## **SIEMENS**

Data sheet 3RT1056-2NF36



power contactor, AC-3e/AC-3 185 A, 90 kW / 400 V AC (50-60 Hz) / DC Uc: 96-127 V PLC input 24 V DC 3-pole, auxiliary contacts 2 NO + 2 NC drive: electronic main circuit: busbar control and auxiliary circuit: spring-loaded terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT1
General technical data	
size of contactor	S6
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>	39 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	13 W
<ul> <li>without load current share typical</li> </ul>	2.8 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>	1 000 V
<ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul>	500 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	8,5g / 5 ms, 4,2g / 10 ms
• at DC	8,5g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at AC	13,4g / 5 ms, 6,5g / 10 ms
• at DC	13,4g / 5 ms, 6,5g / 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)	
SVHC substance name	Lead - 7439-92-1
Weight	3.353 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 %
lain 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	1 000 V
at AC-3e rated value maximum	1 000 V
operational current	
at AC-1 at 400 V at ambient temperature 40 °C rated	215 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	215 A
— up to 690 V at ambient temperature 60 °C rated value	185 A
— up to 1000 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	100 A
— up to 1000 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	100 A
• at AC-3	
— at 400 V rated value	185 A
— at 500 V rated value	185 A
— at 690 V rated value	170 A
<ul><li>— at 1000 V rated value</li><li>at AC-3e</li></ul>	65 A
— at 400 V rated value	185 A
— at 500 V rated value	185 A
— at 690 V rated value	170 A
— at 1000 V rated value	65 A
<ul> <li>at AC-4 at 400 V rated value</li> </ul>	160 A
<ul> <li>at AC-5a up to 690 V rated value</li> </ul>	189 A
<ul> <li>at AC-5b up to 400 V rated value</li> </ul>	153 A
• at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	157 A
— up to 400 V for current peak value n=20 rated value	157 A
— up to 500 V for current peak value n=20 rated value	157 A
— up to 690 V for current peak value n=20 rated value	157 A
<ul> <li>up to 1000 V for current peak value n=20 rated value</li> </ul>	65 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	105 A
— up to 400 V for current peak value n=30 rated value	105 A
— up to 500 V for current peak value n=30 rated value	105 A
— up to 690 V for current peak value n=30 rated value	105 A
up to 1000 V for current peak value n=30 rated value  value	65 A
minimum cross-section in main circuit at maximum AC-1 rated value	95 mm²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	81 A
at 690 V rated value	65 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	160 A
— at 60 V rated value	160 A
— at 110 V rated value	18 A
— at 220 V rated value	3.4 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.5 A
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	160 A

-4 CO V4- dl	400 A
— at 60 V rated value	160 A
— at 110 V rated value	160 A
— at 220 V rated value	20 A
— at 440 V rated value	3.2 A
— at 600 V rated value	1.6 A
with 3 current paths in series at DC-1	400 A
— at 24 V rated value  — at 60 V rated value	160 A 160 A
	160 A
<ul><li>— at 110 V rated value</li><li>— at 220 V rated value</li></ul>	160 A
— at 440 V rated value	11.5 A
— at 600 V rated value	4 A
• at 1 current path at DC-3 at DC-5	70
— at 24 V rated value	160 A
— at 60 V rated value	7.5 A
— at 220 V rated value	0.6 A
— at 440 V rated value	0.17 A
— at 600 V rated value	0.12 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	160 A
— at 60 V rated value	160 A
— at 110 V rated value	160 A
— at 220 V rated value	2.5 A
— at 440 V rated value	0.65 A
— at 600 V rated value	0.37 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	160 A
— at 60 V rated value	160 A
— at 110 V rated value	160 A
— at 220 V rated value	160 A
— at 440 V rated value	1.4 A
— at 600 V rated value	0.75 A
operating power	
at AC-3  — at 230 V rated value	55 kW
— at 400 V rated value	90 kW
— at 500 V rated value	132 kW
— at 690 V rated value	160 kW
— at 1000 V rated value	90 kW
• at AC-3e	
— at 230 V rated value	55 kW
— at 400 V rated value	90 kW
— at 500 V rated value	132 kW
— at 690 V rated value	160 kW
— at 1000 V rated value	90 kW
operating power for approx. 200000 operating cycles at AC-	
4	45 IAM
<ul><li>at 400 V rated value</li><li>at 690 V rated value</li></ul>	45 kW 65 kW
operating apparent power at AC-6a	OS KVV
up to 230 V for current peak value n=20 rated value	60 000 kVA
up to 400 V for current peak value n=20 rated value	100 000 VA
up to 500 V for current peak value n=20 rated value	130 000 VA
up to 690 V for current peak value n=20 rated value	180 000 VA
• up to 1000 V for current peak value n=20 rated value	110 000 VA
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	40 000 VA
• up to 400 V for current peak value n=30 rated value	70 000 VA
• up to 500 V for current peak value n=30 rated value	90 000 VA
• up to 690 V for current peak value n=30 rated value	120 000 VA
<ul> <li>up to 1000 V for current peak value n=30 rated value</li> </ul>	110 000 VA

short-time withstand current in cold operating state up to 40 °C	
limited to 1 s switching at zero current maximum	2 900 A; Use minimum cross-section acc. to AC-1 rated value
limited to 5 s switching at zero current maximum	2 084 A; Use minimum cross-section acc. to AC-1 rated value
limited to 10 s switching at zero current maximum	1 480 A; Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum	968 A; Use minimum cross-section acc. to AC-1 rated value
limited to 60 s switching at zero current maximum	801 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	33.77, 333.77, 333.73,
• at AC	1 000 1/h
• at DC	1 000 1/h
operating frequency	1 000 1/11
at AC-1 maximum	800 1/h
• at AC-2 maximum	300 1/h
• at AC-3 maximum	750 1/h
at AC-3e maximum	750 1/h
• at AC-4 maximum	130 1/h
Control circuit/ Control	100 1/11
	ACIDO
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC  • at 50 Hz rated value	96 127 V
	96 127 V 96 127 V
at 60 Hz rated value  control supply voltage at PC rated value	96 127 V 96 127 V
control supply voltage at DC rated value	90 127 V
operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.8
full-scale value	1.1
operating range factor control supply voltage rated value of	
magnet coil at AC	
● at 50 Hz	0.8 1.1
• at 60 Hz	0.8 1.1
type of PLC-control input according to IEC 60947-1	Type 2
consumed current at PLC-control input according to IEC 60947-1 maximum	20 mA
voltage at PLC-control input rated value	24 V
operating range factor of the voltage at PLC-control input	0.8 1.1
design of the surge suppressor	with varistor
apparent pick-up power	
<ul> <li>at minimum rated control supply voltage at AC</li> </ul>	
— at 50 Hz	190 VA
— at 60 Hz	190 VA
at maximum rated control supply voltage at AC	
— at 60 Hz	280 VA
— at 50 Hz	280 VA
apparent pick-up power of magnet coil at AC	
• at 50 Hz	280 VA
• at 60 Hz	280 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.8
• at 60 Hz	0.8
apparent holding power	
at minimum rated control supply voltage at DC	2.1 VA
at maximum rated control supply voltage at DC	2.8 VA
apparent holding power	
at minimum rated control supply voltage at AC	
— at 50 Hz	3.5 VA
— at 60 Hz	3.5 VA
at maximum rated control supply voltage at AC	
— at 50 Hz	4.8 VA
— at 60 Hz	4.8 VA
inductive power factor with the holding power of the coil	
at 50 Hz	0.6
• at 60 Hz	0.6
- at 00 Hz	V.V

closing power of magnet coil at DC	320 W
holding power of magnet coil at DC	2.8 W
closing delay	2.0 VV
• at AC	35 75 ms
• at DC	35 75 ms
opening delay	33 <i>13</i> IIIS
• at AC	80 90 ms
• at DC	80 90 ms
arcing time	10 15 ms
control version of the switch operating mechanism	PLC-IN or Standard A1 - A2 (adjustable)
Auxiliary circuit	1 EO-IIV OF Ottahuaru AT - AZ (aujustable)
number of NC contacts for auxiliary contacts instantaneous	2
contact	-
number of NO contacts for auxiliary contacts instantaneous	2
contact	
operational current at AC-12 maximum	10 A
operational current at AC-15	
at 230 V rated value	6 A
<ul> <li>at 400 V rated value</li> </ul>	3 A
• at 500 V rated value	2 A
at 690 V rated value	1 A
operational current at DC-12	
at 24 V rated value	10 A
at 48 V rated value	6 A
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
<ul> <li>at 220 V rated value</li> </ul>	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)
JL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	180 A
at 600 V rated value	192 A
yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
— at 230 V rated value	30 hp
• for 3-phase AC motor	
— at 200/208 V rated value	60 hp
— at 220/230 V rated value	75 hp
— at 460/480 V rated value	150 hp
— at 575/600 V rated value	200 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
• for short-circuit protection of the main circuit	
— with type of coordination 1 required	gG: 355 A (690 V, 100 kA)
— with type of assignment 2 required	gG: 315 A (690 V, 100 kA), aM: 200 A (690 V, 50 kA), BS88: 315 A (415 V, 50 kA)
• for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
nstallation/ mounting/ dimensions	
mounting position	with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
fastening method	screw fixing

type of electrical connection  • for main current circuit  • for maxiliary and control circuit  • for auxiliary and control circuit  • at contactor for auxiliary contacts  • of magnet coil  width of connection bar  thickness of connection bar  diameter of holes  1		1=0
depth required spacing - with side-8y-side mounting - flowards - upwards - downwards - at the side - or grounded parts - flowards - upwards - upwards - upwards - upwards - upwards - flowards - upwards - upwards - upwards - upwards - upwards - upwards - in the side - downwards - upwards - upwards - in the side - downwards - upwards - in the side - downwards - for live parts - forwards - upwards - upwards - upwards - upwards - forwards - upwards - unwards - unward		
evith site-by-side mounting - forwards - forwards - downwards - at the side - of prounded parts - forwards - upwards - upwards - upwards - upwards - upwards - of the parts - forwards - downwards - of the parts - forwards - downwards - downwards - downwards - forwards - downwards - downwards - downwards - downwards - downwards - upwards - downwards - downwards - downwards - downwards - downwards - of man current circuit - forwards - of man current circuit - for auditing and control circuit - of auditing and and and control circuit - of auditing contacts - of auditing	width	
• with side-by-aide mounting	depth	170 mm
- Forwards	required spacing	
- upwards	<ul> <li>with side-by-side mounting</li> </ul>	
- downwards	— forwards	20 mm
• for grounded parts	— upwards	10 mm
• for grounded parts  - Invivards - at the side - Jownwards - of live parts - Jowards	— downwards	10 mm
- forwards	— at the side	0 mm
- forwards	for grounded parts	
- upwards - at the side - downwards   for live parts	-	20 mm
- at the side		
• For live parts  - For wards - Quywards -	•	
• for live parts  — forwards — upwards — at the side — at the side  connections Terminals  Type of electrical connection • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnetion bar  diameter of holes  1 7 mm  thickness of connectable conductor cross-sections • for AWG cables for main contacts • stranded • finely stranded with core end processing • finely stranded with core end processing • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • finely stranded with core end processing • for auxiliary contacts • fo		
forwards		10 mm
- upwards - downwards - at the side 10 mm - downwards - downwards - at the side 10 mm - downwards - d	·	
- downwards - at the side 10 mm  onnections/ forminals  type of electrical connection  • for main current circuit contacts • for main year of control circuit spring-loaded terminals • at contactor for auxiliary contacts • of magnet coil spring-loaded terminals • at contactor for auxiliary contacts • of magnet coil spring-lype terminals • of magnet coil spring-loaded spring-loaded spring-loaded terminals • of magnet coil spring-loaded spring-loaded spring-loaded terminals • of magnet coil spring-loaded		<del></del>
— at the side  onnections   Terminals  vitype of electrical connection  • for main current circuit  • for auxiliary and control circuit  • at contact for auxiliary contacts  • of magnet coil  width of connection bar  thickness of connection bar  diameter of holes  • for AWG cables for main contacts  • stranded  • connectable conductor cross-sections  • for AWG and with core end processing  • finely stranded with core end processing  • for AWG cables for auxiliary contacts  • solid or stranded  - finely stranded with core end processing  • for auxiliary contacts  • for auxiliar	•	
type of electrical connection  • for anxillary and control circuit • for auxillary and control circuit • for auxillary and control circuit • at contactor for auxillary contacts • of magnet coil  width of connection bar  thickness of connectable conductor cross-sections • for AWG cables for main contacts • standed  connectable conductor cross-sections • for AWG cables for main contacts • standed  connectable conductor cross-section for main contacts • solid or stranded  onnectable conductor cross-section for auxillary contacts • solid or stranded without core end processing • finely stranded without core end processing • for auxillary contacts  - solid - solid or stranded - finely stranded with core end processing • for auxillary contacts  - solid - solid or stranded - finely stranded with core end processing • for auxillary contacts  - solid or stranded - finely stranded with core end processing - finely stranded without core end p	— downwards	10 mm
type of electrical connection  • for main current circuit  • for main current circuit  • at contactor for auxiliary contacts  • at contactor for auxiliary contacts  • of magnet coil  width of connection bar  thickness of connection bar  thickness of connection bar  diameter of holes  • for AWG cables for main contacts  • stranded  • for auxiliary contacts  • stranded  • finely stranded without core end processing  • for auxiliary contacts  • for for AWG cables for main contacts  • for auxiliary contacts  •	— at the side	10 mm
• for main current circuit • for auxiliary and control circuit • for auxiliary and control circuit • at contact for for auxiliary contacts • of magnet coil  width of connection bar  flickness of connection bar  diameter of holes  17 mm  diameter of holes  19 mm  number of holes  10 type of connectable conductor cross-sections • for AWG cables for main contacts • stranded  connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • finely stranded without core end processing • for auxiliary contacts • solid or stranded • finely stranded without core end processing • for fauxiliary contacts • solid or stranded • finely stranded without core end processing • for auxiliary contacts • solid or stranded • finely stranded without core end processing • for auxiliary contacts • solid or stranded • finely stranded without core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts	connections/ Terminals	
• for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil  width of connection bar thickness of connection bar thickness of connection bar diameter of holes  number of holes  • for AWG cables for main contacts • stranded  connectable conductor cross-section for auxiliary contacts • solid or stranded  • finely stranded with core end processing • finely stranded without core end processing • for auxiliary contacts  — solid or stranded  - solid or stranded  - solid or stranded  - solid or stranded without core end processing • for auxiliary contacts  — solid or stranded without core end processing • for auxiliary contacts  — solid or stranded with core end processing • for auxiliary contacts  — solid or stranded with core end processing • for auxiliary contacts  — solid or stranded without core end processing • for auxiliary contacts  — solid or stranded without core end processing • for AWG cables for auxiliary contacts  • for auxiliary contacts  • for auxiliary contacts  • for for AWG cables for auxiliary contacts  • for auxiliary contacts  • for solid or stranded or processing • for auxiliary contacts  • for solid or stranded or processing • for solid or stranded or solid or soli	type of electrical connection	
a t contactor for auxiliary contacts b of magnet coil commercion bar width of connection bar thickness of connection bar thickness of connection bar diameter of holes umber of holes type of connectable conductor cross-sections b for AWG cables for main contacts connectable conductor cross-sections b stranded connectable conductor cross-section for main contacts connectable conductor cross-section for main contacts connectable conductor cross-section for auxiliary contacts s olid or stranded connectable conductor cross-section for auxiliary contacts s olid or stranded connectable conductor cross-section for auxiliary contacts s olid or stranded without core end processing finely stranded without core end processing consectable conductor cross-sections for auxiliary contacts conductor cross-sections conductor consectable conductor cross-sections conductor	for main current circuit	Connection bar
a t contactor for auxiliary contacts b of magnet coil commercion bar width of connection bar thickness of connection bar thickness of connection bar diameter of holes umber of holes type of connectable conductor cross-sections b for AWG cables for main contacts connectable conductor cross-sections b stranded connectable conductor cross-section for main contacts connectable conductor cross-section for main contacts connectable conductor cross-section for auxiliary contacts s olid or stranded connectable conductor cross-section for auxiliary contacts s olid or stranded connectable conductor cross-section for auxiliary contacts s olid or stranded without core end processing finely stranded without core end processing consectable conductor cross-sections for auxiliary contacts conductor cross-sections conductor consectable conductor cross-sections conductor	for auxiliary and control circuit	spring-loaded terminals
of magnet coll width of connection bar thickness of connection bar diameter of holes number of holes 1 type of connectable conductor cross-sections	•	
width of connection bar thickness of connection bar diameter of holes number of holes 1 type of connectable conductor cross-sections of finely stranded without core end processing of finely stranded without core end processing - sold or stranded - finely stranded without core end processing of rowalkilary contacts - solid - solid or stranded - finely stranded without core end processing - solid or stranded - finely stranded without core end processing - solid or stranded - finely stranded without core end processing - solid - solid or stranded - finely stranded without core end processing - solid - solid or stranded - finely stranded without core end processing - solid - solid or stranded - finely stranded with core end processing - solid - solid or stranded - finely stranded with core end processing - solid 2x (0.25 2.5 mm²) - x (0.25 2.5 mm²) - solid or stranded - finely stranded with core end processing - finely stranded without core end processing - solid stranded without core end processing - solid strande	•	
thickness of connectable conductor cross-sections  • for AWG cables for main contacts • stranded connectable conductor cross-section for main contacts • stranded connectable conductor cross-section for main contacts • stranded connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • finely stranded without core end processing • for auxiliary contacts  • solid or stranded • finely stranded without core end processing • for auxiliary contacts  • solid or stranded • finely stranded without core end processing • for auxiliary contacts  • solid or stranded • finely stranded without core end processing • for sulfilary contacts  • solid or stranded - solid or stranded with core end processing • for auxiliary contacts  • for auxiliary contacts • fo		· · · · ·
diameter of holes number of holes type of connectable conductor cross-sections of or AWG cables for main contacts of finely stranded of mely stranded with core end processing of or auxiliary contacts of or auxiliary contacts of auxiliary cont		
type of connectable conductor cross-sections  • for AWG cables for main contacts  • stranded  connectable conductor cross-section for main contacts  • stranded  connectable conductor cross-section for main contacts  • stranded  connectable conductor cross-section for auxiliary contacts  • solid or stranded  • finely stranded with our end processing  • finely stranded without core end processing  • finely stranded without core end processing  • for auxiliary contacts  - solid  - solid or stranded  - finely stranded with core end processing  • for auxiliary contacts  - solid  - solid or stranded  - finely stranded with core end processing  • for AWG cables for auxiliary contacts  • for AWG cables for auxiliary contacts  • for suxiliary contacts  • for fawliary contacts  • for suxiliary contacts  • for suxiliary con		
type of connectable conductor cross-sections		
of rawG cables for main contacts     connectable conductor cross-section for main contacts     ostranded     connectable conductor cross-section for auxiliary contacts     osolid or stranded with core end processing     o.25 2.5 mm²     ofinely stranded without core end processing     o.25 2.5 mm²     one tauxiliary contacts     osolid conductor cross-sections     of or auxiliary contacts		1
connectable conductor cross-section for main contacts  • stranded  connectable conductor cross-section for auxiliary contacts  • solid or stranded  • finely stranded with core end processing  • finely stranded with core end processing  • finely stranded without core end processing  • finely stranded without core end processing  • finely stranded without core end processing  • for auxiliary contacts  — solid  — solid or stranded  — solid or stranded with core end processing  — solid or stranded with core end processing  — finely stranded with core end processing  — finely stranded without core end processing  — for AWG cables for auxiliary contacts  2x (0.25 2.5 mm²)  — for AWG cables for auxiliary contacts  2x (0.25 2.5 mm²)  2x (0.25 2		4 0501 1
stranded 25 120 mm²  connectable conductor cross-section for auxiliary contacts     solid or stranded		4 250 KCMII
econnectable conductor cross-section for auxiliary contacts  • solid or stranded • finely stranded with core end processing • finely stranded without core end processing • for auxiliary contacts  • solid  - solid  - solid or stranded  - solid or stranded  - solid or stranded  - finely stranded with core end processing  - finely stranded with core end processing  - finely stranded without core end processing  • for AWG cables for auxiliary contacts   AWG number as coded connectable conductor cross section  • for auxiliary contacts  24 14   afety related data  product function  • mirror contact according to IEC 60947-4-1  • positively driven operation according IEC 60947-5-1  • suitable for safety function  suitability for use safety-related switching OFF  yes; safety-related disconnection via A1 A2  service life maximum  20 a  test wear-related service life necessary  respont or dangerous failures  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  • with high demand rate according to SN 31920  • with high demand rate according to SN 31920  • with high demand rate according to SN 31920  1 000 000		
solid or stranded     finely stranded with core end processing     finely stranded without core end processing     finely stranded without core end processing     type of connectable conductor cross-sections     for auxiliary contacts     — solid     — solid     — solid or stranded     — solid or stranded     — finely stranded with core end processing     — finely stranded with core end processing     — finely stranded without core end processing     — finely stranded without core end processing     — finely stranded without core end processing     — for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section     • for auxiliary contacts  24 14  AWG number as coded connectable conductor cross section     • for auxiliary contacts  Product function     • mirror contact according to IEC 60947-4-1     • positively driven operation according to IEC 60947-5-1     • suitable for safety function     • suitablity for use safety-related switching OFF     yes; safety-related disconnection via A1 A2  service life maximum     20 a  test wear-related service life necessary     proportion of dangerous failures     • with low demand rate according to SN 31920     • with low demand rate according to SN 31920     • with high demand rate according to SN 31920     • with high demand rate according to SN 31920     1000 000		25 120 mm²
• finely stranded with core end processing • finely stranded without core end processing  type of connectable conductor cross-sections • for auxiliary contacts  - solid - solid 2x (0.25 2.5 mm²)  - finely stranded with core end processing - finely stranded with core end processing - finely stranded with core end processing - finely stranded without core end processing - for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section • for auxiliary contacts - finely stranded with core end processing - for AWG cables for auxiliary contacts - for AWG cables for auxiliary contacts - finely stranded with core end processing - for AWG cables for auxiliary contacts - for AWG cables for auxiliary contacts - for auxiliary contacts - finely stranded with core end processing - for AWG cables for auxiliary contacts - finely stranded with core end processing - for AWG cables for auxiliary contacts - finely stranded with core end processing - for AWG cables for auxiliary contacts - finely stranded with core end processing - for AWG cables for auxiliary contacts - finely stranded with core end processing - for AWG cables for auxiliary contacts - finely stranded with core end processing - for AWG cables for auxiliary contacts - finely stranded with core end processing - for AWG cables for auxiliary contacts - finely stranded with core end processing - finely stranded with core end processi		
type of connectable conductor cross-sections  • for auxiliary contacts  — solid — solid or stranded — finely stranded with core end processing — finely stranded with core end processing — finely stranded without core end processing — strandard without core end processing — 2x (0.25 2.5 mm²) — 2x (24 14)  AWG number as coded connectable conductor cross section — for auxiliary contacts — 24 14  afety related data  product function — mirror contact according to IEC 60947-4-1 — yes — positively driven operation according to IEC 60947-5-1 — no suitable for safety function — with 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 — with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  1 000 000	<ul> <li>solid or stranded</li> </ul>	0.25 2.5 mm²
type of connectable conductor cross-sections  • for auxiliary contacts  — solid — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing • for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section • for auxiliary contacts 24 14  AWG number as coded connectable conductor cross section • for auxiliary contacts 24 14  Are tyrelated data  Product function • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 • suitablief or safety function • suitablity for use safety-related switching OFF Yes; safety-related disconnection via A1 A2  service life maximum  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 • with high demand rate according to SN 31920 1 000 000	<ul> <li>finely stranded with core end processing</li> </ul>	0.25 1.5 mm²
• for auxiliary contacts  — solid — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section — for auxiliary contacts 24 14  afety related data  product function — mirror contact according to IEC 60947-4-1 — positively driven operation according to IEC 60947-5-1 — suitability for use safety function  suitability for use safety-related switching OFF — Yes; safety-related disconnection via A1 A2  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  1 000 000	finely stranded without core end processing	0.25 2.5 mm²
- solid 2x (0.25 2.5 mm²) - solid or stranded 2x (0.25 2.5 mm²) - finely stranded with core end processing 2x (0.25 1.5 mm²) - finely stranded without core end processing 2x (0.25 2.5 mm²) - finely stranded without core end processing 2x (0.25 14) - finely stranded without core end processing 2x (0.25 14) - finely strand	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 - finely stranded without core end processing - for AWG cables for auxiliary contacts  2x (0.25 2.5 mm²) 2x (0.24 14)  AWG number as coded connectable conductor cross section - for auxiliary contacts 24 14  Are 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  suitablifty for use safety-related switching OFF - yes; safety-related disconnection via A1 A2  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 - with high demand rate according to SN 31920 - 1 000 000	for auxiliary contacts	
finely stranded with core end processing finely stranded without core end processing finely stranded without core end processing for AWG cables for auxiliary contacts  2x (24 14)  AWG number as coded connectable conductor cross section for auxiliary contacts	— solid	2x (0.25 2.5 mm²)
- finely stranded without core end processing	— solid or stranded	2x (0,25 2,5 mm²)
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section	— finely stranded with core end processing	2x (0.25 1.5 mm²)
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section	— finely stranded without core end processing	2x (0.25 2.5 mm²)
AWG number as coded connectable conductor cross section  • for auxiliary contacts  24 14  afety related data  product function  • mirror contact according to IEC 60947-4-1 Yes  • positively driven operation according to IEC 60947-5-1 No  • suitable for safety function Yes; safety-related disconnection via A1 A2  service life maximum 20 a  test wear-related service life necessary Yes  proportion of dangerous failures  • with low demand rate according to SN 31920 40 %  • with high demand rate according to SN 31920 73 %  B10 value with high demand rate according to SN 31920 1000 000		
• 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     • suitability for use safety-related switching OFF     yes; safety-related disconnection via A1 A2  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  B10 value with high demand rate according to SN 31920  1 000 000	AWG number as coded connectable conductor cross	
product function		24 14
product function	·	£7 17
<ul> <li>mirror contact according to IEC 60947-4-1</li> <li>positively driven operation according to IEC 60947-5-1</li> <li>suitable for safety function</li> <li>suitability for use safety-related switching OFF</li> <li>service life maximum</li> <li>test wear-related service life necessary</li> <li>proportion of dangerous failures</li> <li>with low demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>1 000 000</li> </ul>		
<ul> <li>positively driven operation according to IEC 60947-5-1</li> <li>suitable for safety function</li> <li>suitability for use safety-related switching OFF</li> <li>yes; safety-related disconnection via A1 A2</li> <li>service life maximum</li> <li>20 a</li> <li>test wear-related service life necessary</li> <li>yes</li> <li>proportion of dangerous failures</li> <li>with low demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>1 000 000</li> </ul>		V
<ul> <li>suitable for safety function</li> <li>yes</li> <li>suitability for use safety-related switching OFF</li> <li>yes; safety-related disconnection via A1 A2</li> <li>service life maximum</li> <li>20 a</li> <li>test wear-related service life necessary</li> <li>yes</li> <li>proportion of dangerous failures         <ul> <li>with low demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> </ul> </li> <li>B10 value with high demand rate according to SN 31920</li> <li>1 000 000</li> </ul>	-	
suitability for use safety-related switching OFF Yes; safety-related disconnection via A1 A2  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  1 000 000  PYes; safety-related disconnection via A1 A2  20 a  40 %  50 WHEN EVALUATE OF THE PROPORTION OF THE PROPORT		
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  1 000 000	•	
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	suitability for use safety-related switching OFF	Yes; safety-related disconnection via A1 A2
proportion of dangerous failures  ● with low demand rate according to SN 31920 40 %  ● with high demand rate according to SN 31920 73 %  B10 value with high demand rate according to SN 31920 1 000 000	service life maximum	20 a
<ul> <li>with low demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>810 value with high demand rate according to SN 31920</li> <li>1 000 000</li> </ul>	test wear-related service life necessary	Yes
• with high demand rate according to SN 31920 73 %  B10 value with high demand rate according to SN 31920 1 000 000	proportion of dangerous failures	
B10 value with high demand rate according to SN 31920 1 000 000	<ul> <li>with low demand rate according to SN 31920</li> </ul>	40 %
B10 value with high demand rate according to SN 31920 1 000 000	<ul> <li>with high demand rate according to SN 31920</li> </ul>	73 %
·		1 000 000

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	IP00; IP20 with box terminal/cover
touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front with box terminal/cover	
Approvals Certificates	

## **General Product Approval**





Confirmation





<u>KC</u>

General	<b>Product</b>	Ap-
proval		

**EMV** 

**Functional Saftey** 

**Test Certificates** 

Marine / Shipping





Type Examination Certificate

Type Test Certificates/Test Report

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



## Marine / Shipping









**Miscellaneous** 

other

Confirmation

other	Railway	Environment

Confirmation

Miscellaneous

Special Test Certificate

**Environmental Con**firmations

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)

all.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1056-2NF36

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1056-2NF36

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

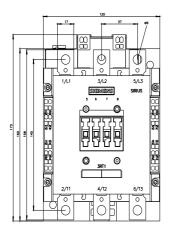
https://support.industry.siemens.com/cs/ww/en/ps/3RT1056-2NF36

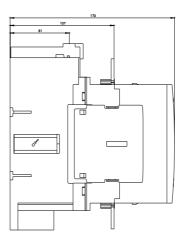
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

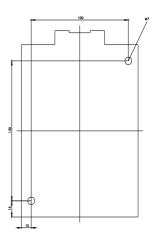
Characteristic: Tripping characteristics, I2t, Let-through current

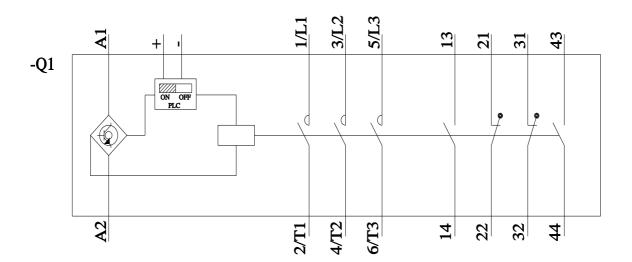
https://support.industry.siemens.com/cs/ww/en/ps/3RT1056

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1056-2NF36&objecttype=14&gridview=view1









last modified:

