3RT2036-1AF00-1AA0

## **Data sheet**



power contactor, AC-3e/AC-3, 51 A, 22 kW / 400 V, 3-pole, 110 V AC, 50 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S2, upright mounting position

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S2
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>	12 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	4 W
without load current share typical	6 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
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	11.8g / 5 ms, 7.4g / 10 ms
shock resistance with sine pulse	
• at AC	18.5g / 5 ms, 11.6g / 10 ms
mechanical service life (operating cycles)	
<ul> <li>of contactor typical</li> </ul>	10 000 000
<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)	
Weight	0.981 kg
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	
<ul> <li>at AC-3 rated value maximum</li> </ul>	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</li> </ul>	70 A
value	
• at AC-1	
<ul> <li>— up to 690 V at ambient temperature 40 °C rated value</li> </ul>	70 A
— up to 690 V at ambient temperature 60 °C rated	60 A
value	
• at AC-3	
— at 400 V rated value	51 A
— at 500 V rated value	51 A
— at 690 V rated value	24 A
• at AC-3e	
— at 400 V rated value	51 A
— at 500 V rated value	51 A
— at 690 V rated value	24 A
• at AC-4 at 400 V rated value	41 A
• at AC-5a up to 690 V rated value	61.6 A
<ul> <li>at AC-5b up to 400 V rated value</li> </ul>	41.5 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	43.2 A
— up to 400 V for current peak value n=20 rated value	43.2 A
— up to 500 V for current peak value n=20 rated value	43.2 A
— up to 690 V for current peak value n=20 rated value	24 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	28.8 A
— up to 400 V for current peak value n=30 rated value	28.8 A
— up to 500 V for current peak value n=30 rated value	28.8 A
— up to 690 V for current peak value n=30 rated value	24 A
minimum cross-section in main circuit at maximum AC-1 rated	25 mm²
value	
operational current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	24 A
at 690 V rated value	20 A
operational current	
at 1 current path at DC-1	
— at 24 V rated value	55 A
— at 60 V rated value	23 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
with 2 current paths in series at DC-1	
— at 24 V rated value	55 A
— at 60 V rated value	45 A
— at 110 V rated value	45 A
— at 220 V rated value	5 A
— at 440 V rated value	1A
— at 600 V rated value	0.8 A
with 3 current paths in series at DC-1	
— at 24 V rated value	55 A
— at 60 V rated value	55 A
— at 110 V rated value	55 A
— at 110 V rated value  — at 220 V rated value	45 A
— at 440 V rated value	2.9 A

— at 600 V rated value	1.4 A
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 60 V rated value	6 A
— at 220 V rated value	1 A
— at 440 V rated value	0.1 A
— at 600 V rated value	0.06 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	55 A
— at 60 V rated value	45 A
— at 110 V rated value	25 A
— at 220 V rated value	5 A
— at 440 V rated value	0.27 A
— at 600 V rated value	0.16 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	55 A
— at 60 V rated value	55 A
— at 110 V rated value	55 A
— at 220 V rated value	25 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.35 A
operating power	
at AC-2 at 400 V rated value	22 kW
• at AC-3	
— at 230 V rated value	15 kW
— at 400 V rated value	22 kW
— at 500 V rated value	30 kW
— at 690 V rated value	22 kW
• at AC-3e	ZZ NVV
— at 230 V rated value	15 kW
— at 400 V rated value	22 kW
— at 500 V rated value	30 kW
— at 690 V rated value	22 kW
operating power for approx. 200000 operating cycles at AC-	
• at 400 V rated value	12.6 kW
• at 690 V rated value	18.2 kW
operating apparent power at AC-6a	
• up to 230 V for current peak value n=20 rated value	17.2 kVA
• up to 400 V for current peak value n=20 rated value	29.9 kVA
• up to 500 V for current peak value n=20 rated value	37.4 kVA
• up to 690 V for current peak value n=20 rated value	28.6 kVA
operating apparent power at AC-6a	
up to 230 V for current peak value n=30 rated value	11.4 kVA
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	19.9 kVA
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	24.9 kVA
• up to 690 V for current peak value n=30 rated value	28.6 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>	937 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	697 A; Use minimum cross-section acc. to AC-1 rated value
limited to 10 s switching at zero current maximum	468 A; Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum	282 A; Use minimum cross-section acc. to AC-1 rated value
limited to 60 s switching at zero current maximum	229 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	5 000 1/h
operating frequency	
at AC-1 maximum	1 000 1/h
• at AC-2 maximum	600 1/h
• at AC-3 maximum	800 1/h
• at AC-3e maximum	800 1/h
S across maximali	OUV IIII

• 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	110 V
operating range factor control supply voltage rated value of	
magnet coil at AC	
● at 50 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	
● at 50 Hz	190 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.72
apparent holding power of magnet coil at AC	
● at 50 Hz	16 VA
inductive power factor with the holding power of the coil	
● at 50 Hz	0.37
closing delay	
• at AC	10 80 ms
opening delay	
• at AC	10 18 ms
arcing time	10 20 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous	1
contact	
number of NO contacts for auxiliary contacts instantaneous contact	1
operational current at AC-12 maximum	10 A
operational current at AC-15	1071
at 230 V rated value	10 A
at 400 V rated value	3 A
at 500 V rated value     at 500 V rated value	2 A
at 690 V rated value     at 690 V rated value	1A
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	1A
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	52 A
at 600 V rated value	52 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	3 hp
— at 230 V rated value	10 hp
• for 3-phase AC motor	
— at 200/208 V rated value	15 hp
— at 220/230 V rated value	15 hp
at 220/200 V Tatou Value	12 114

all 400480 V raided value all 570900 V raided value all 570900 V raided value sold of sublitary contacts according to UL A8007 P8001  Stort-circuit protection of the road circuit with type of assignment 2 required whith type of assignment 2 required whith type of assignment 2 required state interest interest of the audillary switch required whith type of assignment 2 required whith type of assignment 2 required whith sick-by-side mounting with sick-by-side mounting with sick-by-side mounting whith sick-by-side mountin		
contact rating of auxillary contacts according to UL  AB00 / PB00  AB00 / B00 / B	— at 460/480 V rated value	40 hp
Short-circult protection of the fuse link	— at 575/600 V rated value	50 hp
design of the fuse link  I for short-circuit protection of the main circuit  — with type of coordination i required  — with type of assignment 2 required  — with type of assignment 2 required  — with type of assignment 2 required  — for short-circuit protection of the auxiliary switch required  — with type of assignment 2 required  — for short-circuit protection of the auxiliary switch required  — standing position  mounting position  — standing climens since  featening method  — standing method — standing method — standing method — standing on horzontal mounting surface  — standing on horzontal mounting onto 35 mm DIN rail according to DIN EN 60715  — standing on horzontal mounting surface  —	contact rating of auxiliary contacts according to UL	A600 / P600
• for short-citral protection of the main circuit  — with type of assignment 2 required  — g. 56. 16.0 (690 V, 100 kA), aM: 50.0 (690 V, 100 kA), BS88: 125.A (415 V, 80 kA)  — g. 60.0 (690 V, 100 kA), aM: 50.0 (690 V, 100 kA), BS88: 83.A (415 V, 80 kA)  — g. 10.0 (690 V, 100 kA), aM: 50.0 (690 V, 100 kA), BS88: 83.A (415 V, 80 kA)  — g. 10.0 (690 V, 100 kA), aM: 50.0 (690 V, 100 kA), BS88: 83.A (415 V, 80 kA)  — g. 10.0 (690 V, 100 kA), aM: 50.0 (690 V, 100 kA), BS88: 83.A (415 V, 80 kA)  — g. 10.0 (690 V, 100 kA), aM: 50.0 (690 V, 100 kA), BS88: 83.A (415 V, 80 kA)  — g. 10.0 (690 V, 100 kA), aM: 50.0 (690 V, 100 kA), BS88: 83.A (415 V, 80 kA)  — g. 10.0 (690 V, 100 kA), aM: 50.0 (690 V, 100 kA), BS88: 83.A (415 V, 80 kA)  — g. 10.0 (690 V, 100 kA), aM: 50.0 (690 V, 100 kA), BS88: 83.A (415 V, 80 kA)  — g. 10.0 (690 V, 100 kA), aM: 50.0 (690 V, 100 kA)  — so third of the second of the second of the seco	Short-circuit protection	
with type of coordination 1 required with type of assignment 2 required selection mounting dimensions wounting position statening method selection mounting officensions with side by side mounting with side by sid	design of the fuse link	
- with type of assignment 2 required  - for short-circuit protection of the auxiliary switch required  Installation mounting officensions  mounting position  fastoning method  sarew and snep-on mounting onto 35 mm DIN rail according to DIN EN 60715  height  width  55 mm  depth  114 mm  required specing  - with aid-by-side mounting  - inforwards  - upwards  - or wards  - or wards  - or wards  - ownwards  - ownwa	<ul> <li>for short-circuit protection of the main circuit</li> </ul>	
* or short-circul protection of the auxiliary switch required installations mounting deficienciators  mounting position  fastening method	<ul> <li>— with type of coordination 1 required</li> </ul>	
mounting position stending method screw and snap-on mounting surface fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 80715 height 114 mm with the 55 mm 130 mm required spacing with side-thy-side mounting - forwards 10 mm - forwards 10 mm - downwards 10 mm - downwa	<ul> <li>— with type of assignment 2 required</li> </ul>	gG: 80A (690V,100kA), aM: 50A (690V,100kA), BS88: 63A (415V,80kA)
mounting position screw and snap-on mounting surface screw and snap-on mounting surface screw and snap-on mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 80715 height width 55 mm 57 mm 5	• for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
Interest   Series and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715	Installation/ mounting/ dimensions	
Might   Migh	mounting position	standing, on horizontal mounting surface
Width	fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
depth required spacing  - with side-by-side mounting - forwards - uppwards - downwards - downwards - at the side - of orgrounded parts - forwards - at the side - uppwards - at the side - ownwards - at the side - ownwards - at the side - downwards - at the side - downwards - ownwards - uppwards - ownwards -	height	114 mm
required spacing  • with side-by-side mounting  - forwards  - upwards  - downwards  - at the side  • for grounded parts  - forwards  - upwards  - to grounded parts  - forwards  - upwards  - at the side  - downwards  - at the side  - downwards  - at the side  - downwards  - to file parts  - forwards  - to file parts  - forwards  - upwards  - to mm  • for live parts  - for waid in the side  - downwards  - upwards  - upwards  - upwards  - to mm  - forwards  - upwards  - upwards  - to mm  - forwards  - upwards  - upwards  - to mm  - for main current circuit  • for audilary and control circuit  • for for audilary and control circuit  • for for audilary and control circuit  • for for audilary contacts  • for fave granded with core and processing  • for AWG cables for main contacts  • finely stranded with core end processing  • for fave stranded  • finely stranded with core end processing  • for for AWG cables for auxillary contacts  • solid or stranded  • finely stranded with core end processing  • for fave stranded  • finely stranded with core end processing  • for fave stranded  • finely stranded with core end processing  • for fave stranded  • finely stranded with core end processing  • for fave stranded  • finely stranded with core end processing  • for fave stranded  • finely stranded with core end processing  • for fave stranded  • finely stranded with core end processing  • for fave stranded  • finely stranded with core end processing  • for fave stranded  • finely stranded with core end processing  • for fave stranded  • finely stranded with core end processing  • for fave stranded  • finely stranded with core end processing  • for fave stranded  • finely	width	55 mm
• with side-by-side mounting  - forwards - upwards - downwards - at the side - for grounded parts - forwards - upwards - upwards - at the side - downwards - to lom - downwards - for live parts - forwards - forwards - forwards - upwards - downwards - for man - at the side - for man - the side - for m	depth	130 mm
forwards upwards	required spacing	
- upwards - downwards - forgrounded parts - forwards - forwards - downwards -	<ul><li>with side-by-side mounting</li></ul>	
- downwards - at the side	— forwards	10 mm
- at the side  • for grounded parts  - forwards  - upwards  - upwards  - the side  - downwards  • for live parts  - forwards  - forwards  - upwards  - for live parts  - forwards  - upwards  - forwards  - upwards  - to mm  - downwards  - at the side  - for mm  - upwards  - to mm  - at the side  - for mm  - to metical connection  - for mailiary and control circuit  - so rew-type terminals  - of rauxiliary contacts  - solid or stranded  - finely stranded with core end processing  - solid or stranded  - solid or strande	— upwards	10 mm
• for grounded parts  - forwards - forwards - upwards - at the side - downwards - for live parts - forwards - upwards - forwards - for main current circuit - for auxiliary and control circuit - for auxiliary and control circuit - for auxiliary and control circuit - for forwards - for main current circuit - for forwards - for main contacts - for main contacts - solid or stranded - finely stranded with core end processing - for AVIC cables for main contacts - finely stranded with core end processing - forwards conductor cross-section for main contacts - finely stranded with core end processing - forwards conductor cross-section for main contacts - finely stranded with core end processing - forwards conductor cross-section for main contacts - finely stranded with core end processing - forwards conductor cross-section for main contacts - finely stranded with core end processing - forwards conductor cross-section for auxiliary contacts - solid or stranded - finely stranded with core end processing - for auxiliary contacts - solid or stranded - finely stranded with core end processing - for forwards or stranded - finely stranded with core end processing - for forwards or stranded - finely stranded with core end processing - for forwards or stranded - finely stranded with core end processing - for forwards or stranded - finely stranded with core end processing - for forwards or stranded - finely stranded with core end processing - for forwards a coded connectable conductor cross-section - for auxiliary contacts - for auxilia	— downwards	10 mm
	— at the side	0 mm
- upwards - at the side - downwards • for live parts - forwards • for live parts - forwards - downwards - the side - domnoctions/ Terminals  Type of electrical connection • for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit • for auxiliary contacts • of magnet coil  Type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts • finely stranded with core end processing connectable conductor cross-section for main contacts • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • 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 connectable conductor cross-section for auxiliary contacts • solid or stranded - finely stranded with core end processing  type of connectable conductor cross-sections • for auxiliary contacts  AWG number as coded connectable conductor cross-section • for main contacts • for auxiliary contacts  • for main contacts • for auxiliary contacts  • for auxiliary contacts  • for main contact according to IEC 60947.4-1  • for auxiliary contacts  • for interminals  • for auxiliary contacts  • for	<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 — at the side 6 mm  Connectators/ Terminals  type of electrical connection — for main current circuit screw-type terminals — for auxiliary and control circuit screw-type terminals — of magnet coil screw-type terminals — of re main contacts — of re main contacts — of or main contacts — of re main contacts — of or auxiliary contacts — of or auxiliary contacts — of or auxiliary contacts — of or main contacts — of or auxiliary contacts — of or a	— forwards	10 mm
- downwards - for live parts - forwards - upwards - upwards - downwards - downwards - at the side - domnwards - the side - domnwards - for auxiliary and controt circuit - for auxiliary and controt circuit - for auxiliary and controt circuit - for auxiliary and controt contacts - of magnet coil - solid or stranded - for main contacts - solid or stranded - finely stranded with core end processing - for AWG cables for main contacts - finely stranded with core end processing - for AWG cables for main contacts - finely stranded with core end processing - for auxiliary contacts - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - solid or strander - solid or strander - solid or strander - solid or strander	— upwards	10 mm
• for live parts  — forwards — upwards — upwards — 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 connects  • for main connects — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts • finely stranded with core end processing connectable conductor cross-section for main contacts • finely stranded with core end processing connectable conductor cross-section for main contacts • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts  • solid or stranded — finely stranded with core end processing • for auxiliary contacts  • solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts  • for auxiliary contact	— at the side	6 mm
forwards	— downwards	10 mm
- upwards	<ul> <li>for live parts</li> </ul>	
- downwards — at the side 6 mm  Connections/ Terminals  type of electrical connection  • for main current circuit screw-type terminals  • at contactor for auxillary and control circuit screw-type terminals  • of magnet coil Screw-type terminals  • for auxillary contacts  — solid or stranded  • for avide of stranded 2x (1 35 mm²), 1x (1 50 mm²)  — finely stranded with core end processing 2x (1 25 mm²), 1x (1 35 mm²)  • for AWG cables for main contacts 2x (18 2), 1x (18 1)  connectable conductor cross-section for main contacts  • finely stranded with core end processing 1 35 mm²  connectable conductor cross-section for auxillary contacts  • solid or stranded 0.5 2.5 mm²  • finely stranded with core end processing 0.5 2.5 mm²  type of connectable conductor cross-sections  • for auxillary contacts  — solid or stranded 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  — finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  • for AWG cables for auxillary contacts 2x (20 16), 2x (18 14)  AWG number as coded connectable conductor cross-section  • for main contacts 18 1  • for auxillary contacts 20 14  Safety related data  product function  • mirror contact according to IEC 60947-4-1 Yes	— forwards	10 mm
Connectable conductor cross-section for main contacts  • finely stranded with core end processing  • for auxillary contacts  • for auxillary contacts  • for main contacts  — solid or stranded  • finely stranded with core end processing  • for auxillary contacts  • finely stranded with core end processing  • for auxillary contacts  — solid or stranded  — finely stranded with core end processing  • for auxillary contacts  — solid or stranded  — finely stranded with core end processing  • for auxillary contacts  — solid or stranded  — finely stranded with core end processing  • for auxillary contacts  AWG number as coded connectable conductor cross-sections  • for fauxillary contacts  • for main contacts  • for minror contact according to IEC 60947-4-1  Yes	— 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 current circuit • at contacts • of magnet coil  type of connectable conductor cross-sections • for main contacts  — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts • finely stranded with core end processing  connectable conductor cross-section for main contacts • finely stranded with core end processing  connectable conductor cross-section for auxiliary contacts • 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  type of connectable conductor cross-sections • 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 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  - solid or stranded  - finely stranded with core end processing  - solid or stranded  - solid or st	— 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 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 AWG cables for auxiliary contacts  — solid or stranded — finely stranded with core end processing  • for AWG cables 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 away contacts — solid or stranded — finely stranded with core end processing  • for away contacts — solid or stranded — finely stranded with core end processing • for away contacts — solid or stranded — finely stranded with core end processing • for away contacts — solid or stranded — solid solid solid solid — solid so	— at the side	6 mm
• for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil  type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing  connectable conductor cross-section for main contacts • finely stranded with core end processing  connectable conductor cross-section for auxiliary contacts • 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  type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  type of connectable conductor cross-sections • for auxiliary contacts  — solid or stranded — finely stranded with core end processing  5x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  4x (20 16), 2x (18 14)  AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts  18 1 • for auxiliary contacts  2x (20 14)  Safety related data  product function • mirror contact according to IEC 60947-4-1  Yes	Connections/ Terminals	
for auxiliary and control circuit     at contactor for auxiliary contacts     of magnet coil     Screw-type terminals     Screw-type terminals     Screw-type terminals     Screw-type terminals  type of connectable conductor cross-sections     for main contacts     — solid or stranded     — finely stranded with core end processing     of for AWG cables for main contacts     of finely stranded with core end processing     onnectable conductor cross-section for main contacts     onicatable conductor cross-section for auxiliary contacts     onlicity stranded with core end processing     connectable conductor cross-section for auxiliary contacts     onlicity stranded with core end processing     on-solid or stranded     onectable conductor cross-sections     of inely stranded with core end processing     value of connectable conductor cross-sections     of or auxiliary contacts     — solid or stranded     — finely stranded with core end processing     value of connectable conductor cross-sections     of or auxiliary contacts     of or AWG cables for auxiliary contacts     AWG number as coded connectable conductor cross section     of or main contacts     of or auxiliary contacts     one contacts	type of electrical connection	
at contactor for auxiliary contacts of magnet coil  type of connectable conductor cross-sections of for main contacts — solid or stranded — finely stranded with core end processing of finely stranded with core end processing  of finely stranded with core end processing  connectable conductor cross-section for main contacts of finely stranded with core end processing  connectable conductor cross-section for auxiliary contacts of solid or stranded of finely stranded with core end processing  connectable conductor cross-section for auxiliary contacts of solid or stranded of stranded of one stranded of or auxiliary contacts — solid or stranded — finely stranded with core end processing  connectable conductor cross-sections of or auxiliary contacts  of or auxiliary contacts  a solid or stranded  connectable conductor cross-sections of or auxiliary contacts  a solid or stranded  connectable conductor cross-sections of or auxiliary contacts  a solid or stranded  connectable conductor cross-sections of or auxiliary contacts  a solid or stranded  connectable conductor cross-sections  of or auxiliary contacts  a solid or stranded  connectable conductor cross-sections  a solid or stranded  connectable conductor cross-sections  of or auxiliary contacts  a solid or stranded  connectable conductor cross-sections  a solid or stran	for main current circuit	screw-type terminals
of magnet coil      type of connectable conductor cross-sections         of main contacts             — solid or stranded             — finely stranded with core end processing             of finely stranded with core end processing	<ul> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals
type of connectable conductor cross-sections  • for main contacts  — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts  • finely stranded with core end processing  connectable conductor cross-section for main contacts • finely stranded with core end processing  connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing  type of connectable conductor cross-sections • for auxiliary contacts  — solid or stranded  — solid or stranded  2x (0.5 2.5 mm²  type of connectable conductor cross-sections • for auxiliary contacts  — solid or stranded — finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  • for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts  • for auxiliary contacts 20 14  Safety related data  product function • mirror contact according to IEC 60947-4-1  Yes	<ul> <li>at contactor for auxiliary contacts</li> </ul>	Screw-type terminals
• for main contacts  — solid or stranded — finely stranded with core end processing — for AWG cables for main contacts — finely stranded with core end processing — solid or stranded — finely stranded with core end processing — solid or stranded — finely stranded with core end processing — solid or stranded — finely stranded with core end processing — solid or stranded — finely stranded — finely stranded with core end processing — solid or stranded — finely stranded with core end processing — solid or stranded — finely stranded with core end processing — solid or stranded — finely stranded with core end processing — solid or stranded — finely stranded with core end processing — solid or stranded — finely stranded with core end processing — solid or stranded — finely stranded with core end processing — solid or stranded — finely stranded with core end processing — solid or stranded — finely stranded with core end processing — solid or stranded — finely stranded with core end processing — solid or stranded — finely stranded with core end processing — solid or stranded — finely stranded with core end processing — solid or stranded — solid or s	of magnet coil	Screw-type terminals
- solid or stranded - finely stranded with core end processing • for AWG cables for main contacts • finely stranded with core end processing - finely stranded with core end processing • finely stranded with core end processing  connectable conductor cross-section for main contacts • finely stranded with core end processing  connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing  type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing  of or auxiliary contacts - solid or stranded - finely stranded with core end processing  of row auxiliary contacts - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - solid or stran	type of connectable conductor cross-sections	
- finely stranded with core end processing  • for AWG cables for main contacts  connectable conductor cross-section for main contacts  • finely stranded with core end processing  connectable conductor cross-section for auxiliary contacts  • solid or stranded  • finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts  - solid or stranded  - finely stranded with core end processing  • 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  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (20 16), 2x (18 14)  AWG number as coded connectable conductor cross section  • for main contacts  • for auxiliary contacts  18 1  • for auxiliary contacts  20 14  Safety related data  product function  • mirror contact according to IEC 60947-4-1  Yes		
• for AWG cables for main contacts      connectable conductor cross-section for main contacts     • finely stranded with 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      type of connectable conductor cross-sections     • for auxiliary contacts     — solid or stranded     — finely stranded with core end processing     — finely stranded with core end processing     • for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     • for main contacts     • for auxiliary contacts      * for auxil		
connectable conductor cross-section for main contacts  • finely stranded with core end processing  connectable conductor cross-section for auxiliary contacts  • solid or stranded • finely stranded with core end processing  type of connectable conductor cross-sections • for auxiliary contacts  — solid or stranded — finely stranded with core end processing  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  — finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  • for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts  18 1 • for auxiliary contacts  20 14  Safety related data  product function • mirror contact according to IEC 60947-4-1  Yes		2x (1 25 mm²), 1x (1 35 mm²)
ofinely stranded with core end processing     connectable conductor cross-section for auxiliary contacts     osolid or stranded     ofinely stranded with core end processing     of connectable conductor cross-sections     ofor auxiliary contacts         — solid or stranded         — solid or stranded         — solid or stranded         — finely stranded with core end processing         — finely stranded with core end processing         of rawG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     ofor main contacts     ofor auxiliary contacts     18 1     ofor auxiliary contacts     20 14  Safety related data  product function     omirror contact according to IEC 60947-4-1  Yes		2x (18 2), 1x (18 1)
connectable conductor cross-section for auxiliary contacts  • solid or stranded • finely stranded with core end processing  type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing — solid or stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) — finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  • for AWG cables for auxiliary contacts 2x (20 16), 2x (18 14)  AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts 18 1 • for auxiliary contacts 20 14  Safety related data  product function • mirror contact according to IEC 60947-4-1  Yes		
<ul> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>type of connectable conductor cross-sections</li> <li>for auxiliary contacts</li> <li>— solid or stranded</li> <li>— finely stranded with 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>18 1</li> <li>for auxiliary contacts</li> <li>20 14</li> </ul> Safety related data product function <ul> <li>mirror contact according to IEC 60947-4-1</li> <li>Yes</li> </ul>		1 35 mm²
finely stranded with core end processing      type of connectable conductor cross-sections         • for auxiliary contacts             — solid or stranded             — finely stranded with core end processing             — for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section             • for main contacts             • for auxiliary contacts  Safety related data  product function         • mirror contact according to IEC 60947-4-1  Yes	· · · · · · · · · · · · · · · · · · ·	
type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts  18 1 • for auxiliary contacts  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (20 16), 2x (18 14)  AWG number as coded connectable conductor cross section • for main contacts 18 1 • for auxiliary contacts 20 14  Safety related data  product function • mirror contact according to IEC 60947-4-1  Yes		
<ul> <li>for auxiliary contacts         — solid or stranded         — solid or stranded         — finely stranded with core end processing         — for AWG cables for auxiliary contacts         — for main contacts         — for main contacts         — for auxiliary contacts         — solid or stranded         — solid or stranded         — 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)         — 2x (20 16), 2x (18 14)         — section         — for main contacts         — for auxiliary contacts         — solid or stranded         — x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)         — x (20 14)         — x (2</li></ul>		0.5 2.5 mm²
- solid or stranded - finely stranded with core end processing - for AWG cables for auxiliary contacts  • for main contacts • for auxiliary contacts  18 1 • for auxiliary contacts  20 14  Safety related data  product function • mirror contact according to IEC 60947-4-1  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (20 16), 2x (18 14)  8 1 9 contact according to IEC 60947-4-1  Yes		
- finely stranded with core end processing  • for AWG cables for auxiliary contacts  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (20 16), 2x (18 14)  AWG number as coded connectable conductor cross section  • for main contacts  • for auxiliary contacts  20 14  Safety related data  product function  • mirror contact according to IEC 60947-4-1  Yes	•	
for AWG cables for auxiliary contacts      2x (20 16), 2x (18 14)  AWG number as coded connectable conductor cross section     • for main contacts     • for auxiliary contacts      20 14  Safety related data  product function     • mirror contact according to IEC 60947-4-1  Yes		
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  20 14  Safety related data  product function • mirror contact according to IEC 60947-4-1  Yes		
section  • for main contacts • for auxiliary contacts  20 14  Safety related data  product function • mirror contact according to IEC 60947-4-1  Yes	i	2x (20 16), 2x (18 14)
for auxiliary contacts     20 14  Safety related data  product function     mirror contact according to IEC 60947-4-1  Yes	section	
Safety related data  product function  ● mirror contact according to IEC 60947-4-1  Yes		
product function  • mirror contact according to IEC 60947-4-1  Yes		20 14
• mirror contact according to IEC 60947-4-1 Yes	Safety related data	
	product function	
• positively driven operation according to IEC 60947-5-1		Yes
	positively driven operation according to IEC 60947-5-1	No

<ul> <li>suitable for safety function</li> </ul>	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

other

other Railway Dangerous goods Environment

<u>Confirmation</u> <u>Special Test Certific-</u> <u>Transport Information</u> <u>Environmental Con-</u> ate <u>firmations</u>

## **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=3RT2036-1AF00-1AA0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2036-1AF00-1AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2036-1AF00-1AA0

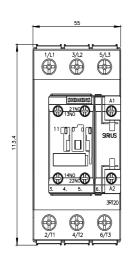
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

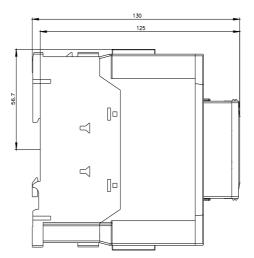
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2036-1AF00-1AA0\&lang=en}$ 

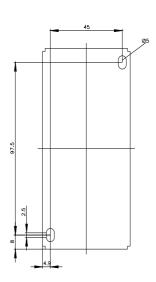
Characteristic: Tripping characteristics, I2t, Let-through current

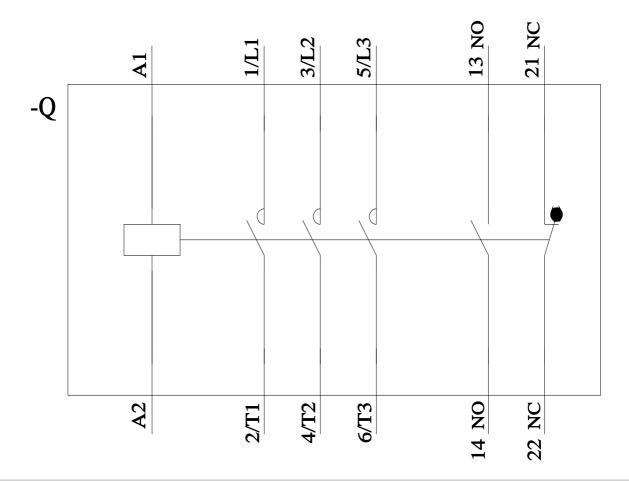
https://support.industry.siemens.com/cs/ww/en/ps/3RT2036-1AF00-1AA0/char

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









last modified:

