li> <li>at 220 V rated value</li> <li>0.1 A</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 <ul> <li>at 480 V rated value</li> <li>9 A</li> </ul> </li> <li>yielded mechanical performance [hp] <ul> <li>for single-phase AC motor</li> </ul> </li> </ul>	
• at 600 V rated value0.15 Aoperational current at DC-1310 A• at 24 V rated value10 A• at 48 V rated value2 A• at 60 V rated value2 A• at 10 V rated value1 A• at 125 V rated value0.9 A• at 220 V rated value0.3 A• at 600 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsfull-load current (FLA) for 3-phase AC motor• at 600 V rated value7.6 A• at 600 V rated value9 A	
operational current at DC-13• at 24 V rated value10 A• at 48 V rated value2 A• at 60 V rated value2 A• at 110 V rated value1 A• at 125 V rated value0.9 A• at 220 V rated value0.3 A• at 600 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsfull-load current (FLA) for 3-phase AC motor7.6 A• at 600 V rated value9 A	
• at 24 V rated value10 A• at 48 V rated value2 A• at 60 V rated value2 A• at 110 V rated value1 A• at 125 V rated value0.9 A• at 220 V rated value0.3 A• at 600 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsfull-load current (FLA) for 3-phase AC motor7.6 A• at 600 V rated value9 Ayielded mechanical performance [hp]9 A	
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<ul> <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>0.1 A</li> </ul> <b>UL/CSA ratings</b> full-load current (FLA) for 3-phase AC motor         at 480 V rated value         at 600 V rated value         full-load current (FLA) for 3-phase AC motor         at 600 V rated value         full-load current (FLA) for 3-phase AC motor         at 600 V rated value         full-load current (FLA) for 3-phase AC motor         at 600 V rated value         9 A	
<ul> <li>at 110 V rated value</li> <li>at 125 V rated value</li> <li>0.9 A</li> <li>at 220 V rated value</li> <li>0.3 A</li> <li>at 600 V rated value</li> <li>0.1 A</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         <ul> <li>at 480 V rated value</li> <li>7.6 A</li> <li>9 A</li> </ul> </li> <li>yielded mechanical performance [hp]         <ul> <li>for single-phase AC motor</li> </ul> </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>0.1 A</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         <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> <li>7.6 A</li> <li>9 A</li> </ul> </li> <li>yielded mechanical performance [hp]         <ul> <li>for single-phase AC motor</li> </ul> </li> </ul>	
<ul> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>0.1 A</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         <ul> <li>at 480 V rated value</li> <li>7.6 A</li> <li>9 A</li> </ul> </li> <li>yielded mechanical performance [hp]         <ul> <li>for single-phase AC motor</li> </ul> </li> </ul>	
• at 600 V rated value0.1 Acontact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)UL/CSA ratingsfull-load current (FLA) for 3-phase AC motor• at 480 V rated value7.6 A• at 600 V rated value9 Ayielded mechanical performance [hp]• for single-phase AC motor	
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       7.6 A         • at 600 V rated value       9 A         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       7.6 A         • at 600 V rated value       9 A         yielded mechanical performance [hp]         • for single-phase AC motor	
full-load current (FLA) for 3-phase AC motor         • at 480 V rated value       7.6 A         • at 600 V rated value       9 A         yielded mechanical performance [hp]       • for single-phase AC motor	
at 480 V rated value     7.6 A     at 600 V rated value     9 A      yielded mechanical performance [hp]     o for single-phase AC motor	
• at 600 V rated value     9 A      yielded mechanical performance [hp]     • for single-phase AC motor	
for single-phase AC motor	
— at 110/120 V rated value 0.33 hp	
- at 230 V rated value 1 hp	
• for 3-phase AC motor	
- 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 / Q600	

short-circuit protection design of the fuse link			
for short-circuit protection of the main circuit			
— with type of coordination 1 required	gG: 35A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA		
— with type of assignment 2 required	gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)		
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	gG: 10 A (500 V, 1 kA)		
nstallation/ 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		
<ul> <li>side-by-side mounting</li> </ul>	Yes		
height			
width	45 mm		
depth	73 mm		
required spacing			
with side-by-side mounting			
— forwards	10 mm		
— upwards	10 mm		
— downwards	10 mm		
— at the side	0 mm		
<ul> <li>for grounded parts</li> </ul>	V mm		
for grounded parts     — 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			
<ul> <li>for main current circuit</li> </ul>	screw-type terminals		
<ul> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals		
<ul> <li>at contactor for auxiliary contacts</li> </ul>	Screw-type terminals		
<ul> <li>of magnet coil</li> </ul>	Screw-type terminals		
type of connectable conductor cross-sections			
for main contacts			
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²		
— solid or stranded	2x (0,5 1,5 mm <sup>2</sup> ), 2x (0,75 2,5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>		
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> )		
at AWG cables for main contacts	2x (20 16), 2x (18 14), 2x 12		
connectable conductor cross-section for main contacts			
• solid	0.5 4 mm²		
stranded	0.5 4 mm²		
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm²		
connectable conductor cross-section for auxiliary contacts			
<ul> <li>solid or stranded</li> </ul>	0.5 4 mm²		
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm <sup>2</sup>		
type of connectable conductor cross-sections			
for auxiliary contacts			
-	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²		
- SONO OF SITADOPO			
<ul> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul>	$2x (0.5 \pm 1.5 \text{ mm}^2) 2x (0.75 \pm 2.5 \text{ mm}^2)$		
<ul> <li>— solid of stranded</li> <li>— finely stranded with core end processing</li> <li>• at AWG cables for auxiliary contacts</li> </ul>	2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> ) 2x (20 16), 2x (18 14), 2x 12		

<ul> <li>for main contact</li> </ul>			20 12				
,				20 12			
Safety related data							
product function							
	according to IEC 60947-		Yes; with 3	RH29			
-	B10 value with high demand rate according to SN 31920		1 000 000				
proportion of dange							
	nd rate according to SN		40 %				
	and rate according to SN		73 %				
31920	low demand rate accord		100 FIT				
IEC 61508	st interval or service life a		20 y				
60529	on the front according		IP20				
touch protection or	the front according to	IEC 60529	finger-safe	, for vertical cor	ntact from the front		
suitability for use							
<ul> <li>safety-related</li> </ul>	-		Yes				
Certificates/ approva	ls						
General Product A	pproval						
()		<u>Confirmatio</u>	<u>on</u>	(UL)	<u>KC</u>	EHC	
EMC	Functional Safety/Safety of Machinery	Declaration of	of Conformit	у	Test Certificates		
RCM	<u>Type Examination</u> <u>Certificate</u>	UK CA		CE EG-Konf.	<u>Type Test Certific-</u> ates/Test Report	Special Test Certific- ate	
Marine / Shipping							
ABS	BUREAU VERITAS			Hoyds Register urs	PRS	RINA	
Marine / Shipping other							
RMRS	<u>Confirmation</u>	DE	•				
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,)							

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2016-1AT61&lang=en Characteristic: Tripping characteristics, l<sup>2</sup>t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2016-1AT61/char Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2016-1AT61&objecttype=14&gridview=view1





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