## **SIEMENS**

Data sheet 3RT2018-2UB42



power contactor, AC-3e/AC-3, 16 A, 7.5 kW / 400 V, 3-pole, 24 V DC, with integrated varistor, auxiliary contacts: 1 NC, spring-loaded terminal, size: S00  $\,$ 

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	
<ul> <li>at AC in hot operating state</li> </ul>	3 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	1 W
without load current share typical	4 W
type of calculation of power loss depending on pole	quadratic
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 V
of auxiliary circuit with degree of pollution 3 rated value	690 V
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 protective separation between coil and main contacts according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at DC	7.3g / 5 ms, 4.7g / 10 ms
shock resistance with sine pulse	
• at DC	11,4g / 5 ms, 7,3g / 10 ms
mechanical service life (operating cycles)	
of contactor typical	30 000 000
<ul> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> </ul>	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	
<ul><li>during operation</li></ul>	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
Environmental footprint	

Environmental Product Declaration(EPD)	Yes
Global Warming Potential [CO2 eq] total	153 kg
Global Warming Potential [CO2 eq] total  Global Warming Potential [CO2 eq] during manufacturing	1.42 kg
Global Warming Potential [CO2 eq] during operation	152 kg
Global Warming Potential [CO2 eq] after end of life	-0.305 kg
Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
at AC-3 rated value maximum	690 V
at AC-3e rated value maximum	690 V
operational current	
<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated value</li> </ul>	22 A
• 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 value	20 A
• at AC-3	
— at 400 V rated value	16 A
— at 500 V rated value	12.4 A
— at 690 V rated value • at AC-3e	8.9 A
at AC-3e  — at 400 V rated value	16 A
— at 500 V rated value  — at 500 V rated value	12.4 A
— at 690 V rated value	8.9 A
• at AC-4 at 400 V rated value	11.5 A
at AC-5a up to 690 V rated value	19.4 A
• at AC-5b up to 400 V rated value	13.2 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	9.6 A
— up to 400 V for current peak value n=20 rated value	9.6 A
— up to 500 V for current peak value n=20 rated value	9.6 A
— up to 690 V for current peak value n=20 rated value	8.9 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	6.6 A
— up to 400 V for current peak value n=30 rated value	6.4 A
— up to 500 V for current peak value n=30 rated value	6.4 A
— up to 690 V for current peak value n=30 rated value	6.4 A
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm²
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	5.5 A
at 690 V rated value	4.4 A
operational current	
at 1 current path at DC-1     at 24 V rated value.	20 Δ
— at 24 V rated value — at 60 V rated value	20 A 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	12 A 1.6 A
— at 220 V rated value — at 440 V rated value	
	1.6 A

— 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
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	20 A
— at 60 V rated value	0.5 A
— at 110 V rated value	0.15 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 60 V rated value	5 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 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	7.5 kW
• at AC-3	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	7.5 kW
• at AC-3e	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	7.5 kW
operating power for approx. 200000 operating cycles at AC-	
4	
• at 400 V rated value	2.5 kW
at 690 V rated value	3.5 kW
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	3.8 kVA
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	6.6 kVA
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	8.3 kVA
• up to 690 V for current peak value n=20 rated value	10.6 kVA
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	2.5 kVA
• up to 400 V for current peak value n=30 rated value	4.4 kVA
• up to 500 V for current peak value n=30 rated value	5.5 kVA
• up to 690 V for current peak value n=30 rated value	7.6 kVA
short-time withstand current in cold operating state up to 40 °C	
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	300 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 5 s switching at zero current maximum	169 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 10 s switching at zero current maximum	128 A; Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum	92 A; Use minimum cross-section acc. to AC-1 rated value
• limited to 60 s switching at zero current maximum	74 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at DC	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	DC
control supply voltage at DC rated value	
•	24 V
operating range factor control supply voltage rated value of	
magnet coil at DC	
• initial value	0.8
full-scale value	1.1
design of the surge suppressor	with varistor
closing power of magnet coil at DC	4 W
holding power of magnet coil at DC	4 W
closing delay	
• at DC	30 100 ms
opening delay	
• at DC	7 13 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous	1
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
<ul> <li>at 48 V rated value</li> </ul>	6 A
<ul> <li>at 60 V rated value</li> </ul>	6 A
<ul> <li>at 110 V rated value</li> </ul>	3 A
<ul> <li>at 125 V rated value</li> </ul>	2 A
<ul> <li>at 220 V rated value</li> </ul>	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
at 48 V rated value	2 A
<ul> <li>at 60 V rated value</li> </ul>	2 A
<ul> <li>at 110 V rated value</li> </ul>	1 A
• at 125 V rated value	0.9 A
• at 220 V rated value	0.3 A
• at 600 V rated value	0.1 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	14 A
• at 600 V rated value	11 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	1 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	5 hp
— at 460/480 V rated value	10 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	
for short-circuit protection of the main circuit	
p	

- with type of assignment 2 required 6: for short-claus protection of the auxiliary ewitch required 7: 26: 10 A (500 V, 1 EA.) abt. 20A (890V, 100AA). BSSB: 26A (415V,80AA) 90: 10 A (500 V, 1 EA.) 7: 168' retailor possible on vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting surface; can be titled forward and badawase by 4*2.25' no vertical mounting out 55 mm DIN 1sal according to DIN EN 80715  70 mm  70 mm  70 mm  90	— with type of coordination 1 required	gG: 50A (690V,100kA), aM: 25A (690V,100kA), BS88: 50A (415V,80kA)
For what-distult protection of the auxiliary switch required mentalization amounting of dimensions		
mounting position  fastering method  for method  fastering method		
mounting position   set-fillor recitation possible on vertical mounting surface: can be tilled forward and backward by #- 22.5° to mere till mounting surface: can be tilled forward and backward by #- 22.5° to mere till mounting surface: can be tilled forward and backward by #- 22.5° to mere till mounting surface: can be tilled forward and backward by #- 22.5° to mere till mounting surface: can be tilled forward and backward by #- 22.5° to mere till mounting surface: can be tilled forward surface; can be sufficient to the surface; can be surface; can		55. 1571 (555 4, 1164)
Meditable   Medi		
March   A5 mm   A5 m	fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
depth   73 mm   required pacing   * with side-by-side mounting   - forwards   10 mm   - forwards   10 mm   - downwards   10 mm   d	height	70 mm
Vivil side-by-side mounting	width	45 mm
• with side-by-side mounting     — forwards     — upwards     — downwards     — at the side     • for grounded parts     — forwards     — upwards     — upwards     — towards     — upwards     — towards     — downwards     — towards     — upwards     — downwards     — to file     — downwards     — downwards     — to file     — downwards     — to make the side     — downwards     — to make     — towards     — to make     — downwards     — to make     — to ma	depth	73 mm
forwards	required spacing	
upwards	<ul><li>with side-by-side mounting</li></ul>	
downwards at the side or man contacts solid or stranded parts flowards flowards flowards flowards flowards flowards downwards downwards flowards downwards downwards downwards downwards downwards downwards downwards flowards flow	— forwards	10 mm
• for grounded parts  - forwards  - upwards  - at the side  - downwards  - for live parts  - forwards  - upwards  - for live parts  - forwards  - upwards  - forwards  - upwards  - forwards  - upwards  - forwards  - upwards  - upwards  - downwards  - downwards  - downwards  - at the side  - forman  - upwards  - downwards  - at the side  - forman  - connectables  - for auxiliary contacts  - for auxiliary contact or for auxiliary contacts  - of magnet coil  - for auxiliary and control circuit  - solid or stranded  - finely stranded without core end processing  - finely stranded without ore end processing  - finely s	— upwards	10 mm
	— downwards	10 mm
forwards	— at the side	0 mm
- upwards	<ul> <li>for grounded parts</li> </ul>	
- at the side	— forwards	10 mm
• for live parts  • for live parts  — downwards — upwards — downwards — at the side  Connectable control circuit • for auxillary contacts • of main current circuit • for auxillary and control circuit • for auxillary contacts • of majer coil  • for main cortacts  • of majer coil — solid — solid or stranded • finely stranded without core end processing • for auxillary contacts  • solid or stranded • finely stranded without core end processing • for auxillary contacts  • solid or stranded • finely stranded without core end processing • finely stranded without core end processing • for auxillary contacts  • solid or stranded • finely stranded without core end processing • for auxillary contacts • solid or stranded • finely stranded without core end processing • for auxillary contacts • solid or stranded • finely stranded without core end processing • for auxillary contacts • solid or str	— upwards	10 mm
for live parts         forwards	— at the side	6 mm
forwards upwards upward	— downwards	10 mm
- upwards	• for live parts	
- downwards — at the side 6 mm  Connections/ Terminals  type of electrical connection  • for main current circuit spring-loaded terminals • at contactor for auxiliary contacts Spring-loaded terminals • of magnet coil spring-type terminals • for main contacts - solid Spring-type terminals  • for main contacts - solid 2x (0.5 4 mm²) - solid or stranded - finely stranded with core end processing 2x (0.5 2.5 mm²) - finely stranded with core end processing 2x (0.5 2.5 mm²) • for AWG cables for main contacts • solid • stranded • 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 • 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 • 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 • 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 • finely stranded with core end processing 0.5 2.5 mm² • for auxiliary contacts 0.5 2.5 mm² • for for py stranded with core end processing 0.5 2.5 mm² • for for py stranded with core end processing 0.5 2.5 mm² • for for py stranded with core end processing 0.5 2.5 mm² • for for py stranded with core end processing 0.5 2.5 mm² • for for py stranded without core end processing 0.5 2.5 mm² • for for py stranded without core end processing 0.5 2.5 mm² • for for py stranded without core end processing 0.5 2.5 mm² • for for py stranded without core end processing 0.5 2.5 mm² • for for py stranded without core end processing 0.5 2.5 mm²	— forwards	10 mm
Connectable conductor cross-section for main 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 - solid or stranded - finely stranded without core end processing • for faw Cables for main contacts • solid • stranded • finely stranded with core end processing • for ownstranded with core end processing • for ownstranded with core end processing • for ownstranded with core end processing • for auxiliary contacts  - solid or stranded  - finely stranded with core end processing • for AWG cables for auxiliary contacts • for auxiliary contacts • for main contacts • for for awiliary contacts • for for awiliary contacts • for or awiliary contacts • for or awiliary contacts • for or awiliary contacts • for for awiliary contacts • for or awiliary contacts • for for awiliary contacts • for or awiliary contact	— 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 — solid or stranded — finely stranded without core end processing • 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 • 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 without core end processing • for auxiliary contacts  — solid or stranded — finely stranded without core end processing • for auxiliary contacts  • for auxiliary contacts  2	— downwards	10 mm
type of electrical connection  • for main current circuit  • for auxiliary and control circuit  • at contactor for auxiliary contacts  • of magnet coil  type of connectable conductor cross-sections  • for main contacts  — solid  — solid or stranded — finely stranded with core end processing  • finely stranded without core end processing  • finely stranded with core end processing  • finely stranded with core end processing  • finely stranded without core end processing  • for auxiliary contacts  — solid or stranded  — finely stranded with core end processing  • for auxiliary contacts  • solid or stranded  — finely stranded without core end processing  • for auxiliary contacts  • for auxiliary contacts  • for auxiliary contacts  • for or auxiliary contacts  • for o	— at the side	6 mm
• for main current circuit     • for auxiliary and control circuit     • at contactor for auxiliary contacts     • of magnet coil     • for main current circuit     • at contactor for auxiliary contacts     • of magnet coil      **Spring-type terminals     **Spring-type terminals      **For main contacts     • solid     • solid or stranded     • solid or stranded with core end processing     • finely stranded without core end processing     • for AWG cables for main contacts      • solid     • solid     • solid or stranded without core end processing     • for awiliary contacts      • solid     • solid     • solid or stranded with core end processing     • finely stranded with core end processing     • for auxiliary contacts      • solid or stranded     • finely stranded with core end processing     • for auxiliary contacts      • for far will consider the conductor cross sections      • for auxiliary contacts      • for far will consider the conductor cross section      • for or auxiliary contacts      • for auxiliary contacts      • for auxiliary contacts      • for auxili	Connections/ Terminals	
of ra auxiliary and control circuit     at a contactor for auxiliary contacts     of magnet coil      type of connectable conductor cross-sections     of or main contacts         solid         solid	type of electrical connection	
at contactor for auxiliary contacts of magnet coil  type of connectable conductor cross-sections  for main contacts  - solid - solid of stranded - finely stranded without core end processing of for AWG cables for auxiliary contacts  - solid - solid of stranded - finely stranded without core end processing - for AWG cables for main contacts - solid - stranded - stranded - stranded - stranded - stranded with core end processing - solid or stranded without core end processing - solid or stranded without core end processing - solid or stranded - stranded without core end processing - solid or stranded with core end processing - solid or stranded - solid or s	for main current circuit	spring-loaded terminals
of magnet coil      type of connectable conductor cross-sections         • for main contacts             — solid             — solid	<ul> <li>for auxiliary and control circuit</li> </ul>	spring-loaded terminals
• for main contacts  - solid - solid or stranded - finely stranded with core end processing - finely stranded with core end processing - stranded - stran	<ul> <li>at contactor for auxiliary contacts</li> </ul>	Spring-type terminals
• for main contacts  solid solid solid solid solid solid or stranded finely stranded with core end processing finely stranded without core end processing finely stranded without core end processing for AWG cables for main contacts solid stranded stranded stranded stranded with core end processing finely stranded with core end processing solid stranded stranded stranded without core end processing solid or stranded without core end processing solid or stranded finely stranded with core end processing solid or stranded finely stranded without core end processing finely stranded with core end processing finely stranded without core end processing finely stranded	of magnet coil	Spring-type terminals
- solid - solid or stranded - solid or stranded - finely stranded with core end processing - finely stranded without core end processing - finely stranded without core end processing - 2x (0.5 2.5 mm²)  • for AWG cables for main contacts - 2x (20 12)  connectable conductor cross-section for main contacts  • solid - 0.5 4 mm²  • stranded - finely stranded with core end processing - 0.5 2.5 mm²  • finely stranded without core end processing - 0.5 2.5 mm²  connectable conductor cross-section for auxiliary contacts  • solid or stranded - 0.5 4 mm²  • finely stranded with core end processing - 0.5 2.5 mm²  connectable conductor cross-section for auxiliary contacts  • solid or stranded - 0.5 4 mm²  • finely stranded with core end processing - 0.5 2.5 mm²  type of connectable conductor cross-sections  • for auxiliary contacts  - solid or stranded - 2x (0.5 4 mm²)  - finely stranded with core end processing - 2x (0.5 2.5 mm²)  - finely stranded with core end processing - 2x (0.5 2.5 mm²)  • for AWG cables for auxiliary contacts - 2x (20 12)  AWG number as coded connectable conductor cross section  • for main contacts - 20 12  AWG number as coded connectable conductor cross section  • for main contacts - 20 12  Safety related data	type of connectable conductor cross-sections	
- solid or stranded - finely stranded with core end processing - finely stranded without core end processing - for AWG cables for main contacts - solid - stranded - finely stranded without core end processing - for AWG cables for main contacts - solid - stranded - stranded - finely stranded with core end processing - finely stranded with core end processing - finely stranded without core end processing - finely stranded with core end processing - finely stranded without core end processing - for auxiliary contacts - solid or stranded - finely stranded without core end processing - for auxiliary contacts - solid or stranded - finely stranded without core end processing - for auxiliary contacts - solid or stranded - finely stranded without core end processing - for auxiliary contacts - solid or stranded - finely stranded without core end processing - for auxiliary contacts - solid or stranded - finely stranded without core end processing - for auxiliary contacts - solid or stranded - finely stranded without core end processing - solid or stranded - finely stranded without core end processing - solid or stranded - finely stranded without core end processing - solid or stranded - finely stranded without core end processing - solid or stranded - finely stranded without core end processing - solid or stranded - finely stranded without core end processing - solid or stranded - finely stranded wi	• for main contacts	
finely stranded with core end processing finely stranded without core end processing finely stranded without core end processing for AWG cables for main contacts solid stranded stranded finely stranded with core end processing finely stranded with core end processing finely stranded without core end processing finely stranded without core end processing finely stranded without core end processing finely stranded with core end processing finely stranded without core end processing finely stranded without core end processing finely stranded without core end processing finely stranded with core end processing finely stranded with core end processing finely stranded with core end processing finely stranded without core e	— solid	2x (0.5 4 mm²)
- finely stranded without core end processing	— solid or stranded	2x (0,5 4 mm²)
• for AWG cables for main contacts  connectable conductor cross-section for main contacts  • solid  • stranded  • stranded  • finely stranded with core end processing  • finely stranded without core end processing  • solid or stranded  • finely stranded without core end processing  connectable conductor cross-section for auxiliary contacts  • solid or stranded  • finely stranded with core end processing  • finely stranded with core end processing  • finely stranded without core end processing  • finely stranded without core end processing  • for auxiliary contacts  — solid or stranded  — finely stranded with core end processing  • for auxiliary contacts  — solid or stranded  — finely stranded without core end processing  • for AWG cables for auxiliary contacts  • for AwG cables for auxiliary contacts  • for main contacts  • for main contacts  • for main contacts  • for auxiliary contacts	<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 2.5 mm²)
connectable conductor cross-section for main contacts  • solid  0.5 4 mm²  • stranded  • finely stranded with core end processing  • finely stranded without core end processing  • finely stranded without core end processing  connectable conductor cross-section for auxiliary contacts  • solid or stranded  • finely stranded with core end processing  • finely stranded without core end processing  • finely stranded without core end processing  • finely stranded without 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  - finely stranded with core end processing  - finely stranded without core end processing  - finely stranded without core end processing  • for AWG cables for auxiliary contacts  2x (0.5 2.5 mm²)  • for AWG cables for auxiliary contacts  2x (20 12)  AWG number as coded connectable conductor cross section  • for main contacts  • for main contacts  • for auxiliary contacts  20 12  Safety related data  product function	<ul> <li>finely stranded without core end processing</li> </ul>	2x (0.5 2.5 mm²)
<ul> <li>solid</li> <li>stranded</li> <li>0.5 4 mm²</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>finely stranded without 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>finely stranded without core end processing</li> <li>finely stranded without core end processing</li> <li>for auxiliary contacts</li> <li>for auxiliary contacts</li> <li>finely stranded with core end processing</li> <li>2x (0.5 4 mm²)</li> <li>finely stranded</li> <li>finely stranded with core end processing</li> <li>for auxiliary contacts</li> <li>finely stranded with core end processing</li> <li>2x (0.5 2.5 mm²)</li> <li>for AWG cables for auxiliary contacts</li> <li>for AWG cables for auxiliary contacts</li> <li>2x (20 12)</li> </ul> AWG number as coded connectable conductor cross section <ul> <li>for main contacts</li> <li>for main contacts</li> <li>for auxiliary contacts</li> <li>20 12</li> </ul> Safety related data product function	for AWG cables for main contacts	2x (20 12)
<ul> <li>stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>0.5 2.5 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>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>finely stranded without 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 4 mm²)</li> <li>finely stranded with core end processing</li> <li>finely stranded with core end processing</li> <li>for AWG cables for auxiliary contacts</li> <li>for AWG cables for auxiliary contacts</li> <li>2x (20 12)</li> </ul> AWG number as coded connectable conductor cross section <ul> <li>for main contacts</li> <li>for main contacts</li> <li>for auxiliary contacts</li> <li>20 12</li> </ul> Safety related data product function	connectable conductor cross-section for main contacts	
<ul> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>0.5 2.5 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>finely stranded without core end processing</li> <li>finely stranded without 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>finely stranded with core end processing</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>for AWG cables for auxiliary contacts</li> <li>for auxiliary contacts</li> <li>for auxiliary contacts</li> <li>for auxiliary contacts</li> <li>for auxiliary contacts</li> <li>20 12</li> <li>for auxiliary contacts</li> <li>20 12</li> </ul> Safety related data		
<ul> <li>finely stranded without 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>finely stranded without core end processing</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>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>finely stranded without core end processing</li> <li>for AWG cables for auxiliary contacts</li> <li>for AWG number as coded connectable conductor cross section</li> <li>for main contacts</li> <li>for auxiliary contacts</li> <li>20 12</li> <li>for auxiliary contacts</li> <li>20 12</li> </ul> Safety related data product function		
connectable conductor cross-section for auxiliary contacts  • solid or stranded • finely stranded with core end processing • finely stranded without core end processing  • finely stranded without core end processing  type of connectable conductor cross-sections • for auxiliary contacts  - solid or stranded - finely stranded with core end processing 2x (0,5 4 mm²)  - finely stranded without core end processing 2x (0,5 2.5 mm²)  - finely stranded without core end processing 2x (0.5 2.5 mm²)  • for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  20 12  Safety related data  product function	<ul> <li>finely stranded with core end processing</li> </ul>	
solid or stranded     inely stranded with core end processing     inely stranded without core end processing     inely stranded without core end processing      inely stranded conductor cross-sections     inely stranded     inely stranded     inely stranded     inely stranded     inely stranded with core end processing     inely stranded without c		0.5 2.5 mm²
<ul> <li>• finely stranded with core end processing</li> <li>• finely stranded without 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>— finely stranded without core end processing</li> <li>— finely stranded without core end processing</li> <li>— for AWG cables for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross section</li> <li>• for main contacts</li> <li>• for auxiliary contacts</li> <li>20 12</li> <li>Safety related data</li> <li>product function</li> </ul>		
• finely stranded without core end processing      type of connectable conductor cross-sections     • for auxiliary contacts         — solid or stranded         — finely stranded with core end processing         — finely stranded without core end processing         — finely stranded without core end processing         — for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     • for main contacts         • for auxiliary contacts  20 12  Safety related data  product function		
type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing 2x (0.5 2.5 mm²) — for AWG cables for auxiliary contacts 2x (20 12)  AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts 20 12  • for auxiliary contacts 20 12  Safety related data  product function		
<ul> <li>for auxiliary contacts         — solid or stranded         — finely stranded with core end processing         — finely stranded without core end processing         — finely stranded without core end processing         — for AWG cables for auxiliary contacts         — for auxiliary contacts         — for main contacts         — for main contacts         — for auxiliary contacts         — 20 12         — for auxiliary contacts         — solid or stranded         — 2x (0.5 2.5 mm²)         — 2x (20 12)         — 2x (20 12)         — for main contacts         — for auxiliary contacts         — 20 12         — safety related data         — product function</li> </ul>	·	0.5 2.5 mm²
- solid or stranded - finely stranded with core end processing - finely stranded without core end processing - finely stranded without core end processing - for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section - for main contacts - for auxiliary contacts  20 12  Safety related data  product function		
finely stranded with core end processing finely stranded without core end processing finely stranded without core end processing for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section for main contacts for auxiliary contacts  20 12 for auxiliary contacts  20 12  Safety related data  product function	•	
- finely stranded without core end processing  • for AWG cables for auxiliary contacts  2x (20 12)  AWG number as coded connectable conductor cross section  • for main contacts  • for auxiliary contacts  20 12  • for auxiliary contacts  20 12  Safety related data  product function		
for AWG cables for auxiliary contacts     2x (20 12)  AWG number as coded connectable conductor cross section     for main contacts     for auxiliary contacts     20 12     for auxiliary contacts     20 12  Safety related data  product function		
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  20 12  • for auxiliary contacts  20 12  Safety related data  product function		
section  • for main contacts • for auxiliary contacts  20 12  • for auxiliary contacts  20 12  Safety related data  product function	·	2x (20 12)
for main contacts     for auxiliary contacts     20 12  Safety related data  product function  20 12  20 12		
• for auxiliary contacts  20 12  Safety related data  product function		20 12
Safety related data product function		
product function	·	
Timior contact according to 1EO cootract 1	mirror contact according to IEC 60947-4-1	Yes

suitability for use safety-related switching OFF	Yes; applies only to contactor operating mechanism
proportion of dangerous failures	
<ul> <li>with low demand rate according to SN 31920</li> </ul>	40 %
<ul> <li>with high demand rate according to SN 31920</li> </ul>	73 %
B10 value with high demand rate according to SN 31920	1 000 000
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
IEC 61508	
T1 value	
<ul> <li>for proof test interval or service life according to IEC 61508</li> </ul>	20 a
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Approvals Certificates	

## **General Product Approval**









Confirmation



**General Product Approval** 

EMV

**Functional Saftey** 

**Test Certificates** 

**KC** 





Type Examination Certificate

Type Test Certificates/Test Report

**Special Test Certific**ate

## Marine / Shipping









**Miscellaneous** 

other

Confirmation

Railway

**Dangerous Good** 

**Environment** 

**Special Test Certific-**<u>ate</u>

**Transport Information** 



**Environmental Confirmations** 

## Further information

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=3RT2018-2UB42

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2018-2UB42

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-2UB4

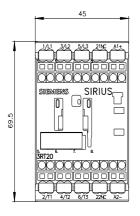
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

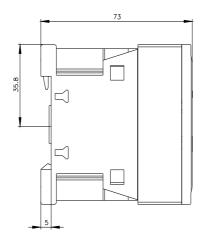
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2018-2UB42&lang=en

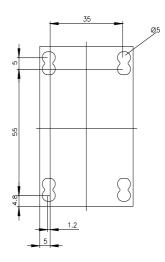
Characteristic: Tripping characteristics, I2t, Let-through current

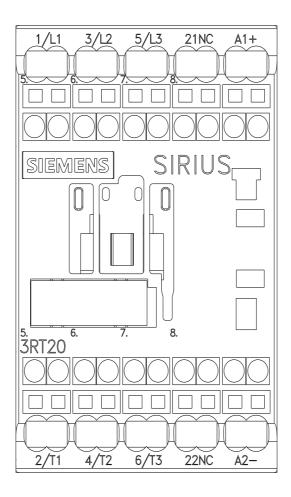
https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-2UB42/char

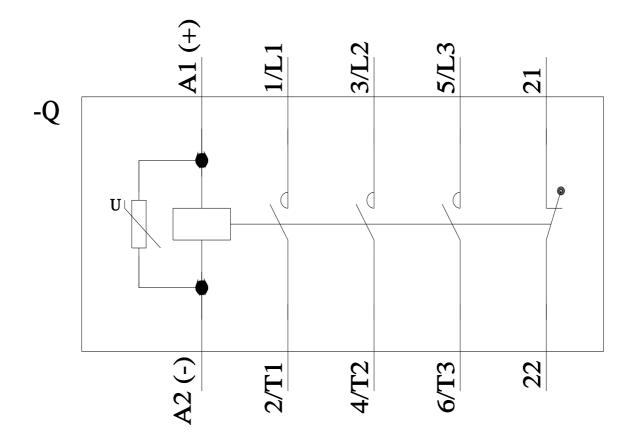
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2018-2UB42&objecttype=14&gridview=view1











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