SIEMENS

Data sheet 3RT2028-1AU60



Power contactor, AC-3 38 A, 18.5 kW / 400 V 1 NO + 1 NC, 277 V AC 60Hz, 3-pole, size S0 screw terminals

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 	9.4 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 $^{\circ}\text{C}$ 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 24 V rated value — at 110 V rated value	35 A
— at 110 V rated value — at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
 with 3 current paths in series at DC-1 	

— at 24 V rated value	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-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 	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 2 maniference	750.4%
• at AC-3 maximum	750 1/h
• at AC-3e maximum	750 1/h
• at AC-4 maximum	250 1/h
Control circuit/ Control	100
type of voltage of the control supply voltage	AC
control supply voltage at AC	277 \/
at 60 Hz rated value operating range factor control supply voltage rated	277 V
value of magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	
● at 60 Hz	87 VA
inductive power factor with closing power of the coil	
• at 60 Hz	0.76
apparent holding power of magnet coil at AC	0.43/4
• at 60 Hz	9.4 VA
inductive power factor with the holding power of the coil	
• at 60 Hz	0.28
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 contact	1
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	10.0
 at 24 V rated value at 48 V rated value 	10 A 6 A
at 46 V rated value at 60 V rated value	6 A
at 100 V rated value at 110 V rated value	3 A
at 110 V rated value 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	
	0.4. A
• at 480 V rated value	34 A
at 480 V rated valueat 600 V rated value	34 A 27 A
at 480 V rated value at 600 V rated value yielded mechanical performance [hp]	
at 480 V rated valueat 600 V rated value	

- at 230 V rated value 10 hp	at 220 V sate d colors	Cha.
at 200/280 Y rated value at 200/280 Y rated value 25 hp 25 75600 V rated value 25 hp 25	— at 230 V rated value	5 hp
	·	10 hn
at 490/480 V rated value 25 hp contact rating of auxiliary contacts according to UL Shor-scircuit protection design of the fue link of the sell in		·
— at 575/000 V rated value contact arting of auxillary contacts according to UL Short-circuit protection design of the fuso link - for short-circuit protection of the main circuit - with type of controllation 1 required - with type of assignment 2 required - with type of assignment 2 required - for short-circuit protection of the auxiliary switch required - with type of assignment 2 required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for short-circuit protection of the auxiliary switch required - for substitution mounting surface: can be tilted forward and backward by V-2.25° on vertical mounting surface: can be tilted forward and sanchward by V-2.25° on vertical mounting surface: can be tilted forward and sanchward by V-2.25° on vertical mounting surface: can be tilted forward and sanchward by V-2.25° on vertical mounting surface: can be tilted forward and sanchward by V-2.25° on vertical mounting surface: can be tilted forward and sanchward by V-2.25° on vertical mounting surface: can be tilted forward and sanchward by V-2.25° on vertical mounting surface: can be tilted forward and		·
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 assignment 2 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch • for short-circuit p		
Short-circuit protection design of the fuse link		
design of the fuse link		7.000 / 1 000
• for short-circult protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch gets and short-circuit protection of the auxiliary switch gets and short-circuit short-circuit switch depth • for short-circuit protection of the auxiliary switch gets and short-circuit switch depth • side-by-side mounting • side-by-side mounting • with side-by		
- with type of coordination 1 required (415% 80kA), abs. 50A (690V, 100kA), BS88: 125A (415V, 80kA) - with type of assignment 2 required g. 50A (690V, 100kA), abs. 25A (690V, 100kA), BS88: 50A (415V, 80kA) - for short-circuit protection of the auxiliary switch required g. 50A (690V, 100kA), abs. 25A (690V, 100kA), BS88: 50A (415V, 80kA) - for short-circuit protection of the auxiliary switch required g. 50A (690V, 100kA), abs. 25A (690V, 100kA), BS88: 50A (415V, 80kA) - for short-circuit protection of the auxiliary switch required g. 50A (690V, 100kA), abs. 25A (690V, 100kA), BS88: 50A (415V, 80kA) - grounding of the switch state of t	•	
- with type of assignment 2 required 80kA) • for short-circuit protection of the auxiliary switch required installation/ mounting/ difference of the auxiliary switch required installation/ mounting/ difference of the auxiliary switch required installation/ mounting/ difference of the auxiliary switch required spacing with a side-by-side mounting surface. Can be titled forward and backward by ++2.2.5° on vertical mounting surface acrowing to DIN EN 60715 • side-by-side mounting		
• for short-circuit protection of the auxiliary switch required required required required required should be strained be strained beckward by +½ -2.5° on vertical mounting surface; can be tilted forward and backward by +½ -2.5° on vertical mounting surface commend beckward by +½ -2.5° on vertical mounting surface commend beckward by +½ -2.5° on vertical mounting surface commend beckward by +½ -2.5° on vertical mounting surface commend beckward by +½ -2.5° on vertical mounting surface commend beckward by +½ -2.5° on vertical mounting surface commend beckward by +½ -2.5° on vertical mounting surface commend beckward by +½ -2.5° on vertical mounting surface commend beckward by +½ -2.5° on vertical mounting surface commend beckward by +½ -2.5° on vertical mounting surface commend beckward by +½ -2.5° on vertical mounting surface commend beckward by +½ -2.5° on vertical mounting surface commend beckward by +½ -2.5° on vertical mounting surface can be tilted for value for both beckward by +½ -2.5° on vertical mounting surface commend beckward by +½ -2.5° on vertical mounting surface commend beckward by +½ -2.5° on vertical mounting surface commend by the for both between downwards and backward by +½ -2.5° on vertical mounting surface commend by for block and backward by +½ -2.5° on vertical mounting surface commend by the for both backward by +½ -2.5° on vertical mounting surface commend by for both backward by +½ -2.5° on vertical mounting surface connection on the formal backward by +½ -2.5° on vertical mounting surface connection for main contacts • solid	with type of assignment 2 required	
mounting position mounting position fastening method side-by-side mounting with height with depth - In many and backward by 4- 22.5" on vertical mounting surface; can be tilted forward and backward by 4- 22.5" on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 yes height with side-by-side mounting - In wards - In many and backward by 4- 22.5" on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 yes - Many and south and surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 yes - Many and surface screw and snap-on mounting onto 35 mm standard mounting surface screw and snap-on mounting onto 35 mm standard mounting surface screw and snap-on mounting onto 35 mm standard mounting surface screw and snap-on mounting onto 35 mm standard mounting surface screw and snap-on mounting onto 35 mm standard mounting surface screw and snap-on mounting onto 35 mm standard mounting surface screw and snap-on mounting onto 35 mm standard mounting surface screw and snap-on mounting onto 35 mm standard mounting surface screw and snap-on mounting onto 35 mm standard mounting surface screw and snap-on mounting onto 35 mm standard mounting surface screw and snap-on mounting onto 35 mm standard mounting surface screw and snap-on mounting onto 35 mm standard mounting surface screw and snap-on mounting onto 35 mm standard mounting screw and snap-on mounting onto 35 mm standard mounting screw and snap-on mounting onto 35 mm standard mounting screw and snap-on mounting onto 35 mm standard mounting screw and snap-on mounting onto 35 mm standard mounting screw and snap-on mounting onto 35 mm standard mounting screw and snap-on mounting onto 35 mm standard mounting screw and snap-on mounting onto 35 mm standard mounting screw and snap-on mounting onto 35 mm standard mounting surface screw and snap-on mounting onto 35 mm standard mounting surface screw and snap-on	for short-circuit protection of the auxiliary switch	,
mounting position #/-1807 rotation possible on vertical mounting surface: can be tilted forward and backward by 1-/- 22.5" on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 #	required	
forward and backward by **1.22.5* on vertical mounting surface side-by-side mounting **e side-by-side mounting **height **leight **l	Installation/ mounting/ dimensions	
e side-by-side mounting height width depth 7equired spacing • with side-by-side mounting — forwards — upwards — 10 mm — downwards — at the side • for grounded parts — if the parts — the parts — forwards — 10 mm — the parts — if ownwards — 10 mm — upwards — for live parts — forwards — upwards — 10 mm — upwards — the side — downwards — 10 mm — upwards — upwards — upwards — 10 mm — upwards — the side — for in upwards — upwards — upwards — upwards — upwards — the side — for main contacts — of main current circuit • for auxiliary and control circuit • for far auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of electrical connections • for main contacts — solid — finely stranded — finely stranded with core end processing • at AWG cables for main contacts • solid • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing	mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
Neight Width 45 mm 45	fastening method	
width depth 97 mm required spacing • with side-by-side mounting — forwards 10 mm — downwards 10 mm — at the side 0 mm — upwards 10 mm — odownwards 10 mm — upwards 10 mm — odownwards 10 mm — at the side 6 mm — downwards 10 mm — odownwards 10 mm — of roll ve parts — forwards 10 mm — of roll ve parts — forwards 10 mm — odownwards 10 mm — upwards 10 mm — odownwards 10 mm — of main current circuit screw-type terminals screw-type terminal	• side-by-side mounting	Yes
required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side — for grounded parts — forwards — upwards — upwards — upwards — 10 mm • for grounded parts — forwards — upwards — 10 mm — upwards — at the side — downwards — to mm — at the side — downwards — for live parts — forwards — upwards — at the side — downwards — at the side — for auxiliary and control circuit — for auxiliary and control circuit — so magnet coil type of connectable conductor cross-sections — for main contacts — solid — solid or stranded — finely stranded with core end processing — at AWG cables for main contacts — solid — stranded — finely stranded with core end processing — at AWG cables for main contacts — solid — stranded — finely stranded with core end processing — at AWG cables for main contacts — solid — stranded — finely stranded with core end processing — at AWG cables for main contacts — solid — stranded — finely stranded with core end processing — at AWG cables for main contacts — solid — stranded — finely stranded with core end processing — at AWG cables for main contacts — solid — stranded — finely stranded with core end processing — at AWG cables for main contacts — solid — stranded — finely stranded with core end processing — at AWG cables for main contacts — solid — stranded — finely stranded with core end processing — to main contacts — solid — stranded — finely stranded with core end processing — to main contacts — to mm 2x (1 2.5 mm²), 2x (2.5 10 mm²) — 2x (1 2.5 mm²), 1x 10 mm² — to mm 10 mm — to mm 2x (1 2.5 mm²), 2x (2.5 10 mm²) — to mm² — to mm 10 mm — to mm 2x (1 .	height	85 mm
required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — forwards — upwards — 10 mm • for grounded parts — forwards — upwards — 10 mm — at the side — downwards — 10 mm • for live parts — forwards — 10 mm • for live parts — forwards — upwards — downwards — 10 mm • for live parts — forwards — upwards — upwards — upwards — upwards — 10 mm • for live parts — forwards — 10 mm • for wain current circuit — at the side — 6 mm Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit • for auxiliary and control circuit • for main current circuit • for main contacts — solid — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts • solid • stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts	width	45 mm
 with side-by-side mounting forwards upwards downwards at the side for grounded parts for grounded parts forwards upwards upwards upwards at the side 6 mm downwards 10 mm for live parts for live parts forwards upwards for main current circuit for auxillary and control circuit at contactor for auxillary contacts of or magnet coil screw-type terminals type of connectable conductor cross-sections for main contacts solid at AWG cables for main contacts solid at AWG cables for main contacts solid stranded formectable conductor cross-section for main contacts solid stranded finely stranded with core end processing <l< td=""><td>depth</td><td>97 mm</td></l<>	depth	97 mm
forwards		
- upwards		
- downwards - at the side • for grounded parts - forwards - upwards - upwards - at the side - downwards - downwards - for live parts - forwards - upwards - for live parts - forwards - upwards - forwards - upwards - forwards - upwards - downwards - downwards - downwards - downwards - at the side - formain current circuit • for auxiliary and control circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil - solid - solid or stranded - finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded • finely contacts • finely stranded with core end processing • finely stranded • finely contacts • for ground mm • finely stranded with core end processing	— forwards	12.1111
- at the side • for grounded parts - forwards - upwards - at the side - downwards • for live parts - forwards 10 mm • for live parts - forwards - upwards - downwards 10 mm • for live parts - forwards - downwards - downwards - at the side - downwards - downwards - 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 • at AWG cables for main contacts • solid • stranded • finely stranded • finely stranded with core end processing	·	
• for grounded parts — forwards — upwards — at the side — downwards — of live parts — forwards — upwards — to mm • for live parts — forwards — upwards — upwards — upwards — upwards — to mm — at the side — downwards — at the side — formands — at the side — formands — at the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control 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 • at AWG cables for main contacts — solid • stranded • finely stranded • finely stranded with core end processing • stranded • finely stranded with core end processing		
- forwards		0 mm
- upwards - at the side - downwards • for live parts - forwards - upwards - downwards - upwards - downwards - downwards - downwards - at the side - domnwards - 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 • stranded • stranded • stranded • finely stranded with core end processing		
- at the side		
- downwards • 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 or stranded - finely stranded with core end processing • at 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 • the main contacts • solid • stranded • finely stranded with core end processing • the main contacts • solid • stranded • finely stranded with core end processing • the main contacts • solid • stranded • finely stranded with core end processing • the main contacts • solid • stranded • finely stranded with core end processing • the main contacts • solid • stranded • finely stranded with core end processing • the main contacts • solid • stranded • finely stranded with core end processing • the main contacts • solid • the main contacts • the main contact	•	
• 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 type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts • solid • stranded • finely stranded with core end processing • solid • 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 • 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 • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing		
forwards		10 mm
- upwards - downwards - at the side Connections/ Terminals type of electrical connection		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 • stranded • stranded • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded with core end processing • stranded • finely stranded with core end processing • the stranded • finely stranded with core end processing • the stranded • finely stranded with core end processing • the stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary connectable conductor		
at the side 6 mm Connections/ Terminals type of electrical connection • for main current circuit screw-type terminals • at contactor for auxiliary contacts • of magnet coil Screw-type terminals • of main contacts • for main contacts • for main contacts solid solid or stranded finely stranded with core end processing • at AWG cables for main contacts • solid • stranded • stranded • stranded • finely stranded with core end processing • finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded with core end processing • stranded • finely stranded with core end processing	•	
type of electrical connection • for main current circuit • at contactor for auxiliary contacts • of main contacts • of main contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • stranded • stranded • stranded • finely stranded with core end processing • finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded with core end processing • stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts		12.1111
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 • stranded • stranded • finely stranded with core end processing • finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded with core end processing • stranded • finely stranded with core end processing • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • f		o mm
• for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil **Screw-type terminals** • of magnet coil **Screw-type terminals**		
 for auxiliary and control circuit at contactor for auxiliary contacts of magnet coil Screw-type terminals 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 10 mm²) <	5.	
 at contactor for auxiliary contacts of magnet coil Screw-type terminals 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1		• •
 of magnet coil type of connectable conductor cross-sections of or main contacts — solid — solid or stranded — finely stranded with core end processing of at AWG cables for main contacts of solid of main contacts of main contacts	•	**
type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts • solid • stranded • stranded • stranded • stranded • finely stranded with core end processing • stranded • stranded • stranded • finely stranded with core end processing • the stranded to the str	•	
 for main contacts — solid — solid or stranded — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts • solid • solid • stranded • finely stranded with core end processing • stranded • stranded • stranded • finely stranded with core end processing • solid • stranded • stranded to the conductor cross-section for auxiliary contacts • section for auxiliary contacts • section for auxiliary contacts • solid to the conductor cross-section for auxiliary contacts • section for auxiliary con		Screw-type terminals
 — solid — solid or stranded — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts • solid • solid • stranded • stranded • finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 		
 — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts • solid • stranded • stranded • finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 1 10 mm² • stranded • finely stranded with core end processing 1 10 mm² 1 10 mm² 1 10 mm² 1 10 mm² 		2v (1 2.5 mm²) 2v (2.5 10 mm²)
 — finely stranded with core end processing at AWG cables for main contacts at AWG cables for main contacts at AWG cables for main contacts at AWG cables for main cables for main contacts 		
 at 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 		
connectable conductor cross-section for main contacts • solid • stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts 1 10 mm² 1 10 mm² 1 10 mm²		
 solid stranded finely stranded with core end processing 1 10 mm² finely stranded with core end processing connectable conductor cross-section for auxiliary contacts 	connectable conductor cross-section for main	ZA (10 12), ZA (17 0)
 ◆ stranded ◆ finely stranded with core end processing Connectable conductor cross-section for auxiliary contacts 		1 10 mm²
• finely stranded with core end processing connectable conductor cross-section for auxiliary contacts 1 10 mm²		
connectable conductor cross-section for auxiliary contacts		
	connectable conductor cross-section for auxiliary	1 IV IIIIII
		0.5 2.5 mm²

 finely stranded with core end processing 	0.5 2.5 mm²
type of connectable conductor cross-sections	
 for 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)
at AWG cables for auxiliary contacts	2x (20 16), 2x (18 14)
AWG number as coded connectable conductor cross section	
 for main contacts 	16 8
 for auxiliary contacts 	20 14
Safety related data	
product function	
mirror contact according to IEC 60947-4-1	Yes
B10 value with high demand rate according to SN 31920	450 000
proportion of dangerous failures	
 with low demand rate according to SN 31920 	40 %
with high demand rate according to SN 31920	73 %
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
T1 value for proof test interval or service life according to IEC 61508	20 y
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
suitability for use	

Certificates/ approvals

General Product Approval

• safety-related switching on

• safety-related switching OFF





Confirmation



<u>KC</u>



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

Yes

Yes



Type Examination Certificate





Type Test Certificates/Test Report

Special Test Certificate

Marine / Shipping













other

Confirmation



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=3RT2028-1AU60

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2028-1AU60

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2028-1AU60

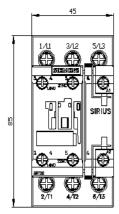
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

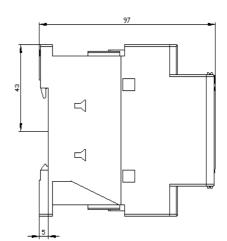
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2028-1AU60&lang=en

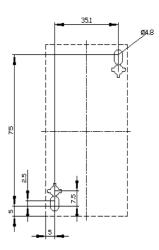
Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT2028-1AU60/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2028-1AU60&objecttype=14&gridview=view1







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