SIEMENS

Data sheet 3RT1064-2AU36



power contactor, AC-3e/AC-3 225 A, 110 kW / 400 V AC (50-60 Hz) / DC Uc: 240-277 V 3-pole, auxiliary contacts 2 NO + 2 NC drive: conventional 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	S10
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 	51 W
 at AC in hot operating state per pole 	17 W
 without load current share typical 	7.4 W
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 	500 V
surge voltage resistance	
 of main circuit rated value 	8 kV
 of auxiliary circuit rated value 	6 kV
maximum permissible voltage for safe isolation 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)	
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)	05/01/2012
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	95 %
maximum	

Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
at AC-3 rated value maximum	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 value 	275 A
• at AC-1	
 up to 690 V at ambient temperature 40 °C rated value 	275 A
 up to 690 V at ambient temperature 60 °C rated value 	250 A
 up to 1000 V at ambient temperature 40 °C rated value 	100 A
 up to 1000 V at ambient temperature 60 °C rated value 	100 A
• at AC-3	
— at 400 V rated value	225 A
— at 500 V rated value	225 A
— at 690 V rated value	225 A
— at 1000 V rated value	68 A
• at AC-3e	
— at 400 V rated value	225 A
— at 500 V rated value	225 A
— at 1000 V rated value	68 A
 at AC-4 at 400 V rated value 	195 A
 at AC-5a up to 690 V rated value 	242 A
 at AC-5b up to 400 V rated value 	186 A
• at AC-6a	
 up to 230 V for current peak value n=20 rated value 	225 A
 up to 400 V for current peak value n=20 rated value 	225 A
 up to 500 V for current peak value n=20 rated value 	225 A
 up to 690 V for current peak value n=20 rated value 	225 A
 up to 1000 V for current peak value n=20 rated value 	68 A
• at AC-6a	4=0 A
— up to 230 V for current peak value n=30 rated value	172 A
— up to 400 V for current peak value n=30 rated value	172 A
 — up to 500 V for current peak value n=30 rated value — up to 690 V for current peak value n=30 rated 	172 A
- up to 690 V for current peak value n=30 rated - up to 1000 V for current peak value n=30 rated	68 A
value minimum cross-section in main circuit at maximum AC-1	150 mm ²
rated value operational current for approx. 200000 operating	100 11111
cycles at AC-4 • at 400 V rated value	96 A
at 690 V rated value	85 A
operational current	0071
• at 1 current path at DC-1	
— at 24 V rated value	200 A
— at 60 V rated value	200 A 200 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
with 2 current paths in series at DC-1	
- With 2 current paths in series at DO-1	

— at 24 V rated value	200 A
— at 60 V rated value	200 A
— at 110 V rated value	200 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	000 A
— at 24 V rated value	200 A
— at 60 V rated value	200 A
— at 110 V rated value	200 A 200 A
— at 220 V rated value — at 440 V rated value	11 A
— at 440 V rated value — at 600 V rated value	4 A
at 1 current path at DC-3 at DC-5	4 A
— at 24 V rated value	200 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
with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	200 A
— at 60 V rated value	200 A
— at 110 V rated value	200 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
 with 3 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	200 A
— at 60 V rated value	200 A
— at 110 V rated value	200 A
— at 220 V rated value	200 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	110 kW
— at 500 V rated value	160 kW
— at 690 V rated value	200 kW
— at 1000 V rated value	90 kW
• at AC-3e	
— at 230 V rated value	55 kW
— at 400 V rated value	110 kW
— at 500 V rated value	160 kW
— at 1000 V rated value	90 kW
operating power for approx. 200000 operating cycles at AC-4	
at 400 V rated value	54 kW
at 690 V rated value	82 kW
operating apparent power at AC-6a	
up to 230 V for current peak value n=20 rated value	90 000 kVA
 up to 400 V for current peak value n=20 rated value 	150 000 VA
• up to 500 V for current peak value n=20 rated value	190 000 VA
• up to 690 V for current peak value n=20 rated value	260 000 VA
 up to 1000 V for current peak value n=20 rated 	110 000 VA
value	
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	60 000 VA
• up to 400 V for current peak value n=30 rated value	110 000 VA
up to 500 V for current peak value n=30 rated value	140 000 VA
up to 690 V for current peak value n=30 rated value	200 000 VA
 up to 1000 V for current peak value n=30 rated value 	110 000 VA
short-time withstand current in cold operating state	
up to 40 °C	

 limited to 1 s switching at zero current maximum 	4 000 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	2 807 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	2 082 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	1 397 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 60 s switching at zero current maximum 	1 144 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	1 14471, OSC Millimani Gross Section asc. to 710 1 rated value
	0.000.4/b
• at AC	2 000 1/h
• at DC	2 000 1/h
operating frequency	
 at AC-1 maximum 	750 1/h
 at AC-2 maximum 	250 1/h
• at AC-3 maximum	500 1/h
at AC-3e maximum	500 1/h
at AC-4 maximum	130 1/h
	100 1/11
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
 at 50 Hz rated value 	240 277 V
at 60 Hz rated value	240 277 V
control supply voltage at DC	
• rated value	240 277 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
design of the surge suppressor	with varistor
apparent pick-up power of magnet coil at AC	
• at 50 Hz	590 VA
• at 60 Hz	590 VA
	390 VA
inductive power factor with closing power of the coil	
● at 50 Hz	0.9
● at 60 Hz	0.9
apparent holding power of magnet coil at AC	
● at 50 Hz	6.7 VA
● at 60 Hz	6.7 VA
inductive power factor with the holding power of the	
coil	
● at 50 Hz	0.9
• at 60 Hz	0.9
closing power of magnet coil at DC	650 W
holding power of magnet coil at DC	7.4 W
closing delay	
• at AC	30 95 ms
• at DC	30 95 ms
opening delay	
• at AC	40 80 ms
• at DC	40 80 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2
instantaneous contact	
number of NO contacts for auxiliary contacts	2
instantaneous contact	
operational current at AC-12 maximum	10 A
operational current at AC-15	
 at 230 V rated value 	6 A
at 400 V rated value	3 A
at 500 V rated value	2 A
at 690 V rated value	1 A

anavational aureant at DC 42	
operational current at DC-12	10.4
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 at 125 V rated value	3 A 2 A
at 125 V rated value at 220 V rated value	1 A
at 220 V rated value at 600 V rated value	0.15 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 175 V rated value 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	180 A
at 400 V rated value at 600 V rated value	192 A
yielded mechanical performance [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: 500 A (690 V, 100 kA)
with type of assignment 2 required	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50 kA)
 for short-circuit protection of the auxiliary switch required 	gG: 10 A (500 V, 1 kA)
Installation/ 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
side-by-side mounting	Yes
height	210 mm
width	145 mm
depth	202 mm
required spacing	
with side-by-side mounting	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
 for grounded parts 	
	22
— forwards	20 mm
forwardsupwards	10 mm
forwardsupwardsat the side	10 mm 10 mm
forwardsupwardsat the sidedownwards	10 mm
 forwards upwards at the side downwards for live parts 	10 mm 10 mm 10 mm
 forwards upwards at the side downwards for live parts forwards 	10 mm 10 mm 10 mm
 forwards upwards at the side downwards for live parts forwards upwards 	10 mm 10 mm 10 mm 20 mm 10 mm
 forwards upwards at the side downwards for live parts forwards 	10 mm 10 mm 10 mm
 forwards upwards at the side downwards for live parts forwards upwards downwards at the side 	10 mm 10 mm 10 mm 10 mm 10 mm 10 mm
— forwards — upwards — at the side — downwards • for live parts — forwards — upwards — downwards — at the side Connections/ Terminals	10 mm 10 mm 10 mm 10 mm 10 mm 10 mm
 forwards upwards at the side downwards for live parts forwards upwards downwards at the side 	10 mm 10 mm 10 mm 10 mm 10 mm 10 mm

• for auxiliary and control circuit

• at contactor for auxiliary contacts

· of magnet coil

width of connection bar

thickness of connection bar

diameter of holes

number of holes

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

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
- at AWG cables for auxiliary contacts

AWG number as coded connectable conductor cross section

• for auxiliary contacts

spring-loaded terminals

Spring-type terminals

Spring-type terminals

25 mm

6 mm

11 mm

1

70 ... 240 mm²

0.25 ... 2.5 mm²

0.25 ... 1.5 mm²

0.25 ... 2.5 mm²

2x (0.25 ... 2.5 mm²)

2x (0,25 ... 2,5 mm²)

2x (0.25 ... 1.5 mm²)

2x (0.25 ... 2.5 mm²)

2x (24 ... 14)

24 ... 14

Safety related data

product function

• mirror contact according to IEC 60947-4-1

• positively driven operation according to IEC 60947-5-1

 $\,$ B10 value with high demand rate according to SN 31920 $\,$

T1 value for proof test interval or service life according to IEC 61508

protection class IP on the front according to IEC

touch protection on the front according to IEC 60529 suitability for use

• safety-related switching OFF

Yes

No

1 000 000

20 a

IP00; IP20 with box terminal/cover

finger-safe, for vertical contact from the front with box terminal/cover

Yes

Certificates/ approvals

General Product Approval



Confirmation





<u>KC</u>



EMC

Functional Safety/Safety of Machinery

Declaration of Conformity

Test Certificates



Type Examination Certificate

((



Special Test Certificate

Type Test Certificates/Test Report

Marine / Shipping











Miscellaneous

other

other Railway Environment

<u>Confirmation</u> <u>Confirmation</u> <u>Miscellaneous</u> <u>Special Test Certific- Vibration and Shock Environmental Con- ate 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=3RT1064-2AU36

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1064-2AU36

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT1064-2AU36

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

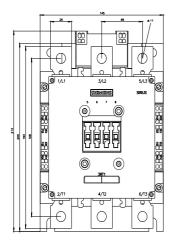
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1064-2AU36&lang=en

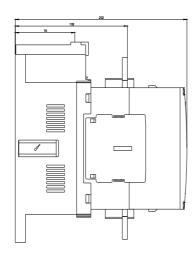
Characteristic: Tripping characteristics, I²t, Let-through current

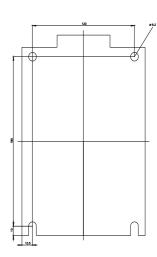
https://support.industry.siemens.com/cs/ww/en/ps/3RT1064-2AU36/char

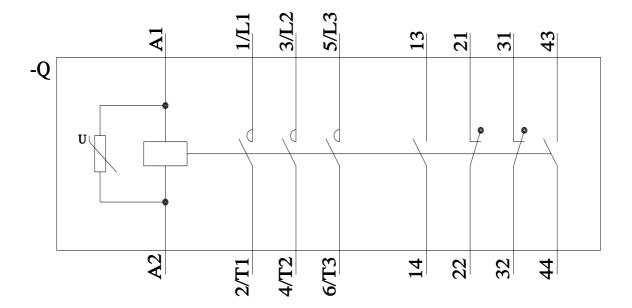
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1064-2AU36&objecttype=14&gridview=view1









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