# **SIEMENS**

Data sheet 3RT2017-1AP61



Power contactor, AC-3 12 A, 5.5 kW / 400 V 1 NO, 220 V AC, 50 Hz, 240 V 60 Hz, 3-pole, Size S00 screw terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S00
product extension	
<ul> <li>function module for communication</li> </ul>	No
auxiliary switch	Yes
power loss [W] for rated value of the current at AC in hot operating state	3.6 W
• per pole	1.2 W
power loss [W] for rated value of the current without load current share typical	5.9 W
surge voltage resistance	
<ul> <li>of main circuit rated value</li> </ul>	6 kV
of auxiliary circuit rated value	6 kV
maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1	400 V
shock resistance at rectangular impulse	
at AC	7,3g / 5 ms, 4,7g / 10 ms
shock resistance with sine pulse	
• at AC	11,4g / 5 ms, 7,3g / 10 ms
mechanical service life (switching cycles)	
<ul> <li>of contactor typical</li> </ul>	30 000 000
<ul> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> </ul>	5 000 000
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000
reference code acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	01.10.2009 00:00:00
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature during operation	-25 +60 °C
ambient temperature during storage	-55 +80 °C
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

operational current	
<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C</li> </ul>	22 A
rated value	
• at AC-1	
<ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> </ul>	22 A
— up to 690 V at ambient temperature 60 °C	20 A
rated value	
• at AC-3	
— at 400 V rated value	12 A
— at 500 V rated value	9.2 A
— at 690 V rated value	6.7 A
<ul> <li>at AC-4 at 400 V rated value</li> </ul>	8.5 A
<ul><li>at AC-5a up to 690 V rated value</li></ul>	19.4 A
<ul><li>at AC-5b up to 400 V rated value</li></ul>	9.9 A
• at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	7.2 A
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	7.2 A
— up to 500 V for current peak value n=20 rated value	7.2 A
— up to 690 V for current peak value n=20 rated value	6.7 A
• at AC-6a	40.4
— up to 230 V for current peak value n=30 rated value	4.8 A
— up to 400 V for current peak value n=30 rated value	4.8 A
— up to 500 V for current peak value n=30 rated value	4.8 A
— up to 690 V for current peak value n=30 rated value	4.8 A
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm <sup>2</sup>
operational current for approx. 200000 operating cycles at AC-4	
<ul> <li>at 400 V rated value</li> </ul>	4.1 A
at 690 V rated value	3.3 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	20 A
— at 110 V rated value	2.1 A
— at 220 V rated value	0.8 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
<ul> <li>with 2 current paths in series at DC-1</li> <li>— at 24 V rated value</li> </ul>	20.4
	20 A
— at 110 V rated value	12 A 1.6 A
— at 220 V rated value	
— at 440 V rated value	0.8 A
— at 600 V rated value	0.7 A
<ul> <li>with 3 current paths in series at DC-1</li> <li>— at 24 V rated value</li> </ul>	20 A
— at 110 V rated value	20 A
— at 220 V rated value	20 A
— at 440 V rated value	1.3 A
— at 600 V rated value	1.3 A
operational current	17
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	20 A
at 27 v rated value	2071

— at 110 V rated value	0.1 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	20 A
— at 110 V rated value	0.35 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	20 A
— at 110 V rated value	20 A
— at 220 V rated value	1.5 A
— at 440 V rated value	0.2 A
— at 600 V rated value	0.2 A
operating power	
at AC-2 at 400 V rated value	5.5 kW
• at AC-3	
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	5.5 kW
operating power for approx. 200000 operating cycles	C.O RVV
at AC-4	
• at 400 V rated value	2 kW
• at 690 V rated value	2.5 kW
operating apparent power at AC-6a	
up to 230 V for current peak value n=20 rated value	2.8 kV·A
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	4.9 kV·A
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	6.2 kV·A
up to 690 V for current peak value n=20 rated value	8 kV·A
operating apparent power at AC-6a	
up to 230 V for current peak value n=30 rated value	1.9 kV·A
• up to 400 V for current peak value n=30 rated value	3.3 kV·A
• up to 500 V for current peak value n=30 rated value	4.1 kV·A
• up to 690 V for current peak value n=30 rated value	5.7 kV·A
short-time withstand current in cold operating state	C. N. T.
up to 40 °C	
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	200 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	123 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	96 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	74 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	61 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	10 000 1/h
operating frequency	
at AC-1 maximum	1 000 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	750 1/h
• at AC-4 maximum	250 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz rated value	220 V
at 60 Hz rated value	240 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	36 V·A
• at 60 Hz	36 V·A
inductive power factor with closing power of the coil	
• at 50 Hz	0.8
	***

• at 60 Hz	0.8
apparent holding power of magnet coil at AC	
● at 50 Hz	5.9 V·A
● at 60 Hz	5.9 V·A
inductive power factor with the holding power of the coil	
● at 50 Hz	0.24
• at 60 Hz	0.24
closing delay	
• at AC	8 33 ms
opening delay	
• at AC	4 15 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NO contacts for auxiliary contacts	1
instantaneous contact	'
operational current at AC-12 maximum	10 A
operational current at AC-15	
at 230 V rated value	10 A
at 400 V rated value	3 A
at 500 V rated value	2 A
at 690 V rated value	1 A
operational current at DC-12	
at 24 V rated value	10 A
at 48 V rated value	6 A
• at 60 V rated value	6 A
	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	
<ul> <li>at 24 V rated value</li> </ul>	10 A
<ul> <li>at 48 V rated value</li> </ul>	2 A
<ul> <li>at 60 V rated value</li> </ul>	2 A
<ul> <li>at 110 V rated value</li> </ul>	1 A
<ul> <li>at 125 V rated value</li> </ul>	0.9 A
<ul> <li>at 220 V rated value</li> </ul>	0.3 A
<ul> <li>at 600 V rated value</li> </ul>	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	11 A
at 600 V rated value	11 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	0.5 hp
— at 230 V rated value	2 hp
• for 3-phase AC motor	
— at 200/208 V rated value	3 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	7.5 hp
— at 575/600 V rated value	10 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
<ul> <li>for short-circuit protection of the main circuit</li> </ul>	
<ul> <li>— with type of coordination 1 required</li> </ul>	gG: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)

required muniting dimensions  mounting position	— with type of assignment 2 required	gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)
mounting position	<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	gG: 10 A (500 V, 1 kA)
forward and beckward by 4-7.225* on vertical mounting surface scale by-side mounting side-by-side mounting width depth 45 mm depth 46 mm depth 79 mm required spacing - forwards - upwards - downwards - at the side - downwards - downwards - torwards - to five parts - forwards - forwards - downwards - to mm - to	Installation/ mounting/ dimensions	
screw and snap-on mounting onto 35 mm standard mounting rail according to DN EN 60715  **side-by-side mounting**  **side-by-side mounting**  **side-by-side mounting**  **with side-by-side mounting**  **required spacing**  **with side-by-side mounting**  - forwards	mounting position	
Melight   Meli	fastening method	screw and snap-on mounting onto 35 mm standard mounting rail
Methode   As mm   As	<ul> <li>side-by-side mounting</li> </ul>	Yes
depth   required spacing   * with side-by-side mounting   - forwards   10 mm	height	58 mm
required spacing  • with side-by-side mounting  — forwards — upwards — downwards — at the side • for grounded parts — forwards — upwards — upwards — upwards — the side • for grounded parts — forwards — upwards — the side — downwards — the side — downwards • for live parts — forwards — upwards — forwards — upwards — forwards — forwards — upwards — forwards — upwards — forwards — upwards — for live parts — forwards — forwards — upwards — for live parts — forwards — upwards — for min corticus — for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit • for auxiliary and control circuit • for for auxiliary contacts • of magnet coll  type of connectable conductor cross-sections • for main cortacts — 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 or stranded • finely stranded with core end processing • for auxiliary contacts • 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 • 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 p	width	45 mm
• with side-by-side mounting	depth	73 mm
forwards	required spacing	
- upwards	<ul><li>with side-by-side mounting</li></ul>	
- downwards - at the side	— forwards	10 mm
• for grounded parts  - for grounded parts  - upwards  - upwards  - at the side  - downwards  - for live parts  - forwards  - for live parts  - forwards  - upwards  - downwards  - at the side  Connections Terminals   type of electrical connection  • for main current circuit  • at contactor for auxillary and control circuit  • at contactor for auxillary contacts  - solid  - solid or stranded  - finely stranded with core end processing  • at AWG cables for main contacts  • solid 0.5 4 mm²  • stranded  • finely stranded with core end processing  • forley stranded with core end processing  • forley stranded with core end processing  • solid 0.5 4 mm²  • solid 0.5 4 mm²  • solid 0.5 4 mm²  • solid or stranded  • finely stranded with core end processing  • forley stranded with core end processing  • solid 0.5 4 mm²  • solid or stranded  • finely stranded with core end processing  • for auxillary contacts  • solid 0.5 4 mm²  • finely stranded with core end processing  • type of connectable conductor cross-sections  • for auxillary contacts  - solid or stranded  - finely stranded with core end processing  • at AWG cables for auxillary contacts  - AWG number as coded connectable conductor cross section for auxillary contacts  • AWG number as coded connectable conductor cross section for auxillary contacts  • AWG number as coded connectable conductor cross section for auxillary contacts	— upwards	10 mm
• for grounded parts  - forwards - forwards - at the side - downwards - of live parts - forwards - for main current circuit - for auxiliary and control circuit - for main current circuit - for auxiliary and control circuit - for main contacts - solid - solid or stranded - finely stranded with core end processing - stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - 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 - at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing - at AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing - at AWG number as coded connectable conductor cross-section for auxiliary contacts - solid or stranded - finely stranded with core end processing - at AWG number as coded connectable conductor cross-section for auxiliary contacts - solid or stranded - finely stranded with core e	— downwards	10 mm
	— at the side	0 mm
upwards	for grounded parts	
- at the side — downwards — 10 mm — 10	— forwards	10 mm
- downwards - for live parts - forwards - upwards - upwards - downwards - downwards - at the side - at contactors/ Terminals  type of electrical connection - for main current circuit - at contactor for auxiliary contacts - at contactor for auxiliary contacts - at contactor for auxiliary contacts - solid - solid - solid or stranded - finely stranded with core end processing - at AWG cables for main contacts - solid - solid - 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 - 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 or onectable conductor cross-section for auxiliary contacts - solid or stranded - finely stranded or onectable conductor cross-section for auxiliary contacts - solid or stranded - finely stranded or onectable conductor cross-section for main contacts - solid or stran	— upwards	10 mm
• for live parts  — forwards — upwards — downwards — at the side  Connections/ Terminals  type of electrical connection • for main current circuit • at contactor for auxiliary and control circuit • of main contacts — solid — solid or stranded — finely stranded with core end processing • solid ostranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • 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 section for main contacts • AWG number as coded connectable conductor cross section for main contacts • AWG number as coded connectable conductor cross section for main contacts • AWG number as coded connectable conductor cross section for main contacts • AWG number as coded connectable conductor cross section for main contacts • AWG number as coded connectable conductor cross section for main locaticals • AWG number as coded connectable conductor cross section for main locaticals • AWG number as coded connectable conductor cross section for main locaticals • AWG number as coded connectable conductor cross section for mainliary contacts	— at the side	6 mm
fowards upwards downwards downwards at the side downwards at the side at consections for main current circuit at contactor for auxiliary and control circuit at contactor for auxiliary contacts a colid solid solid solid solid solid or stranded finely stranded with core end processing at AWG cables for main contacts solid so	— downwards	10 mm
- upwards - downwards - dithe 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 • 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 • at AWG cables for auxiliary contacts  • AWG number as coded connectable conductor cross section for main contacts • AWG number as coded connectable conductor cross section for main contacts • AWG number as coded connectable conductor cross section for main contacts • AWG number as coded connectable conductor cross section for main contacts • AWG number as coded connectable conductor cross section for main contacts • AWG number as coded connectable conductor cross section for auxiliary contacts	for live parts	
- downwards - at the side  Connections/ Terminals  type of electrical connection  • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil  type of connectable conductor cross-sections • for main contacts  - solid - solid or stranded - finely stranded with core end processing • 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 • for auxiliary contacts  • solid or stranded • finely stranded with core end processing • for auxiliary contacts  • solid or stranded • finely stranded with core end processing • for auxiliary contacts  • solid or stranded - finely stranded with core end processing • type of connectable conductor cross-sections • for auxiliary contacts  • AWG number as coded connectable conductor cross section for main contacts  • AWG number as coded connectable conductor cross section for main contacts  • AWG number as coded connectable conductor cross section for main contacts  • AWG number as coded connectable conductor cross section for main contacts  • AWG number as coded connectable conductor cross section for main contacts  • AWG number as coded connectable conductor cross section for main contacts  • AWG number as coded connectable conductor cross section for main contacts  • AWG number as coded connectable conductor cross section for main contacts  • AWG number as coded connectable conductor cross section for main contacts  • AWG number as coded connectable conductor cross section for auxiliary contacts	— forwards	10 mm
- 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 • finely stranded with core end processing • 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 • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • for auxiliary contacts  • solid or stranded - finely stranded with core end processing • for auxiliary contacts  • solid or stranded - finely stranded with core end processing • at AWG cables 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 section for main contacts  • AWG number as coded connectable conductor cross section for main contacts  • AWG number as coded connectable conductor cross section for main contacts • AWG number as coded connectable conductor cross section for main contacts • AWG number as coded connectable conductor cross section for main contacts • AWG number as coded connectable conductor cross section for main contacts • AWG number as coded connectable conductor cross section for main contacts • AWG number as coded connectable conductor cross section for main contacts • AWG number as coded connectable conductor cross section for auxiliary contacts	— upwards	10 mm
type of electrical connection	·	10 mm
type of electrical connection	— at the side	6 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 • 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 • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • 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 section for main contacts • AWG number as coded connectable conductor cross section for auxiliary contacts • AWG number as coded connectable conductor cross section for auxiliary contacts • AWG number as coded connectable conductor cross section for auxiliary contacts		
• 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 • 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 • 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 • AWG cables for auxiliary contacts • solid or stranded • stranded • stranded or stran		
<ul> <li>• for auxiliary and control circuit</li> <li>• at contactor for auxiliary contacts</li> <li>• of magnet coil</li> <li>type of connectable conductor cross-sections</li> <li>• for main contacts</li> <li>— solid</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>• stranded</li> <li>• solid</li> <li>— solid or stranded (2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²</li> <li>2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²</li> <li>2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²</li> <li>2x (0.5 1.5 mm²), 2x (18 14), 2x 12</li> </ul> connectable conductor cross-section for main contacts <ul> <li>• solid</li> <li>• stranded</li> <li>• finely stranded with core end processing</li> <li>connectable conductor cross-section for auxiliary contacts</li> <li>• solid or stranded</li> <li>• finely stranded with core end processing</li> <li>type of connectable conductor cross-sections</li> <li>• finely stranded with core end processing</li> <li>type of connectable conductor cross-sections</li> <li>• for auxiliary contacts</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>• at AWG cables for auxiliary contacts</li> <li>• at AWG cables for auxiliary contacts</li> <li>• AWG number as coded connectable conductor cross section for main contacts</li> <li>• AWG number as coded connectable conductor cross section for main contacts</li> <li>• AWG number as coded connectable conductor cross section for auxiliary contacts</li> </ul>		scraw type terminals
e at contactor for auxiliary contacts e of magnet coil  type of connectable conductor cross-sections e for main contacts  — solid — solid or stranded — finely stranded with core end processing e stranded e stranded e stranded e stranded e finely stranded with core end processing e stranded e finely stranded with core end processing e stranded e finely stranded with core end processing e solid e stranded e finely stranded with core end processing e solid e stranded e finely stranded with core end processing connectable conductor cross-section for auxiliary contacts  e solid or stranded e finely stranded with core end processing connectable conductor cross-section for auxiliary contacts  e solid or stranded e finely stranded with core end processing type of connectable conductor cross-sections e for auxiliary contacts — solid or stranded — finely stranded with core end processing e at AWG cables for auxiliary contacts  e AWG number as coded connectable conductor cross section for main in contacts  e AWG number as coded connectable conductor cross section for auxiliary contacts  e AWG number as coded connectable conductor cross section for auxiliary contacts  e AWG number as coded connectable conductor cross section for auxiliary contacts  e AWG number as coded connectable conductor cross section for auxiliary contacts  e AWG number as coded connectable conductor cross section for auxiliary contacts  e AWG number as coded connectable conductor cross section for auxiliary contacts  e AWG number as coded connectable conductor cross section for auxiliary contacts  e AWG number as coded connectable conductor cross section for auxiliary contacts  e AWG number as coded connectable conductor cross section for auxiliary contacts  e AWG number as coded connectable conductor cross section for auxiliary contacts		
• of magnet coil  type of connectable conductor cross-sections  • for main contacts  — solid — solid ostranded — 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 • for auxiliary contacts  • solid ostranded • finely stranded with core end processing • for auxiliary contacts  • solid or stranded • finely stranded with core end processing • for auxiliary contacts  • solid or stranded • finely stranded with core end processing • for auxiliary contacts  • solid or stranded • finely stranded with core end processing • for auxiliary contacts  • solid or stranded • finely stranded with core end processing • 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 section for main contacts • AWG number as coded connectable conductor cross section for auxiliary contacts  • AWG number as coded connectable conductor cross section for auxiliary 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 • finely stranded with core end processing  • at a main conductor cross-section for main contacts  • 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 • 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 • 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 section for main contacts  • AWG number as coded connectable conductor cross section for auxiliary contacts  • AWG number as coded connectable conductor cross section for auxiliary contacts  • AWG number as coded connectable conductor cross section for auxiliary contacts  • AWG number as coded connectable conductor cross section for auxiliary contacts		
<ul> <li>for main contacts — solid — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts • solid • solid — solid or stranded with core end processing • at AWG cables for main contacts • solid • solid • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • for auxiliary contacts — solid or stranded • finely stranded with core end processing • to auxiliary contacts — solid or stranded — solid or stranded • finely stranded with core end processing • to auxiliary contacts — solid or stranded — solid or stranded — solid or stranded • finely stranded with core end processing • to auxiliary contacts — solid or stranded — solid</li></ul>	0	Onew-type terminals
- solid - solid or stranded - solid or stranded with core end processing - at AWG cables for main contacts  • solid - solid - solid or stranded with core end processing - at AWG cables for main contacts  • solid - stranded - stranded - stranded - stranded - stranded - solid or strander - solid or strander - solid or stra	21	
- 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 • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • for auxiliary contacts  • solid or stranded • finely stranded with core end processing • for auxiliary contacts  • solid or stranded - finely stranded with core end processing • for auxiliary contacts  • solid or stranded - finely stranded with core end processing • 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 section for main contacts • AWG number as coded connectable conductor cross section for auxiliary contacts • AWG number as coded connectable conductor cross section for auxiliary contacts • AWG number as coded connectable conductor cross section for auxiliary contacts • AWG number as coded connectable conductor cross section for auxiliary contacts • AWG number as coded connectable conductor cross section for auxiliary contacts • AWG number as coded connectable conductor cross section for auxiliary contacts		2v (0.5
<ul> <li>finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> <li>2x (20 15 mm²), 2x (0.75 2.5 mm²)</li> <li>2x (20 16), 2x (18 14), 2x 12</li> </ul> connectable conductor cross-section for main contacts <ul> <li>solid</li> <li>stranded</li> <li>finely stranded with core end processing</li> <li>connectable conductor cross-section for auxiliary contacts</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>type of connectable conductor cross-sections</li> <li>for auxiliary contacts</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>type of connectable conductor cross-sections</li> <li>for auxiliary contacts</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>at AWG cables for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for main contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> </ul>		
<ul> <li>at AWG cables for main contacts</li> <li>connectable conductor cross-section for main contacts</li> <li>solid</li> <li>stranded</li> <li>finely stranded with core end processing</li> <li>solid o.5 4 mm²</li> <li>finely stranded with core end processing</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>10.5 4 mm²</li> <li>connectable conductor cross-section for auxiliary contacts</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>for auxiliary contacts</li> <li>solid or stranded</li> <li>for auxiliary contacts</li> <li>finely stranded with core end processing</li> <li>2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²</li> <li>2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)</li> <li>at AWG cables for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for main contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> </ul>		
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 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 section for main contacts • AWG number as coded connectable conductor cross section for auxiliary contacts • AWG number as coded connectable conductor cross section for auxiliary contacts • AWG number as coded connectable conductor cross section for auxiliary contacts • AWG number as coded connectable conductor cross section for auxiliary contacts • AWG number as coded connectable conductor cross section for auxiliary contacts	, ,	
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 • 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 section for main contacts • AWG number as coded connectable conductor cross section for auxiliary contacts • AWG number as coded connectable conductor cross section for auxiliary contacts • AWG number as coded connectable conductor cross section for auxiliary contacts • AWG number as coded connectable conductor cross section for auxiliary contacts • AWG number as coded connectable conductor cross section for auxiliary contacts		2X (20 16), 2X (18 14), 2X 12
<ul> <li>stranded</li> <li>finely stranded with core end processing</li> <li>connectable conductor cross-section for auxiliary contacts</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>for auxiliary contacts</li> <li>solid or stranded</li> <li>for auxiliary contacts</li> <li>solid or stranded</li> <li>for auxiliary contacts</li> <li>for auxiliary contacts</li> <li>finely stranded with core end processing</li> <li>finely stranded with core end processing</li> <li>at AWG cables for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for main contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> </ul>	contacts	
<ul> <li>finely stranded with core end processing</li> <li>connectable conductor cross-section for auxiliary contacts</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>for auxiliary contacts</li> <li>solid or stranded</li> <li>for auxiliary contacts</li> <li>finely stranded with core end processing</li> <li>for auxiliary contacts</li> <li>finely stranded with core end processing</li> <li>finely stranded with core end processing</li> <li>at AWG cables for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for main contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> </ul>		
connectable conductor cross-section for auxiliary contacts  • solid or stranded • finely stranded with core end processing • 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 section for main contacts  - AWG number as coded connectable conductor cross section for auxiliary contacts  - AWG number as coded connectable conductor cross section for auxiliary contacts  - AWG number as coded connectable conductor cross section for auxiliary contacts  - AWG number as coded connectable conductor cross section for auxiliary contacts  - AWG number as coded connectable conductor cross section for auxiliary contacts  - AWG number as coded connectable conductor cross section for auxiliary contacts		
<ul> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>type of connectable conductor cross-sections</li> <li>for auxiliary contacts</li> <li>solid or stranded</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded with core end processing</li> <li>at AWG cables for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for main contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>10.5 4 mm²</li> <li>2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²</li> <li>2x (20 15, 2x (18 14), 2x 12</li> <li>20 12</li> <li>20 12</li> </ul>		0.5 2.5 mm²
<ul> <li>finely stranded with core end processing</li> <li>type of connectable conductor cross-sections</li> <li>for auxiliary contacts         <ul> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>at AWG cables for auxiliary contacts</li> </ul> </li> <li>AWG number as coded connectable conductor cross section for main contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>10.5 2.5 mm² (0.75 2,5 mm²), 2x 4 mm² (2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)</li> <li>2x (20 16), 2x (18 14), 2x 12</li> </ul>		
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 section for main contacts  • AWG number as coded connectable conductor cross section for auxiliary contacts  • AWG number as coded connectable conductor cross section for auxiliary contacts  • AWG number as coded connectable conductor cross section for auxiliary contacts  • AWG number as coded connectable conductor cross section for auxiliary contacts	solid or stranded	0.5 4 mm²
<ul> <li>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 section for main contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contacts  AWG number as coded connectable conductor cross section for auxiliary contac</li></ul>	<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm <sup>2</sup>
<ul> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>• at AWG cables for auxiliary contacts</li> <li>• AWG number as coded connectable conductor cross section for main contacts</li> <li>• AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>• AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>• AWG number as coded connectable conductor cross section for auxiliary contacts</li> </ul>	type of connectable conductor cross-sections	
<ul> <li>finely stranded with core end processing</li> <li>at AWG cables for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for main contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> </ul>	<ul> <li>for auxiliary contacts</li> </ul>	
<ul> <li>at AWG cables for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section for main contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> <li>2x (20 16), 2x (18 14), 2x 12</li> <li>20 12</li> <li>20 12</li> </ul>	<ul><li>— solid or stranded</li></ul>	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
<ul> <li>AWG number as coded connectable conductor cross section for main contacts</li> <li>AWG number as coded connectable conductor cross section for auxiliary contacts</li> </ul> 20 12 20 12	<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
cross section for main contacts  ● AWG number as coded connectable conductor cross section for auxiliary contacts  20 12	<ul> <li>at AWG cables for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14), 2x 12
cross section for auxiliary contacts		20 12
Safaty related data		20 12
Safety related data	Safety related data	

B10 value with high demand rate acc. to SN 31920	1 000 000
proportion of dangerous failures	
<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	40 %
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	73 %
failure rate [FIT] with low demand rate acc. to SN 31920	100 FIT
product function	
<ul><li>mirror contact acc. to IEC 60947-4-1</li></ul>	Yes; with 3RH29
T1 value for proof test interval or service life acc. to IEC 61508	20 y
protection class IP on the front acc. to IEC 60529	IP20
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front
suitability for use safety-related switching OFF	Yes
Cartificates/approvals	

Certificates/ approvals

### **General Product Approval**















**Declaration of Conformity** 

#### **Test Certificates**

## Marine / Shipping

**Miscellaneous** 



Special Test Certificate Type Test
Certificates/Test
Report





Marine / Shipping



LRS









Confirmation

other

other



Confirmation

#### Further information

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=3RT2017-1AP61

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2017-1AP61

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2017-1AP61

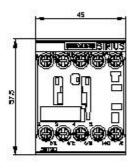
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax">http://www.automation.siemens.com/bilddb/cax</a> de.aspx?mlfb=3RT2017-1AP61&lang=en

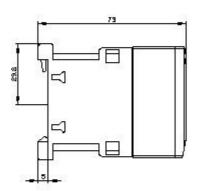
Characteristic: Tripping characteristics, I²t, Let-through current

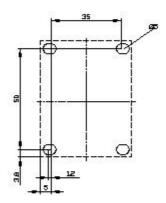
https://support.industry.siemens.com/cs/ww/en/ps/3RT2017-1AP61/char

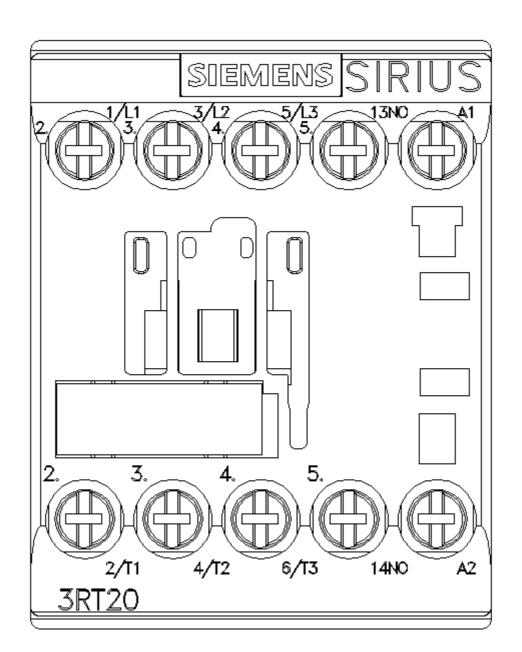
Further characteristics (e.g. electrical endurance, switching frequency)

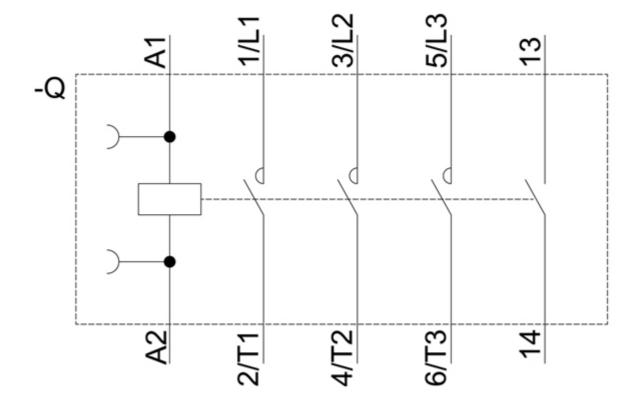
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2017-1AP61&objecttype=14&gridview=view1











last modified: 1/18/2021 ☑