SIEMENS

Data sheet 3RT2028-2AB00



power contactor, AC-3e/AC-3, 38 A, 18.5 kW / 400 V, 3-pole, 24 V AC, 50 Hz, auxiliary contacts: 1 NO + 1 NC, spring-loaded terminal, size: S0

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S0
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	2.5 W
type of calculation of power loss depending on pole	quadratic
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 protective separation 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 (operating 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)	
Weight	0.459 kg
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 %

Environmental footprint	
Environmental Product Declaration(EPD)	Yes
Global Warming Potential [CO2 eq] total	74.2 kg
Global Warming Potential [CO2 eq] during manufacturing	1.9 kg
Global Warming Potential [CO2 eq] during mandiacturing Global Warming Potential [CO2 eq] during operation	72.4 kg
Global Warming Potential [CO2 eq] after end of life	-0.117 kg
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	TO A
— up to 690 V at ambient temperature 40 °C rated value	50 A
 up to 690 V at ambient temperature 60 °C rated value at AC-3 	42 A
■ 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	21 A
• at AC-6a	20.5.4
 up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value 	20.5 A
up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value	20.5 A 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	10 mm ²
operational current for approx. 200000 operating 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 60 V rated value	20 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1A
— 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 24 V rated value— at 60 V rated value	35 A 35 A
	35 A 35 A
— at 110 V rated value — at 220 V rated value	5 A
— at 440 V rated value	1A
— at 600 V rated value	0.8 A
at 555 + Tateu value	V.V.

with 3 current naths in series at DC.4	
 with 3 current paths in series at DC-1 — at 24 V rated value 	35 A
— at 60 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 440 V rated value — at 600 V rated value	1.4 A
	1.4 A
at 1 current path at DC-3 at DC-5 at 24 V reted value.	20. A
— at 24 V rated value	20 A
— at 60 V rated value	5 A
— at 220 V rated value	1.4
— 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	OF A
— at 24 V rated value	35 A
— at 60 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 60 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-	
at 400 V rated value	6 kW
at 400 V rated value at 690 V rated value	10.3 kW
operating apparent power at AC-6a	10.0 MV
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 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 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 up to 690 V for current peak value n=20 rated value	25 kVA
· · · · · · · · · · · · · · · · · · ·	20 ((1))
operating apparent power at AC-6a	8.1 kVA
up to 230 V for current peak value n=30 rated value up to 400 V for current peak value n=30 rated value	14.2 kVA
up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated value	18.5 kVA
up to 500 V for current peak value n=30 rated value up to 600 V for current peak value n=30 rated value	25 kVA
up to 690 V for current peak value n=30 rated value short-time withstand current in cold operating state up to	LV NVA
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	341 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	199 A; Use minimum cross-section acc. to AC-1 rated value
limited to 60 s switching at zero current maximum	162 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	5 000 1/h
- 4(7)(0	V 000 mil

operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	750 1/h
 at AC-3e maximum 	750 1/h
• at AC-4 maximum	250 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
at 50 Hz rated value	24 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	
● at 50 Hz	77 VA
inductive power factor with closing power of the coil	
● at 50 Hz	0.82
apparent holding power of magnet coil at AC	
● 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 instantaneous	1
contact	
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 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	1A
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	1A
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 at 600 V rated value	27 A
Vielded mechanical performance inni	
yielded mechanical performance [hp] • for single-phase AC motor	

• for 3-phase AC motor - at 200/208 V rated value - at 220/230 V rated value - at 220/230 V rated value - at 460/480 V rated value - at 55/600 V rated value - 25 hp - at 575/600 V rated value - 25 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit - with type of coordination 1 required - with type of assignment 2 required - with type of assignment 2 required - of or 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 wards - upwards - of mm - of the side - downwards - of mm - of the parts - forwards - of or wards -		
	— at 110/120 V rated value	3 hp
		5 hp
	• for 3-phase AC motor	
	— at 200/208 V rated value	10 hp
	 at 220/230 V rated value 	10 hp
Contact circling of auxillary contacts according to UL A660 / P660 Contracticuting protection Contracticuting protection design of the fuse link	— at 460/480 V rated value	25 hp
Significant Potential Po	— at 575/600 V rated value	25 hp
design of the fuse link for stort-circuit protection of the main circuit with spe of coordination trequired with spe of coordination trequired with spe of coordination trequired gis. 50A (680V,100kA), aht; 50A (690V,100kA), BS88: 155A (415V,80kA) gis. 50A (680V,100kA), aht; 50A (690V,100kA), BS88: 155A (415V,80kA) gis. 50A (680V,100kA), aht; 50A (690V,100kA), BS88: 155A (415V,80kA) gis. 50A (680V,100kA), aht; 50A (690V,100kA), BS88: 155A (415V,80kA) gis. 50A (680V,100kA), aht; 50A (690V,100kA), BS88: 155A (415V,80kA) gis. 50A (680V,100kA), aht; 50A (690V,100kA), BS88: 155A (415V,80kA) gis. 50A (680V,100kA), aht; 50A (690V,100kA), BS88: 155A (415V,80kA) gis. 50A (680V,100kA), aht; 50A (690V,100kA), BS88: 155A (415V,80kA) gis. 50A (680V,100kA), aht; 50A (690V,100kA), BS88: 155A (415V,80kA) gis. 50A (680V,100kA), aht; 50A (690V,100kA), BS88: 155A (415V,80kA) gis. 50A (680V,100kA), aht; 50A (690V,100kA), BS88: 155A (415V,80kA) gis. 50A (4	contact rating of auxiliary contacts according to UL	A600 / P600
	Short-circuit protection	
— with type of contrination 1 required — with type of assignment 2 required 4 for short-circuit protection of the auxiliary switch required 5 for short-circuit protection of the auxiliary switch required 5 for short-circuit protection of the auxiliary switch required 5 for short-circuit protection of the auxiliary switch required 5 for short-circuit protection of the auxiliary switch required 5 for short-circuit protection of the auxiliary switch required 5 for short-circuit protection of the auxiliary switch required 5 for short-circuit protection of the auxiliary switch required 5 for short-circuit protection of the auxiliary switch required 5 for short-circuit protection of the auxiliary switch required 5 for short-circuit protection of the auxiliary switch required 5 for short-circuit protection of the auxiliary switch required 5 for short-circuit protection of the auxiliary switch required 5 for short-circuit protection of the auxiliary switch required 5 for short-circuit protection of the auxiliary switch required 5 for short-circuit protection of the auxiliary switch required 5 for switch auxiliary and control circuit 5 for auxiliary and control circuit 6 for auxiliary contacts 9 for main contacts 1 for minimist 1 for situated 1 for auxiliary contacts 1 for situated 1 for auxiliary contacts 1 for minimist 2 k(1 10 mm²) 2 k(1 6 mm²) 3 for MPC accident for main contacts 4 for stranded 6 finely stranded with core end processing 7 for MPC accident for auxiliary contacts 8 for situated without core end processing 9 finely stranded without core end processing 1 finely stranded	design of the fuse link	
— with type of assignment 2 required	 for short-circuit protection of the main circuit 	
For short-circuit protection of the auxiliary switch required mounting outsides Task tening method	 — with type of coordination 1 required 	gG: 125A (690V,100kA), aM: 50A (690V,100kA), BS88: 125A (415V,80kA)
	 — with type of assignment 2 required 	gG: 50A (690V,100kA), aM: 25A (690V, 100kA), BS88: 50A (415V, 80kA)
# 1	• for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
backward by +/- 22.5° to nevirated mounting surface fastening method	Installation/ mounting/ dimensions	
festening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 102 mm width 45 mm dopth 97 mm required spacing ************************************	mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and
height 45 mm width 45 mm depth 97 mm required spacing ************************************		backward by +/- 22.5° on vertical mounting surface
width 45 mm depth 97 mm required spacing 97 mm - with side-by-side mounting 10 mm - forwards 10 mm - upwards 10 mm - at the side 0 mm - for grounded parts 10 mm - forwards 10 mm - at the side 6 mm - downwards 10 mm - at the side 6 mm - downwards 10 mm - for live parts 10 mm - for wards 10 mm - downwards 10 mm - downwards 10 mm - at the side 6 mm - downwards 10 mm - at the side 6 mm Connectable connection 6 mm - for sudilary and control circuit spring-loaded terminals • for main current circuit spring-loaded terminals • for main contracts spring-loaded terminals • for main contacts spring-loaded terminals • for main contacts spring-loaded terminals	fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
Promition Prom	height	102 mm
required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side — forwards — forwards — the side — ownwards — upwards — the side — ownwards — upwards — to many the side — downwards — to fire parts — forwards — upwards — to many the side — downwards — upwards — upwards — to many the side — downwards — the side — ownwards — ownwards — the side — ownwards —	width	45 mm
• with side-by-side mounting — forwards — upwards — at the side • for grounded parts — forwards — upwards — towards — upwards — towards — upwards — upwards — towards — to for grounded parts — forwards — upwards — the side — downwards — to file parts — forwards — to file parts — forwards — upwards — to file parts — forwards — upwards — to file parts — forwards — upwards — upwards — to mm — downwards — upwards — to mm — downwards — to mm — at the side — downwards — at the side — downwards — at the side — for auxiliary and control circuit • for auxiliary and control circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil • for magnet coil • for main contacts — solid • solid or stranded — finely stranded without core end processing — finely stranded without core end processing • for MYC acbies for main contacts • solid • stranded • finely stranded without core end processing • finely stranded with core end processing • finely stranded without core end processing • finely stranded	depth	97 mm
forwards	required spacing	
- upwards	 with side-by-side mounting 	
- downwards - at the side	— forwards	10 mm
- at the side • for grounded parts - forwards - upwards - at the side - downwards • for live parts - forwards • for live parts - forwards - upwards • for live parts - forwards - upwards - downwards - of main current circuit • for main current circuit • for auxiliary and control circuit • for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts - solid - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts • solid • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • for fawG cables for main contacts • solid • stranded • finely stranded with core end processing • finely stranded wi	— upwards	10 mm
• for grounded parts — forwards — upwards — at the side — downwards • for live parts — forwards — upwards — to rowards — upwards — downwards — to mm — downwards — to mm — at the side — downwards — to mm — other side — at the side — for a parts **To for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit • of magnet coil • of magnet coil **Experimentals **Of main current circuit • at contactor for auxiliary contacts • of magnet coil **Experimentals **Of main contacts — solid — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts **Solid • stranded • finely stranded without core end processing • for for AWG cables for main contacts **Solid • stranded • finely stranded with core end processing • finely stranded without core end processing • finely stranded with core end processing • finely stranded without core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded without core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core e	— downwards	10 mm
- forwards	— at the side	0 mm
- upwards - at the side - downwards • for live parts - forwards - upwards - upwards - downwards - upwards - downwards - downwards - at the side - formal connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil - solid - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts • solid - stranded • finely stranded with core end processing • finely st	 for grounded parts 	
- at the side — downwards — 10 mm • for live parts — forwards — 10 mm — upwards — 10 mm — upwards — 10 mm — downwards — 10 mm — at the side — 6 mm Connections/ Terminals type of electrical connection • for main current circuit — spring-loaded terminals • for auxiliary and control circuit — spring-loaded terminals • of magnet coil — Spring-type terminals • of magnet coil — Spring-type terminals • of many contacts — solid — Spring-type terminals • for main contacts — solid — 2x (1 10 mm²) — solid or stranded — finely stranded with core end processing — 2x (1 6 mm²) — finely stranded with core end processing — 2x (1 6 mm²) • for AWG cables for main contacts • solid — solid — 1 10 mm² • finely stranded with core end processing — 2x (1 10 mm²) • stranded — finely stranded with core end processing — 1 10 mm² • finely stranded with core end processing — 1 10 mm² • finely stranded with core end processing — finely stranded with core end processing — 6 finely stranded with core end processing — 1 6 mm² • finely stranded with core end processing — 6 finely stranded with core end processing — 6 finely stranded without core end processing — 6 finely stranded with core end processing — 6 finely stranded without core end processing — 6 finely stranded with core end processing — 6 fine	— forwards	10 mm
- downwards • for live parts - forwards - upwards - upwards - downwards - at the side - downwards - at the side - at the side Connections/ Torminals 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 - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts • solid • stranded • finely stranded with core end processing • finely stranded without core end processing	— upwards	10 mm
• for live parts — forwards — upwards — downwards — at the side Connections/ Terminals type of electrical connection • for main current circuit • at contactor for auxiliary contacts • of magnet coil — solid — solid or stranded — finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • finely stranded with core end processing • finely stranded without core end processing	— at the side	6 mm
- forwards	— downwards	10 mm
- upwards	• for live parts	
- 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 - solid or stranded - finely stranded with core end processing • for AWC cables for main contacts • solid • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • finely stranded without core end processing • solid or stranded • finely stranded without core end processing • finely stranded without core end processing • solid or stranded • finely stranded without core end processing	— forwards	10 mm
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 - solid or stranded - finely stranded with core end processing • stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • finely stranded without core end processing	— upwards	10 mm
type of electrical connection • for main current circuit spring-loaded terminals • for auxiliary and control circuit spring-loaded terminals • at contactor for auxiliary contacts • of magnet coil Spring-type terminals • solid Or stranded • solid or stranded • finely stranded with core end processing • of rAWG cables for main contacts • solid 1 10 mm² • finely stranded with core end processing • sinely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • solid or stranded • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • finely stranded without core end processing	— downwards	10 mm
type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coll type of connectable conductor cross-sections • for main contacts - solid - solid or stranded - finely stranded with core end processing • stranded • finely stranded without core end processing • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • finely stranded without core end processing • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • finely stranded without core end processing	— at the side	6 mm
 for main current circuit for auxiliary and control circuit at contactor for auxiliary contacts of magnet coil Spring-type terminals of magnet coil Spring-type terminals type of connectable conductor cross-sections for main contacts — solid — solid or stranded — finely stranded with core end processing — finely stranded without core end processing for AWG cables for main contacts solid 1 10 mm² of naw or main contacts solid finely stranded with core end processing finely stranded with core end processing finely stranded with core end processing finely stranded without core end processing finely stranded with core end processing finely stranded without core end processing	Connections/ Terminals	
• for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts - solid - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts - solid - solid - finely stranded with core end processing • for AWG cables for main contacts - solid - finely stranded with core end processing - finely stranded with core end processing - for AWG cables for main contacts • solid • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • finely stranded with core end processing • finely stranded without core end processing	type of electrical connection	
 at contactor for auxiliary contacts of magnet coil Spring-type terminals type of connectable conductor cross-sections for main contacts — solid — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • for AWG cables for main contacts • solid • solid • stranded • stranded • stranded • finely stranded with core end processing • finely stranded with core end processing • solid • finely stranded with core end processing • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • solid or stranded • solid or stranded • finely stranded without core end processing • finely stranded with core end processing • finely stranded without cor	for main current circuit	spring-loaded terminals
• of magnet coil type of connectable conductor cross-sections • for main contacts - solid - solid or stranded - finely stranded with core end processing - finely stranded without core end processing • for AWG cables for main contacts • solid • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • finely stranded without core end processing • solid or stranded • finely stranded with core end processing • finely stranded without core end processing	 for auxiliary and control circuit 	spring-loaded terminals
type of connectable conductor cross-sections	at contactor for auxiliary contacts	Spring-type terminals
type of connectable conductor cross-sections	of magnet coil	Spring-type terminals
- solid 2x (1 10 mm²) - solid or stranded 2x (1 10 mm²) - finely stranded with core end processing 2x (1 6 mm²) - finely stranded without core end processing 2x (1 6 mm²) • for AWG cables for main contacts 2x (18 8) connectable conductor cross-section for main contacts • solid 1 10 mm² • stranded 1 10 mm² • finely stranded with core end processing 1 6 mm² • finely stranded without core end processing 1 6 mm² connectable conductor cross-section for auxiliary contacts • 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 • finely stranded without core end processing 0.5 2.5 mm² type of connectable conductor cross-sections	type of connectable conductor cross-sections	
- solid or stranded - finely stranded with core end processing - finely stranded without core end processing - finely stranded without core end processing • for AWG cables for main contacts • solid • stranded • stranded • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • finely stranded without core end processing • solid • finely stranded without core end processing • finely stranded without core end processing • finely stranded without core end processing • finely stranded with core end processing • finely stranded without core end processing	• for main contacts	
- finely stranded with core end processing - finely stranded without core end processing • for AWG cables for main contacts • for AWG cables for main contacts • solid • stranded • stranded • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • finely stranded with core end processing • finely stranded without core end processing • finely stranded conductor cross-sections	— solid	2x (1 10 mm²)
- finely stranded with core end processing - finely stranded without core end processing • for AWG cables for main contacts • for AWG cables for main contacts • solid • stranded • stranded • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • finely stranded with core end processing • finely stranded without core end processing • finely stranded conductor cross-sections	— solid or stranded	2x (1 10 mm²)
- finely stranded without core end processing • for AWG cables for main contacts • solid • stranded • stranded • finely stranded with core end processing • finely stranded without core end processing • solid or stranded • finely stranded with core end processing • finely stranded without core end processing • finely stranded conductor cross-sections	 finely stranded with core end processing 	2x (1 6 mm²)
 for AWG cables for main contacts connectable conductor cross-section for main contacts solid stranded finely stranded with core end processing finely stranded without core end processing finely stranded without core end processing solid or stranded finely stranded with core end processing finely stranded without core end processing finely connectable conductor cross-sections 	•	
connectable conductor cross-section for main contacts • solid • stranded • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • fonely stranded without core end processing		
 stranded finely stranded with core end processing finely stranded without core end processing finely stranded without core end processing connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing finely stranded without core end processing finely stranded without core end processing 5 2.5 mm² type of connectable conductor cross-sections 	connectable conductor cross-section for main contacts	
 stranded finely stranded with core end processing finely stranded without core end processing finely stranded without core end processing connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing finely stranded without core end processing finely stranded without core end processing 5 2.5 mm² type of connectable conductor cross-sections 	• solid	1 10 mm²
• finely stranded without core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing type of connectable conductor cross-sections	stranded	1 10 mm²
• finely stranded without core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing type of connectable conductor cross-sections	 finely stranded with core end processing 	1 6 mm²
connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing type of connectable conductor cross-sections		1 6 mm²
 solid or stranded finely stranded with core end processing finely stranded without core end processing type of connectable conductor cross-sections 0.5 2.5 mm² 0.5 2.5 mm²		
 finely stranded with core end processing finely stranded without core end processing type of connectable conductor cross-sections 		0.5 2.5 mm ²
• finely stranded without core end processing 0.5 2.5 mm² type of connectable conductor cross-sections		
type of connectable conductor cross-sections		

— 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)
for AWG cables for auxiliary contacts	2x (20 14)
AWG number as coded connectable conductor cross section	
 for main contacts 	18 8
 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
suitable for safety function	Yes
suitability for use safety-related switching OFF	Yes
service life maximum	20 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
 with low demand rate according to SN 31920 	40 %
 with high demand rate according to SN 31920 	73 %
B10 value with high demand rate according to SN 31920	1 000 000
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
ISO 13849	
device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type A
Electrical Safety	
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
Approvals Certificates	
General Product Approval	

General Product Approval





Confirmation





<u>KC</u>

General Product Approval

EMV

Functional Saftey

Test Certificates

Marine / Shipping





Type Examination Certificate Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping



Confirmation





<u>ate</u>





Miscellaneous

other

other Railway

<u>Confirmation</u> <u>Special Test Certific-</u>



Environment

Environmental Confirmations

Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RT2028-2AB00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2028-2AB00

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2028-2AB00

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

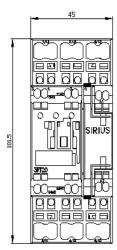
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2028-2AB00&lang=en

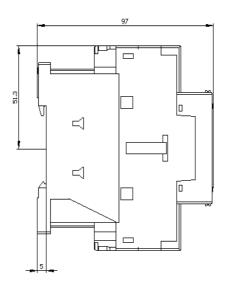
Characteristic: Tripping characteristics, I2t, Let-through current

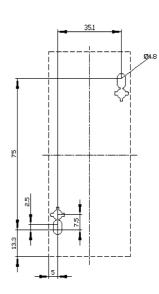
https://support.industry.siemens.com/cs/ww/en/ps/3RT2028-2AB00/char

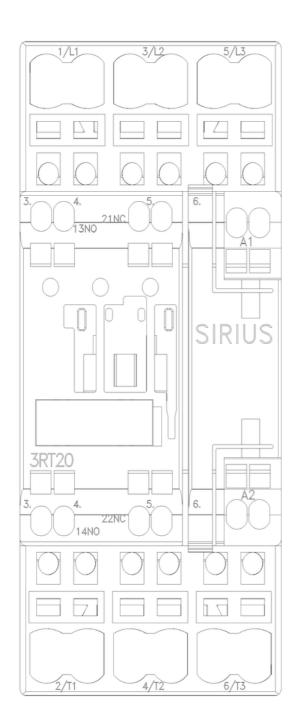
Further characteristics (e.g. electrical endurance, switching frequency)

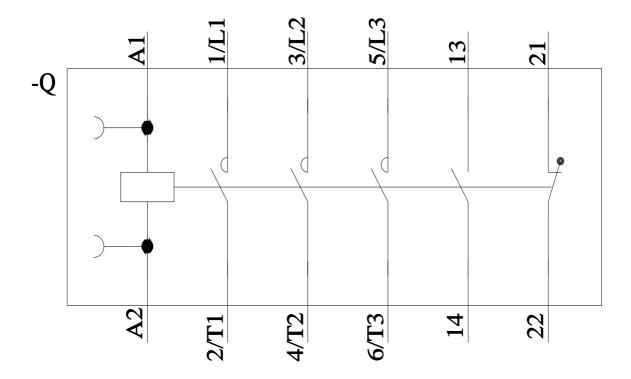
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2028-2AB00&objecttype=14&gridview=view1











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