SIEMENS

Data sheet 3RT2035-3AL20



power contactor, AC-3 40 A, 18.5 kW / 400 V 1 NO + 1 NC, 230 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	
 function module for communication 	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	6.6 W
 at AC in hot operating state per pole 	2.2 W
 without load current share typical 	17.2 W
insulation voltage	
 of main circuit with degree of pollution 3 rated value 	690 V
 of auxiliary circuit with degree of pollution 3 rated value 	690 V
surge voltage resistance	
 of main circuit rated value 	6 kV
 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)	
 of contactor typical 	10 000 000
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2014
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
during operation	-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	60 A
• at AC-1	
— up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	60 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	55 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 value	36.5 A
 up to 400 V for current peak value n=20 rated value 	36.5 A
 up to 500 V for current peak value n=20 rated value 	36.5 A
— up to 690 V for current peak value n=20 rated value value	24 A
 at AC-6a up to 230 V for current peak value n=30 rated value 	24.2 A
— up to 400 V for current peak value n=30 rated value	24.2 A
 up to 500 V for current peak value n=30 rated value 	24.2 A
— up to 690 V for current peak value n=30 rated value	24 A
minimum cross-section in main circuit at maximum AC-1 rated value operational current for approx. 200000 operating	16 mm ²
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
with 2 current paths in series at DC-1	<u></u>
— at 24 V rated value	55 A
	45 A
— at 110 V rated value	
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
 with 3 current paths in series at DC-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
 at 1 current path at DC-3 at DC-5 	
— 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
 with 2 current paths in series at DC-3 at DC-5 	
— 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
 with 3 current paths in series at DC-3 at DC-5 	
— 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	
 limited to 1 s switching at zero current maximum 	843 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	596 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	400 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	241 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 60 s switching at zero current maximum 	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 AC 2 magningum	4.000.4/b
• at AC-3 maximum	1 000 1/h
at AC-3e maximum at AC-4 maximum	1 000 1/h
• at AC-4 maximum	300 1/h
Control circuit/ Control	A.C.
type of voltage of the control supply voltage	AC
control supply voltage at AC	220.1/
• at 50 Hz rated value	230 V
at 60 Hz rated value operating range factor control supply voltage rated	230 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	4=0.44
• at 50 Hz	17.2 VA
• at 60 Hz	16.5 VA
inductive power factor with the holding power of the 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	
number of NC contacts for auxiliary contacts instantaneous contact	1
number of NO contacts for auxiliary contacts instantaneous contact	1
operational current at AC-12 maximum	10 A
operational current at AC-15	
at 230 V rated value	10 A
at 230 V rated valueat 400 V rated value	3 A
 at 230 V rated value at 400 V rated value at 500 V rated value 	3 A 2 A
 at 230 V rated value at 400 V rated value at 500 V rated value at 690 V rated value 	3 A
 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	3 A 2 A 1 A
 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 	3 A 2 A 1 A
 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 	3 A 2 A 1 A 10 A 6 A
 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 	3 A 2 A 1 A 10 A 6 A 6 A
 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 	3 A 2 A 1 A 10 A 6 A
 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 	3 A 2 A 1 A 10 A 6 A 6 A 3 A
 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 	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A
 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 	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A
 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 	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A
 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 operational current at DC-13	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
 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 operational current at DC-13 at 24 V rated value 	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
 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 24 V rated value at 24 V rated value at 24 V rated value at 48 V rated value 	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
 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 48 V rated value at 60 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 125 V rated value 	3 A 2 A 1 A 10 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
 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 24 V rated value 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 125 V rated value at 125 V rated value at 220 V rated value 	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A
 at 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 at 24 V rated value at 24 V rated value at 48 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 600 V rated value 	3 A 2 A 1 A 10 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 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 24 V rated value 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 120 V rated value at 120 V rated value at 220 V rated value at 600 V rated value at 600 V rated value 	3 A 2 A 1 A 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A
 at 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 at 24 V rated value at 24 V rated value at 48 V rated value at 110 V rated value at 110 V rated value at 125 V rated value at 220 V rated value at 600 V rated value at 600 V rated value 	3 A 2 A 1 A 10 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 57600 V rated value • for short-fircuit protection of the main circuit — 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-fircuit protection of the auxiliary switch required in the state of the auxiliary switch required spacing — with side-by-side mounting */1801 * (500 V, 1 kA) */1801 * (500 V, 1 kA)	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 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 application of the require	5 .	O ha	
• 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 — ot		·	
		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	 for short-circuit protection of the main circuit 		
For short-circuit protection of the auxiliary switch required	 — with type of coordination 1 required 		
required installation/ mounting/ dimensions mounting position	 — with type of assignment 2 required 	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 side spring-type terminals • for main cortacts spring-type terminals • for main contacts x(1 35 mm²), 1x(1 50 mm²) • for main contacts x(1 25 mm²), 1x(1 35 mm²)	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 — to mm — upwards — to mm — upwards — upwards — upwards — upwards — at the side — downwards — to mm — to five parts — forwards — upwards — to mm — upwards — to mm — to mm — upwards — to mm — to m			
 with side-by-side mounting forwards upwards domm downwards 10 mm at the side 0 mm for grounded parts forwards upwards upwards upwards at the side 6 mm downwards for live parts for live parts for live parts downwards upwards 10 mm downwards downwards downwards at the side 6 mm Connections/ Terminals Expected to rauxiliary and control circuit for auxiliary and control circuit of or auxiliary and control circuit at contactor for auxiliary contacts of magin contacts of one tanded conductor cross-sections for main contacts at AWG cables for main contacts at AWG cables for main contacts finely stranded with core end processing finely st	•	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	·		
 for live parts forwards 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 spring-loaded terminals type of connectable conductor cross-sections for main contacts rosolid or stranded finely stranded with core end processing at AWG cables for main contacts at AWG cables for main contacts at AWG cables for main contacts finely stranded with core end processing tinely stranded with core end processing finely stranded with core end processing 			
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 • at AWG cables for main contacts • finely stranded with core end processing	•		
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 main contacts • 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 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	
 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 at AWG cables for main contacts finely stranded with core end processing at AWG cables for main contacts finely stranded with core end processing at AWG cables for main contacts finely stranded with core end processing at AWG cables for main contacts finely stranded with core end processing at 35 mm² 	Connections/ Terminals		
 for auxiliary and control circuit at contactor for auxiliary contacts of magnet coil Spring-type terminals 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 AWG cables for main contacts finely stranded with core end processing at AWG cables for main contacts finely stranded with core end processing finely stranded with core end processing 35 mm² 35 mm² 	type of electrical connection		
 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 at AWG cables for main contacts 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 35 mm² at 35 mm² at 35 mm² at 35 mm² 	for main current circuit	screw-type terminals	
 ◆ 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 2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1) connectable conductor cross-section for main contacts ♦ finely stranded with core end processing 1 35 mm² connectable conductor cross-section for auxiliary 	 for auxiliary and control circuit 	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 1 35 mm²	 at contactor for auxiliary contacts 	Spring-type terminals	
 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 (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1) connectable conductor cross-section for main contacts finely stranded with core end processing 35 mm² connectable conductor cross-section for auxiliary 	of magnet coil	Spring-type terminals	
 — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts • finely stranded with core end processing • at AWG cables for main contacts • finely stranded with core end processing • finely stranded with core end processing 1 35 mm² 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1) 35 mm² 	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)	
 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 	 finely stranded with core end processing 		
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	
	· · · · · · · · · · · · · · · · · · ·		
	•		

 solid or stranded 	0.5 2.5 mm²
 finely stranded with core end processing 	0.5 1.5 mm²
 finely stranded without core end processing 	0.5 2.5 mm²
type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid or stranded	2x (0.5 2.5 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²)
 finely stranded without core end processing 	2x (0.5 2.5 mm²)
at AWG cables for auxiliary contacts	2x (20 14)
AWG number as coded connectable conductor cross section	
 for main contacts 	18 1
 for auxiliary contacts 	20 14
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
 positively driven operation according to IEC 60947- 5-1 	No
B10 value with high demand rate according to SN 31920	1 000 000
proportion of dangerous failures	
 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 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	
 safety-related switching OFF 	Yes
Cartificates/ approvals	

Certificates/ approvals

General Product Approval





Confirmation



<u>KC</u>



EMC	Functional Safety/Safety of	Declaration of Conformity	Test Certificates
	Machinery		



Type Examination Certificate



Special Test Certificate

Type Test Certificates/Test Report

Marine / Shipping













Marine / Shipping other Railway Dangerous Good



Confirmation Confirmation Vibration and Shock Transport 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=3RT2035-3AL20

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2035-3AL20

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2035-3AL20

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2035-3AL20&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT2035-3AL20/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2035-3AL20&objecttype=14&gridview=view1

2/15/2022 last modified: