SIEMENS

Data sheet

3RT2028-1AP00



Power contactor, AC-3 38 A, 18.5 kW / 400 V 1 NO + 1 NC, 230 V AC 50 Hz, 3-pole, size S0 screw terminals

product brand name	SIRIUS		
product designation	Power contactor		
product type designation	3RT2		
General technical data			
size of contactor	SO		
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 	9.6 W		
 at AC in hot operating state per pole 	3.2 W		
 without load current share typical 	9.8 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	8,3g / 5 ms, 5,3g / 10 ms		
shock resistance with sine pulse			
• at AC	13,5g / 5 ms, 8,3g / 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)	10/01/2009		
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 	50 A
● at AC-1	
 — up to 690 V at ambient temperature 40 °C rated value 	50 A
— up to 690 V at ambient temperature 60 °C rated value	42 A
• at AC-3	
— at 400 V rated value	38 A
— at 500 V rated value	32 A
— at 690 V rated value	21 A
• at AC-3e	
— at 400 V rated value	38 A
— at 500 V rated value	32 A
— at 690 V rated value	21 A
 at AC-4 at 400 V rated value 	22 A
 at AC-5a up to 690 V rated value 	44 A
 at AC-5b up to 400 V rated value 	31.5 A
• at AC-6a	
 — up to 230 V for current peak value n=20 rated value 	30.8 A
 — up to 400 V for current peak value n=20 rated value 	30.8 A
— up to 500 V for current peak value n=20 rated value	30.8 A
 — up to 690 V for current peak value n=20 rated value at AC-6a 	21 A
 up to 230 V for current peak value n=30 rated value 	20.5 A
 up to 400 V for current peak value n=30 rated value 	20.5 A
 — up to 500 V for current peak value n=30 rated value 	21.4 A
— up to 690 V for current peak value n=30 rated value	21 A
minimum cross-section in main circuit at maximum AC-1 rated value operational current for approx. 200000 operating	10 mm ²
cycles at AC-4	
at 400 V rated value	12 A
• at 690 V rated value	12 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	5 A
— at 440 V rated value	1A
— at 600 V rated value	0.8 A
 with 3 current paths in series at DC-1 	

— at 24 V rated value	35 A				
— at 110 V rated value	35 A				
— at 220 V rated value	35 A				
— at 440 V rated value	2.9 A				
— at 600 V rated value	1.4 A				
• at 1 current path at DC-3 at DC-5					
— at 24 V rated value	20 A				
— at 110 V rated value	2.5 A				
— at 220 V rated value	1 A				
— at 440 V rated value	0.09 A				
— at 600 V rated value	0.06 A				
• with 2 current paths in series at DC-3 at DC-5					
— at 24 V rated value	35 A				
— at 110 V rated value	15 A				
— at 220 V rated value	3 A				
— at 440 V rated value	0.27 A				
— at 600 V rated value	0.16 A				
• with 3 current paths in series at DC-3 at DC-5					
— at 24 V rated value	35 A				
— at 110 V rated value	35 A				
— at 220 V rated value	10 A				
— at 440 V rated value	0.6 A				
at 600 V rated value	0.6 A				
operating power					
• at AC-3					
— at 230 V rated value	11 kW				
— at 400 V rated value	18.5 kW				
— at 500 V rated value	18.5 kW				
— at 690 V rated value	18.5 kW				
• at AC-3e					
— at 230 V rated value	11 kW				
— at 400 V rated value	18.5 kW				
— at 500 V rated value	18.5 kW				
— at 690 V rated value	18.5 kW				
operating power for approx. 200000 operating cycles at AC-4					
at 400 V rated value	6 kW				
at 690 V rated value	10.3 kW				
operating apparent power at AC-6a					
• up to 230 V for current peak value n=20 rated value	12.2 kVA				
• up to 400 V for current peak value n=20 rated value	21.3 kVA				
• up to 500 V for current peak value n=20 rated value	26.6 kVA				
• up to 690 V for current peak value n=20 rated value	25 kVA				
operating apparent power at AC-6a					
• up to 230 V for current peak value n=30 rated value	8.1 kVA				
 up to 400 V for current peak value n=30 rated value 	14.2 kVA				
 up to 500 V for current peak value n=30 rated value 	18.5 kVA				
 up to 690 V for current peak value n=30 rated value 	25 kVA				
short-time withstand current in cold operating state up to 40 °C					
 limited to 1 s switching at zero current maximum 	593 A; Use minimum cross-section acc. to AC-1 rated value				
 limited to 5 s switching at zero current maximum 	395 A; Use minimum cross-section acc. to AC-1 rated value				
 limited to 10 s switching at zero current maximum 	260 A; Use minimum cross-section acc. to AC-1 rated value				
 limited to 30 s switching at zero current maximum 	186 A; Use minimum cross-section acc. to AC-1 rated value				
 limited to 60 s switching at zero current maximum 	152 A; Use minimum cross-section acc. to AC-1 rated value				
no-load switching frequency					
• at AC	5 000 1/h				
operating frequency					
● at AC-1 maximum	1 000 1/h				
• at AC-2 maximum	750 1/h				
at AC-3 maximum	750 1/h				

a at AC 20 maximum	750.1/b
• at AC-3e maximum	750 1/h
• at AC-4 maximum	250 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz rated value	230 V
operating range factor control supply voltage rated	
value of magnet coil at AC	
• at 50 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	77 \/A
• at 50 Hz	77 VA
inductive power factor with closing power of the coil	0.00
• at 50 Hz	0.82
apparent holding power of magnet coil at AC	0.9.1/4
• at 50 Hz	9.8 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.25
closing delay	
• at AC	8 40 ms
opening delay	
• at AC	4 16 ms
arcing time	10 10 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts	1
instantaneous contacts	
number of NO contacts for auxiliary contacts	1
instantaneous contact	
operational current at AC-12 maximum	10 A
operational current at AC-15	
 at 230 V rated value 	10 A
 at 400 V rated value 	3 A
 at 500 V rated value 	2 A
• at 690 V rated value	1 A
operational current at DC-12	
 at 24 V rated value 	10 A
 at 48 V rated value 	6 A
 at 60 V rated value 	6 A
 at 110 V rated value 	3 A
• at 125 V rated value	2 A
• at 220 V rated value	1 A
• at 600 V rated value	0.15 A
operational current at DC-13	
• at 24 V rated value	10 A
• at 48 V rated value	2 A
• at 60 V rated value	2 A
• at 110 V rated value	1 A
• at 125 V rated value	0.9 A
• at 220 V rated value	0.3 A
• at 600 V rated value	0.1 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	34 A
• at 600 V rated value	27 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	3 hp
— at 230 V rated value	5 hp
• for 3-phase AC motor	
a a procession and a second and a	

		40 hz				
 	— at 200/208 V rated value	10 hp				
contact rating of auxillary contacts according to UL A800 / P600 Short-circuit protection of the main circuit						
Shert-circuit protection design of the fuse link - with type of coordination 1 required - with side-type demonstring - forwards - forwards - forwards 10 mm - downwards - downwards 10 mm - downwards - solid -						
design of the fuse link • for short-circuit protection of the main circuit - with type of coordination 1 required • for short-circuit protection of the auxiliary switch • sole-by-side mounting meuting position • side-by-side mounting • of mounded parts • of mounded parts • of wards • of mounded parts • of wards • of maxeds • of maxeds 0 mm • of maxeds		A600 / P600				
for short-circuit protection of the main circuit —with type of acordination 1 required —with type of assignment 2 required —solid circuit protection of the auxiliary switch required —with type of assignment 2 required —with type of the assignment 2 required —with type of the assignment 2 required —with type of the assignment 2 required —with type of assignment 2 required —with type of the assignment 2 required —with type of the assignment 2 required — forwards — formatic circuit —a the sid						
with type of coordination 1 required(c) 125A (980V, 100KA), ak: 55A (980V, 100KA), BS8: 125A with type of assignment 2 requiredgc: 55A (980V, 100KA), ak: 25A (980V, 100KA), BS8: 50A (415V, 86A)• for short-circuit protection of the auxiliary switch requiredgc: 10 A (500 V, 11 KA)mounting position+/-180° rolation possible on vertical mounting surface; can be tiltedfastening methodaccording to DN EN 60715• side-by-side mountingYes• side-by-side mountingYes• side-by-side mounting97 mmrequired spacing97 mm• with side-by-side mounting10 mm- onwards10 mm <td>•</td> <td></td>	•					
with type of assignment 2 required (415V, 80KA) with type of assignment 2 required (95, 50A (600V, 100KA), AM: 25A (680V, 100KA), BS88: 50A (415V, 80KA) installation/mounting/ dimensions (95, 10 A (500 V, 1 KA)) mounting position +/-180* rotation possible on vertical mounting surface; can be tilted forward and backward by +4: 225* on vertical mounting surface; was als map-on mounting out 55 mm standard mounting rail eccording to DN EN 00715 * eside-by-side mounting Yes height 85 mm width 45 mm dopth 97 mm required spacing 0 mm • with side by-side mounting 10 mm - downwards 10 mm - downwards </td <td></td> <td>aC: 1254 (600)/ 100k4) aM: 504 (600)/ 100k4) BS89: 1254</td>		aC: 1254 (600)/ 100k4) aM: 504 (600)/ 100k4) BS89: 1254				
• for short-circuit protection of the auxiliary switch required 80kA) gG: 10 A (500 V, 1 kA) Installation/ mounting/ dimensions #/180" rotation possible on vertical mounting surface; can be titled forward and backward by '#/2.25" on vertical mounting surface; side-by-side mounting fastening method screw and snap-on mounting on 0.55 mm standard mounting rall according to DN EN 60715 • side-by-side mounting Yes height 85 mm width 45 mm dopth 97 mm required spacing 0 mm • units side-by-side mounting 0 mm - downwards 10 mm - downwards 10 mm - at the side 0 mm - downwards 10 mm - at the side 6 mm - downwards 10 mm - of log parts coll 5 crew-type terminals Screw-						
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 scorew and sane-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 e-ight 85 mm width 45 mm depth 97 mm required spacing 0 mm - forwards 10 mm - downwards 10 mm - downwards 10 mm - downwards 10 mm - at the side 0 mm - forwards 10 mm - downwards 10 mm - solid or stranded 5 rew-type terminals <td>— with type of assignment 2 required</td> <td></td>	— with type of assignment 2 required					
mounting position +4:80° rotation possitie on vertical mounting surface: can be titled forward and backward by +J-22.5° on vertical mounting surface: screw and sap-on mounting onto 35 mm standard mounting rail according to DNLEN 60715 • side-by-side mounting Yes height 85 mm width 45 mm doptin 97 mm required spacing 97 mm • with side-by-side mounting 10 mm - upwards 10 mm - upwards 10 mm - downwards 10 mm - at the side 0 mm • for grounded parts 10 mm - downwards 10 mm - for wards 10 mm - forwards 10 mm - forwards 10 mm - forwards 10 mm - at the sid		gG: 10 A (500 V, 1 kA)				
forward and backward by +/ 22.5° on vertical mounting surface fastening method scorew and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 height 85 mm witht 45 mm depth 97 mm required spacing 97 mm exit the side 0 mm - upwards 10 mm - upwards 10 mm - downwards 10 mm - upwards 10 mm - downwards 10 mm - forwards 10 mm - downwards 10 mm - downwards 10 mm - downwards 10 mm - forwards 10 mm - downwards 10 mm - forwards 10 mm - downwards 10 mm - forwards 10 mm - for auxiliary contacts Scree-type terminals for ain current circuit scree-type term	Installation/ mounting/ dimensions					
• side-by-side mounting Yes height 85 mm width 45 mm depth 97 mm required spacing 97 mm • with side-by-side mounting 10 mm - upwards 10 mm - upwards 10 mm - upwards 0 mm - downwards 0 mm - downwards 0 mm - for wards 10 mm - upwards 10 mm - for wards 10 mm - upwards 10 mm - for wards 10 mm - downwards 10 mm - for vards 10 mm - downwards 10 mm - downwards 10 mm - for auxiliary and contol circuit screw-type terminals type of echrolection screw-type terminals i for au	mounting position					
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depth 97 mm required spacing 97 mm required spacing 10 mm - forwards 10 mm - upwards 10 mm - downwards 10 mm - downwards 0 mm - downwards 0 mm - downwards 10 mm - downwards 10 mm - forwards 10 mm - upwards 10 mm - forwards 10 mm - at the side 6 mm - forwards 10 mm - downwards 10 mm - forwards 10 mm - downwards 10 mm - forwards 10 mm - downwards 10 mm - downwards 10 mm - at the side 6 mm Connections/ Terminals screw-type terminals vipre of electrical connection screw-type terminals • for main current circuit screw-type terminals • of anglet coil 2x (1 2.5 mm ³), 2x (2.5 10 mm ³) - solid 2x (1 2.5 mm ³), 2x	height	85 mm				
required spacing • with side-by-side mounting - forwards 10 mm - upwards 10 mm - downwards 0 mm - downwards 0 mm - at the side 0 mm - forwards 10 mm - downwards 10 mm - at the side 0 mm - at the side 6 mm - downwards 10 mm - staide 6 mm Connections? Terminals screw-type terminals screw-type torminals Screw-type terminals of magnet coil 2x (1 2.5 mm ³	width	45 mm				
• with side-by-side mounting10 mm- forwards10 mm- upwards10 mm- downwards00 mm- at the side0 mm• for grounded parts10 mm- forwards10 mm- upwards10 mm- at the side6 mm- downwards10 mm- at the side6 mm- downwards10 mm- forwards10 mm- downwards10 mm- solidscrew-type terminals• for auxiliary and control circuitscrew-type terminals• of magnet coilScrew-type terminals• of magnet coilScrew-type terminals• of auxiliary and control circuitscrew-type terminals• of auxiliary and control circuitscrew-type terminals• of auxiliary and control circuitscrew-type terminals• of stranded2x (1 2.5 mm²), 2x (2.5 10 mm²)- solid2x (1 2.5 mm²), 2x (2.5 10 mm²)- solid or stranded1 10 mm²• alw (2 cables for main contacts2x (1 2.5 mm²), 2x (2.5 10 mm²)• solid or stranded1 10 mm²• solid or stranded1 10 mm²• fin	depth	97 mm				
	 with side-by-side mounting 					
- downwards 10 mm - at the side 0 mm • for grounded parts 0 mm - forwards 10 mm - upwards 10 mm - at the side 6 mm - downwards 10 mm - at the side 6 mm - downwards 10 mm - at the side 6 mm Connections/ Terminals 10 mm e of ang control circuit screw-type terminals sorew-type terminals Screw-type terminals • of main contacts 2x (1 2.5 mm ²), 2x (2.5 10 mm ²) - solid 2x (1 2.5 mm ²), 2x (2.5 10 mm ²) - solid extranded 2x (1 2.5 mm ²), 2x (2.5 10 mm ²) - solid extranded 1 10 mm ²	— forwards					
at the side 0 mm • for grounded parts - forwards 10 mm upwards 10 mm at the side 6 mm downwards 10 mm downwards 10 mm forwards 10 mm forwards 10 mm forwards 10 mm forwards 10 mm upwards 10 mm downwards 10 mm at the side 6 mm Connections/ Terminals 6 mm Connections/ Terminals 5 crew-type terminals of rauxiliary and control circuit screw-type terminals • for auxiliary and control circuit screw-type terminals • for main contracts Screw-type terminals • of magnet coil Screw-type terminals • of on auxiliary contacts Screw-type terminals • of auxiliary and control circuit Screw-type terminals • of auxi		10 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 - forwards 10 mm - downwards 10 mm - forwards 10 mm - upwards 10 mm - downwards 6 mm Connections/ Terminals screw-type terminals type of electrical connection screw-type terminals • for main contacts 2x (1 2.5 mm ²), 2x (2.5 10 mm ²) - solid 2x (1 2.5 mm ²), 2x (2.5 10 mm ²) - solid or stranded 2x (1 2.5 mm ²), 2x (2.5 6 mm ²), 1x 10 mm ² •	— downwards	10 mm				
- forwards 10 mm - upwards 10 mm - at the side 6 mm - at the side 6 mm - ownwards 10 mm - for live parts 10 mm - ownwards 10 mm - upwards 10 mm - upwards 10 mm - upwards 10 mm - upwards 10 mm - downwards 10 mm - downwards 10 mm - downwards 10 mm - at the side 6 mm Connections/ Terminals screw-type terminals if for auxiliary and control circuit screw-type terminals if or auxiliary contacts Screw-type terminals if or main contacts - solid - solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) - solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) - solid or stranded 1 10 mm² istranded 1 10 mm² 1		0 mm				
- at the side 6 mm - downwards 10 mm • for live parts 10 mm - upwards 10 mm - upwards 10 mm - downwards 10 mm - at the side 6 mm Connections/Terminals 6 mm type of electrical connection screw-type terminals • for auxiliary and control circuit screw-type terminals • for main current circuit screw-type terminals • at contactor for auxiliary contacts Screw-type terminals • of magnet coil Screw-type terminals type of connectable conductor cross-sections 6 mm ²) • for main contacts 2x (1 2.5 mm ²), 2x (2.5 10 mm ²) - solid or stranded 2x (1 2.5 mm ²), 2x (2.5 10 mm ²) - solid or stranded 2x (1 2.5 mm ²), 2x (2.5 10 mm ²) • at AWG cables for main contacts 2x (1 2.5 mm ²), 2x (2.5 10 mm ²) • solid or stranded 1 10 mm ² • stranded 1 10 mm ²	— forwards					
downwards 10 mm • for live parts 10 mm forwards 10 mm upwards 10 mm downwards 10 mm at the side 6 mm Connections/ Terminals type of electrical connection • for main current circuit screw-type terminals • for auxiliary and control circuit screw-type terminals • at contactor for auxiliary contacts Screw-type terminals • of magnet coil Screw-type terminals type of connectable conductor cross-sections • for main contacts • for main contacts Screw-type terminals • at AWG cables for main contacts 2x (1 2.5 mm²), 2x (2.5 10 mm²) - solid 2x (1 2.5 mm²), 2x (2.5 10 mm²) • at AWG cables for main contacts 2x (16 12), 2x (14 8) connectable conductor cross-section for main contacts 2x (16 12), 2x (14 8) connectable conductor cross-section for main contacts 2x (16 12), 2x (14 8) connectable conductor cross-section for main contacts 1 10 mm² • stranded 1 10 mm² • finely stranded with core end processing 0.5 2.5	— upwards	10 mm				
 for live parts forwards forwards mm upwards mm downwards mm downwards mm downwards mm downwards mm downwards mm downwards mm downwards mm downwards down <lidown< li=""></lidown<>						
forwards 10 mm upwards 10 mm downwards 10 mm at the side 6 mm Connections/Terminals 6 mm type of electrical connection 6 reminals • for main current circuit screw-type terminals • for auxiliary and control circuit screw-type terminals • at contactor for auxiliary contacts Screw-type terminals • of magnet coil Screw-type terminals type of connectable conductor cross-sections • for main contracts - solid 2x (1 2.5 mm²), 2x (2.5 10 mm²) - solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) - solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) - finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 10 mm²) • at AWG cables for main contacts 2x (16 12), 2x (14 8) connectable conductor cross-section for main contacts 1 10 mm² • solid 1 10 mm² • stranded 1 10 mm² • finely stranded with core end processing 0.5 2.5 mm² • solid or stranded 0.5 2.5 mm²		10 mm				
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- downwards 10 mm - at the side 6 mm Connections/ Terminals 5 mm type of electrical connection screw-type terminals • for main current circuit screw-type terminals • at contactor for auxiliary contacts Screw-type terminals • of magnet coil Screw-type terminals type of connectable conductor cross-sections Screw-type terminals • for main contacts Screw-type terminals - solid 2x (1 2.5 mm²), 2x (2.5 10 mm²) - solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) - solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) - finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 10 mm²) • at AWG cables for main contacts 2x (1 2.5 mm²), 2x (2.5 10 mm²) • at AWG cables for main contacts 2x (1 2.5 mm²), 2x (2.5 10 mm²) • solid 1 10 mm² • solid 1 10 mm² • solid 1 10 mm² • solid or stranded 0.5 2.5 mm² • solid or stranded 0.5 2.5 mm² • solid or stranded with core end processing 0.5 2.5 mm² <td></td> <td></td>						
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Connections/ Terminals type of electrical connection screw-type terminals e for main current circuit screw-type terminals e at contactor for auxiliary contacts Screw-type terminals e at contactor for auxiliary contacts Screw-type terminals e of magnet coil Screw-type terminals type of connectable conductor cross-sections Screw-type terminals e for main contacts - solid - solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) - solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) - finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² e at AWG cables for main contacts 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² e solid 1 10 mm² e solid 1 10 mm² e solid 1 10 mm² e finely stranded with core end processing 1 10 mm² e solid or stranded 0.5 2.5 mm² e solid or stranded 0.5 2.5 mm²						
type of electrical connection screw-type terminals • for main current circuit screw-type terminals • for auxiliary and control circuit screw-type terminals • at contactor for auxiliary contacts Screw-type terminals • of magnet coil Screw-type terminals type of connectable conductor cross-sections Screw-type terminals • for main contacts Screw-type terminals - solid 2x (1 2.5 mm²), 2x (2.5 10 mm²) - solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) - finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² • at AWG cables for main contacts 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² • at AWG cables for main contacts 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² • at AWG cables for main contacts 2x (1 10 mm² • solid 1 10 mm² • solid 1 10 mm² • solid 1 10 mm² • solid or stranded 0.5 2.5 mm² • solid or stranded 0.5 2.5 mm² • solid or stranded 0.5 2.5 mm²		6 mm				
• for main current circuit screw-type terminals • for auxiliary and control circuit screw-type terminals • at contactor for auxiliary contacts Screw-type terminals • of magnet coil Screw-type terminals type of connectable conductor cross-sections Screw-type terminals • for main contacts - solid - solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) - solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) - finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 10 mm²) • at AWG cables for main contacts 2x (1 2.5 mm²), 2x (2.5 10 mm²) • at AWG cables for main contacts 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² • at AWG cables for main contacts 2x (1 12), 2x (14 8) connectable conductor cross-section for main contacts 1 10 mm² • solid 1 10 mm² • solid 1 10 mm² • stranded 1 10 mm² • solid or stranded 0.5 2.5 mm² • solid or stranded 0.5 2.5 mm² • solid or stranded 0.5 2.5 mm²		-				
• for auxiliary and control circuit screw-type terminals • at contactor for auxiliary contacts Screw-type terminals • of magnet coil Screw-type terminals type of connectable conductor cross-sections Screw-type terminals • for main contacts - solid - solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) - solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) - finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² • at AWG cables for main contacts 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² • solid 1 10 mm² • solid or stranded 1 10 mm² • solid or stranded 0.5 2.5 mm² • solid or stranded 0.5 2.5 mm²						
 at contacts for auxiliary contacts of magnet coil Screw-type terminals Screw-type terminal						
• of magnet coilScrew-type terminalstype of connectable conductor cross-sectionsScrew-type terminals• for main contacts- solid- solid2x (1 2.5 mm²), 2x (2.5 10 mm²)- solid or stranded2x (1 2.5 mm²), 2x (2.5 10 mm²)- finely stranded with core end processing2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²• at AWG cables for main contacts2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²• at AWG cables for main contacts2x (1 2.5 mm²), 2x (14 8)connectable conductor cross-section for main contacts1 10 mm²• solid1 10 mm²• solid1 10 mm²• stranded1 10 mm²• finely stranded with core end processing1 10 mm²• solid or stranded0.5 2.5 mm²• solid or stranded0.5 2.5 mm²• solid or stranded with core end processing0.5 2.5 mm²						
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 for main contacts solid solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² at AWG cables for main contacts connectable conductor cross-section for main contacts solid stranded finely stranded with core end processing finely stranded with core end processing solid or stranded solid or stranded 0.5 2.5 mm² 0.5 2.5 mm² 						
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finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² • at AWG cables for main contacts 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² connectable conductor cross-section for main contacts 1 10, 2x (14 8) • solid 1 10 mm² • stranded 1 10 mm² • finely stranded with core end processing 1 10 mm² • finely stranded with core end processing 1 10 mm² • solid or stranded 0.5 2.5 mm² • finely stranded with core end processing 0.5 2.5 mm²						
• at AWG cables for main contacts 2x (16 12), 2x (14 8) connectable conductor cross-section for main contacts 1 10 mm² • solid 1 10 mm² • stranded 1 10 mm² • finely stranded with core end processing 1 10 mm² connectable conductor cross-section for auxiliary contacts 0.5 2.5 mm² • solid or stranded 0.5 2.5 mm²						
connectable conductor cross-section for main contacts 1 • solid 1 • solid 1 • stranded 1 • finely stranded with core end processing 1 connectable conductor cross-section for auxiliary contacts 1 • solid or stranded 0.5 • finely stranded with core end processing 0.5						
 solid stranded finely stranded with core end processing 1 10 mm² finely stranded with core end processing 1 10 mm² connectable conductor cross-section for auxiliary contacts solid or stranded of 5 2.5 mm² 0.5 2.5 mm² 	connectable conductor cross-section for main					
• stranded 1 10 mm² • finely stranded with core end processing 1 10 mm² connectable conductor cross-section for auxiliary contacts 0.5 2.5 mm² • solid or stranded 0.5 2.5 mm² • finely stranded with core end processing 0.5 2.5 mm²		1 10 mm ²				
connectable conductor cross-section for auxiliary contacts 0.5 2.5 mm² • solid or stranded 0.5 2.5 mm² • finely stranded with core end processing 0.5 2.5 mm²						
• finely stranded with core end processing 0.5 2.5 mm ²	connectable conductor cross-section for auxiliary					
	 solid or stranded 	0.5 2.5 mm ²				
	type of connectable conductor cross-sections					

 for auxiliary cor — solid or str 	2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²)					
— finely stranded with core end processing		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14)				
at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section		2x (20 10), 2	(10 1 4)			
 for main contact 	ts		16 8			
 for auxiliary cor 	ntacts		20 14			
Safety related data						
product function						
 mirror contact a 	according to IEC 60947-	-4-1	Yes			
B10 value with high d	emand rate according t	o SN 31920	450 000			
proportion of dange	rous failures					
 with low deman 	d rate according to SN	31920	40 %			
	nd rate according to SN		73 %			
31920	low demand rate accord		100 FIT			
IEC 61508	t interval or service life		20 y			
protection class IP o 60529	on the front according		IP20			
touch protection on suitability for use	the front according to	DIEC 60529	finger-safe, for	vertical conta	ict from the front	
 safety-related s 	witching OFF		Yes			
Certificates/ approval	-		100			
General Product Ap	provai					
SP M	<u>Confirmation</u>	(CCC	(Ĵ D	<u>KC</u>	EHC
EMC	Functional Safety/Safety of Machinery	Declaration o	of Conformity		Test Certificates	
RCM	<u>Type Examination</u> <u>Certificate</u>		EG	E Konf.	<u>Special Test Certific-</u> <u>ate</u>	<u>Type Test Certific-</u> ates/Test Report
Marine / Shipping						
ABS	BUREAU VERITAS		Reg	oyds gister us	RINA	KMRS
other						
<u>Confirmation</u>	VDE	<u>Confirmatio</u>	<u>n</u>			
Further information						
Information- and Do	wnloadcenter (Catalog	gs, Brochures,.)			
https://www.siemens.						

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2028-1AP00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2028-1AP00

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2028-1AP00

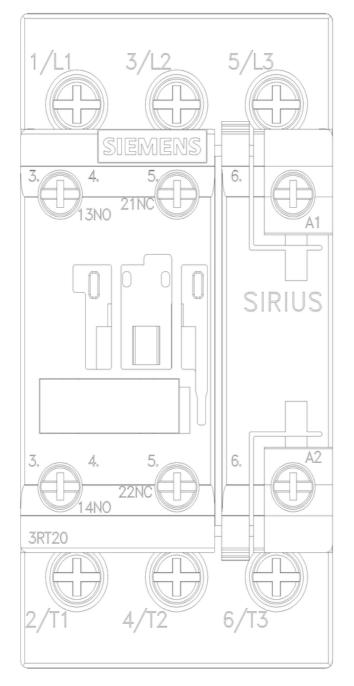
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <u>http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2028-1AP00&lang=en</u>

Characteristic: Tripping characteristics, I²t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT2028-1AP00/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2028-1AP00&objecttype=14&gridview=view1



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