SIEMENS

Data sheet 3RT2028-1DB40



power contactor, AC-3e/AC-3, 38 A, 18.5 kW / 400 V, 3-pole, 24 V DC, with plugged-in varistor, auxiliary contacts: 1 NO + 1 NC, screw 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	5.9 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 DC	10g / 5 ms, 7,5g / 10 ms
shock resistance with sine pulse	
• at DC	15g / 5 ms, 10g / 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)	10/01/2009
SVHC substance name	Lead - 7439-92-1
Weight	0.6 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	95 %

maximum	
Environmental footprint	
Environmental Product Declaration(EPD)	Yes
global warming potential [CO2 eq] total	221 kg
global warming potential [CO2 eq] during manufacturing	2.65 kg
global warming potential [CO2 eq] during operation	219 kg
global warming potential [CO2 eq] after end of life	-0.639 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 at AC-1 	50 A
— up to 690 V at ambient temperature 40 °C rated value	50 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ 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 at AC-5b up to 400 V rated value	44 A
at AC-5b up to 400 V rated value at AC-6c	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	10 mm²
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	2F A
— at 24 V rated value	35 A
— at 60 V rated value — at 110 V rated value	20 A 4.5 A
— at 110 V rated value — at 220 V rated value	4.5 A 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 60 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 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 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 60 V rated value	5 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 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	40.51114
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	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	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	102 A, 036 millimum 61033-366tion acc. to AC-1 rated value
• at DC	1 500 1/h
operating frequency	. 555
• 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	100 1/11
— maximum	750 1/h
at AC-4 maximum	250 1/h
Control circuit/ Control	200 1/11
type of voltage of the control supply voltage	DC
control supply voltage at DC rated value	24 V
operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.8
full-scale value	1.1
design of the surge suppressor	with varistor
closing power of magnet coil at DC	5.9 W
holding power of magnet coil at DC	5.9 W
closing delay	
• at DC	50 170 ms
opening delay	
• at DC	15 18 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 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 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 Approximately support of BC 42	0.15 A
operational current at DC-13	10.4
at 24 V rated value at 49 V rated value	10 A
at 48 V rated value at 60 V rated value	2 A
at 60 V rated value at 110 V rated value	2 A
at 110 V rated value at 125 V rated value	1 A
at 125 V rated value at 230 V rated value	0.9 A
at 220 V rated value at 600 V rated value	0.3 A
at 600 V rated value contact reliability of auxiliary contacts.	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	24 A
at 480 V rated value at 600 V rated value	34 A
• at 600 V rated value	27 A
yielded mechanical performance [hp]	
• for single phase AC motor	
 for single-phase AC motor — at 110/120 V rated value 	3 hp

design of the miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V 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 main circuit — with type of coordination 2 required • for whort-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position */-180* rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting surface; can be tilted forward and backward by +/- 22.5* on vertical mounting sur		
		5 hp
at 220/230 V rated value at 1575000 V rated value 25 hp -		
= at 400480 V rated value	— at 200/208 V rated value	10 hp
at 575800 V retact value Contact rating of sutiliary contacts according to UL Short-circuit protection design of the ministrue circuit breaker for short-circuit protection of the sealibility court up to 230 V design of the five limits with type of coordination 1 required with type of coordination 1 required with type of coordination 2 required for short-circuit protection of the main circuit with type of coordination 2 required for short-circuit protection of the auxiliary switch required fastening method side-by-side mounting fastening method side-by-side mounting fastening method side-by-side mounting with stid-by-side mounting for short-circuit substibly short-circuit substibly short-circuit substibly-side mounting for wards at the side for wards for ward	— at 220/230 V rated value	10 hp
contact rating of auxiliary contacts according to UL A600 / P600 Short circuit protection Characteristic: 10 A; 0.4 kA design of the ministure circuit breaker for short-circuit protection of the sell kink Characteristic: 10 A; 0.4 kA design of the ministure circuit breaker for short-circuit protection of the main circuit SC 12.5 A (690 V; 100 kA), aM: 50 A (690 V; 100 kA), BS88: 125 A (415 V;80 kA) — with type of coordination 2 required 95: 50 A (690 V; 100 kA), aM: 25 A (690 V; 100 kA), BS88: 125 A (415 V;80 kA) — with type of coordination 2 required 95: 50 A (690 V; 100 kA), aM: 25 A (690 V; 100 kA), BS88: 125 A (415 V;80 kA) — with type of coordination 2 required 95: 50 A (690 V; 100 kA), aM: 25 A (690 V; 100 kA), BS88: 125 A (415 V;80 kA) — with right in ministry of coordination 2 required 95: 50 A (690 V; 100 kA), aM: 25 A (690 V; 100 kA), BS88: 125 A (415 V;80 kA) — with right in ministry of coordination 2 required 95: 50 A (690 V; 100 kA), aM: 25 A (690 V; 100 kA), BS88: 125 A (415 V;80 kA) — statistication moniting of ministry of coordination 2 required 95: 10 A (600 V; 100 kA), aM: 25 A (690 V; 100 kA), BS88: 125 A (415 V;80 kA) — statistication moniting of ministry of coordination 2 required 95: 10 A (600 V; 100 kA), aM: 25 A (690 V; 100 kA), BS88: 125 A (415 V;80 kA) — statistication moniting of ministry of coordination 2 required 95: 10 A (600 V; 100 kA), aM: 25 A (690 V; 100 kA), aM: 25	— at 460/480 V rated value	25 hp
Short-circul protection esping of the ministrue crical broader for short-circult protection of the auxiliary circuit up to 230 V design of the fuse lim. — with type of coordination 1 required — with type of coordination 2 required — size sharted mounting dimensions wounting position fastening method with type of sharted with type of the auxiliary switch required fastening method size by-side mounting fastening method fastening method fastening method fastening method fastening method with 45 mm depth — upwards — of worwards — ownwards — ownwa	— at 575/600 V rated value	25 hp
design of the ministure circuit breakter for short-circuit protection of the auxiliary circuit up to 230 V	contact rating of auxiliary contacts according to UL	A600 / P600
of the auxillary circuit up to 230 V design of the fuse link • for short-circuit protection of the main circuit	Short-circuit protection	
• for short-circuit protection of the main circuit — with type of coordination 1 required 8		C characteristic: 10 A; 0.4 kA
with type of coordination 1 required	design of the fuse link	
Six	 for short-circuit protection of the main circuit 	
• for short-circuit protection of the auxillary switch required installation incounting dimensions	— with type of coordination 1 required	
Installation mounting ditinensions	 — with type of coordination 2 required 	gG: 50 A (690 V, 100 kA), aM: 25 A (690 V, 100 kA), BS88: 50 A (415 V, 80 kA)
# +180° rotation possition	 for short-circuit protection of the auxiliary switch required 	gG: 10 A (500 V, 1 kA)
Isasening method side-by-side mounting fastening method fastening method fastening method fastening method fastening method for mounting width for mounting width for mounting width for mounting width for mounting forwards for mounting forwards forwards for mounting forwards forwards forwards forwards forwards forwards forwards forwards formards for five parts for forwards for five parts for for five parts for for five parts for for five parts for for mounting surface formards for mounting surface formards forma	Installation/ mounting/ dimensions	
fastening method side-by-side mounting fastening method fastening f		+/-180° rotation possible on vertical mounting surface; can be tilted forward and
Astening method		
height width	fastening method side-by-side mounting	Yes
width 45 mm depth 107 mm required spacing	fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
depth	height	102 mm
vwth side-by-side mounting	width	45 mm
	depth	107 mm
	· · · · · · · · · · · · · · · · · · ·	
- forwards - upwards 10 mm - converted - upwards 10 mm - upwa		
- upwards - downwards - downwards - at the side • for grounded parts - forwards - upwards - upwards - downwards - downwards - upwards - downwards - downwards - downwards - downwards - for live parts - forwards - upwards - for live parts - forwards - upwards - downwards - upwards - downwards - upwards - downwards - for main current circuit - for auxiliary and control circuit - for auxiliary and control circuit - at contactor for auxiliary contacts - of magnet coll - solid or stranded - finely stranded with core end processing - for MVG cables for main contacts - solid - solid or stranded - finely stranded with core end processing - solid or stranded - sinely stranded with core end processing -		10 mm
- downwards - at the side 0 0 mm • for grounded parts - forwards 10 mm - upwards 10 mm - at the side 6 mm - downwards 10 mm • for live parts - forwards 10 mm • for live parts 10 mm - upwards 10 mm - upwards 10 mm - downwards 10 mm - downwards 10 mm - at the side 6 mm Connections/ Terminals type of electrical connection • for main current circuit screw-type terminals • at contactor for auxiliary contacts \$crew-type terminals • at contactor for auxiliary contacts \$crew-type terminals • for main contacts \$crew-type		10 mm
- at the side • for grounded parts - forwards - upwards - at the side - downwards • for live parts - forwards - upwards - forwards • for live parts - forwards - upwards - downwards - downwards - the side - at the side - at the side - formal current circuit • for main current circuit • for main current circuit • at contactor 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	·	
• for grounded parts — forwards — upwards — at the side — downwards — for live parts — forwards — upwards — for live parts — forwards — upwards — upwards — downwards — 10 mm — downwards — to mm — at the side — downwards — to mm — at the side — forman current circuit — for auxiliary and control circuit — of or auxiliary and control circuit — of magnet coil type of electrical connections — of magnet coil type of connectable conductor cross-sections — for main contacts — solid — solid or stranded — finely stranded with core end processing — solid — 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 — stranded with core end processing — solid or stranded — stranded — stranded — stranded with core end processing		
- forwards		
- upwards - at the side - downwards • for live parts - forwards - upwards - downwards - upwards - downwards - upwards - downwards - downwards - downwards - at the side - formalourent circuit • for auxiliary and control circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil - solid - solid - solid - solid - finely stranded with core end processing • finely stranded with core end processing • finely stranded - finely stranded with core end processing • for intely stranded - finely 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 - stranded - finely stranded with core end processing - stranded - finely stranded with core end processing - stranded - finely stranded with core end processing - solid or stranded - stranded - finely stranded with core end processing - solid or stranded - 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 - 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 - 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 - solid or stranded - solid or		10 mm
- at the side		
downwards for live parts	•	
• 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 type of connectable conductor cross-sections • for main contacts solid solid 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 • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing 0.5 2.5 mm² type of connectable conductor cross-sections		
- forwards - upwards - downwards - at the side - domo Connections/ Terminals type of electrical connection • for main current 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 • finely stranded with core end processing • solid or stranded • finely stranded with core end processing type of connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections		10 mm
- upwards - downwards - at the side Connections/ Terminals type of electrical connection • for main current 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 • finely stranded with core end processing • finely stranded with core end processing • solid or stranded • finely stranded • finely stranded • finely stranded with core end processing • solid or stranded • finely stranded • finely stranded with core end processing 0.5 2.5 mm² type of connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections	•	40
- 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 • 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 • solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections		
- 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 • for main contacts • of 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	•	
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 • 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 • 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 • 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	— downwards	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 • 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 type of connectable conductor cross-sections	— at the side	6 mm
 for main current circuit for auxiliary and control circuit at contactor for auxiliary contacts of magnet coil Screw-type terminals of magnet coil type of connectable conductor cross-sections for main contacts solid solid or stranded finely stranded with core end processing solid tyne of cables for main contacts solid tyne of connectable conductor cross-sections for AWG cables for main contacts solid solid tun 10 mm² stranded finely stranded with core end processing tun 10 mm² connectable conductor cross-section for auxiliary contacts 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 solid or stranded finely stranded with core end processing type of connectable conductor cross-sections 	Connections/ Terminals	
 for auxiliary and control circuit at contactor for auxiliary contacts of magnet coil Screw-type terminals type of connectable conductor cross-sections for main contacts solid solid or stranded finely stranded with core end processing solid tyne of connectable conductor cross-sections for AWG cables for main contacts solid tonnectable conductor cross-section for main contacts solid tu 10 mm² stranded finely stranded with core end processing finely stranded with core end processing tu 10 mm² tu 10 mm² tu 10 mm² finely stranded with core end processing finely stranded finely stranded finely stranded finely stranded with core end processing tu 10 mm² connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections 	type of electrical connection	
 at contactor for auxiliary contacts of magnet coil Screw-type terminals 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 a solid b solid connectable conductor cross-section for main contacts a stranded b stranded connectable conductor cross-section for auxiliary contacts a solid or stranded with core end processing b stranded or stranded or stranded connectable conductor cross-section for auxiliary contacts a solid or stranded b solid or stranded connectable conductor cross-section for auxiliary contacts a solid or stranded b solid or stranded connectable conductor cross-section for auxiliary contacts connectable conductor cross-sections connectable conductor cross-sections 	for main current circuit	screw-type terminals
of magnet coil Screw-type terminals type of connectable conductor cross-sections of or main contacts	 for auxiliary and control circuit 	screw-type terminals
type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts • solid • stranded • finely stranded with core end processing • solid • 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	 at contactor for auxiliary contacts 	Screw-type terminals
• for main contacts — solid — solid or stranded — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts • solid • stranded • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • solid or stranded • solid or stranded • finely stranded with core end processing	of magnet coil	Screw-type terminals
- solid	type of connectable conductor cross-sections	
- solid or stranded - finely stranded with core end processing - for AWG cables for main contacts - solid - stranded - stranded - stranded - finely stranded with core end processing - solid - stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded	• for main contacts	
- solid or stranded - finely stranded with core end processing - for AWG cables for main contacts - solid - stranded - stranded - stranded - finely stranded with core end processing - solid - stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded	— solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)
 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 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 with core end processing solid or stranded finely stranded with core end processing finely stranded with core end processing solid or stranded finely stranded with core end processing solid connectable conductor cross-sections 	— solid or stranded	
 for AWG cables for main contacts connectable conductor cross-section for main contacts solid stranded finely stranded with core end processing connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing 0.5 2.5 mm² finely stranded with core end processing connectable conductor cross-sections 		
connectable conductor cross-section for main contacts • solid • stranded • stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing 0.5 2.5 mm² • finely stranded with core end processing type of connectable conductor cross-sections	· · · · · · · · · · · · · · · · · · ·	
solid stranded stranded inely stranded with core end processing 1 10 mm² inely stranded with core end processing 1 10 mm² connectable conductor cross-section for auxiliary contacts solid or stranded solid or stranded inely stranded with core end processing 0.5 2.5 mm² type of connectable conductor cross-sections		, ,,
 stranded finely stranded with 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 type of connectable conductor cross-sections 		1 10 mm²
 finely stranded with core end processing connectable conductor cross-section for auxiliary contacts solid or stranded finely stranded with core end processing type of connectable conductor cross-sections 1 10 mm² 0.5 2.5 mm² 0.5 2.5 mm² type of connectable conductor cross-sections		
connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections 0.5 2.5 mm² 0.5 2.5 mm²		
• solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections 0.5 2.5 mm² 0.5 2.5 mm²		1 10 IIIIII
• finely stranded with core end processing 0.5 2.5 mm² type of connectable conductor cross-sections	-	0.5 2.5 mm²
type of connectable conductor cross-sections		
		U.D 2.0 IIIIII
• for auxiliary contacts		
	Tor auxiliary contacts	

 solid or stranded 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
for AWG cables for auxiliary contacts	2x (20 16), 2x (18 14)
AWG number as coded connectable conductor cross section for main contacts	16 8
AWG number as coded connectable conductor cross section 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	











<u>KC</u>

General Product Approval

EMV

Test Certificates

Maritime application





Type Test Certificates/Test Report

Special Test Certificate





Maritime application





LRS





Miscellaneous

other



other

Railway

Dangerous goods

Environment

Confirmation

Special Test Certificate

Transport Information



Environmental Confirmations

Further information

Information on the packaging

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

Information for data generation and storage

https://support.industry.siemens.com/cs/ww/en/view/109995012

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=3RT2028-1DB40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2028-1DB40

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2028-1DB40

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

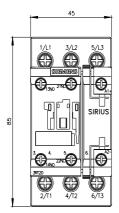
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2028-1DB40&lang=en

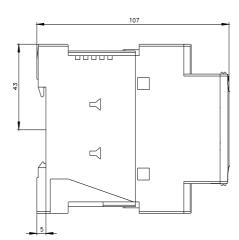
Characteristic: Tripping characteristics, I2t, Let-through current

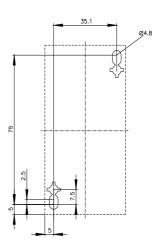
https://support.industry.siemens.com/cs/ww/en/ps/3RT2028-1DB40/char

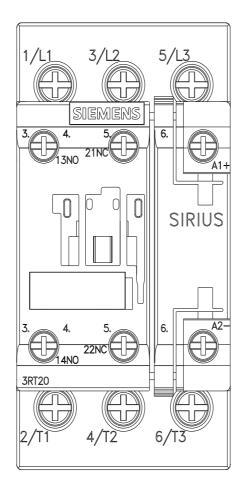
Further characteristics (e.g. electrical endurance, switching frequency)

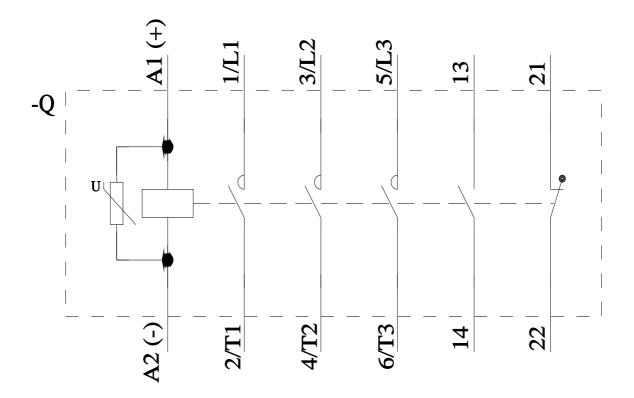
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2028-1DB40&objecttype=14&gridview=view1











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9/5/2025