## **SIEMENS**

Data sheet 3RT2018-2AN21



power contactor, AC-3e/AC-3, 16 A, 7.5 kW / 400 V, 3-pole, 220 V AC, 50/60 Hz, auxiliary contacts: 1 NO, 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	5.7 W
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 V
<ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul>	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 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 (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
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	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 %
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	22 A
value	00.4
<ul> <li>up to 690 V at ambient temperature 60 °C rated value</li> </ul>	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	8.9 A
• at AC-3e	0.571
— at 400 V rated value	16 A
— at 500 V rated value	12.4 A
— at 690 V rated value	8.9 A
at AC-4 at 400 V rated value     at AC-5 aug to 600 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	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	9.6 A
— up to 400 V for current peak value n=20 rated value	9.6 A
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	9.6 A
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	8.9 A
• at AC-6a	
<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	6.6 A
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	6.4 A
<ul><li>up to 500 V for current peak value n=30 rated value</li></ul>	6.4 A
<ul> <li>up to 690 V for current peak value n=30 rated value</li> </ul>	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 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 110 v rated value  — at 220 V rated value	1.6 A
	0.8 A
— at 440 V rated value	
— at 600 V rated value	0.7 A
with 3 current paths in series at DC-1  at 24 V sets d valve.	20.4
— 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	
<ul> <li>— at 110 V rated value</li> <li>■ with 2 current paths in series at DC-3 at DC-5</li> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>— at 110 V rated value</li> <li>— at 24 V rated value</li> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> <li>— at 230 V rated value</li> <li>— at 230 V rated value</li> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 400 V rated value</li> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 400 V rated value</li> </ul>	
<ul> <li>with 2 current paths in series at DC-3 at DC-5         <ul> <li>at 24 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 110 V rated value</li> </ul> </li> <li>with 3 current paths in series at DC-3 at DC-5         <ul> <li>at 24 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> <li>at AC-2 at 400 V rated value</li> <li>at AC-3</li> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 400 V rated value</li> </ul> </li> <li>at 400 V rated value</li> <li>7.5 kW</li> </ul>	
<ul> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>• with 3 current paths in series at DC-3 at DC-5</li> <li>— at 24 V rated value</li> <li>— at 60 V rated value</li> <li>— at 110 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> <li>— at 600 V rated value</li> <li>— at 600 V rated value</li> <li>— at AC-2 at 400 V rated value</li> <li>• at AC-3</li> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>7.5 kW</li> </ul>	
- at 60 V rated value	
— at 110 V rated value  ■ with 3 current paths in series at DC-3 at DC-5  — at 24 V rated value — at 60 V rated value — at 110 V rated value — at 220 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value — at 600 V rated value — at AC-2 at 400 V rated value  ■ at AC-3 — at 230 V rated value — at 400 V rated value  4 kW — at 400 V rated value  7.5 kW	
• 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 1.5 A  — at 220 V rated value 0.2 A  — at 600 V rated value 0.2 A  — at 600 V rated value 7.5 kW  • at AC-2 at 400 V rated value 7.5 kW	
- 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 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 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 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 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 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 600 V rated value 0.2 A  operating power	
operating power	
<ul> <li>at AC-2 at 400 V rated value</li> <li>at AC-3</li> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>5 kW</li> </ul>	
<ul> <li>at AC-3</li> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>7.5 kW</li> </ul>	
<ul> <li>at 230 V rated value</li> <li>at 4 kW</li> <li>at 400 V rated value</li> <li>7.5 kW</li> </ul>	
— 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	
• up to 230 V for current peak value n=20 rated value 3.8 kVA	
• up to 400 V for current peak value n=20 rated value 6.6 kVA	
• up to 500 V for current peak value n=20 rated value 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	
• limited to 1 s switching at zero current maximum 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	<b>;</b>
• 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 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 220 V	
operating range factor control supply voltage rated value of magnet coil at AC	

● at 50 Hz	0.8 1.1
● at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	
● at 50 Hz	37 VA
● at 60 Hz	33 VA
inductive power factor with closing power of the coil	
● at 50 Hz	0.8
● at 60 Hz	0.75
apparent holding power of magnet coil at AC	
● at 50 Hz	5.7 VA
● at 60 Hz	4.4 VA
inductive power factor with the holding power of the coil	
● at 50 Hz	0.25
● at 60 Hz	0.25
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
Auxiliary 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
<ul> <li>at 60 V rated value</li> </ul>	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)
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	

For short-circuit, protection of the main circuit.		
— with type of continuation 1 required         96: S0A (600V, 100AA), abit. 25A (600V, 100AA), BSS85: 50A (415V,80IAA)           — with special assignment 12 required         96: S0A (600V, 100AA), abit. 25A (600V, 100AA), BSS85: 50A (415V,80IAA)           — satistation mounting of contractions         4-100° retailor prostable on ventical mounting surface; can be stilled forward and backward by 1-242 for ventical mounting surface; can be stilled forward and backward by 1-242 for ventical mounting surface; can be stilled forward and backward by 1-242 for ventical mounting surface; can be stilled forward and backward by 1-242 for ventical mounting surface; can be stilled forward and backward by 1-242 for ventical mounting surface; can be stilled forward and backward by 1-242 for ventical mounting surface; can be stilled forward and backward by 1-242 for ventical mounting surface; can be stilled forward and backward by 1-242 for ventical mounting surface; can be stilled forward and backward by 1-242 for ventical mounting surface; can be stilled forward and backward by 1-242 for ventical mounting surface; can be stilled forward and backward by 1-242 for ventical mounting surface; can be stilled forward and backward by 1-242 for ventical mounting surface; can be stilled forward and backward by 1-242 for ventical mounting surface; can be stilled forward surface; can be stilled forwards.           • for in large to surface; can be stilled forwards.         10 mm           • for in large to surface; can be stilled forwards.         10 mm           • for in surface; consideration.         5 min surface; can be stilled forwards.         5 min surface;	design of the fuse link	
- with type of assignment 2 required 6 of 22 5A (800V, 100AA), abit 20A (800V,		-O. FOA (000\/400\A) -M. OFA (000\/400\A) BOOO. FOA (44F\/00\A)
	• • • • • • • • • • • • • • • • • • • •	
March   Marc		
Mounting position		gG: 10 A (500 V, 1 KA)
Selectiving method   Series mounting or stricted mounting surface   Series mounting or stricted mounting to DIN EN 80715   Yes		1/400° retation people are vertical recording a reference he tilted forward and
Meight	mounting position	
No man	fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
width   45 mm   73 mm   73 mm   75 m	side-by-side mounting	Yes
Production space   Production	height	70 mm
with side by-side mounting	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 or man contacts forwards forwards forwards forwards forwards forwards forman contacts forwards	— forwards	10 mm
• for grounded parts  - forwards	·	10 mm
• for grounded parts		
forwards upwards upwards at the side downwards for live parts forwards for live parts forwards upwards for wards upwards forwards upwards forwards upwards forwards upwards downwards downwards at the side formai current circuit for auxiliary and control circuit for auxiliary and control circuit for auxiliary and control circuit for for auxiliary and control circuit for dependent of auxiliary contacts for main current circuit solid solid or stranded for expectation of auxiliary contacts solid solid or stranded with core end processing finely stranded with core end processing		0 mm
- upwards		
at the side — downwards — 10 mm — 10 m		
- downwards • for live parts - forwards - upwards - upwards - downwards - at the side - for main current circuit • for main current circuit • of magnet coil type of electrical connection • for main current circuit • of auxiliary and control circuit • 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 • for survillary contacts  • solid or stranded • finely stranded without core end processing • for for stranded • finely stranded without core end processing • for for stranded • finely stranded without core end processing • for for stranded • for for stranded • for awout caused or auxiliary contacts  • for awout cables for auxiliary contacts  • for for main contacts • for for main contacts • for main contacts	•	
• for live parts  — forwards — upwards — downwards — at the side  Connections/ Terminals  type of electrical connection • for main current circuit • for auxiliary and control circuit • for for auxiliary and control circuit • spring-loaded terminals • of magnet coil type of connectable conductor cross-sections for main contacts • solid • solid or stranded • solid or stranded • finely stranded with core end processing • finely stranded without 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 • 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  • for auxiliary contacts  — solid or stranded • finely stranded with core end processing • for for wice cable conductor cross-sections • for for wice cable conductor cross-sections • for for main contacts • for main contacts		
forwards		10 IIIII
- upwards	•	10 mm
- downwards — at the side 6 mm  Connections/ Terminals  type of electrical connection  • for main current circuit spring-loaded terminals • for auxiliary and control circuit spring-loaded terminals • at contactor for auxiliary contacts • of magnet coil Spring-type terminals • solid 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 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 • 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 • solid or stranded 2x (0,5 4 mm²) • finely stranded with core end processing 2x (0,5 2,5 mm²) • for auxiliary contacts 2x (0,5 2,5 mm²) • for main contacts 2x (0,5 2,5 mm²)		
Connectable conductor cross-section for main contacts  solid stranded sinely stranded with core end processing sinely s	•	
Connections/ Terminals           type of electrical connection         spring-loaded terminals           of or main current circuit         spring-loaded terminals           of magnet coil         Spring-type terminals           type of connectable conductor cross-sections for main contacts         Spring-type terminals           solid or stranded         2x (0.5 4 mm²)           solid or stranded with core end processing         2x (0.5 4 mm²)           efinely stranded with core end processing         2x (0.5 2.5 mm²)           connectable conductor cross-section for main contacts         solid           e solid         0.5 4 mm²           e solid without core end processing         0.5 2.5 mm²           connectable conductor cross-section for auxiliary contacts         e solid or stranded with core end processing         0.5 2.5 mm²           connectable conductor cross-section for auxiliary contacts         e finely stranded with core end processing         0.5 2.5 mm²           e finely stranded with core end processing         0.5 2.5 mm²           e for auxiliary contacts         2x (0,5 2.5 mm²)           e for auxiliary contacts         2x (0,5 2.5 mm²) <t< td=""><td></td><td></td></t<>		
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  • solid  • stranded  • finely stranded with core end processing  • solid  • 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  • for main contacts  • for auxiliary contacts		O IIIIII
• 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     • solid     • solid     • stranded     • solid     • stranded     • 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 for auxiliary contacts      • for auxiliary contacts  AWG number as coded connectable conductor cross section     • for main contacts     • for auxiliary contacts     •		
of rauxiliary 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     of inely stranded with core end processing     of finely stranded without core end processing     of finely stranded without core end processing     of finely stranded without core end processing     of finely stranded with core end processing     of finely stranded with core end processing     of finely stranded with core end processing     of finely stranded without core end processing     of for auxiliary contacts     of or auxiliary contacts		spring-loaded terminals
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 solid solid solid  connectable conductor cross-section for main contacts solid so		
of magnet coil  type of connectable conductor cross-sections for main contacts  of solid stranded  of niety stranded with core end processing  of niety stranded without core end processing  of niety stranded with core end processing  of niety stranded without core end processing  of niety stranded without core end processing  of niety stranded with core end processing  of niety stranded with core end processing  of niety stranded with core end processing  of new stranded  of new stranded with core end processing  of new stranded without core end processing  of new stranded without core end processing  of or auxiliary contacts  of or AWG cables for auxiliary contacts  of or AWG cables for auxiliary contacts  of or main contacts  of or main contacts  of or main contacts  of or main contacts  of or auxiliary contacts  of or auxiliary contacts  of or auxiliary contacts  of or main contacts  of or main contacts  of or auxiliary contacts		
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 • solid • stranded • finely stranded without core end processing • solid • stranded • finely stranded with core end processing • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for AWG cables for auxiliary contacts • for AWG cables for auxiliary contacts • for main contacts • for auxiliary contacts • for main contacts • for main contacts • for auxiliary contacts • for main contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for main contacts • for main contacts • for auxiliary contacts	•	. 5 3.
solid     solid or stranded     solid or stranded with core end processing     sinely stranded with core end processing     solid     solid     stranded     stranded     stranded     stranded     stranded     stranded     stranded with core end processing     solid     stranded     stranded     stranded     stranded with core end processing     stranded without core end processing     solid or stranded     solid or stranded with core end processing     solid or stranded with core end processing     solid or stranded without core end processing     solid or stranded with core end processing     solid or stranded		
• finely stranded with core end processing     • finely stranded without core end processing     2x (0.5 2.5 mm²)  connectable conductor cross-section for main contacts     • solid     • stranded     • stranded		2x (0.5 4 mm²)
• finely stranded without core end processing     connectable conductor cross-section for main contacts     • solid     • stranded     • stranded     • stranded with core end processing     • finely stranded without core end processing     • finely stranded     • finely stranded     • 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 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	solid or stranded	
connectable conductor cross-section for main contacts  • solid  • stranded  • 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  • for auxiliary contacts  • solid or stranded  • finely stranded without core end processing  • for auxiliary contacts  • for auxiliary contacts  — solid or stranded  — finely stranded with core end processing  2x (0.5 4 mm²)  - finely stranded with core end processing  • for auxiliary contacts  — finely stranded with core end processing  2x (0.5 2.5 mm²)  • 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 auxiliary contacts  20 12  • for auxiliary contacts	<ul> <li>finely stranded with core end processing</li> </ul>	
solid     stranded     stranded     stranded     stranded	<ul> <li>finely stranded without core end processing</li> </ul>	2x (0.5 2.5 mm²)
<ul> <li>stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>o.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>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>2x (0.5 4 mm²)</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 AWG number as coded connectable conductor cross section</li> <li>for main contacts</li> <li>for main contacts</li> <li>for auxiliary contacts</li> <li>20 12</li> <li>for auxiliary contacts</li> <li>Safety related data</li> </ul>	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>2x (0,5 4 mm²)</li> <li>finely stranded with core end processing</li> <li>2x (0.5 2.5 mm²)</li> <li>finely stranded without core end processing</li> <li>2x (0.5 2.5 mm²)</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> </ul> Safety related data Safety related data	• solid	0.5 4 mm²
<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>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>2x (0,5 4 mm²)</li> <li>finely stranded with core end processing</li> <li>2x (0,5 2.5 mm²)</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 main contacts</li> <li>for auxiliary contacts</li> <li>20 12</li> <li>Safety related data</li> </ul>	• stranded	0.5 4 mm²
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  • 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 - 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	<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm²
<ul> <li>solid or stranded</li> <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 with 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> </ul> Safety related data	<ul> <li>finely stranded without core end processing</li> </ul>	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> </ul>	connectable conductor cross-section for auxiliary contacts	
• 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	solid or stranded	0.5 4 mm²
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  Safety related data	<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm²
for auxiliary contacts         — solid or stranded         — finely stranded with 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		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	type of connectable conductor cross-sections	
— finely stranded with 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	•	
- 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		
• for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section      • for main contacts     • for auxiliary contacts  Safety related data  2x (20 12)  20 12  20 12		
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts 20 12  Safety related data		
section  • for main contacts • for auxiliary contacts 20 12 20 12 Safety related data		2x (20 12)
• for main contacts • for auxiliary contacts 20 12 20 12 Safety related data		
• for auxiliary contacts  20 12  Safety related data		20 12
Safety related data		
	<u> </u>	
product function	product function	

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

Certificates/ approvals

## **General Product Approval**



Confirmation





<u>KC</u>



**EMC** 

Functional Safety/Safety of Machinery

**Declaration of Conformity** 

**Test Certificates** 



Type Examination Certificate





Special Test Certificate

Type Test Certificates/Test Report

## Marine / Shipping













Marine / Shipping

other

<u>Confirmation</u>



Confirmation

Vibration and Shock

Railway

Environmental Confirmations

**Environment** 

## Further information

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

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

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

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

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2018-2AN21

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT2018-2AN21}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-2AN21

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

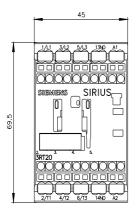
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2018-2AN21&lang=en

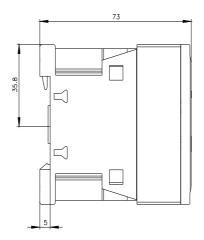
Characteristic: Tripping characteristics, I2t, Let-through current

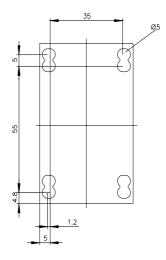
https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-2AN21/char

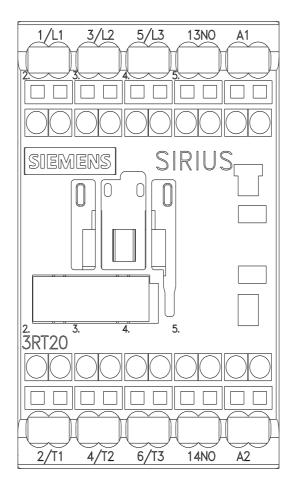
Further characteristics (e.g. electrical endurance, switching frequency)

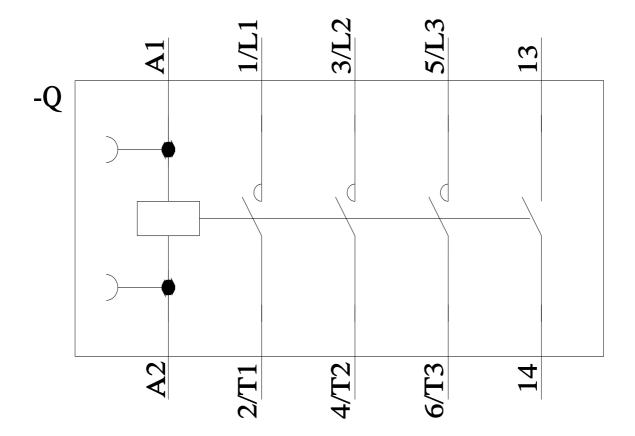
 $\underline{\text{http://www.automation.siemens.com/bilddb/index.aspx?view=Search\&mlfb=3RT2018-2AN21\&objecttype=14\&gridview=view1}$ 











last modified: 2/10/2023 🖸