# **SIEMENS**

Data sheet 3RT2035-3AG20



power contactor, AC-3 40 A, 18.5 kW / 400 V 1 NO + 1 NC, 110 V AC 50 / 60 Hz, 3-pole, Size S2, Spring-type terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S2
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>	6.6 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	2.2 W
<ul> <li>without load current share typical</li> </ul>	17.2 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	11.8g / 5 ms, 7.4g / 10 ms
shock resistance with sine pulse	
• at AC	18.5g / 5 ms, 11.6g / 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)	10/01/2014
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
at AC-3e rated value maximum	690 V
operational current	
<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C</li> </ul>	60 A
rated value	
• at AC-1	20.4
<ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> </ul>	60 A
— up to 690 V at ambient temperature 60 °C	55 A
rated value	00 A
• at AC-3	
— at 400 V rated value	41 A
— at 500 V rated value	41 A
— at 690 V rated value	24 A
• at AC-3e	
— at 400 V rated value	41 A
— at 500 V rated value	41 A
— at 690 V rated value	24 A
at AC-4 at 400 V rated value	35 A
at AC-5a up to 690 V rated value	52.8 A
at AC-5b up to 400 V rated value	33.2 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated	36.5 A
value	
— up to 400 V for current peak value n=20 rated	36.5 A
value	
— up to 500 V for current peak value n=20 rated	36.5 A
value	
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	24 A
• at AC-6a	
	24.2 A
<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	LT.L / \
— up to 400 V for current peak value n=30 rated	24.2 A
value	
<ul> <li>up to 500 V for current peak value n=30 rated</li> </ul>	24.2 A
value	
— up to 690 V for current peak value n=30 rated	24 A
value	16 mm²
minimum cross-section in main circuit at maximum AC-1 rated value	16 mm²
operational current for approx. 200000 operating	
cycles at AC-4	
at 400 V rated value	22 A
at 690 V rated value	18.5 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	55 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	55 A
— at 110 V rated value	45 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
with 3 current paths in series at DC-1	
- Mill o carrotte patrio ili corroc at Do-1	

— at 24 V rated value	55 A		
— at 110 V rated value	55 A		
— at 220 V rated value	45 A		
— at 440 V rated value	2.9 A		
— at 600 V rated value	1.4 A		
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>			
— at 24 V rated value	35 A		
— at 110 V rated value	2.5 A		
— at 220 V rated value	1 A		
— at 440 V rated value	0.1 A		
— at 600 V rated value	0.06 A		
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>			
— at 24 V rated value	55 A		
— at 110 V rated value	25 A		
— at 220 V rated value	5 A		
— at 440 V rated value	0.27 A		
— at 600 V rated value	0.16 A		
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>			
— at 24 V rated value	55 A		
— at 110 V rated value	55 A		
— at 220 V rated value	25 A		
— at 440 V rated value	0.6 A		
— at 600 V rated value	0.35 A		
operating power			
at AC-2 at 400 V rated value	18.5 kW		
• at AC-3			
— at 230 V rated value	11 kW		
— at 400 V rated value	18.5 kW		
— at 500 V rated value	22 kW		
— at 690 V rated value	22 kW		
• at AC-3e	ZZ KVV		
— at 230 V rated value	11 kW		
— at 400 V rated value	18.5 kW		
— at 500 V rated value	22 kW		
— at 500 V rated value  — at 690 V rated value	22 kW		
operating power for approx. 200000 operating cycles at AC-4	22 NVV		
at 400 V rated value	11.6 kW		
at 690 V rated value	16.8 kW		
operating apparent power at AC-6a			
up to 230 V for current peak value n=20 rated value	14.5 kVA		
• up to 400 V for current peak value n=20 rated value	25.2 kVA		
• up to 500 V for current peak value n=20 rated value	31.6 kVA		
• up to 690 V for current peak value n=20 rated value	28.6 kVA		
operating apparent power at AC-6a			
• up to 230 V for current peak value n=30 rated value	9.6 kVA		
• up to 400 V for current peak value n=30 rated value	16.8 kVA		
up to 500 V for current peak value n=30 rated value	21 kVA		
• up to 690 V for current peak value n=30 rated value	28.6 kVA		
short-time withstand current in cold operating state			
up to 40 °C			
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	843 A; Use minimum cross-section acc. to AC-1 rated value		
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	596 A; Use minimum cross-section acc. to AC-1 rated value		
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	400 A; Use minimum cross-section acc. to AC-1 rated value		
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	241 A; Use minimum cross-section acc. to AC-1 rated value		
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	196 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	1 200 1/h		
• at AC-2 maximum	750 1/h		

- at A.C. 2 magnimeum	4 000 4/b		
• at AC-3 maximum	1 000 1/h		
<ul><li>at AC-3e maximum</li><li>at AC-4 maximum</li></ul>	1 000 1/h		
	300 1/h		
Control circuit/ Control	A.O.		
type of voltage of the control supply voltage	AC		
control supply voltage at AC	440.1/		
<ul> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> </ul>	110 V 110 V		
operating range factor control supply voltage rated	110 V		
value of magnet coil at AC			
● at 50 Hz	0.8 1.1		
● at 60 Hz	0.85 1.1		
apparent pick-up power of magnet coil at AC			
● at 50 Hz	210 VA		
● at 60 Hz	188 VA		
inductive power factor with closing power of the coil			
• at 50 Hz	0.69		
• at 60 Hz	0.65		
apparent holding power of magnet coil at AC	47.0 \/A		
• at 50 Hz	17.2 VA		
at 60 Hz  inductive power factor with the holding power of the	16.5 VA		
coil			
• at 50 Hz	0.36		
● at 60 Hz	0.39		
closing delay			
• at AC	10 80 ms		
opening delay			
• at AC	10 18 ms		
arcing time	10 20 ms		
control version of the switch operating mechanism	Standard A1 - A2		
Auxiliary circuit	4		
number of NC contacts for auxiliary contacts instantaneous contact	1		
number of NC contacts for auxiliary contacts	1		
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts			
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact	1		
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum	1		
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	1 10 A		
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	1 10 A 10 A		
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	1 10 A 10 A 3 A		
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 500 V rated value • at 690 V rated value operational current at DC-12	1 10 A 10 A 3 A 2 A 1 A		
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 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value	1 10 A 10 A 3 A 2 A 1 A		
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 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value	1 10 A 10 A 3 A 2 A 1 A 10 A 6 A		
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 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value	1 10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A		
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 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value • at 110 V rated value	1 10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A		
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 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value	1 10 A 10 A 3 A 2 A 1 A  10 A 6 A 6 A 6 A 3 A 2 A		
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 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value	1 10 A 10 A 3 A 2 A 1 A  10 A 6 A 6 A 6 A 3 A 2 A 1 A		
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 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value	1 10 A 10 A 3 A 2 A 1 A  10 A 6 A 6 A 6 A 3 A 2 A		
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 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value	1 10 A 10 A 3 A 2 A 1 A  10 A 6 A 6 A 6 A 3 A 2 A 1 A		
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 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value	1 10 A 10 A 3 A 2 A 1 A  10 A 6 A 6 A 3 A 2 A 1 A 0.15 A		
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 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 220 V rated value	1 10 A 10 A 3 A 2 A 1 A  10 A 6 A 6 A 6 A 2 A 1 A 0.15 A		
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 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value	1 10 A 10 A 3 A 2 A 1 A  10 A 6 A 6 A 6 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7		
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 500 V rated value • at 690 V rated value operational current at DC-12  • at 24 V rated value • at 48 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 24 V rated value • at 24 V rated value • at 25 V rated value • at 27 V rated value • at 28 V rated value • at 600 V rated value	1 10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A		
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 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value • at 24 V rated value • at 24 V rated value • at 350 V rated value • at 48 V rated value • at 48 V rated value • at 600 V rated value • at 600 V rated value • at 600 V rated value • at 48 V rated value • at 400 V rated value • at 410 V rated value	1 10 A 10 A 3 A 2 A 1 A  10 A 6 A 6 A 3 A 2 A 1 A  10 A 2 A 1 A  10 A 2 A 2 A 1 A		
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 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 220 V rated value • at 220 V rated value • at 600 V rated value • at 125 V rated value	1 10 A 10 A 3 A 2 A 1 A  10 A 6 A 6 A 8 A 2 A 1 A 0.15 A		
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 500 V rated value • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 148 V rated value • at 150 V rated value • at 24 V rated value • at 25 V rated value • at 20 V rated value	1 10 A 10 A 3 A 2 A 1 A  10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A  10 A 2 A 2 A 1 A 0.9 A 0.3 A		
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	1 10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A  10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A		
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 500 V rated value • at 690 V rated value  • at 690 V rated value  operational current at DC-12  • at 24 V rated value • at 48 V rated value • at 10 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 24 V rated value • at 25 V rated value • at 26 V rated value • at 27 V rated value • at 28 V rated value • at 29 V rated value • at 20 V rated value	1 10 A 10 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A  10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A		

* at 80 V rated value	e at 490 V rated value	40.0	
yielded mechanical performance [hg]  • for single-phase AC motor  — at 110/120 V rated value — at 200209 V rated value — at 460490 V rated value — at 575600 V rated value  • for short-firstil protection of the main circuit — with 19pe of coordination 1 required — with 19pe of coordination 1 required — with 19pe of coordination 1 required — with 19pe of assignment 2 required — for short-firstil protection of the auxiliary switch required in the state of the auxiliary switch required spacing — with side-by-side mounting  */180** Totation possible on vertical mounting surface, can be titled formand and backward by vf-2.2% on vertical mounting rate sorted and sing-pure mounting onto 35 mm standard mounting rate — side-by-side mounting  */4180** Totation possible on vertical mounting surface, can be titled formand and backward by vf-2.2% on vertical mounting surface, can be titled formand and backward by vf-2.2% on vertical mounting surface, can be titled formand and backward by vf-2.2% on vertical mounting surface, can be titled formand and backward by vf-2.2% on vertical mounting surface, can be titled formand and backward by vf-2.2% on vertical mounting surface, can be titled formand and backward by vf-2.2% on vertical mounting surface, can be titled formand and backward by vf-2.2% on vertical mounting surface, can be titled formand and backward by vf-2.2% on vertical mounting surface, can be titled formand and backward by vf-2.2% on vertical mounting surface, can be titled formand and backward by vf-2.2% on vertical mounting surface, can be titled formand and backward by vf-2.2% on vertical mounting surface, can be titled formand and backward by vf-2.2% on vertical mounting surface, can be titled formand and backward by vf-2.2% on vertical mounting surface, can be titled formand and	at 480 V rated value     at 600 V rated value	40 A	
In this property of the state		41 A	
at 101/20 V rated value			
at 230 V rated value for 3-phase AC motor at 200/208 V rated value at 4200/208 V rated value at 4200/208 V rated value at 404/80 V rated value at 404/80 V rated value at 575/600 V rated value with type of auxiliary contacts according to UL with type of assignment 2 required with type of assignment 2 required with type of assignment 2 required for short-circuit protection of the main circuit with type of assignment 2 required for short-circuit protection of the auxiliary switch required and backward to the forward and backward to the forw	5 .		
• for 3-phase AC motor — at 200/280 V rated value — at 200/280 V rated value — at 460/480 V rated value — at 460/480 V rated value — at 575/600 V rated value  Contact rating of auxillary 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 coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required — with side of the second of the auxiliary switch required spacing  • side-dy-side mounting  — forwards — to wards — to wards — to wards — to wards — otowards — to five parts — forwards — to main current circuit • for auxiliary oral corticut • at the side — downwards — to main current circuit • for main current circuit • a confactor of auxiliary contacts — sold or stranded — finely stranded with core end processing • at ANO 2008 for main contacts  • finely stranded with core end processing • at ANO 2008 for main contacts  • finely stranded with core end processing • at ANO 2008 for main contacts  • finely stranded with core end processing • at ANO 2008 for main contacts  • finely stranded with core end processing • at ANO 2008 for main contacts  • finely stranded with core end processing • at ANO 2008 for main contacts  • finely stranded with core end processing • at ANO 2008 for main contacts  • finely stranded with core end processing • at ANO 2008 for main contacts  • finely stranded with core end processing • at ANO 2008 for main contacts  • finely stranded with		·	
		qn c. 7	
at 220/230 V rated value at 480480 V rated value at 480480 V rated value at 480480 V rated value at 575600 V rated value at 575600 V rated value at 575600 V rated value with type of assignment 2 required with type of coordination 1 required with type of assignment 2 required side-by-side mounting of the auxiliary switch side-by-side mounting side-by-side mounting with side-by-side mounting with side-by-side mounting with side-by-side mounting at the side downwards upwards at the side downwards at the side forwards at the side	•	40 h	
at 480-480 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  v, 80 kA)  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  • fastening method  • side-by-side mounting  • side-by-side mounting  • vide side-by-side mounting  • with side-b		·	
A600 / P600		·	
Short-circuit protection   design of the fuse link   For short-circuit protection of the main circuit   with type of coordination 1 required   V, 80 kA)   GS : 80 A (690 V, 100 kA), aM: 80 A (690		·	
design of the fuse link		A600 / P600	
* for short-circuit protection of the main circuit	Short-circuit protection		
- 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 gold of t	design of the fuse link		
- with type of assignment 2 required • for short-circuit protection of the auxiliary switch • for switch protection of the auxiliary switch • for short-circuit protection of the auxiliary switch • for switch protection	<ul> <li>for short-circuit protection of the main circuit</li> </ul>		
For short-circuit protection of the auxiliary switch required	<ul> <li>— with type of coordination 1 required</li> </ul>		
required installation/ mounting/ dimensions  mounting position	<ul> <li>— with type of assignment 2 required</li> </ul>	gG: 80A (690V,100kA), aM: 50A (690V,100kA), BS88: 63A (415V,80kA)	
### required position  ### required spacing  ### required spacing  ### width  ### required spacing  ### width  ### required spacing  ### width  ### required spacing  ### requir	,	gG: 10 A (500 V, 1 kA)	
### required position  ### required spacing	Installation/ mounting/ dimensions		
serwa and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  side-by-side mounting  width  depth  114 mm  width  depth  130 mm  required spacing  with side-by-side mounting  - forwards - upwards - downwards - downwards - at the side - for grounded parts - forwards - upwards - at the side - downwards - the parts - forwards - of mire parts - forwards - of mire parts - forwards - downwards - to finite parts - for auxiliary and control circuit - for auxiliary and control circuit - for auxiliary and control circuit - so for main contacts - solid or stranded - finitely stranded with core end processing - at AWG cables for main contacts - finitely stranded with core end processing - finitely stranded with core e	-		
● side-by-side mounting         114 mm           width         55 mm           depth         130 mm           required spacing           ● with side-by-side mounting         10 mm           — forwards         10 mm           — upwards         10 mm           — downwards         10 mm           — at the side         0 mm           ● for grounded parts         10 mm           — forwards         10 mm           — upwards         10 mm           — at the side         6 mm           — downwards         10 mm           — for live parts         10 mm           — for live parts         10 mm           — downwards         10 mm           — downwards         10 mm           — downwards         10 mm           — downwards         10 mm           — for auxiliary and controcition         6 mm           • for main current circuit         screw-type terminals           • for auxiliary and controct circuit         spring-type terminals           • for main cortacts         \$pring-type terminals           • for main contacts         \$pring-type terminals           • for main contacts         \$pring-type terminals <t< td=""><td>fastening method</td><td>screw and snap-on mounting onto 35 mm standard mounting rail</td></t<>	fastening method	screw and snap-on mounting onto 35 mm standard mounting rail	
width     55 mm       depth     130 mm       required spacing     10 mm       with side-by-side mounting     10 mm       — forwards     10 mm       — downwards     10 mm       — at the side     0 mm       • for grounded parts     10 mm       — upwards     10 mm       — upwards     10 mm       — at the side     6 mm       — downwards     10 mm       — upwards     10 mm       — upwards     10 mm       — upwards     10 mm       — upwards     10 mm       — downwards     10 mm       — at the side     6 mm       Connections/ Terminals       type of electrical connection     screw-type terminals       • for main current circuit     screw-type terminals       • for auxiliary and control circuit     spring-loaded terminals       • at contactor for auxiliary contacts     Spring-type terminals       • for main contacts     spring-type terminals       • for main contacts     2x (1 35 mm²), 1x (1 50 mm²)       — solid or stranded     2x (1 25 mm²), 1x (1 35 mm²)       • at AWG cables for main contacts     2x (1 25 mm²), 1x (1 35 mm²)       • finely stranded with core end processing     4 May cables for main contacts       • finely stranded w		Yes	
required spacing  with side-by-side mounting  — forwards — upwards — downwards — of or grounded parts — forwards — forwards — forwards — of grounded parts — forwards — upwards — upwards — upwards — upwards — of or grounded parts — forwards — upwards — of main current circuit — of or main current circuit — of or main current contacts — of magnet conductor cross-sections — of main contacts — solid or stranded — at WG cables for main contacts — of melly stranded with core end processing — of linely stranded with core end processing — of inely stranded with c			
required spacing  • with side-by-side mounting  — forwards — upwards — downwards — at the side • for grounded parts — forwards — upwards — upwards — 10 mm  • for grounded parts — forwards — upwards — upwards — at the side — downwards — to mm  • for live parts — forwards — upwards — for live parts — forwards — upwards — 10 mm  • for live parts — forwards — upwards — upwards — upwards — at the side — 6 mm  Connections/ Terminals  type of electrical connection • for main current circuit • for auxillary and control circuit • at contactor for auxillary contacts • of magnet coil  type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts • finely stranded with core end processing			
<ul> <li>with side-by-side mounting</li> <li>forwards</li> <li>upwards</li> <li>domm</li> <li>downwards</li> <li>10 mm</li> <li>at the side</li> <li>0 mm</li> <li>for grounded parts</li> <li>forwards</li> <li>upwards</li> <li>upwards</li> <li>upwards</li> <li>at the side</li> <li>6 mm</li> <li>downwards</li> <li>for live parts</li> <li>for live parts</li> <li>for live parts</li> <li>downwards</li> <li>upwards</li> <li>10 mm</li> <li>downwards</li> <li>downwards</li> <li>downwards</li> <li>at the side</li> <li>6 mm</li> </ul> Connections/ Terminals Expected to rauxiliary and control circuit <ul> <li>for auxiliary and control circuit</li> <li>of or auxiliary and control circuit</li> <li>at contactor for auxiliary contacts</li> <li>of magin contacts</li> <li>of one stranded</li> <li>for main contacts</li> <li>solid or stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>finely stranded with core end processing</li> <li>finely stranded with</li></ul>	•	130 mm	
forwards upwards downwards downwards at the side for grounded parts forwards upwards upwards at the side downwards at the side downwards at the side downwards for live parts forwards forwards upwards forwards upwards downwards upwards downwards upwards downwards downwards at the side for main current circuit for main current circuit for main current circuit for auxiliary and control circuit for auxiliary and control circuit of magnet coil        -			
- upwards - downwards - at the side 0 mm  • for grounded parts - forwards - upwards - upwards - at the side - downwards - at the side - downwards • for live parts - forwards - upwards - for wards - upwards - for wards - downwards - downwards - downwards - 10 mm - downwards - downwards - downwards - at the side - for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil  type of connectable conductor cross-section for main contacts • at WG cables for main contacts • finely stranded with core end processing			
- downwards - at the side  • for grounded parts - forwards - upwards - at the side - downwards - at the side - downwards - at the side - downwards - for live parts - forwards - upwards - upwards - upwards - downwards - upwards - downwards - at the side - downwards - upwards - downwards - at the side - formands - at the side - formands - at the side - formals   **Connections/* Terminals  **type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil  **type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts - finely stranded with core end processing • finely stranded with core end processing			
- at the side  • for grounded parts  - forwards  - upwards  - at the side  - downwards  • for live parts  - forwards  - upwards  • for live parts  - forwards  - upwards  - downwards  - downwards  - downwards  - at the side  - for auxiliary and control circuit  • for auxiliary contacts  • for main current circuit  • for main contacts  - solid or stranded  - finely stranded with core end processing  • finely stranded with core end processing	·		
• for grounded parts — forwards — upwards — at the side — downwards — for live parts — forwards — upwards — for live parts — forwards — upwards — upwards — upwards — upwards — downwards — at the side — downwards — at the side — formals  **Connections/ Terminals  **Top of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil  **Top of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing • finely stranded with core end processing			
forwards		0 mm	
- upwards - at the side - downwards 10 mm  • for live parts - forwards 10 mm  - upwards 10 mm  - downwards 10 mm  - downwards 10 mm  - downwards 10 mm  - at the side 6 mm   Connections/ Terminals  type of electrical connection • for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit • of magnet coil  type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts • finely stranded with core end processing			
- at the side - downwards • for live parts - forwards - upwards - upwards - downwards - at the side - for mm   Connections/ Terminals  type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil  type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts - finely stranded with core end processing • finely stranded with core end processing			
- downwards • for live parts - forwards - upwards - downwards - at the side - at the side  Connections/ Terminals  type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil  type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • finely stranded with core end processing	·		
<ul> <li>for live parts <ul> <li>forwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> </li> <li>Connections/ Terminals</li> <li>type of electrical connection <ul> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> <li>at contactor for auxiliary contacts</li> <li>of magnet coil</li> <li>spring-loaded terminals</li> </ul> </li> <li>type of connectable conductor cross-sections <ul> <li>for main contacts</li> <li>rosolid or stranded</li> <li>finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>at AWG cables for main contacts</li> <li>at AWG cables for main contacts</li> <li>finely stranded with core end processing</li> <li>tinely stranded with core end processing</li> <li>finely stranded with core end processing</li> </ul> </li> </ul>			
forwards		10 mm	
- upwards - downwards - at the side  Connections/ Terminals  type of electrical connection  • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil  type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts • finely stranded with core end processing connectable conductor cross-section for auxiliary	•		
- downwards - at the side  Connections/ Terminals  type of electrical connection  • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil  type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts • finely stranded with core end processing • finely connectable conductor cross-section for auxiliary			
- at the side 6 mm  Connections/ Terminals  type of electrical connection  • for main current circuit spring-loaded terminals • at contactor for auxiliary contacts • of magnet coil Spring-type terminals  type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts • finely stranded with core end processing • finely stranded with core end processing • at AWG cables for main contacts • finely stranded with core end processing  • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely connectable conductor cross-section for auxiliary	•		
type of electrical connection  • for main current circuit  • for auxiliary and control circuit  • at contactor for auxiliary contacts  • of magnet coil  type of connectable conductor cross-sections  • for main contacts  — solid or stranded — finely stranded with core end processing  • at AWG cables for main contacts  • finely stranded with core end processing  • finely stranded with core end processing  • finely stranded with core end processing  • at AWG connectable conductor cross-section for main contacts  • finely stranded with core end processing  • finely connectable conductor cross-section for auxiliary			
type of electrical connection  • for main current circuit  • for auxiliary and control circuit  • at contactor for auxiliary contacts  • of magnet coil  type of connectable conductor cross-sections  • for main contacts  — solid or stranded — finely stranded with core end processing  • at AWG cables for main contacts  • finely stranded with core end processing  • finely stranded with core end processing  connectable conductor cross-section for main contacts  • finely stranded with core end processing  connectable conductor cross-section for main contacts  • finely stranded with core end processing  1 35 mm²  1 35 mm²  connectable conductor cross-section for auxiliary		6 mm	
<ul> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> <li>at contactor for auxiliary contacts</li> <li>of magnet coil</li> <li>type of connectable conductor cross-sections</li> <li>for main contacts</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>at AWG cables for main contacts</li> <li>finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>finely stranded with core end processing</li> <li>at 35 mm²</li> </ul>	Connections/ Terminals		
<ul> <li>for auxiliary and control circuit</li> <li>at contactor for auxiliary contacts</li> <li>of magnet coil</li> <li>Spring-type terminals</li> <li>for main contacts</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>finely stranded with core end processing</li> <li>finely stranded with core end processing</li> <li>at 35 mm²</li> <li>at 35 mm²</li> <li>at 35 mm²</li> <li>at 35 mm²</li> </ul>	type of electrical connection		
<ul> <li>at contactor for auxiliary contacts</li> <li>of magnet coil</li> <li>type of connectable conductor cross-sections</li> <li>for main contacts</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>at AWG cables for main contacts</li> <li>finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>finely stranded with core end processing</li> <li>finely stranded with core end processing</li> <li>at 35 mm²</li> <li>at 35 mm²</li> <li>at 35 mm²</li> <li>at 35 mm²</li> </ul>	for main current circuit	screw-type terminals	
<ul> <li>◆ of magnet coil</li> <li>Spring-type terminals</li> <li>type of connectable conductor cross-sections</li> <li>◆ for main contacts</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>◆ at AWG cables for main contacts</li> <li>2x (1 35 mm²), 1x (1 50 mm²)</li> <li>2x (1 25 mm²), 1x (1 35 mm²)</li> <li>2x (18 2), 1x (18 1)</li> <li>connectable conductor cross-section for main contacts</li> <li>♦ finely stranded with core end processing</li> <li>1 35 mm²</li> <li>connectable conductor cross-section for auxiliary</li> </ul>	<ul> <li>for auxiliary and control circuit</li> </ul>	spring-loaded terminals	
type of connectable conductor cross-sections  • for main contacts  — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts  connectable conductor cross-section for main contacts  • finely stranded with core end processing  1 35 mm²  1 35 mm²  1 35 mm²	<ul> <li>at contactor for auxiliary contacts</li> </ul>		
<ul> <li>for main contacts         <ul> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>finely stranded with core end processing</li> <li>at (1 25 mm²), 1x (1 35 mm²)</li> <li>2x (18 2), 1x (18 1)</li> </ul> </li> <li>connectable conductor cross-section for main contacts         <ul> <li>finely stranded with core end processing</li> <li>35 mm²</li> </ul> </li> <li>connectable conductor cross-section for auxiliary</li> </ul>	of magnet coil	Spring-type terminals	
<ul> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>• at AWG cables for main contacts</li> <li>• finely stranded with core end processing</li> <li>• at AWG cables for main contacts</li> <li>• finely stranded with core end processing</li> <li>• finely stranded with core end processing</li> <li>1 35 mm²</li> <li>2x (1 25 mm²), 1x (1 35 mm²)</li> <li>2x (18 2), 1x (18 1)</li> </ul>	type of connectable conductor cross-sections		
— finely stranded with core end processing  • at AWG cables for main contacts  connectable conductor cross-section for main contacts  • finely stranded with core end processing  connectable conductor cross-section for auxiliary  2x (1 25 mm²), 1x (1 35 mm²)  2x (18 2), 1x (18 1)  1 35 mm²  1 35 mm²	• for main contacts		
— finely stranded with core end processing          • at AWG cables for main contacts          connectable conductor cross-section for main contacts          • finely stranded with core end processing          connectable conductor cross-section for auxiliary          2x (1 25 mm²), 1x (1 35 mm²)          2x (18 2), 1x (18 1)          1 35 mm²          1 35 mm²	— solid or stranded	2x (1 35 mm²), 1x (1 50 mm²)	
<ul> <li>at AWG cables for main contacts</li> <li>connectable conductor cross-section for main contacts</li> <li>finely stranded with core end processing</li> <li>connectable conductor cross-section for auxiliary</li> </ul>	<ul> <li>finely stranded with core end processing</li> </ul>		
connectable conductor cross-section for main contacts  • finely stranded with core end processing  connectable conductor cross-section for auxiliary			
• finely stranded with core end processing  connectable conductor cross-section for auxiliary	connectable conductor cross-section for main		
connectable conductor cross-section for auxiliary		1 35 mm²	
	· · · · · · · · · · · · · · · · · · ·		
	•		

<ul> <li>solid or stranded</li> </ul>	0.5 2.5 mm²	
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 1.5 mm²	
<ul> <li>finely stranded without core end processing</li> </ul>	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 2.5 mm²)	
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²)	
<ul> <li>finely stranded without core end processing</li> </ul>	2x (0.5 2.5 mm²)	
at AWG cables for auxiliary contacts	2x (20 14)	
AWG number as coded connectable conductor cross section		
<ul> <li>for main contacts</li> </ul>	18 1	
<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	
<ul> <li>positively driven operation according to IEC 60947- 5-1</li> </ul>	No	
B10 value with high demand rate according to SN 31920	1 000 000	
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	
Cortificatos/ approvals		

#### Certificates/ approvals

### **General Product Approval**



Confirmation





<u>KC</u>



EMC Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates
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Type Examination Certificate





Special Test Certificate

Type Test Certificates/Test Report

## Marine / Shipping













Marine / Shipping other Railway Dangerous Good



#### 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=3RT2035-3AG20

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2035-3AG20

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2035-3AG20

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

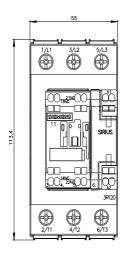
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2035-3AG20&lang=en

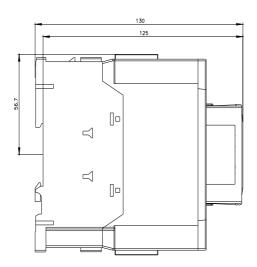
Characteristic: Tripping characteristics, I2t, Let-through current

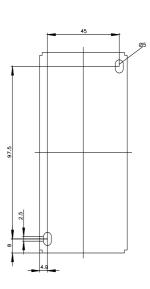
https://support.industry.siemens.com/cs/ww/en/ps/3RT2035-3AG20/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2035-3AG20&objecttype=14&gridview=view1







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2/15/2022