SIEMENS

Data sheet 3RT2038-1AK60



power contactor, AC-3e/AC-3, 80 A, 37 kW / 400 V, 3-pole, 110 V AC, 50 Hz / 120 V, 60 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S2
product extension	
 function module for communication 	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	17.1 W
 at AC in hot operating state per pole 	5.7 W
 without load current share typical 	18.5 W
insulation voltage	
 of main circuit with degree of pollution 3 rated value 	690 V
 of auxiliary circuit with degree of pollution 3 rated value 	690 V
surge voltage resistance	
 of main circuit rated value 	6 kV
 of auxiliary circuit rated value 	6 kV
maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at AC	11.8g / 5 ms, 7.4g / 10 ms
shock resistance with sine pulse	
• at AC	18.5g / 5 ms, 11.6g / 10 ms
mechanical service life (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)	10/01/2014
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
 during operation 	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 $^{\circ}\text{C}$ according to IEC 60068-2-30 maximum	95 %
Main circuit	

number of noise for main current circuit	2
number of poles for main current circuit number of NO contacts for main contacts	3
operating voltage	3
at AC-3 rated value maximum	690 V
at AC-3 rated value maximum	690 V
operational current	000 V
at AC-1 at 400 V at ambient temperature 40 °C rated value	90 A
• at AC-1	
 up to 690 V at ambient temperature 40 °C rated value 	90 A
 up to 690 V at ambient temperature 60 °C rated value at AC-3 	80 A
— at 400 V rated value	80 A
— at 500 V rated value	80 A
— at 690 V rated value	58 A
• at AC-3e	
— at 400 V rated value	80 A
— at 500 V rated value	80 A
— at 690 V rated value	58 A
• at AC-4 at 400 V rated value	55 A
• at AC-5a up to 690 V rated value	79.2 A
 at AC-5b up to 400 V rated value 	66.4 A
at AC-6a— up to 230 V for current peak value n=20 rated	70 A
value — up to 400 V for current peak value n=20 rated	70 A
value — up to 500 V for current peak value n=20 rated value	70 A
— up to 690 V for current peak value n=20 rated value	58 A
 at AC-6a up to 230 V for current peak value n=30 rated value 	46.7 A
up to 400 V for current peak value n=30 rated value	46.7 A
 up to 500 V for current peak value n=30 rated value 	46.7 A
— up to 690 V for current peak value n=30 rated value	46.7 A
minimum cross-section in main circuit at maximum AC-1 rated value operational current for approx. 200000 operating	35 mm ²
cycles at AC-4	
at 400 V rated value	30 A
• at 690 V rated value	24 A
operational current	
at 1 current path at DC-1	
— at 24 V rated value	55 A
— at 60 V rated value	23 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A 0.25 A
— at 600 V rated value	0.23 A
with 2 current paths in series at DC-1 — at 24 V rated value	55 A
— at 24 v rated value — at 60 V rated value	45 A
— at 110 V rated value	45 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
 with 3 current paths in series at DC-1 	
— at 24 V rated value	55 A
— at 60 V rated value	55 A

— at 110 V rated value	55 A
— at 110 V rated value — at 220 V rated value	45 A
— at 440 V rated value	2.9 A
— at 600 V rated value	1.4 A
• at 1 current path at DC-3 at DC-5	LTA
— at 24 V rated value	35 A
— at 60 V rated value	6 A
— at 220 V rated value	1 A
— at 440 V rated value	0.1 A
— at 600 V rated value	0.06 A
with 2 current paths in series at DC-3 at DC-5	0.00 A
— at 24 V rated value	55 A
— at 60 V rated value	45 A
— at 110 V rated value	25 A
— at 220 V rated value	5 A
— at 440 V rated value	0.27 A
— at 600 V rated value	0.16 A
with 3 current paths in series at DC-3 at DC-5	0.10 A
— at 24 V rated value	55 A
— at 60 V rated value	55 A
— at 110 V rated value	55 A
— at 220 V rated value	25 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.35 A
operating power	
at AC-2 at 400 V rated value	37 kW
• at AC-3	OT RVV
— at 230 V rated value	22 kW
— at 400 V rated value	37 kW
— at 500 V rated value	37 kW
— at 690 V rated value	45 kW
• at AC-3e	TO NVV
— at 230 V rated value	22 kW
— at 400 V rated value	37 kW
— at 500 V rated value	37 kW
— at 690 V rated value	45 kW
operating power for approx. 200000 operating cycles	TO NVV
at AC-4	
at 400 V rated value	15.8 kW
at 690 V rated value	21.8 kW
operating apparent power at AC-6a	
 up to 230 V for current peak value n=20 rated value 	27.8 kVA
 up to 400 V for current peak value n=20 rated value 	48.4 kVA
 up to 500 V for current peak value n=20 rated value 	60.6 kVA
• up to 690 V for current peak value n=20 rated value	69.3 kVA
operating apparent power at AC-6a	
 up to 230 V for current peak value n=30 rated value 	18.6 kVA
• up to 400 V for current peak value n=30 rated value	32.3 kVA
 up to 500 V for current peak value n=30 rated value 	40.4 kVA
 up to 690 V for current peak value n=30 rated value 	55.8 kVA
short-time withstand current in cold operating state up to 40 °C	
 limited to 1 s switching at zero current maximum 	1 298 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	898 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	640 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	414 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 60 s switching at zero current maximum 	333 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	700 1/h
• at AC-2 maximum	350 1/h
• at AC-3 maximum	500 1/h
• at AC-3e maximum	500 1/h

• at AC-4 maximum	150 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz rated value	110 V
at 60 Hz rated value	120 V
operating range factor control supply voltage rated	
value of magnet coil at AC	
● at 50 Hz	0.8 1.1
● at 60 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	
● at 50 Hz	212 VA
• at 60 Hz	188 VA
inductive power factor with closing power of the coil	0.00
• at 50 Hz	0.69
• at 60 Hz	0.65
apparent holding power of magnet coil at AC	18.5 VA
• at 60 Hz	16.5 VA
inductive power factor with the holding power of the	10.5 VA
coil	
● at 50 Hz	0.36
• at 60 Hz	0.39
closing delay	
• at AC	10 80 ms
opening delay	
• at AC	10 18 ms
arcing time	10 20 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts	1
instantaneous contact	4
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	0.15 A
operational current at DC-13	10.4
 at 24 V rated value at 48 V rated value 	10 A 2 A
at 48 V rated value at 60 V rated value	2 A
at 10 V rated value at 110 V rated value	1 A
at 110 V rated value at 125 V rated value	0.9 A
at 123 V rated value 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	65 A
at 600 V rated value at 600 V rated value	62 A
yielded mechanical performance [hp]	·-·
• for single-phase AC motor	
— at 110/120 V rated value	5 hp

- at 200 V rated value 15 hp 15 hp 15 hp 16 r3 cybes AC motor 12 00208 V rated value 20 hp 25 hp 16 0000000000000000000000000000000000	10001/	451
		15 hp
at 220/230 Y rated value at 457600 Y rated value at 575600 Y rated value with type of coordination 1 required with type of assignment 2 required at 507560 (X50 XL) XL) XL	•	
at 460/480 V rated value at 575/00 V rated value at 575/00 V rated value at 575/00 V rated value contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link (or 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 with type of assignment 2 required with type of condination 1 required with type of condination 1 required with type of assignment 2 required (415 V. 30 kA) (95: 250 A (690 V. 100 kA), aM: 180 A (690 V. 100 kA), BS88: 125A (415 V. 80 kA) (95: 250 A (690 V. 100 kA), aM: 180 A (690 V. 100 kA), BS88: 125A (415 V. 80 kA) (95: 250 A (690 V. 100 kA), aM: 180 A (690 V. 100 kA), BS88: 125A (415 V. 80 kA) (4		·
— at 575/00 V related value contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link — with type of coordination 1 required — with type of assignment 2 required 4 for short-circuit protection of the auxiliary switch required * with style of assignment 2 required 4 for short-circuit protection of the auxiliary switch required * 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 mounting dimensions **mounting position * fastening method * sale-by-side mounting * swith side-by-side mounting * with side-by-side mounting * with side-by-side mounting * or switch side-b		·
contact rating of auxiliary contacts according to UL Asson / Peol Asson / Pe		·
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 - 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 main circuit state of the short required space of the sh		·
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 required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required Installation/mounting/dimensions mounting position ***C+180* rotation possible on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface served and sale-pon mounting onto 35 mm DIN rail according to DIN EN 60715 ***OFT5** formation possible on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface served and sale-pon mounting onto 35 mm DIN rail according to DIN EN 60715 ***OFT5** formation possible on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface: can be tilted forward and backward by +2.2.2* on vertical mounting surface: can be tilted forward and b		A600 / P600
For short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required 9G: 250 A (680 V. 100 kA), aM: 180 A (690 V. 100 kA), BS88: 220 A (415 V. 80 kA) 9G: 160 A (690 V. 100 kA), BS88: 125A (415 V. 80 kA) 9G: 160 A (690 V. 100 kA), BS88: 125A (415 V. 80 kA) 9G: 10 A (590 V. 1 kA) 9G: 10 A (590 V. 100 kA), BS88: 220 A (415 V. 80 kA) 9G: 10 A (590 V. 100 kA), BS88: 220 A (415 V. 80 kA) 9G: 10 A (590 V. 100 kA), BS88: 220 A (415 V. 80 kA) 9G: 10 A (415 V. 80 kA) 9G: 10 A (415 V. 80 kA) 9G: 10 A (590 V. 100 kA), BS88: 220 A (415 V. 80 kA) 9G: 10 A (4	Short-circuit protection	
- with type of coordination 1 required - with type of assignment 2 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 - side by-side mounting - side by-sid	design of the fuse link	
- with type of assignment 2 required • for short-circuit protection of the auxiliary switch • for short-circuit protection of the auxiliary contacts • for suxiliary and control circuit • for auxiliary and control circuit • for auxiliary and control circuit • for auxiliary contacts • finely stranded with core end processing connectable conductor cross-section for main contacts • for auxiliary contacts • for suxiliary contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • for auxiliary conta	 for short-circuit protection of the main circuit 	
- with type of assignment 2 required of or short-circuit protection of the auxiliary switch required installation/ mounting/ dimensions mounting position fastening method of assignment of sold-by-side mounting of side-by-side mounting of side-by-side mounting of with side-by-side mounting of this sid	 — with type of coordination 1 required 	
for short-circuit protection of the auxiliary switch required gG: 10 A (\$00 V, 1 kA)		
* for short-circuit protection of the auxiliary switch required required installation/ mounting/ dimensions **mounting position	— with type of assignment 2 required	
mounting position #/-180° rotation possible on vertical mounting surface; can be litted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 • side-by-side mounting	 for short-circuit protection of the auxiliary switch 	
### ### ##############################	required	
forward and backward by +f- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height victith 55 mm depth 130 mm required spacing • with side-by-side mounting — forwards 10 mm — downwards 10 mm — at the side 0 0 mm — of rorgounded parts — forwards 10 mm — at the side 6 6 mm — downwards 10 mm • for for inclusive for surface 10 mm • for formain current circuit 10 mm — at the side 6 mm — downwards 10 mm • for the side 6 mm — downwards 10 mm • for five parts — forwards 10 mm • for five parts — forwards 10 mm • for five parts — forwards 10 mm • for five parts — downwards 10 mm • for main current circuit 5 mm • for main current circuit 5 mm • for main current circuit 5 screw-type terminals 5 sc	Installation/ mounting/ dimensions	
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* side-by-side mounting height width 55 mm * with side-by-side mounting	fastening method	
height width dother with statement of the processing connectable conductor cross-section for auxiliary contacts • for auxiliary and active for auxiliary contacts • for iauxiliary contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-sections • for auxiliary contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-sections • for auxiliary contacts • solid or stranded • finely stranded with core end processing • sta AWG cables for auxiliary contacts • solid or stranded • finely stranded with core end processing • sta AWG cables for auxiliary contacts • solid or stranded • finely stranded with core end processing • sta AWG cables for auxiliary contacts • sta AWG number as coded conductor cross-sections • 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 • 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 • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • solid or stranded • fin	aida hu aida masuutis s	
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depth required spacing with side-by-side mounting — forwards — upwards — downwards — at the side — for grounded parts — forwards — upwards — the side — for grounded parts — forwards — upwards — upwards — upwards — the side — downwards — the side — downwards — the side — downwards — for live parts — forwards — upwards — forwards — upwards — the side — downwards — to mm — the side — downwards — to mm — the side — downwards — the side — downwards — the side —	•	
required spacing with side-by-side mounting		
with side-by-side mounting	•	130 111111
- forwards		
- upwards	, ,	10 mm
- downwards - at the side • for grounded parts - forwards - upwards - at the side - downwards - at the side - downwards - at the side - downwards • for live parts - forwards - upwards - upwards - upwards - downwards - upwards - downwards - upwards - downwards - downwards - at the side - downwards - at the side Connections/ Terminals type of electrical connection • 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 or stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • 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 • for auxiliary contacts • solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts • solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing at AWG auther for auxiliary contacts - solid or stranded - finely stranded with core end processing at AWG number as coded connectable conductor cross		
- at the side • for grounded parts - forwards - upwards - at the side - downwards • for live parts - forwards - upwards - for live parts - forwards - forwards - forwards - forwards - forwards - forwards - downwards - downwards - downwards - downwards - at the side - for main current circuit - for auxiliary and control circuit - for auxiliary and control circuit - for auxiliary contacts - solid or stranded - finely stranded with core end processing connectable conductor cross-section for auxiliary contacts - solid or stranded - finely stranded with core end processing - solid or stranded - f	•	
• for grounded parts — forwards — upwards — at the side — downwards • for live parts — forwards — upwards — 10 mm • for live parts — forwards — upwards — upwards — upwards — upwards — 10 mm — of mm — upwards — of mm — of mm — upwards — of mm 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 or stranded • finely stranded with core end processing connectable conductor cross-section for main contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing at AWG ables for auxiliary contacts AWG number as coded connectable conductor cross		
- forwards		V IIIIII
- upwards - at the side - downwards 10 mm • for live parts - forwards - upwards - upwards - downwards 10 mm - downwards 10 mm - downwards - upwards - downwards - at the side - domnections/ Terminals type of electrical connection • for auxiliary and control circuit • at contactor for auxiliary contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-section for main contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • 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 • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross	•	10 mm
- at the side - downwards • for live parts - forwards - upwards - 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 • finely stranded with core end processing connectable conductor cross-sections • finely stranded with core end processing type of connectable conductor cross-sections • finely stranded with core end processing type of connectable conductor cross-sections • finely stranded with core end processing type of connectable conductor cross-sections • finely stranded with core end processing type of connectable conductor cross-sections • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross 1 0 mm 10 mm 10 ma		
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- 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 or stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • 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 • for auxiliary contacts - solid or stranded - finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing • at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross		
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- downwards - at the side Connections/ Terminals type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections for main contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-section for main contacts • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-sections • for auxiliary contacts - solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 1.5 m²), 2x (1 14)	·	10 mm
Connections/ Terminals type of electrical connection	— upwards	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 or stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-section for main contacts • solid or stranded • 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 • for auxiliary contacts - solid or stranded - finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing type of connectable conductor cross-sections • 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 - 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 c	— downwards	10 mm
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type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections for main contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-section for main contacts • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • 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 • for auxiliary contacts • solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing at AWG cables for auxiliary contacts • at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross	Connections/ Terminals	
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ontacts • 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 • for auxiliary contacts — solid or stranded — solid or stranded — finely stranded with core end processing • at AWG cables for auxiliary contacts AWG number as coded connectable conductor cross • finely stranded with core end processing • at AWG number as coded connectable conductor cross		2A (1 23 IIIIII), 1A (1 33 IIIIII)
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AWG number as coded connectable conductor cross		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
		2x (20 16), 2x (18 14)
section		
	Section	

for main contactsfor auxiliary contacts18 ... 120 ... 14

Safety related data

product function

mirror contact according to IEC 60947-4-1

 positively driven operation according to IEC 60947-5-1

B10 value with high demand rate according to SN 31920 proportion of dangerous failures

• with low demand rate according to SN 31920

• with high demand rate according to SN 31920 73 %

failure rate [FIT] with low demand rate according to SN 31920

T1 value for proof test interval or service life according to IEC 61508

protection class IP on the front according to IEC 60529

touch protection on the front according to IEC 60529 suitability for use

safety-related switching OFF

Yes

No

1 000 000

40 %

100 FIT

100 FI

20 a

IP20

finger-safe, for vertical contact from the front

Yes

Certificates/ approvals

General Product Approval





Confirmation



<u>KC</u>



Functional Safety/Safety of Machinery

Declaration of Conformity

Test Certificates



Type Examination Certificate





Special Test Certificate Type Test Certificates/Test Report

Marine / Shipping













Marine / Shipping

other

Railway

Dangerous Good

Environment



Confirmation

Confirmation

Vibration and Shock

Transport Information

Environmental Confirmations

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RT2038-1AK60

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2038-1AK60

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-1AK60

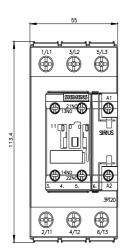
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2038-1AK60&lang=en

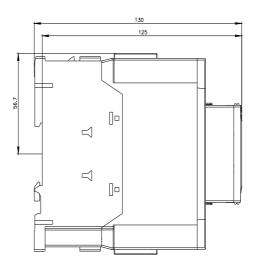
Characteristic: Tripping characteristics, I²t, Let-through current

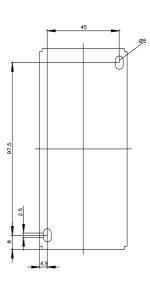
https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-1AK60/char

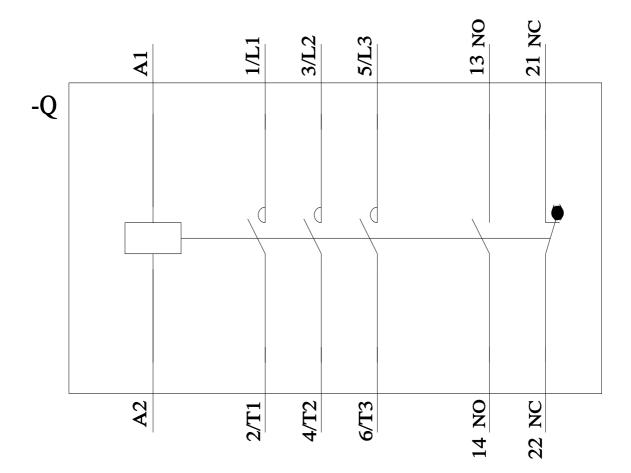
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2038-1AK60&objecttype=14&gridview=view1









last modified: 2/10/2023 🖸