SIEMENS

Data sheet 3RT2046-1AP00



power contactor, AC-3e/AC-3, 95 A, 45 kW / 400 V, 3-pole, 230 V AC, 50 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S3 $\,$

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S3
product extension	
 function module for communication 	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
at AC in hot operating state	19.8 W
 at AC in hot operating state per pole 	6.6 W
 without load current share typical 	7.3 W
type of calculation of power loss depending on pole	quadratic
insulation voltage	
 of main circuit with degree of pollution 3 rated value 	1 000 V
 of auxiliary circuit with degree of pollution 3 rated value 	690 V
surge voltage resistance	
of main circuit rated value	8 kV
of auxiliary circuit rated value	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	690 V
shock resistance at rectangular impulse	
• at AC	10.3g / 5 ms, 6,.g / 10 ms
shock resistance with sine pulse	
• at AC	16.3g / 5 ms, 10.g / 10 ms
mechanical service life (operating cycles)	
of contactor typical	10 000 000
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	03/01/2017
Weight	1.719 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	405 kg
global warming potential [CO2 eq] during manufacturing	7.66 kg
global warming potential [CO2 eq] during operation	399 kg
global warming potential [CO2 eq] after end of life	-1.19 kg
Main circuit	1.10 kg
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	3
at AC-3 rated value maximum	1 000 V
at AC-3e rated value maximum	1 000 V
operational current	400.4
 at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 	130 A
up to 690 V at ambient temperature 40 °C rated value	130 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	110 A
• at AC-3	
— at 400 V rated value	95 A
— at 500 V rated value	95 A
— at 690 V rated value	78 A
— at 1000 V rated value	30 A
• at AC-3e	
— at 400 V rated value	95 A
— at 500 V rated value	95 A
— at 690 V rated value	78 A
— at 1000 V rated value	30 A
• at AC-4 at 400 V rated value	80 A
• at AC-5a up to 690 V rated value	114 A
• at AC-5b up to 400 V rated value	95 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	84.4 A
— up to 400 V for current peak value n=20 rated value	84.4 A
— up to 500 V for current peak value n=20 rated value	84.4 A
— up to 690 V for current peak value n=20 rated value	58 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	56.3 A
— up to 400 V for current peak value n=30 rated value	56.3 A
— up to 500 V for current peak value n=30 rated value	56.3 A
— up to 690 V for current peak value n=30 rated value	56.3 A
minimum cross-section in main circuit at maximum AC-1 rated	50 mm ²
value operational current for approx. 200000 operating cycles at AC-4	
	42 A
at 400 V rated value at 600 V rated value	42 A
• at 690 V rated value	30 A
operational current	
• at 1 current path at DC-1	100 A
— at 24 V rated value	100 A
— at 60 V rated value	60 A
— at 110 V rated value	9 A
— at 220 V rated value	2 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.4 A
with 2 current paths in series at DC-1	400.4
— at 24 V rated value	100 A
— at 60 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	10 A

— at 440 V rated value	1.8 A
— at 440 V rated value — at 600 V rated value	1.0 A
with 3 current paths in series at DC-1	
— at 24 V rated value	100 A
— at 60 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	80 A
— at 440 V rated value	4.5 A
— at 440 V rated value — at 600 V rated value	2.6 A
at 1 current path at DC-3 at DC-5	2.0 A
— at 24 V rated value	40 A
	6 A
— at 60 V rated value	2.5 A
— at 110 V rated value	
— at 220 V rated value	1 A
— at 440 V rated value	0.15 A
— at 600 V rated value	0.06 A
with 2 current paths in series at DC-3 at DC-5	400.4
— at 24 V rated value	100 A
— at 60 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	7 A
— at 440 V rated value	0.42 A
— at 600 V rated value	0.16 A
with 3 current paths in series at DC-3 at DC-5	400.4
— at 24 V rated value	100 A
— at 60 V rated value	100 A
— at 110 V rated value	100 A
— at 220 V rated value	35 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.35 A
operating power	45 1344
at AC-2 at 400 V rated value	45 kW
• at AC-3	00 144
— at 230 V rated value	22 kW
— at 400 V rated value	45 kW
— at 500 V rated value	55 kW
— at 690 V rated value	75 kW
— at 1000 V rated value	37 kW
• at AC-3e	00 1144
— at 230 V rated value	22 kW
— at 400 V rated value	45 kW
— at 500 V rated value	55 kW
— at 690 V rated value	75 kW
— at 1000 V rated value	37 kW
operating power for approx. 200000 operating cycles at AC-	
at 400 V rated value	22 kW
at 690 V rated value	27.4 kW
operating apparent power at AC-6a	
up to 230 V for current peak value n=20 rated value	33 kVA
 up to 400 V for current peak value n=20 rated value 	58 kVA
up to 500 V for current peak value n=20 rated value	73 kVA
up to 690 V for current peak value n=20 rated value	69 kVA
operating apparent power at AC-6a	
up to 230 V for current peak value n=30 rated value	22.4 kVA
up to 400 V for current peak value n=30 rated value	39 kVA
up to 500 V for current peak value n=30 rated value	48.7 kVA
up to 690 V for current peak value n=30 rated value	67.3 kVA
short-time withstand current in cold operating state up to	
40 °C	
 limited to 1 s switching at zero current maximum 	1 725 A; Use minimum cross-section acc. to AC-1 rated value

 limited to 5 s switching at zero current maximum 	1 297 A; Use minimum cross-section acc. to AC-1 rated value
limited to 3 s switching at zero current maximum limited to 10 s switching at zero current maximum	946 A; Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum	610 A; Use minimum cross-section acc. to AC-1 rated value
Iimited to 60 s switching at zero current maximum	486 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	F 000 4/L
• at AC	5 000 1/h
operating frequency	000.4%
• at AC-1 maximum	900 1/h
• at AC-2 maximum	350 1/h
• at AC-3 maximum	850 1/h
• at AC-3e maximum	850 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	230 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	296 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.61
apparent holding power of magnet coil at AC	
• at 50 Hz	19 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.38
closing delay	
• at AC	13 50 ms
opening delay	
• at AC	10 21 ms
arcing time	10 20 ms
	Standard A1 - A2
control version of the switch operating mechanism	Standard AT - AZ
control version of the switch operating mechanism Auxiliary circuit	Statistical AT - AZ
	1
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous	
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous	1
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact	1
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum	1
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15	1 1 10 A
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value	1 1 10 A 6 A
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value	1 1 10 A 6 A 3 A
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value	1 1 10 A 6 A 3 A 2 A
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value	1 1 10 A 6 A 3 A 2 A
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12	1 1 10 A 6 A 3 A 2 A 1 A
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value	1 1 10 A 6 A 3 A 2 A 1 A
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value	1 1 10 A 6 A 3 A 2 A 1 A 10 A 6 A
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value	1 1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value • at 110 V rated value	1 1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 60 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value	1 1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 3 A 2 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value	1 1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 3 A 2 A 1 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15	1 1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value	1 1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 6 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • at 24 V rated value	1 1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value • at 600 V rated value • at 600 V rated value • at 220 V rated value • at 220 V rated value • at 24 V rated value	1 1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7
Auxiliary circuit number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15 • at 230 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value	1 1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15	1 1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15	1 1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A 0.3 A
number of NC contacts for auxiliary contacts instantaneous contact number of NO contacts for auxiliary contacts instantaneous contact operational current at AC-12 maximum operational current at AC-15	1 1 10 A 6 A 3 A 2 A 1 A 10 A 6 A 6 A 6 A 3 A 2 A 1 A 0.15 A 10 A 2 A 2 A 1 A 0.9 A

UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	96 A
at 600 V rated value	77 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	10 hp
— at 230 V rated value	20 hp
• for 3-phase AC motor	20 πρ
— at 200/208 V rated value	30 hp
— at 220/230 V rated value	30 hp
— at 460/480 V rated value	75 hp
— at 575/600 V rated value	75 hp
contact rating of auxiliary contacts according to UL	A600 / P600
Short-circuit protection	A00071 000
design of the miniature circuit breaker for short-circuit protection	C characteristic: 10 A; 0.4 kA
of the auxiliary circuit up to 230 V	o characteriotic. 1071, c. 1101
design of the fuse link	
• for short-circuit protection of the main circuit	
 — with type of coordination 1 required 	gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80
— with type of assignment 2 required	kA) gG: 160 A (690 V, 100 kA), aM: 100 A (690 V, 100 kA), BS88: 125 A (415 V, 80
	kA)
for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method side-by-side mounting	Yes
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	140 mm
width	70 mm
depth	152 mm
required spacing	102 11111
with side-by-side mounting	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
for grounded parts	O Hilli
— forwards	20 mm
— upwards	10 mm
— upwards — at the side	10 mm
— at the side — downwards	10 mm
for live parts	10 11111
— forwards	20 mm
— upwards	10 mm
— upwards — downwards	10 mm
— at the side	10 mm
Connections/ Terminals	
type of electrical connection	screw-type terminals
type of electrical connection • for main current circuit	screw-type terminals
type of electrical connection	screw-type terminals
type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts	screw-type terminals Screw-type terminals
type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil	screw-type terminals
type of electrical connection	screw-type terminals Screw-type terminals
type of electrical connection	screw-type terminals Screw-type terminals Screw-type 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 — finely stranded with core end processing	screw-type terminals Screw-type terminals Screw-type terminals 2x (2.5 35 mm²), 1x (2.5 50 mm²)
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 — finely stranded with core end processing • for AWG cables for main contacts	screw-type terminals Screw-type terminals Screw-type 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 — finely stranded with core end processing • for AWG cables for main contacts connectable conductor cross-section for main contacts	screw-type terminals Screw-type terminals Screw-type terminals 2x (2.5 35 mm²), 1x (2.5 50 mm²) 2x (10 1/0), 1x (10 2)
type of electrical connection	screw-type terminals Screw-type terminals Screw-type terminals 2x (2.5 35 mm²), 1x (2.5 50 mm²) 2x (10 1/0), 1x (10 2) 2.5 16 mm²
type of electrical connection	screw-type terminals Screw-type terminals Screw-type terminals 2x (2.5 35 mm²), 1x (2.5 50 mm²) 2x (10 1/0), 1x (10 2)

solid or stranded inely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts — solid or stranded — finely stranded with core end processing e for AWG cables for auxiliary contacts — solid or stranded — finely stranded with core end processing e for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section e for main contacts e for auxiliary contacts e mirror contact according to IEC 60947-4-1 e positively driven operation according to IEC 60947-5-1 e suitable for safety function e with low demand rate according to ISO 331920 e with high demand rate according to SN 31920 e with high demand rate according to SN 31920 auxiliar tate [FIT] with low demand rate according to SN 31920 auxiliar tate [FIT] with low demand rate according to SN 31920 soverdimensioning according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary protection class IP on the front according to IEC 60529 finger-safe, for vertical contact from the front decording to IEC 60529 finger-safe, for vertical contact from the front		
• 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 succession • for main contacts • for succession • for main contacts • for succession • for main contacts • for succession • for main contacts • for succession • for main contacts • for succession • for main contacts • for succession • for main contacts • for succession • for main contacts • for main contacts • for main contacts • for succession • for main contacts • for main co	connectable conductor cross-section for auxiliary contacts	
type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts 2x (0.51.5 mm²), 2x (0.752.5 mm²) • for AWG cables for auxiliary contacts 2x (2016), 2x (1814) AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts 2014 **Torius related data **Torius related data **Torius related data **Product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • suitable for safety function • suitable for safety function • suitable for safety function • service life maximum 20 a test wear-related service life necessary **Type Autonomy of the demand rate according to SN 31920 • with high demand rate according to SN	solid or stranded	0.5 2.5 mm ²
• for auxiliary contacts — solid or stranded — finely stranded with core end processing 5 for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts • for main contacts • for main contacts • for main contacts • for auxiliary contacts • for main	finely stranded with core end processing	0.5 2.5 mm²
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 auxiliary contacts 2x (20 16), 2x (18 14) AWG number as coded connectable conductor cross section for main contacts for main contacts for auxiliary contact according to IEC 60947-4-1 for auxiliary contact according to IEC 60947-5-1 for a f	type of connectable conductor cross-sections	
- finely stranded with core end processing • 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 • fo	 for auxiliary contacts 	
• for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section • for main contacts • for auxiliary contacts	— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
AWG number as coded connectable conductor cross section • for main contacts • for main contacts 20 14 afety related data product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • positively driven operation according to IEC 60947-5-1 • suitable for safety function suitability for use safety-related switching OFF Yes service life maximum 20 a test wear-related service life necessary • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 100 FIT 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary FIGE 61508 safety device type according to IEC 61508-2 Type A Electrical Safety protection class IP on the front according to IEC 60529 Inger-safe, for vertical contact from the front	 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
of or main contacts of or auxiliary	 for AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14)
• for auxiliary contacts afety related data product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • suitable for safety function • yes • very • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • suitable for safety function • with low demand rate according to SN 31920 • suitable for safety • with low demand rate according to SN 31920 • suitable for safety • with low demand rate according to SN 31920 • suitable for safety • with low demand rate according to ISO 13849-1 • suitable for safety • 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 finger-safe, for vertical contact from the front	AWG number as coded connectable conductor cross section	
product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • positively driven operation according to IEC 60947-5-1 • suitable for safety function • suitable for safety function • suitable for safety function Yes service life maximum 20 a test wear-related service life necessary • with low demand rate according to SN 31920 • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary Yes LEC 61508 safety device type according to IEC 61508-2 Type A Electrical Safety protection class IP on the front according to IEC 60529 finger-safe, for vertical contact from the front to contact from the front according to IEC 60529 finger-safe, for vertical contact from the front	 for main contacts 	10 2
product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • positively driven operation according to IEC 60947-5-1 • positively driven operation according to IEC 60947-5-1 • suitability for use safety function Suitability for use safety-related switching OFF Yes service life maximum 20 a test wear-related service life necessary reproportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 * with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type 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 finger-safe, for vertical contact from the front	 for auxiliary contacts 	20 14
 mirror contact according to IEC 60947-4-1 positively driven operation according to IEC 60947-5-1 positively driven operation according to IEC 60947-5-1 suitable for safety function yes 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 with low demand rate according to SN 31920 with high demand rate according to SN 31920 avith high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 100 FIT 31920 ISO 13849 device type according to ISO 13849-1 avoverdimensioning 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 finger-safe, for vertical contact from the front 	Safety related data	
positively driven operation according to IEC 60947-5-1 suitable for safety function 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 with low demand rate according to SN 31920 with high demand rate according to SN 31920 with high demand rate according to SN 31920 indicate the properties of	product function	
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 with low demand rate according to SN 31920 with high demand rate according to SN 31920 with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A Electrical Safety protection class IP on the front according to IEC 60529 finger-safe, for vertical contact from the front for safety vertical contact from the front yes IP20 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front	 mirror contact according to IEC 60947-4-1 	Yes
suitability for use safety-related switching OFF service life maximum 20 a test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 73 % B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A Electrical Safety protection class IP on the front according to IEC 60529 finger-safe, for vertical contact from the front front	 positively driven operation according to IEC 60947-5-1 	No
service life maximum 20 a test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 1 000 000 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A Electrical Safety protection class IP on the front according to IEC 60529 finger-safe, for vertical contact from the front front 20 a Yes 100 1909 100 FIT 3 20 a 100 FIT 100 FI	suitable for safety function	Yes
test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 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 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A Electrical Safety protection class IP on the front according to IEC 60529 finger-safe, for vertical contact from the front front according to IEC 60529 finger-safe, for vertical contact from the front	suitability for use safety-related switching OFF	Yes
with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 **B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Electrical Safety protection class IP on the front according to IEC 60529 finger-safe, for vertical contact from the front front according to IEC 60529 finger-safe, for vertical contact from the front	service life maximum	20 a
with low demand rate according to SN 31920 with high demand rate according to SN 31920 This is a second state of the second state of	test wear-related service life necessary	Yes
with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Type A Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front	proportion of dangerous failures	
B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 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	 with low demand rate according to SN 31920 	40 %
failure rate [FIT] with low demand rate according to SN 31920 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	 with high demand rate according to SN 31920 	73 %
31920 ISO 13849 device type according to ISO 13849-1 3 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front	B10 value with high demand rate according to SN 31920	1 000 000
device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front	failure rate [FIT] with low demand rate according to SN 31920	100 FIT
overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front	ISO 13849	
IEC 61508 safety device type according to IEC 61508-2 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front	device type according to ISO 13849-1	3
Safety device type according to IEC 61508-2 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front	overdimensioning according to ISO 13849-2 necessary	Yes
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	IEC 61508	
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	safety device type according to IEC 61508-2	Туре А
touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front	Electrical Safety	
	protection class IP on the front according to IEC 60529	IP20
0.416.44	touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
pprovais Certificates	Approvals Certificates	

General Product Approval









<u>KC</u>



EMV Test Certificates Marine / Shipping



Type Test Certificates/Test Report

Special Test Certificate







Marine / Shipping other Railway Dangerous goods







Confirmation

Special Test Certificate

<u>Transport Information</u>

Environment





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=3RT2046-1AP00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2046-1AP00

 ${\bf Service \& Support~(Manuals,~Certificates,~Characteristics,~FAQs,...)}$

https://support.industry.siemens.com/cs/ww/en/ps/3RT2046-1AP00

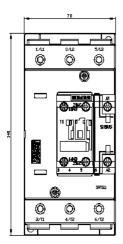
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ EPLAN\ macros,\ ...)$

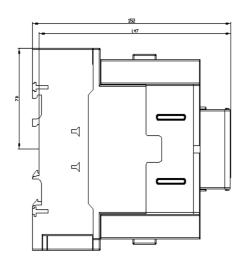
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2046-1AP00&lang=en

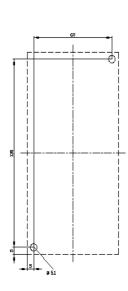
Characteristic: Tripping characteristics, I²t, Let-through current

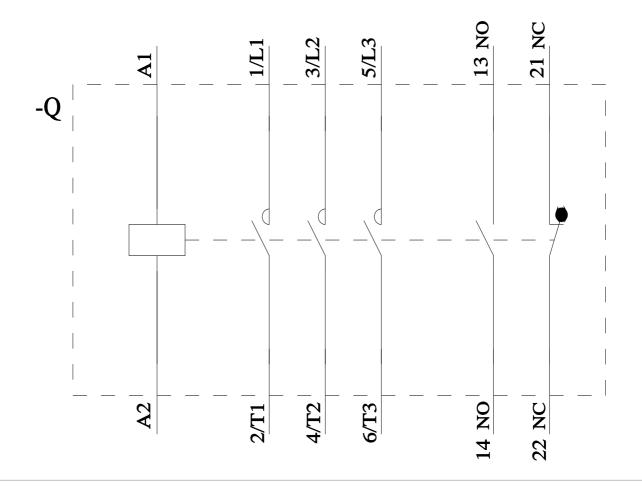
https://support.industry.siemens.com/cs/ww/en/ps/3RT2046-1AP00/char Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2046-1AP00&objecttype=14&gridview=view1









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