SIEMENS

Data sheet

3RT2016-2AP61



power contactor, AC-3e/AC-3, 9 A, 4 kW / 400 V, 3-pole, 220 V AC, 50 Hz / 240 V, 60 Hz, auxiliary contacts: 1 NO, spring-loaded terminal, size: S00

product brand nameSIRIUSproduct designationPower contactorproduct type designation3RT2General technical dataS00size of contactorS00product extension-• function module for communicationNo• auxiliary switchYespower loss [W] for rated value of the current0.9 W• at AC in hot operating state per pole0.3 W• without load current share typical4.4 Winsulation voltage690 V
product type designation3RT2General technical dataS00size of contactorS00product extensionNo• function module for communicationNo• auxiliary switchYespower loss [W] for rated value of the current0.9 W• at AC in hot operating state0.9 W• at AC in hot operating state per pole0.3 W• without load current share typical4.4 W
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• at AC in hot operating state 0.9 W • at AC in hot operating state per pole 0.3 W • without load current share typical 4.4 W insulation voltage Image: Construction of the state st
at AC in hot operating state per pole 0.3 W without load current share typical 4.4 W insulation voltage
without load current share typical 4.4 W insulation voltage
insulation voltage
of main circuit with degree of pollution 3 rated value 690 V
of auxiliary circuit with degree of pollution 3 rated value 690 V
surge voltage resistance
of main circuit rated value 6 kV
of auxiliary circuit rated value 6 kV
maximum permissible voltage for protective separation between 400 V coil and main contacts according to EN 60947-1 400 V
shock resistance at rectangular impulse
• at AC 6,7g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse
• at AC 10,5g / 5 ms, 6,6g / 10 ms
mechanical service life (operating cycles)
of contactor typical 30 000 000
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 95 % maximum
Main circuit
number of poles for main current circuit 3

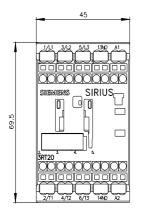
number of NO contacts for main contacts	3
operating voltage	
at AC-3 rated value maximum	690 V
 at AC-3e rated value maximum 	690 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated	22 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	22 A
— up to 690 V at ambient temperature 60 °C rated	20 A
value	
● at AC-3	
— at 400 V rated value	9 A
— at 500 V rated value	7.7 A
— at 690 V rated value	6.7 A
• at AC-3e	
— at 400 V rated value	9 A
— at 500 V rated value	7.7 A
— at 690 V rated value	6.7 A
at AC-4 at 400 V rated value	8.5 A
at AC-5a up to 690 V rated value	19.4 A
• at AC-5b up to 400 V rated value	7.4 A
• at AC-6a	5.2.4
— up to 230 V for current peak value n=20 rated value	5.3 A
 — up to 400 V for current peak value n=20 rated value — up to 500 V for current peak value n=20 rated value 	5.3 A 5.3 A
— up to 500 V for current peak value n=20 rated value	5.5 A
• at AC-6a	54
 up to 230 V for current peak value n=30 rated value 	3.5 A
— up to 200 V for current peak value n=30 rated value	3.5 A
— up to 500 V for current peak value n=30 rated value	3.6 A
— up to 690 V for current peak value n=30 rated value	3.3 A
minimum cross-section in main circuit at maximum AC-1 rated	4 mm ²
value	
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	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 60 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
 with 2 current paths in series at DC-1 	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	12 A
— at 220 V rated value	1.6 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.7 A
 with 3 current paths in series at DC-1 	
— at 24 V rated value	20 A
— at 60 V rated value	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 A
 at 1 current path at DC-3 at DC-5 	

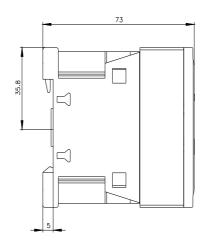
— at 24 V rated value	20 A			
— at 60 V rated value	0.5 A			
— at 110 V rated value	0.15 A			
 with 2 current paths in series at DC-3 at DC-5 				
— at 24 V rated value	20 A			
— at 60 V rated value	5 A			
— at 110 V rated value	0.35 A			
 with 3 current paths in series at DC-3 at DC-5 				
— at 24 V rated value	20 A			
— at 60 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	4 kW			
• at AC-3				
— at 230 V rated value	2.2 kW			
— at 400 V rated value	4 kW			
— at 500 V rated value	4 kW			
— at 690 V rated value	5.5 kW			
• at AC-3e				
at Ac-se — at 230 V rated value	2.2 kW			
— at 400 V rated value	4 kW			
— at 500 V rated value	4 kW			
— at 690 V rated value	5 kW			
operating power for approx. 200000 operating cycles at AC-	5 (1)			
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 kVA			
 up to 400 V for current peak value n=20 rated value 	3.6 kVA			
 up to 500 V for current peak value n=20 rated value 	4.6 kVA			
 up to 690 V for current peak value n=20 rated value 	5.9 kVA			
operating apparent power at AC-6a				
• up to 230 V for current peak value n=30 rated value	1.3 kVA			
 up to 400 V for current peak value n=30 rated value 	2.4 kVA			
 up to 500 V for current peak value n=30 rated value 	3.1 kVA			
 up to 690 V for current peak value n=30 rated value 	4 kVA			
short-time withstand current in cold operating state up to				
40 °C				
 limited to 1 s switching at zero current maximum 	155 A; Use minimum cross-section acc. to AC-1 rated value			
 limited to 5 s switching at zero current maximum 	111 A; Use minimum cross-section acc. to AC-1 rated value			
 limited to 10 s switching at zero current maximum 	86 A; Use minimum cross-section acc. to AC-1 rated value			
 limited to 30 s switching at zero current maximum 	66 A; Use minimum cross-section acc. to AC-1 rated value			
 limited to 60 s switching at zero current maximum 	55 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-3e maximum	750 1/h			
● at AC-4 maximum	250 1/h			
Control circuit/ Control				
type of voltage of the control supply voltage	AC			
control supply voltage at AC				
• at 50 Hz rated value	220 V			
at 60 Hz rated value	240 V			
operating range factor control supply voltage rated value of				
magnet coil at AC				

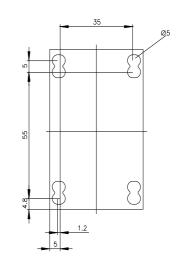
• at 50 Hz	0.8 1.1			
• at 60 Hz	0.8 1.1			
apparent pick-up power of magnet coil at AC				
• at 50 Hz	26.4 VA			
• at 60 Hz	26.4 VA			
inductive power factor with closing power of the coil				
• at 50 Hz	0.81			
• at 60 Hz	0.81			
apparent holding power of magnet coil at AC				
• at 50 Hz	4.4 VA			
• at 60 Hz	4.4 VA			
inductive power factor with the holding power of the coil				
• at 50 Hz	0.24			
• at 60 Hz	0.24			
closing delay				
• at AC	9 35 ms			
opening delay				
• at AC	4 15 ms			
arcing time	10 15 ms			
control version of the switch operating mechanism	Standard A1 - A2			
uxiliary circuit				
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				
• 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)			
JL/CSA ratings				
full-load current (FLA) for 3-phase AC motor				
at 480 V rated value	7.6 A			
• at 600 V rated value	9 A			
yielded mechanical performance [hp]				
 for single-phase AC motor 				
— at 110/120 V rated value	0.33 hp			
— at 230 V rated value	1 hp			
• for 3-phase AC motor				
— at 200/208 V rated value	2 hp			
— at 200/208 V rated value — at 220/230 V rated value	2 hp 3 hp			
— at 220/230 V rated value	3 hp			
— at 220/230 V rated value — at 460/480 V rated value	3 hp 5 hp			

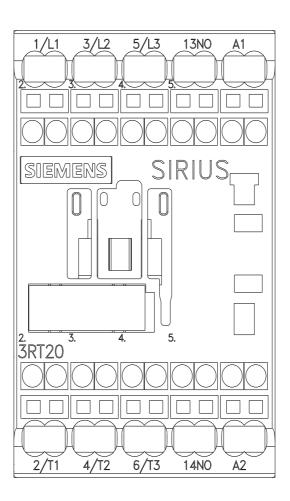
• of whit-choic is protection of the main circuit- with type of conduction of required05.054 (6007, 1004A), abl. 20A (6007, 1004A), BSBR. 30A (4157, 500A)• with type of conduction of the eacling white require05.00A (6007, 1004A), abl. 20A (6007, 1004A), BSBR. 30A (4157, 500A)• is derived conduction of the eacling white require05.00A (6007, 1004A), abl. 20A (6007, 1004A), BSBR. 30A (4157, 500A)• is derived conduction of the eacling white require05.00A (6007, 1004A), abl. 20A (6007, 1004A), BSBR. 30A (4157, 500A)• is derived conduction of the eacling white required is possible on whice innovating surface; can be Blied forward and beakersky by 22A* on whice innovating surface; can be Blied forward and beakersky by 22A* on whice innovating surface; can be Blied forward and to beakersky by 22A* on whice innovating surface; can be Blied forward and to beakersky by 22A* on whice innovating surface; can be Blied forward and to beakersky by 22A* on whice innovating surface; can be Blied forward and to beakersky by 22A* on whice innovating surface; can be Blied forward and to beakersky by 22A* on whice innovating surface; can be Blied forward and to beakersky by 22A* on whice innovating surface; can be Blied forward and to beakersky by 22A* on whice innovating surface; can be Blied forward and to beakersky by 22A* on whice innovating surface; can be Blied forward and to annovation cand be Blied forward and to ann	design of the fuse link	
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		aG: 354 (690)/ 100kA) aM· 204 (690)/ 100kA) RS88 354 (415)/ 80kA)
or tank-cranit protection of the auxiliary sortich required96:10.A (80.V.1 KA)tabilities manufing dimensions150° r (afticin peaktor in vertical monoling suffice, can be litted forward and independence on mounting onto 35 mm DNN rail according to DNN EN 60715 Yes* stable soft mountingYes• stable soft mounting70 mmwitch46 mmcontrol73 mmwitch70 mmvertice spacing73 mm• with side shyside mounting70 mm- or barded spacing10 mm- o		
http://www.communities.communit		• • • • • • • • • • • • •
membra position +100" rotation possitie on vertical mounting surface; can be tilled forward and become and manage surface; can be tilled forward and become and manage surface; can be tilled forward and become and manage surface; can be tilled forward and become and manage on mounting onto 25 mm DIN rail according to DIN EN 60715 store hyside mounting Yes height Yes width 45 mm doth 7 mm required spacing 7 mm - upwards 10 mm - dorwards 10 mm - dorwards 10 mm - dorwards 10 mm - dorwards 10 mm - upwards 10 mm - dorwards 10 mm		99. 10 A (500 V, 1 KA)
Index Dackward by <i>i</i> ,		+/-180° rotation possible on vertical mounting surface: can be tilted forward and
side-by-side mountingYesheight70 mmwidth45 mddepth71 mdrequired spacing71 md	mounting position	
heigh 70 mm width 45 mm doph 73 mm required spacing 73 mm required spacing 70 mm - upwards 10 mm - forwain current circuit spring-loaded terminals totatot circuit spring-loaded terminals totatotatot circuit	fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
width 45 mm depth 73 mm depth 73 mm events depending 73 mm - forwards 10 mm - dowwards 10 mm - upwards 10 mm - dowwards 10 mm - dowards 10 mm - dowards 10 mm - dow	 side-by-side mounting 	Yes
deph 78 m required spacing - - forwards 10 mm - upwards 10 mm - dowmards	height	70 mm
redured specing - • with side byside mounting - - forwards 10 mm - upwards 10 mm - downwards 0 mm - downwards 0 mm - downwards 10 mm - downwards 10 mm - upwards 0 mm - downwards 10 mm - at the side	width	45 mm
• with side-Syndia mounting - forwards 10 mm - forwards 10 mm - downwards 00 mm - downwards 00 mm - downwards 10 mm - downwards 10 mm - downwards 10 mm - upwards 10 mm - upwards 10 mm - downwards 10 mm - upwards 10 mm - downwards 10 mm - downwards 50 main - for uain 50 main - for uain 50 main - for uain 50 main	depth	73 mm
- forwards10 mm- upwards00 mm- dorwards00 mm- at the side00 mm- at the side00 mm- forwards10 mm- upwards00 mm- upwards00 mm- upwards00 mm- dorwards10 mm- dorwards50 mm- dorwards10 mm- dorwards50 mm- dorwards20 (054 mm ²)- solid20 (054 mm ²)- solid or standed054 mm ² - solid or standed054 mm ² - solid or standed with core end processing0525 mm ² - solid or standed with core end processing0525 mm ² - inely standed with core end processing0525 mm ² - inely standed with core end processing0525 mm ² - ine	required spacing	
- upwards10 mm- downwards0mm- downwards0mm- opwards0mm- upwards10 mm- upwards00 mm- upwards00 mm- upwards00 mm- upwards00 mm- downwards00 mm- downwards00 mm- downwards00 mm- downwards00 mm- upwards10 mm- upwards00 mm- upwards5mm- upwards5pm- upwards5pm- upwards5pm- the side5pm- upwards5pm- upwards2pm- upwards2pm- upwards2pm- upwards2pm- upwards2pm- upwards2pm- upwards2pm- upwards2pm- upwards2pm- upwards2pm <trr>- upwards2pm- upwa</trr>	 with side-by-side mounting 	
- downwards0 mm- at the side0 mm- for younds10 mm- forwards10 mm- upwards0 mm- downwards0 mm- downwards10 mm- downwards10 mm- downwards10 mm- forwards10 mm- downwards0 mm- upwards10 mm- downwards0 mm- downwards0 mm- downwards0 mm- downwards9 mm- downwards2 k (0.5 4 mm ² - solid cor standed0 S	— forwards	10 mm
at the side0 mm• for grounded parts10 mm upwards10 mm upwards0 mm at the side6 mm at the side0 mm dowmards10 mm dowmards10 mm dowmards10 mm dowmards0 mm upwards10 mm dowmards0 mm dowmards0 mm dowmards0 mm dowmards0 mm dowmards0 mm dowmards5 mm dowmards2 x (0.5 4 mm ²) of downards2 x (0.5 2.5 mm ²) of downards5 4 mm ² old of or stranded5 4 mm ² old or stranded5 2.5 mm ² old or stranded with core end processing5 2.5 mm ² onextable conductor cross-section for mailing contacts5 4 mm ² old or stranded with core end processing5 2.5 mm ² old or stranded with core end processing5 2.5 mm ² onextable conductor cross-sections5 2.5 mm ² finely stranded w	— upwards	10 mm
• for grounded parts0- forwards10 mm- upwards6 mm- downwards6 mm- downwards10 mm- downwards10 mm- upwards10 mm- upwards10 mm- upwards10 mm- upwards10 mm- downwards10 mm- downwards5 mm- downwards6 mm- downwards5 mm- downwards5 mm- downwards5 mm- downwards5 pring-tope terminals- downwards5 pring-tope terminals- downwards5 pring-tope terminals- for auxiliary and control circuitspring-tope terminals• for auxiliary and control circuit5 pring-tope terminals• for auxiliary and control circuit2 x (0.5 4 mm ²)• exild6 S 4 mm ² • exild0 S 4 mm ² • exild0 S 4 mm ² • for built core end processing2 x (0.5 4 mm ²)• exild0 S 4 mm ² • exild0 S 2 S mm ² • exild exitned with out core end processing0 S	— downwards	10 mm
- forwards 10 mm - upwards 6 mm - upwards 10 mm - downwards 10 mm - downwards 10 mm - forwards 10 mm - forwards 10 mm - upwards 10 mm - downwards 0 mm - downwards 0 mm - downwards 6 mm - downwards 6 mm - downwards 6 mm - downwards 5 ming-type terminals - of or axuillary contacts 5 x (0.5 4 mm ²) - solid 0 x 4 mm ² - solid 0 S 4 mm ² - solid o stranded 0 S 4 mm ² - solid o stranded 0 S 4 mm ² - indiv stranded witho cre end processing	— at the side	0 mm
	 for grounded parts 	
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- downwards10 mm• for vive parts00 mm- upwards10 mm- upwards00 mm- downwards6 mm- downwards6 mm• at the side6 mmconnections/Terminatsspring-loaded terminals• for main current circuitspring-loaded terminals• for auxiliary and control circuitspring-loaded terminals• for angent collSyring-type terminals• for subility stranded withcore end processing2x (0.5 4 mm ²)• for subility stranded without core end processing0.5 4 mm ² • for subility stranded without core end processing0.5 25 mm ²)• finely stranded without core end processing0.5 25 mm ² • finely stranded without core end processing0.5 25 mm ² • finely stranded without core end processing0.5 25 mm ² • finely stranded without core end processing0.5 25 mm ² • finely stranded without core end processing0.5 25 mm ² • finely stranded without core end processing0.5 25 mm ² • finely stranded without core end processing0.5 25 mm ² • finely stranded without core end processing0.5 25 mm ² • finely stranded without core end processing0.5 25 m	— upwards	10 mm
• for live parts- forwards10 mm- upwards10 mm- upwards0 mm- downwards0 mm- at the side6 mmconnections/ Terminalstype of electrical connection• for main current circuitsping-loaded terminals• for main current circuitsping-loaded terminals• at contactor for auxiliary oratactsSpring-type terminals• of magnet coll2x (0.5 4 mm²)• solid or stranded2x (0.5 4 mm²)• solid or stranded0.5 4 mm²• solid or stranded with core end processing2x (0.5 25 mm²)• finely stranded with core end processing0.5 25 mm²• finely stranded with core end processing0.5 25 mm² <td>— at the side</td> <td>6 mm</td>	— at the side	6 mm
- forwards10 mm- upwards10 mm- downwards00 mm- downwards6 mm- at the side6 mmconnections/ Terminalsspring-loaded terminalsconnections/ Terminalsspring-loaded terminalsof or and normer torcuitspring-loaded terminalsof or and normer torcuitSpring-loaded terminalsof angant collSpring-loaded terminals <td>— downwards</td> <td>10 mm</td>	— downwards	10 mm
upwards10 mm downwards10 mm at the side6 mmconnections / terminals- for main current circuitspring-loaded terminals- of magnet colSpring-type terminals- of nagnet colSpring-type terminals- solid2x (0.5 4 mm²)- solid2x (0.5 4 mm²)- solid0.5 4 mm²- solid or stranded0.5 4 mm²- solid or stranded with core end processing0.5 4 mm²- finely stranded with core end processing0.5 4 mm²- solid or stranded0.5 4 mm²- solid or stranded with core end processing0.5 2.5 mm²- inley stranded with core end processing2x (0.5 2.5 mm²- inley stranded with core end processing<	 for live parts 	
- downwards 10 mm - at the side 6 mm connections/Terminals 5 mm type of electrical connection spring-loaded terminals • for auxiliary and control circuit spring-loaded terminals • at contactor for auxiliary contacts Spring-type terminals • of magnet coll Spring-type terminals • solid 2x (0.5 4 mm²) • solid or stranded 2x (0.5 4 mm²) • solid or stranded 0.5 2.5 mm²) • solid 0.5 4 mm² • solid 0.5 4 mm² • solid or stranded 0.5 2.5 mm²) • solid 0.5 4 mm² • solid 0.5 4 mm² • solid 0.5 2.5 mm²) • solid 0.5 2.5 mm² • solid 0.5 2.5 mm² • solid with core end processing 0.5 2.5 mm² • solid or stranded 0.5 2.5 mm² • finely stranded with core end processing 0.5 2.5 mm² • finely stranded with core end processing 0.5 2.5 mm² • finely stranded with core end processing 0.5 2.5 mm² • for auxiliary contacts 0.5 2.5 mm² • for auxiliary contacts 0.5 2.5 mm² • for auxiliary contacts 2x (0.5 2.5 mm²	— forwards	10 mm
	— upwards	10 mm
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• for auxiliary and control circuitspring-loaded terminals• at contactor for auxiliary contactsSpring-type terminals• of magnet coilSpring-type terminalstype of connectable conductor cross-sections for main contacts2x (0.5 4 mm²)• solid2x (0.5 4 mm²)• solid or stranded2x (0.5 4 mm²)• finely stranded with core end processing2x (0.5 2.5 mm²)• connectable conductor cross-section for main contacts	type of electrical connection	
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• of magnet coil Spring-type terminals type of connectable conductor cross-sections for main contacts 2x (0.5 4 mm ³) • solid 2x (0.5 4 mm ³) • solid or stranded with core end processing 2x (0.5 2.5 mm ³) • finely stranded with core end processing 2x (0.5 2.5 mm ³) • solid 0.5 4 mm ³ • solid 0.5 4 mm ³ • solid 0.5 4 mm ³ • stranded with core end processing 0.5 4 mm ³ • finely stranded with core end processing 0.5 4 mm ³ • finely stranded with core end processing 0.5 2.5 mm ³ • finely stranded with core end processing 0.5 2.5 mm ³ • finely stranded with core end processing 0.5 2.5 mm ³ • finely stranded with core end processing 0.5 2.5 mm ³ • finely stranded with core end processing 0.5 2.5 mm ³ • finely stranded without core end processing 0.5 2.5 mm ³ • finely stranded with core end processing 0.5 2.5 mm ³ • finely stranded with core end processing 2x (0.5 4 mm ³) • finely stranded with core end processing 2x (0.5 4 mm ³) • finely stranded with core end processing <td< td=""><td> for auxiliary and control circuit </td><td>spring-loaded terminals</td></td<>	 for auxiliary and control circuit 	spring-loaded terminals
type of connectable conductor cross-sections for main contacts 2x (0.5 4 mm²) solid or stranded 2x (0.5 4 mm²) infinely stranded with core end processing 2x (0.5 2.5 mm²) connectable conductor cross-section for main contacts 5 2.5 mm²) solid 0.5 4 mm² otimely stranded with core end processing 0.5 4 mm² otimely stranded with core end processing 0.5 4 mm² otimely stranded with core end processing 0.5 4 mm² otimely stranded with core end processing 0.5 4 mm² otimely stranded with core end processing 0.5 2.5 mm² otimely stranded with core end processing 0.5 2.5 mm² otimely stranded with core end processing 0.5 2.5 mm² otimely stranded with core end processing 0.5 2.5 mm² of new stranded 0.5 2.5 mm² of on auxiliary contacts 0.5 2.5 mm² of or auxiliary contacts 0.5 4 mm²) of new stranded with core end processing 0.5 2.5 mm² of or auxiliary contacts 2x (0.5 2.5 mm²) of or auxiliary contacts 2x (0.5 2.5 mm²) of or auxiliary contacts 2x (0.5 2.5 mm²) <td< td=""><td> at contactor for auxiliary contacts </td><td>Spring-type terminals</td></td<>	 at contactor for auxiliary contacts 	Spring-type terminals
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finely stranded without core end processing type of connectable conductor cross-sections for auxiliary contacts - solid or stranded - solid or stranded - finely stranded with core end processing - finely stranded without core end processing	 finely stranded with core end processing 	
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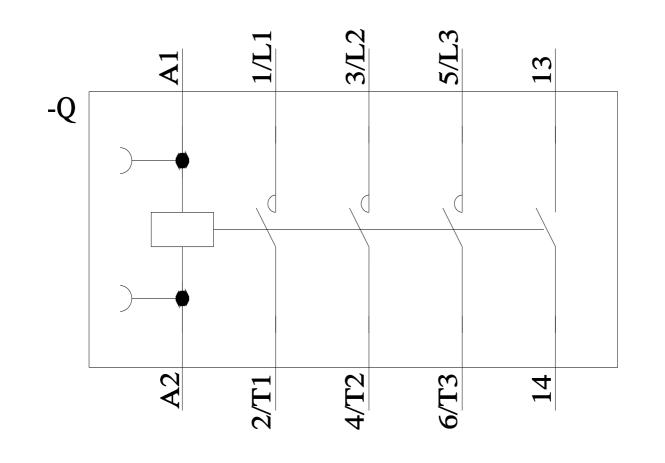
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