## **SIEMENS**

Data sheet 3RT2017-2AV01



power contactor, AC-3e/AC-3, 12 A, 5.5 kW / 400 V, 3-pole, 400 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>	1.5 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	0.5 W
<ul> <li>without load current share typical</li> </ul>	1.5 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
<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
<ul> <li>of auxiliary circuit rated value</li> </ul>	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
• of the contactor with added auxiliary switch block typical	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	
Weight	0.256 kg
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 maximum	95 %

Environmental footprint	
Environmental Product Declaration(EPD)	Yes
Global Warming Potential [CO2 eq] total	39.6 kg
Global Warming Potential [CO2 eq] during manufacturing	1.18 kg
Global Warming Potential [CO2 eq] during mandacturing	38.5 kg
Global Warming Potential [CO2 eq] after end of life	-0.155 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
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated value	22 A
• at AC-1	00 A
<ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> <li>up to 690 V at ambient temperature 60 °C rated</li> </ul>	22 A 20 A
value  • at AC-3	20 A
■ at 400 V rated value	12 A
— at 500 V rated value	9.2 A
— at 690 V rated value	6.7 A
• at AC-3e	
— at 400 V rated value	12 A
— at 500 V rated value	9.2 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
<ul> <li>at AC-5b up to 400 V rated value</li> </ul>	9.9 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	7.2 A
— up to 400 V for current peak value n=20 rated value	7.2 A
— up to 500 V for current peak value n=20 rated value	7.2 A
— up to 690 V for current peak value n=20 rated value	6.7 A
• at AC-6a	40.4
— up to 230 V for current peak value n=30 rated value	4.8 A
— up to 400 V for current peak value n=30 rated value	4.8 A
— up to 500 V for current peak value n=30 rated value	4.8 A
— up to 690 V for current peak value n=30 rated value minimum cross-section in main circuit at maximum AC-1 rated	4.8 A 4 mm <sup>2</sup>
value  operational current for approx. 200000 operating cycles at	7 (111)
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 Verted value.	20.4
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	12 A
<ul><li>— at 220 V rated value</li><li>— at 440 V rated value</li></ul>	1.6 A 0.8 A
— at 440 V rated value  — at 600 V rated value	0.7 A
— at 000 v rated value	V.I T.

<ul> <li>with 3 current paths in series at DC-1</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	20 A
— at 440 V rated value	1.3 A
— at 600 V rated value	1.3 A
	TA .
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 100 V rated value	0.15 A
with 2 current paths in series at DC-3 at DC-5	0.15 A
— at 24 V rated value	20 A
— at 60 V rated value	5 A
— at 100 V rated value	0.35 A
with 3 current paths in series at DC-3 at DC-5	0.33 A
•	20 A
— at 24 V rated value	
— at 60 V rated value	20 A 20 A
— at 110 V rated value — at 220 V rated value	20 A 1.5 A
— at 220 V rated value  — at 440 V rated value	1.5 A 0.2 A
	0.2 A 0.2 A
— at 600 V rated value	0.2 A
operating power  ● at AC-2 at 400 V rated value	5.5 kW
	5.5 KVV
• at AC-3	3 kW
— at 230 V rated value	5.5 kW
— at 400 V rated value	
— at 500 V rated value — at 690 V rated value	5.5 kW
• at AC-3e	5.5 kW
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	5.5 kW
operating power for approx. 200000 operating cycles at AC-	0.0 RVV
4	
• at 400 V rated value	2 kW
at 690 V rated value	2.5 kW
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	2.8 kVA
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	4.9 kVA
• up to 500 V for current peak value n=20 rated value	6.2 kVA
• up to 690 V for current peak value n=20 rated value	8 kVA
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	1.9 kVA
• up to 400 V for current peak value n=30 rated value	3.3 kVA
• up to 500 V for current peak value n=30 rated value	4.1 kVA
• up to 690 V for current peak value n=30 rated value	5.7 kVA
short-time with stand current in cold operating state up to 40 $^{\circ}\text{C}$	
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	200 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	123 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	96 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	74 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	04 A. H
Timiliou to do d'antoning at 2010 danont maximum	61 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	61 A; Use minimum cross-section acc. to AC-1 rated value
	10 000 1/h
no-load switching frequency	
no-load switching frequency • at AC	
no-load switching frequency  • at AC  operating frequency	10 000 1/h

a at AC 2a mayim:	750 4 lb
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	400 V
at 60 Hz rated value	400 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	0.05 1.1
• at 50 Hz	37 VA
• at 60 Hz	33 VA
	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	5.7.1/0
• at 50 Hz	5.7 VA
• at 60 Hz	4.4 VA
inductive power factor with the holding power of the coil	0.05
• at 50 Hz	0.25
• at 60 Hz	0.25
closing delay	0.05
• 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	
<ul> <li>at 230 V rated value</li> </ul>	10 A
<ul> <li>at 400 V rated value</li> </ul>	3 A
<ul> <li>at 500 V rated value</li> </ul>	2 A
<ul> <li>at 690 V rated value</li> </ul>	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)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	11 A
at 600 V rated value	11 A
yielded mechanical performance [hp]	
for single-phase AC motor	
From oningito pridoto / to motor	

- at 220 V meet value		2.51
• for 3-phase AC motor  — at 2002030 Y rated value — at 2002030 V rated value — at 400480 V rated value — at 5070000 V rated value — with 1996 of coordination 1 required — with 1996 of coordination 1 required — with 1996 of assignment 2 required — for short-circuit production of the auxiliary switch required  fastening method  fastening method  fastening method  fastening method	— at 110/120 V rated value	0.5 hp
all 200209 V rated value all 400480 V rated value all 400480 V rated value all 575000 V rated value all 57500 V rated value all 575000 V rated value all 57500 V rated value all 575000 V rated value all 57500 V rated value		2 hp
at 220/230 V rated value at 675000 V rated value 27500 V rated value 27500 V rated value	• for 3-phase AC motor	
	<ul> <li>— at 200/208 V rated value</li> </ul>	3 hp
— at 575800 V rated value Contact rating of auxiliary contacts according to U.  Short-circuit protection  design of the fuse link.  - with type of assignment 2 required  - with type of assignment 2 required  in standard protection of the auxiliary switch required  installation mounting diffunction.  **To short-circuit protection of the auxiliary switch required  installation mounting diffunction.  **To short-circuit protection of the auxiliary switch required  installation mounting diffunction.  **To short-circuit protection of the auxiliary switch required  installation mounting diffunction.  **To short-circuit protection of the auxiliary switch required  installation mounting diffunction.  **To short-circuit protection of the auxiliary switch required  installation mounting diffunction.  **To short-circuit protection of the auxiliary switch required  installation mounting diffunction.  **To short-circuit protection of the auxiliary switch required  installation mounting diffunction.  **To short-circuit protection of the auxiliary switch required  installation mounting diffunction.  **To short-circuit protection of the auxiliary switch required  installation mounting diffunction.  **To short-circuit protection of the auxiliary switch required  installation mounting diffunction.  **To short-circuit protection of the auxiliary switch required  installation mounting diffunction.  **To short-circuit specification.  **To mounting position.  **To mount	<ul> <li>at 220/230 V rated value</li> </ul>	3 hp
contact rating of auxillary contacts according to UL         A5000 / 0600           dosign of the fuse link	— at 460/480 V rated value	7.5 hp
Start-secular protection   Seeign of the fuse link   -	— at 575/600 V rated value	10 hp
	contact rating of auxiliary contacts according to UL	A600 / Q600
• for short-circuit protection of the main circuit — with type of assignment? required — with type of assignment? required gg: 20A (690V,100KA), alx: 16A (680V, 100KA), BS88: 35A (415V,80KA) gg: 20A (690V,100KA), alx: 16A (680V, 100KA), BS88: 20A (415V,80KA) gg: 20A (690V,100KA), alx: 16A (680V, 100KA), BS88: 20A (415V,80KA) gg: 20A (690V,100KA), alx: 16A (680V, 100KA), BS88: 20A (415V,80KA) gg: 20A (690V,100KA), alx: 16A (680V, 100KA), BS88: 20A (415V,80KA) gg: 20A (690V,100KA), alx: 16A (680V, 100KA), BS88: 20A (415V,80KA) gg: 20A (690V,100KA), alx: 16A (680V, 100KA), BS88: 20A (415V,80KA) gg: 20A (690V,100KA), alx: 16A (680V, 100KA), BS88: 20A (415V,80KA) gg: 20A (690V,100KA), alx: 16A (680V, 100KA), BS88: 20A (415V,80KA) gg: 20A (690V,100KA), alx: 16A (680V, 100KA), BS88: 20A (415V,80KA) gg: 20A (690V,100KA), alx: 16A (680V, 100KA), BS88: 20A (415V,80KA) gg: 20A (690V,100KA), alx: 16A (680V, 100KA), BS88: 20A (415V,80KA) gg: 20A (690V,100KA), alx: 16A (680V, 100KA), BS88: 20A (415V,80KA) gg: 20A (690V,100KA), alx: 16A (680V, 100KA), BS88: 20A (415V,80KA) gg: 20A (690V,100KA), alx: 16A (680V, 100KA), alx: 16A (680	Short-circuit protection	
— with type of condination 1 required — with type of assignment 2 required 4 for short-circuit protection of the auxiliary switch required 5G: 10.4 (800 V. 100kA), abit 120.4 (800 V. 100kA), BS88: 35A (415V.80kA) 9G: 20.4 (800 V. 116A) (800 V. 116A) (800 V. 100kA), BS88: 20A (415V.80kA) 9G: 10.4 (800 V. 1 kA)  mounting position  # 1.180** Totalion possible on vertical mounting surface; can be tilted forward and backward by +7-2.5° on vertical mounting surface; can be tilted forward and backward by +7-2.5° on vertical mounting surface; can be tilted forward and backward by +7-2.5° on vertical mounting surface; can be tilted forward and backward by +7-2.5° on vertical mounting surface; can be tilted forward and backward by +7-2.5° on vertical mounting surface; can be tilted forward and backward by +7-2.5° on vertical mounting surface; can be tilted forward and backward by +7-2.5° on vertical mounting surface; can be tilted forward and backward by +7-2.5° on vertical mounting surface; can be tilted forward and backward by +7-2.5° on vertical mounting surface; can be tilted forward and backward by +7-2.5° on vertical mounting surface; can be tilted forward and backward by +7-2.5° on vertical mounting surface; can be tilted forward and backward by +7-2.5° on vertical mounting surface; can be tilted forward and backward by +7-2.5° on vertical mounting surface; can be tilted forward and backward by +7-2.5° on vertical mounting surface; can be tilted forward and backward by +7-2.5° on vertical mounting surface; can be tilted forward and backward by +7-2.5° on vertical mounting surface; can be tilted forward and the surface and su	design of the fuse link	
with type of assignment 2 required so for short-circuit protection of the auxiliary switch required installation/mounting formensions  ***mounting position**  **## A	<ul> <li>for short-circuit protection of the main circuit</li> </ul>	
* for short-circuit protection of the auxiliary switch required mounting outsides     **mounting position**  **mounting position**  **fastening method**  **serve and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715  **height**  **for minute dysacing**  **with side-by-side mounting **  **evith side-by-side mounting **  **-forwards**  **-formards**  **-forwards**  *-forwards**	<ul> <li>— with type of coordination 1 required</li> </ul>	gG: 50A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)
Installation/ mounting idinensions  mounting position	<ul> <li>— with type of assignment 2 required</li> </ul>	gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)
# 1-5180** rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/22.5° on vertical mounting surface; can be tilted forward and backward by +/22.5° on vertical mounting surface; can be tilted forward and backward by +/22.5° on vertical mounting surface; can be tilted for surface.  - forwards - downwards - for man cup and conted forwards - downwards - forwards - downwards - forwards - formain current circuit - er aucliancy connection - er aucliancy and control circuit - at connectable conductor cross-sections - er main contacts - explicit on surface and processing - finely stranded without core end processing - finely stranded	• for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
Sackward by + 22.5" on vertical mounting surface   Sackward by + 22.5" on vertical mounting surface   Sackward by + 22.5" on vertical mounting surface   Sam DIN rail according to DIN EN 60715	Installation/ mounting/ dimensions	
fastening method         screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height           height         70 mm           with         45 mm           depth         73 mm           required spacing         ************************************	mounting position	
height         70 mm           width         45 mm           deth         73 mm           required spacing         ************************************		, o
width         45 mm           dopth         73 mm           required spacing         73 mm           - forwards         10 mm           - forwards         10 mm           - downwards         10 mm           - at the side         0 mm           - forwards         10 mm           - forwards         10 mm           - at the side         6 mm           - downwards         10 mm           - for live parts         10 mm           - forwards         20 mm           - forwards         20 mm <t< td=""><td><u> </u></td><td></td></t<>	<u> </u>	
depth		
required spacing  • with side-by-side mounting  — forwards — upwards — downwards — at the side — forwards — forwards — the side — ownwards — upwards — the side — ownwards — upwards — to many the side — downwards — upwards — to many the side — downwards — to many the side — downwards — to many the side — downwards — to fire parts — forwards — upwards — to many the side — downwards — to many the side — downwards — upwards — upwards — upwards — the side — downwards — of many the side — of many t		
• with side-by-side mounting  — forwards — upwards — at the side • for grounded parts — forwards — upwards — upwards — the side — upwards — upwards — upwards — the side — downwards — to five parts — forwards — upwards — to fire side — downwards — to mm — the side — downwards — to mm — the side — of mm  Connections/ Torminals   **Torminals**  **Tope of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil • for magnet coil  **Spring-type terminals  **For main contacts — solid — solid or stranded — finely stranded without core end processing — finely stranded without core end processing • for AVIC cables for main contacts  • solid • stranded • finely stranded without core end processing • finely stranded without	·	73 mm
forwards		
- upwards	-	
- downwards - at the side 0 mm  • for grounded parts - Forwards 10 mm  - upwards 10 mm  - at the side 6 mm  - at the side 6 mm  - at the side 6 mm  • for live parts 10 mm  • for live parts 10 mm  - downwards 10 mm  - upwards 10 mm  - downwards 10 mm  - downwards 10 mm  - downwards 10 mm  - downwards 10 mm  - formain current circuit spring-loaded terminals spring-l		
- at the side  • for grounded parts  - forwards  - upwards  - at the side  - downwards  • for live parts  - forwards  - upwards  - upwards  - upwards  - upwards  - downwards  - downwards  - downwards  - downwards  - for main current circuit  • for main current circuit  • for auxiliary and control circuit  • for auxiliary contacts  • of magnet coil  type of connectable conductor cross-sections  - solid  - solid or stranded  - finely stranded with core end processing  • for AWG cables for main cuntacts  • solid  • stranded  • finely stranded with core end processing  • finely stranded with core end processing  • finely stranded with core end processing  • for fawG cables for main contacts  • solid  • stranded  • finely stranded with core end processing  • for fawG cables for main contacts  • solid  • stranded  • finely stranded with core end processing  • finely stranded with core en	·	
• for grounded parts  — forwards — upwards — at the side — downwards • for live parts  — for wards — upwards — to rowards — to many the side — downwards • for live parts — for wards — upwards — upwards — upwards — upwards — downwards — to mm — downwards — to mm — at the side — for main current circuit • for raxillary and control circuit • for auxillary and control circuit • at contactor for auxillary contacts • of magnet coil  type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts • 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 • finely stranded with core end processing • finely strande	— downwards	10 mm
- forwards - upwards - 10 mm	— at the side	0 mm
- upwards - at the side - downwards • for live parts - forwards - upwards - upwards - downwards - upwards - downwards - downwards - at the side - formancetons/ Torminals  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 • for AWG cables for main contacts • solid • stranded • finely stranded with core end processing	<ul> <li>for grounded parts</li> </ul>	
- at the side — downwards 10 mm  • for live parts  — forwards 10 mm  — upwards 10 mm  — downwards 10 mm  — downwards 10 mm  — downwards 10 mm  — downwards 6 mm  — the side 6 mm  Connections/ Terminals  type of electrical connection  • for auxiliary and control circuit spring-loaded terminals • for auxiliary and control circuit spring-loaded terminals • of magnet coil Spring-type terminals • of magnet coil Spring-type terminals  • for main connectable conductor cross-sections • for main contacts  — solid — solid 2x (0.5 4 mm²) — finely stranded with 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 main contacts  • solid • finely stranded with core end processing 0.5 4 mm² • finely stranded with core end processing 0.5 4 mm²  • stranded • finely stranded with core end processing 0.5 4 mm² • finely stranded with core end processing 0.5 4 mm² • stranded onductor cross-section for main contacts • solid 0.5 4 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	— forwards	10 mm
− downwards	— upwards	10 mm
for live parts         — forwards         — upwards         — upwards         — downwards         — at the side             6 mm  Connections/ Terminals  type of electrical connection         • for main current circuit         • for main current circuit         • at contactor for auxiliary contacts         • of magnet coil	— at the side	6 mm
- forwards	— downwards	10 mm
- upwards - 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 Spring-type terminals • of magnet coil Spring-type terminals  • for main contacts  • for main contacts  - solid 2x (0.5 4 mm²)  - solid or 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 • finely stranded conductor cross-sections	• for live parts	
- downwards - at the side  Connections/ Terminals  type of electrical connection  • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil  type of connectable conductor cross-sections • for main contacts  - solid - solid or stranded - finely stranded with core end processing • for AWC cables for main contacts • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded without core end processing • solid of 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	— forwards	10 mm
Type of electrical connection  • for main current circuit • at contactor for auxiliary and control circuit • of magnet coil  • for main current 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 or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • finely stranded without core end processing	— upwards	10 mm
type of electrical connection  • for main current circuit spring-loaded terminals • for auxiliary and control circuit spring-loaded terminals • at contactor for auxiliary contacts Spring-type terminals • of magnet coil Spring-type terminals  • for main contacts  • for main contacts  - solid - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts  • solid  • stranded • finely stranded with core end processing • for AWG cables for main contacts  • solid • stranded • finely stranded with core end processing • solid • stranded • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • solid or stranded • finely stranded without core end processing • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • solid or stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded without core end processing	— downwards	10 mm
type of electrical connection  • for main current circuit  • for auxiliary and control circuit  • at contactor for auxiliary contacts  • of magnet coll  type of connectable conductor cross-sections  • for main contacts  - solid  - solid or stranded  - finely stranded with core end processing  • stranded  • finely stranded without core end processing  • finely stranded without core end processing  • finely stranded without core end processing  • finely stranded with core end processing  • for AWG cables for main contacts  • solid  • stranded  • finely stranded with core end processing  • finely stranded with core end processing  • finely stranded with core end processing  • finely stranded without core end processing  • solid or stranded  • finely stranded without core end processing  • finely stranded with core end processing  • finely stranded without core end processing	— at the side	6 mm
<ul> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> <li>at contactor for auxiliary contacts</li> <li>of magnet coil</li> <li>Spring-type terminals</li> <li>of magnet coil</li> <li>Spring-type terminals</li> </ul> type of connectable conductor cross-sections <ul> <li>for main contacts</li> <li>solid or stranded</li> <li>- solid or stranded with core end processing</li> <li>- finely stranded without core end processing</li> <li>for AWG cables for main contacts</li> <li>solid</li> <li>stranded</li> <li>stranded</li> <li>of stranded</li> <li>of stranded</li> <li>of inely stranded with core end processing</li> <li>for AWG cables for main contacts</li> <li>solid</li> <li>stranded</li> <li>of inely stranded with core end processing</li> <li>of inely stranded without core end processing</li> <li>of inely stranded with core end processing</li> <li>of inely stranded without core end processing</li> <li>of inely stranded withou</li></ul>	Connections/ Terminals	
<ul> <li>• for auxiliary and control circuit</li> <li>• at contactor for auxiliary contacts</li> <li>• of magnet coil</li> <li>Spring-type terminals</li> <li>• type of connectable conductor cross-sections</li> <li>• for main contacts</li> <li>— solid</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>• for AWG cables for main contacts</li> <li>• for AWG cables for main contacts</li> <li>• solid</li> <li>— solid or stranded with core end processing</li> <li>• for AWG cables for main contacts</li> <li>• solid</li> <li>• stranded</li> <li>• stranded</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>• finely stranded without core end processing</li> <li>• solid or stranded</li> <li>• solid or stranded</li> <li>• finely stranded with core end processing</li> <li>• finely stranded without core end proc</li></ul>	type of electrical connection	
<ul> <li>at contactor for auxiliary contacts</li> <li>of magnet coil</li> <li>Spring-type terminals</li> <li>type of connectable conductor cross-sections</li> <li>for main contacts</li> <li>— solid</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>— finely stranded without core end processing</li> <li>• for AWG cables for main contacts</li> <li>• solid</li> <li>• solid</li> <li>• solid</li> <li>• solid</li> <li>• solid</li> <li>• stranded</li> <li>• stranded</li> <li>• finely stranded with core end processing</li> <li>• finely stranded with core end processing</li> <li>• solid</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>• solid or stranded</li> <li>• solid or stranded</li> <li>• finely stranded without core end processing</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 withou</li></ul>	for main current circuit	spring-loaded terminals
of magnet coil      type of connectable conductor cross-sections         • for main contacts	<ul> <li>for auxiliary and control circuit</li> </ul>	spring-loaded terminals
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 AWG cables for main contacts  • solid  • stranded • finely stranded with core end processing  • 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	<ul> <li>at contactor for auxiliary contacts</li> </ul>	Spring-type terminals
<ul> <li>for main contacts</li> <li>— solid</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>— finely stranded without core end processing</li> <li>— for AWG cables for main contacts</li> <li>Ex (20 12)</li> <li>connectable conductor cross-section for main contacts</li> <li>• solid</li> <li>• stranded</li> <li>• finely stranded with core end processing</li> <li>• finely stranded with core end processing</li> <li>• finely stranded without core end processing</li> <li>• finely stranded without core end processing</li> <li>• finely stranded without core end processing</li> <li>• solid or stranded</li> <li>• solid or stranded</li> <li>• finely stranded with core end processing</li> <li>• finely stranded without core end processing</li> </ul>	of magnet coil	Spring-type terminals
- solid	type of connectable conductor cross-sections	
- 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 • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • finely stranded without core end processing • solid • 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 conductor cross-sections	• for main contacts	
- finely stranded with core end processing - finely stranded without core end processing • for AWG cables for main contacts • for AWG cables for main contacts • solid • stranded • stranded • finely stranded with 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 conductor cross-sections	— solid	2x (0.5 4 mm²)
<ul> <li>— finely stranded without core end processing</li> <li>● for AWG cables for main contacts</li> <li>○ solid</li> <li>○ stranded</li> <li>○ finely stranded with core end processing</li> <li>○ finely stranded without core end processing</li> <li>○ finely stranded</li> <li>○ finely stranded</li> <li>○ finely 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 stra</li></ul>	— solid or stranded	2x (0,5 4 mm²)
<ul> <li>for AWG cables for main contacts</li> <li>connectable conductor cross-section for main contacts</li> <li>solid</li> <li>stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>finely stranded without core end processing</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>finely stranded without core end processing</li> <li>2.5 mm²</li> <li>finely connectable conductor cross-sections</li> </ul>	<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 2.5 mm²)
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 with 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 connectable conductor cross-sections	<ul> <li>finely stranded without core end processing</li> </ul>	2x (0.5 2.5 mm²)
<ul> <li>solid</li> <li>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>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>connectable conductor cross-sections</li> </ul>	<ul> <li>for AWG cables for main contacts</li> </ul>	2x (20 12)
<ul> <li>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>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>5 2.5 mm²</li> <li>type of connectable conductor cross-sections</li> </ul>	connectable conductor cross-section for main contacts	
<ul> <li>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>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>5 2.5 mm²</li> <li>type of connectable conductor cross-sections</li> </ul>	• solid	0.5 4 mm <sup>2</sup>
• 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     type of connectable conductor cross-sections	• 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 without core end processing     finely stranded without core end processing     very finely stranded without core end processing	<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 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  type of connectable conductor cross-sections		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> </ul> 0.5 2.5 mm² 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> </ul>		0.5 4 mm²
• finely stranded without core end processing  0.5 2.5 mm²  type of connectable conductor cross-sections		
type of connectable conductor cross-sections		
	for auxiliary contacts	

<ul><li>— solid or stranded</li></ul>	2x (0,5 4 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 2.5 mm²)
<ul> <li>finely stranded without core end processing</li> </ul>	2x (0.5 2.5 mm²)
<ul> <li>for AWG cables for auxiliary contacts</li> </ul>	2x (20 12)
AWG number as coded connectable conductor cross section	
• for main contacts	20 12
<ul> <li>for auxiliary contacts</li> </ul>	20 12
Safety related data	
product function	
<ul> <li>mirror contact according to IEC 60947-4-1</li> </ul>	Yes; with 3RH29
<ul> <li>positively driven operation according to IEC 60947-5-1</li> </ul>	No
suitable for safety function	Yes
suitability for use safety-related switching OFF	Yes
service life maximum	20 a
test wear-related service life necessary	Yes
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
ISO 13849	
device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type 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



<u>KC</u>

General Product Approval

EMV

**Functional Saftey** 

**Test Certificates** 

Marine / Shipping





Type Examination Certificate Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping



Confirmation



Confirmation







Miscellaneous

other

other

Special Test Certificate

Railway



Environment

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=3RT2017-2AV01

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2017-2AV01

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2017-2AV01

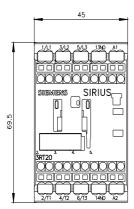
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2017-2AV01&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2017-2AV01&lang=en</a>

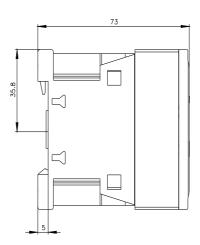
Characteristic: Tripping characteristics, I2t, Let-through current

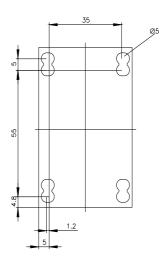
https://support.industry.siemens.com/cs/ww/en/ps/3RT2017-2AV01/char

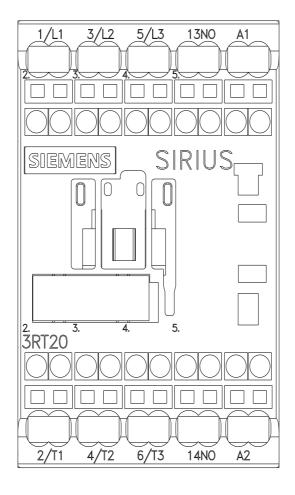
Further characteristics (e.g. electrical endurance, switching frequency)

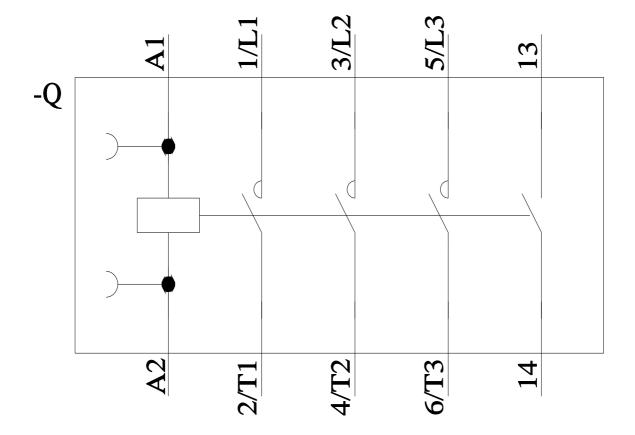
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2017-2AV01&objecttype=14&gridview=view1











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