## **SIEMENS**

Data sheet 3RT2017-1BG42



power contactor, AC-3e/AC-3, 12 A, 5.5 kW / 400 V, 1 NC, 125 V DC 3-pole, frame size S00 screw terminal

product brand name	SIRIUS	
product designation	Power contactor	
product type designation	3RT2	
General technical data		
size of contactor	S00	
product extension		
<ul> <li>function module for communication</li> </ul>	No	
<ul> <li>auxiliary switch</li> </ul>	Yes	
power loss [W] for rated value of the current		
<ul> <li>at AC in hot operating state</li> </ul>	1.5 W	
<ul> <li>at AC in hot operating state per pole</li> </ul>	0.5 W	
<ul> <li>without load current share typical</li> </ul>	4 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	
<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 DC	7.3g / 5 ms, 4.7g / 10 ms	
shock resistance with sine pulse		
• at DC	11,4g / 5 ms, 7,3g / 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	
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	22 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	22 A
<ul> <li>— up to 690 V at ambient temperature 60 °C rated value</li> <li>• at AC-3</li> </ul>	20 A
— at 400 V rated value	12 A
— at 500 V rated value	9.2 A
— at 690 V rated value	6.7 A
• at AC-3e	
— at 400 V rated value	12 A
— at 500 V rated value	9.2 A
— at 690 V rated value	6.7 A
• at AC-4 at 400 V rated value	8.5 A
• at AC-5a up to 690 V rated value	19.4 A
• at AC-5b up to 400 V rated value	9.9 A
• at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> <li>up to 400 V for current peak value n=20 rated</li> </ul>	7.2 A 7.2 A
value	
— up to 500 V for current peak value n=20 rated value	7.2 A
<ul> <li>up to 690 V for current peak value n=20 rated value</li> <li>at AC-6a</li> </ul>	6.7 A
up to 230 V for current peak value n=30 rated value	4.8 A
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	4.8 A
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	4.8 A
— up to 690 V for current peak value n=30 rated value	4.8 A
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm <sup>2</sup>
operational current for approx. 200000 operating 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
<ul><li>with 2 current paths in series at DC-1</li></ul>	
— at 24 V rated value	20 A
— at 110 V rated value	12 A
— at 220 V rated value	1.6 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.7 A
with 3 current paths in series at DC-1	
— 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
<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	0.15 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	5.5 kW
• at AC-3	
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	5.5 kW
• at AC-3e	
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	5.5 kW
operating power for approx. 200000 operating cycles	C.O RVV
at AC-4	
at 400 V rated value	2 kW
at 690 V rated value	2.5 kW
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	2.8 kVA
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	4.9 kVA
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	6.2 kVA
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	8 kVA
operating apparent power at AC-6a	
up to 230 V for current peak value n=30 rated value	1.9 kVA
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	3.3 kVA
• up to 500 V for current peak value n=30 rated value	4.1 kVA
<ul> <li>up to 690 V for current peak value n=30 rated value</li> </ul>	5.7 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>	200 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	123 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	96 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	74 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	61 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at DC	10 000 1/h
operating frequency	
at AC-1 maximum	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	DC
control supply voltage at DC	
• rated value	125 V
operating range factor control supply voltage rated	
value of magnet coil at DC	
• initial value	0.8
full-scale value	1.1
closing power of magnet coil at DC	4 W
holding power of magnet coil at DC	4 W
notating power of magnet con at bc	T VV

acting time control version of the switch operating mechanism Abrillary circuit murber of NC contacts for auxiliary contacts instantaneous counter Country circuit murber of NC contacts for auxiliary contacts instantaneous counter Counter of Counter of Counter more of NC contacts for auxiliary contacts instantaneous counter Counter of Counter of Counter Counter of Counter Counter of Counter Cou	closing delay	
opening delay  **RIDC arcing time control version of the switch operating mechanism  Auxiliarry circuit*  **Invalidation of the switch operating mechanism  Auxiliarry circuit*  **Invalidation of the control of auxiliary contacts instantianeous control operational current at AC-12 maximum operational current at AC-15  ***Invalidation of the switch operational current at AC-15  ***Invalidation of the switch operational current at AC-15  ***Invalidation of the switch operational current at AC-16  ***Invalidation of the switch operational current at AC-17  ***Invalidation of the switch operational current at AC-18  ***Invalidation of the switch operational current at DC-12  ***Invalidation of the switch operational current at DC-12  ***Invalidation of the switch operational current at DC-13  ***Invalidation of the switch operation of the switch operational current at DC-13  ***Invalidation of the switch operation of the switch operational current at DC-13  ***Invalidation of the switch operation operation of the switch operation operation of the switch operation		30 100 ms
** a T.D.**   T 13 ms		
1015 ms		7 13 ms
control version of the switch operating mechanism         Standard A1 - A2           Auxillary circuit         1           number of NC contacts of auxillary contacts instantianeous contact operational current at AC-12 maximum operational current at AC-18 maximum operational current at AC-18 maximum operational current at AC-18 maximum operational current at C1-12 maximum operational current at O1-12 maximum of AC maximum operational current at O1-13 maximum operational current opera	arcing time	
Auxiliary circuit runcher of MC contacts for auxiliary contacts restantianeous contact operational current at AC-12 maximum operational current at AC-15   at 230 V rated value at 80 V ra	-	Standard A1 - A2
Institute of NC contacts for auxiliary contacts		
instantaneous contact operational current at AC-12 maximum operational current at AC-15   at 280 V rated value  at 400 V rated value  at 600 V rated value		1
a		
• at 230 V rated value • at 500 V rated value • at 680 V rated value • at 24 V rated value • at 60 V rated value • at 125 V rated value • at 125 V rated value • at 800 V rated value • at 126 V rated value • at 127 V rated value • at 128 V rated value • at 129 V rated value • at 129 V rated value • at 110 V rated value • at 120 V rated value • at 11 A  1 taulty switching per 100 million (17 V, 1 mA)  **ULCSA ratings**  **full-load current (FLA) for 3-phase AC motor • at 1480 V rated value • at 100 V rated	operational current at AC-12 maximum	10 A
at 400 V rated value	operational current at AC-15	
at 1500 V rated value	<ul> <li>at 230 V rated value</li> </ul>	10 A
• at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 60 V rated value • at 60 V rated value • at 60 V rated value • at 110 V rated value • at 110 V rated value • at 220 V rated value • at 24 V rated value • at 48 V rated value • at 125 V rated value • at 126 V rated value • at 127 V rated value • at 127 V rated value • at 128 V rated value • at 128 V rated value • at 128 V rated value • at 129 V rated value • at 120 V rated value • at	<ul> <li>at 400 V rated value</li> </ul>	3 A
a 24 V rated value	<ul> <li>at 500 V rated value</li> </ul>	
* at 24 V rated value	at 690 V rated value	1 A
• at 48 V rated value 6 A 6 A at 160 V rated value 3 A at 160 V rated value 2 A at 125 V rated value 1 A at 125 V rated value 2 A at 125 V rated value 1 A at 1600 V rated value 2 A at 1600 V rated value 4 B at 1600 V rated value 5 A at 1600 V rated value 5 A at 1600 V rated value 5 A at 1600 V rated value 6 A at 1600 V rated value 7 A at 1600 V rated value 8 A at 1600 V rated value 9 A at 1600 V rated value 10 A at 1600 V rated value 11 A at 1600 V rated value 10 A	•	
• at 60 V rated value • at 110 V rated value • at 110 V rated value • at 220 V rated value • at 24 V rated value • at 24 V rated value • at 24 V rated value • at 36 V rated value • at 125 V rated value • at 11 A  violed mechanical performance (hp) • for single-phase AC motor • at 200 V rated value • for 3-phase AC motor • at 200 V rated value • for 5-phase AC motor • at 200 V rated value •		
at 110 V rated value     at 125 V rated value     at 220 V rated value     at 200 V rated value     at 600 V rated value     at 110 V rated value     at 110 V rated value     at 125 V rated value     at 120 V rated value     at 600 V rated value     at 200/200 V rated value     at 600 V rated value		
at 125 V rated value at 220 V rated value at 220 V rated value 0,15 A  at 600 V rated value 0,2 A at 60 V rated value 10 A at 160 V rated value 21 A at 10 V rated value 22 A at 10 V rated value 31 M at 125 V rated value 31 M at 125 V rated value 31 M 32 M 33 M 34 M 35 M 36 M 37 M 38		
at 220 V rated value at 600 V rated value 0.15 A operational current at DC-13  at 24 V rated value 2 A at 48 V rated value 2 A at 600 V rated value 2 A at 600 V rated value 2 A at 110 V rated value 3 A at 25 V rated value 3 A 4 110 V rated value 9 A 4 600 V rated value 1 A 1 A 1 A 4 120 V rated value 9 A 4 600 V rated value 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A		
a ta 600 V rated value operational current at DC-13  a ta 24 V rated value at 48 V rated value 2 A at 600 V rated value 2 A at 100 V rated value 3 A at 125 V rated value 3 A at 24 V rated value 4 A at 100 V rated value 5 A 5 V rated value 5 A 5 V rated value 6 A 5 V rated value 7 A 5 V rated value 8 A 5 V rated value 9 A 5 V rated value 11 A 11		
e at 24 V rated value 10 A at 34 V rated value 2 A at 35 V rated value 2 A at 36 V rated value 2 A at 110 V rated value 10.9 A at 320 V rated value 0.9 A at 125 V rated value 0.9 A at 125 V rated value 0.9 A at 125 V rated value 0.1 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA) UL/CSA ratings  Tull-load current (FLA) for 3-phase AC motor at 480 V rated value 11 A sufficient of the value 12 A p sufficient of the value 12 A p sufficient of the value 14 A sufficient of the value 15 A p sufficient of the value 16 A sufficient of the value 17 A sufficient of the value 18 A sufficient of the value 18 A sufficient of the value 19 A sufficient of the value 19 A sufficient of the value 19 A sufficient of the value 10 A suff		
at 24 V rated value		U.15 A
at 48 V rated value at 160 V rated value 2 A at 160 V rated value 2 A 3 160 V rated value 3 125 V rated value 3 125 V rated value 3 126 V rated value 3 126 V rated value 4 126 V rated value 5 14 80 V rated value 5 15 V rated value 5 16 V rated value 6 17 V rated value 7 V rated value 7 V rated value 1 1 A 1 1 A 1 1 A 1 1 A 1 1 A 1 1 A 1 1 A 1 1 A 1	•	40.4
at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 11 A  before single-phase AC motor at 110/120 V rated value at 230 V rated value at 2200/230 V rated value at 460/480 V rated value at 575/600 V rated value at 670 V rated value at 7.5 hp at 670 V rated value at 7.5 hp at 7.5 h		<del></del>
at 125 V rated value at 200 V rated value 0.3 A contact reliability of auxiliary contacts  I faulty switching per 100 million (17 V, 1 mA)  UL/GSA ratings  full-load current (FLA) for 3-phase AC motor at 480 V rated value 11 A at 800 V rated value 11 A yielded mechanical performance [hp] of or single-phase AC motor —at 110/120 V rated value 2 hp at 230 V rated value 2 hp of 3-phase AC motor —at 220/220 V rated value 3 hp —at 220/230 V rated value 3 hp —at 460/480 V rated value 7.5 hp —at 4575/600 V rated value 7.5 hp —at 575/600 V rated value 7.5 hp A600 / Q600  Short-circuit protection  design of the fuse link of or short-circuit protection of the main circuit —with type of assignment 2 required with type of assignment 2 required of or short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions  mounting position  fastening method side-by-side mounting width  9.9 A 40.04 45 mm		
at 220 V rated value at 600 V rated value 0.1 A contact reliability of auxiliary contacts  I faulty switching per 100 million (17 V, 1 mA)  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor at 460 V rated value 11 A at 600 V rated value 11 A for single-phase AC motor — at 110/120 V rated value  6 for single-phase AC motor — at 110/120 V rated value 2 hp  6 for 3-phase AC motor — at 220/280 V rated value 2 hp  6 for 3-phase AC motor — at 220/280 V rated value 3 hp at 220/280 V rated value 3 hp at 220/280 V rated value 3 hp at 250/800 V rated value 7.5 hp at 450/480 V rated value 7.5 hp at 4460/480 V rated value 7.5 hp at 450/800 V rated value 800 / Q600  Short-circuit protection  design of the fuse link 6 for short-circuit protection of the main circuit — with type of assignment 2 required with type of assignment 2 required 9G: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA) 80KA)  6 for short-circuit protection of the auxiliary switch required  mounting position  #/-180" rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface fastening method side-by-side mounting 45 mm width 45 mm		
at 600 V rated value contact reliability of auxiliary contacts  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor		
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 • at 600 V rated value  • at 11 A  ylelded mechanical performance [hp]  • for single-phase AC motor  — at 110/120 V rated value • for 3-phase AC motor  — at 230 V rated value • for 3-phase AC motor  — at 200/208 V rated value • for 3-phase AC motor  — at 200/208 V rated value • for 3-phase AC motor  — at 200/208 V rated value • at 200/208 V rated value • at 200/208 V rated value — at 460/480 V rated value — at 460/480 V rated value — at 475/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required  of short-circuit protection of the auxiliary switch required  for short-circuit protection of the auxiliary switch required  installation/ mounting/ dimensions  mounting position  */-180° rotation possible on vertical mounting surface; can be tilled forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 • side-by-side mounting  ves  */-80 mm  */-		
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  • at 600 V rated value  • at 11 A  • at 600 V rated value  • for single-phase AC motor  — at 110/120 V rated value  • for 3-phase AC motor  — at 220/208 V rated value  • at 220/230 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — at 575/600 V rated value  — at 575/600 V rated value  — with type of coordination 1 required  — with type of coordination 1 required  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  for short-circuit protection of the		
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  • for single-phase AC motor  — at 110/120 V rated value  • for single-phase AC motor  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 250/230 V rated value  — at 460/480 V rated value  — at 4575/600 V rated value  — at 575/600 V rated value  Vecontact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary		r laulty switching per 100 million (17 V, 1 mA)
at 480 V rated value at 600 V rated value yielded mechanical performance [hp]  for single-phase AC motor — at 110/120 V rated value for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value — at 460/480 V rated value — at 575/600 V rated value — at 575/600 V rated value — at 575/600 V rated value — at 675/600 V rated value — with 1/pe of contacts according to UL  Short-circuit protection  design of the fuse link — with type of coordination 1 required — with type of assignment 2 required — with type of assignment 2 required gG: 20A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA) gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V,80kA) and (500 V, 1 kA)  installation/ mounting/ dimensions  mounting position  fastening method  side-by-side mounting yes side-by-side mounting y	and the second s	
at 600 V rated value  yielded mechanical performance [hp]  for single-phase AC motor  — at 110/120 V rated value — at 230 V rated value  for 3-phase AC motor  — at 200/208 V rated value — at 220/230 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value — at 575/600 V rated value — at 575/600 V rated value  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required  for short-circuit protection of the auxiliary switch required  for short-circuit protection of the auxiliary switch required  social A (500 V, 1 kA)  for short-circuit protection of the auxiliary switch required  for short-circuit protection of the auxiliary switch required  social A (500 V, 1 kA)  installation/ mounting/ dimensions  mounting position  fastening method  side-by-side mounting  Yes  height width  11 A  11 A  11 A  11 A  11 A  11 A  12 A  15 A  16 A (1100 V rated value  0.5 hp  2 hp  4 bp  4		44.5
yielded mechanical performance [hp]  • for single-phase AC motor  — at 110/120 V rated value 2 hp  • for 3-phase AC motor  — at 230 V rated value 3 hp  — at 220/230 V rated value 3 hp  — at 460/480 V rated value 7.5 hp  — at 575/600 V rated value 10 hp  contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required with type of assignment 2 required 9G: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA) gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V,80kA) gG: 10 A (500 V, 1 kA)  Installation/ mounting/ dimensions  mounting position  • side-by-side mounting high high high high high high high h		
• for single-phase AC motor  — at 110/120 V rated value — at 230 V rated value 2 hp  • for 3-phase AC motor  — at 200/280 V rated value 3 hp — at 220/230 V rated value 3 hp — at 420/280 V rated value 3 hp — at 420/280 V rated value 7.5 hp — at 575/600 V rated value 7.5 hp — at 575/600 V rated value 0 hat 575/		IIA
- at 110/120 V rated value - at 230 V rated value 9 for 3-phase AC motor - at 200/208 V rated value 3 hp - at 220/230 V rated value 3 hp - at 480/480 V rated value 7.5 hp - at 575/600 V rated value 10 hp contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link • for short-circuit protection of the main circuit - with type of coordination 1 required - with type of assignment 2 required 9G: 20A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA) • for short-circuit protection of the auxiliary switch required  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 screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 • side-by-side mounting  yes height width  58 mm  45 mm		
- at 230 V rated value • for 3-phase AC motor - at 200/208 V rated value - at 220/230 V rated value - at 220/230 V rated value - at 460/480 V rated value - at 575/600 V rated value - at 60/480 V rated value - at 20/2080 V rated value - at 60/480 V rated value		0.5 hp
• for 3-phase AC motor      — at 200/208 V rated value     — at 220/230 V rated value     — at 460/480 V rated value     — at 460/480 V rated value     — at 575/600 V rated value     — at 575/600 V rated value     — at 575/600 V rated value     Contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link     • for short-circuit protection of the main circuit     — with type of coordination 1 required     — with type of assignment 2 required     — with type of assignment 2 required     • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  #/-180° rotation possible on vertical mounting surface; can be tilled forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715  • side-by-side mounting  yes height width  #58 mm  #45 mm		·
- at 200/208 V rated value 3 hp - at 220/230 V rated value 7.5 hp - at 460/480 V rated value 7.5 hp - at 575/600 V rated value 10 hp contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit - with type of coordination 1 required 9G: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA) 9G: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V,80kA) 80kA)  • for short-circuit protection of the auxiliary switch required  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 screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715  • side-by-side mounting yes height width  3 hp 3 hp 7.5 hp 10 hp 4600 / Q600		ZTIP
- at 220/230 V rated value - at 460/480 V rated value - at 575/600 V rated	·	3 hn
- at 460/480 V rated value		·
- at 575/600 V rated value contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  • side-by-side mounting height width  10 hp A600 / Q600  A600 / Q600   GG: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)  gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V,80kA)  gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V,80kA)  gG: 10 A (500 V, 1 kA)   **H-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715  Yes  height width		
contact rating of auxiliary contacts according to UL  Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  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  screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715  • side-by-side mounting  height  width  A600 / Q600  A600 / Q600  G9C: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)  gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V,80kA)  gG: 10 A (500 V, 1 kA)  **  **  **  **  **  **  **  **  **		
Short-circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  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  screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715  • side-by-side mounting  height  width  */-5 mm  */-5		
design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required — with type of assignment 2 required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  **Total to be side-by-side mounting**  • for short-circuit protection of the auxiliary switch required  **Total to be side-by-side mounting**  • for short-circuit protection of the auxiliary switch gG: 20A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)  **Good of the fuse link  **Good of the main circuit		
<ul> <li>• for short-circuit protection of the main circuit         — with type of coordination 1 required         — with type of assignment 2 required         — gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)         — gG: 10 A (500 V, 1 kA)         — with type of assignment 2 required         — with type of coordination 1 required         — gG: 20A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)         — gG: 20A (690V,100kA), aM: 20A</li></ul>		
— with type of coordination 1 required — with type of assignment 2 required  — with type of assignment 2 required  — with type of assignment 2 required  — with type of assignment 2 required  — with type of assignment 2 required  — with type of assignment 2 required  — with type of assignment 2 required  — with type of assignment 2 required  — with type of coordination 1 required  — gG: 50A (690V,100kA), aM: 20A (690V, 100kA), BS88: 35A (415V,80kA)  — gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V,80kA)  — gG: 10 A (500 V, 1 kA)  — with type of assignment 2 required  — with type of assignment 2 required  — gG: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)  — gG: 20A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)  — with type of assignment 2 required  — with type of assignment 2 required  — with type of assignment 2 required  gG: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)  gG: 20A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)  ### gG: 20A (690V,100kA), aM: 20A (690V,100k	•	
— with type of assignment 2 required  of the auxiliary switch required  of	·	gG: 50A (690V.100kA), aM: 20A (690V.100kA), BS88: 35A (415V.80kA)
required  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  • side-by-side mounting  height  width  yes  58 mm  45 mm	λί <u>0</u>	
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 screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715  • side-by-side mounting  height width  58 mm  45 mm	,	gG: 10 A (500 V, 1 kA)
mounting position  +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface  fastening method  • side-by-side mounting  • side-by-side mounting  height  width  **Total mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715  • side-by-side mounting  Yes  height  45 mm	·	
forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715  • side-by-side mounting height width  forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715  Yes 58 mm		
fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715  ◆ side-by-side mounting height width  screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715  Yes 58 mm 45 mm	mounting position	
● side-by-side mounting  Neight  width  Yes  58 mm  45 mm	fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN
height 58 mm 45 mm	• side-by-side mounting	
width 45 mm		
		73 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
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
of magnet coil	Screw-type terminals
type of connectable conductor cross-sections	
<ul><li>for main contacts</li></ul>	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
— finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
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
finely stranded with core end processing	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	
<ul> <li>for auxiliary contacts</li> </ul>	
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
— finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
at AWG cables for auxiliary contacts	2x (20 16), 2x (18 14), 2x 12
AWG number as coded connectable conductor cross section	
• for main contacts	20 12
for auxiliary contacts	20 12
Safety related data	20 12
product function	
mirror contact according to IEC 60947-4-1	Yes
B10 value with high demand rate according to SN 31920	1 000 000
proportion of dangerous failures	1 000 000
with low demand rate according to SN 31920	40 %
with high demand rate according to SN 31920	73 %
failure rate [FIT] with low demand rate according to SN	100 FIT
31920	
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	W.
safety-related switching OFF	Yes
Certificates/ approvals	
General Product Approval	





Confirmation



<u>KC</u>



EMC

Functional Safety/Safety of Machinery

**Declaration of Conformity** 

**Test Certificates** 



Type Examination
Certificate





Special Test Certificate

Type Test Certificates/Test Report

## Marine / Shipping













Marine / Shipping

other

Railway

**Dangerous Good** 



Confirmation



Vibration and Shock

<u>Transport Information</u>

## Further information

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

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2017-1BG42

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2017-1BG42

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

 $\underline{https://support.industry.siemens.com/cs/ww/en/ps/3RT2017-1BG42}$ 

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

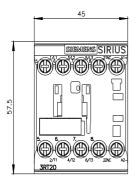
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2017-1BG42&lang=en

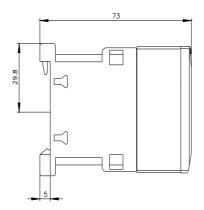
Characteristic: Tripping characteristics, I2t, Let-through current

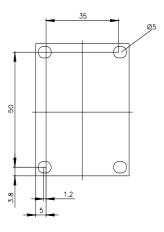
https://support.industry.siemens.com/cs/ww/en/ps/3RT2017-1BG42/char

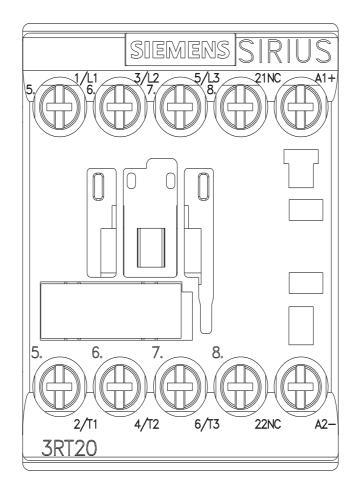
Further characteristics (e.g. electrical endurance, switching frequency)

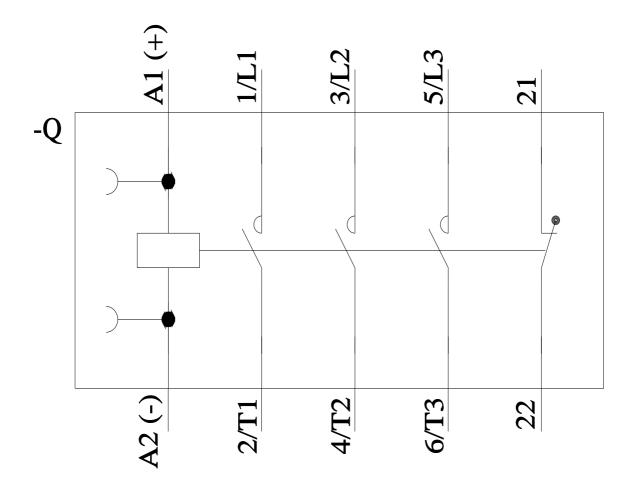
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2017-1BG42&objecttype=14&gridview=view1











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