## **SIEMENS**

Data sheet 3RT1064-6LA06



power contactor, AC-3e/AC-3 225 A, 110 kW / 400 V without operating mechanism 3-pole, auxiliary contacts 2 NO + 2 NC main circuit: busbar control and auxiliary circuit: screw terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT1
General technical data	
size of contactor	S10
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>	51 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	17 W
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	
<ul> <li>of main circuit rated value</li> </ul>	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)	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 maximum	95 %
Main circuit	

number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
<ul> <li>at AC-3 rated value maximum</li> </ul>	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	275 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated	275 A
value	0-0.4
<ul> <li>up to 690 V at ambient temperature 60 °C rated value</li> </ul>	250 A
— up to 1000 V at ambient temperature 40 °C rated	100 A
value	
— up to 1000 V at ambient temperature 60 °C rated	100 A
value	
• 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 690 V rated value	225 A
— at 1000 V rated value	68 A
<ul> <li>at AC-4 at 400 V rated value</li> </ul>	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	68 A
value	00 A
• at AC-6a	
— 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	172 A
— up to 690 V for current peak value n=30 rated value	172 A
— up to 1000 V for current peak value n=30 rated	68 A
value	0071
minimum cross-section in main circuit at maximum AC-1 rated	150 mm²
value	
operational current for approx. 200000 operating cycles at	
AC-4	00.4
at 400 V rated value	96 A
at 690 V rated value	85 A
operational current	
at 1 current path at DC-1	
— at 24 V rated value	200 A
— at 60 V rated value	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	
— at 24 V rated value	200 A
— at 60 V rated value	200 A
— at 110 V rated value	200 A
	20 A

at 440 V rated value	2.2.4
— at 440 V rated value	3.2 A 1.6 A
<ul><li>— at 600 V rated value</li><li>• with 3 current paths in series at DC-1</li></ul>	1.0 A
— 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	11 A
— at 600 V rated value	4 A
at 1 current path at DC-3 at DC-5	70
— 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	0.127
— 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 690 V rated value	200 kW
— at 1000 V rated value	90 kW
operating power for approx. 200000 operating cycles at AC-	
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
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	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 value	110 000 VA
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

a limited to 5 a quitable at zero current requirement	2 907 A: Hea minimum group section ago to AC 4 retail value
Ilmited to 5 s switching at zero current maximum     Ilmited to 10 s switching at zero current maximum	2 807 A; Use minimum cross-section acc. to AC-1 rated value
Ilimited to 10 s switching at zero current maximum	2 082 A; Use minimum cross-section acc. to AC-1 rated value
Iimited to 30 s switching at zero current maximum	1 397 A; Use minimum cross-section acc. to AC-1 rated value
Iimited 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	0.000.4/b
• at AC	2 000 1/h
• at DC	2 000 1/h
operating frequency	750.41
• 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
Control circuit/ Control	ACIDO
type of voltage of the control supply voltage	AC/DC
closing delay	00 05
• at AC	30 95 ms
• at DC	30 95 ms
opening delay	40 90 mg
• at AC	40 80 ms
• at DC	40 80 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Without operating mechanism
Auxiliary circuit	2
number of NC contacts for auxiliary contacts instantaneous contact	
number of NO contacts for auxiliary contacts instantaneous contact	2
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
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	1.4
• at 600 V rated value	0.15 A
operational current at DC-13	40.4
• 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	1.4
• 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 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	
<ul> <li>for short-circuit protection of the main circuit</li> </ul>	
<ul> <li>— with type of coordination 1 required</li> </ul>	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)
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	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
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	
— forwards	20 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
	10 111111
• for live parts	20
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm
Connections/ Terminals	
type of electrical connection	
for main current circuit	Connection bar
for auxiliary and control circuit	screw-type terminals
at contactor for auxiliary contacts	Screw-type terminals
of magnet coil	Screw-type terminals
width of connection bar	25 mm
thickness of connection bar	6 mm
diameter of holes	11 mm
number of holes	1
connectable conductor cross-section for main contacts	
• stranded	70 240 mm²
connectable conductor cross-section for auxiliary contacts	
solid or stranded	0.5 4 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm²
type of connectable conductor cross-sections	
<ul> <li>for auxiliary contacts</li> </ul>	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²)
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), max. 2x (0,75 4 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
for AWG cables for auxiliary contacts	2x (20 16), 2x (18 14), 1x 12
AWG number as coded connectable conductor cross section	
for auxiliary contacts	18 14
Safety related data	
product function	
mirror contact according to IEC 60947-4-1	Yes
-	
<ul> <li>positively driven operation according to IEC 60947-5-1</li> </ul>	No

T1 value for proof test interval or service life according to IEC 61508	20 a	
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	
suitability for use		
<ul> <li>safety-related switching OFF</li> </ul>	No	
Cartificated annual a		

## Certificates/ approvals

## **General Product Approval**





Confirmation



<u>KC</u>



EMC	Functional Safety/Safety of Ma- chinery	Declaration of Conformity	Test Certificates



Type Examination Certificate





Type Test Certificates/Test Report

Special Test Certificate

Marine / Shipping other









**Miscellaneous** 

Confirmation

other Railway

<u>Miscellaneous</u> <u>Special Test Certific</u> <u>Vibration and Shock</u> ate

<u>ate</u>

## Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RT1064-6LA06

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1064-6LA06

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT1064-6LA06

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

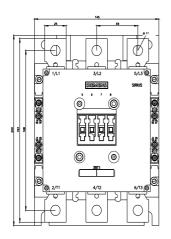
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT1064-6LA06&lang=er

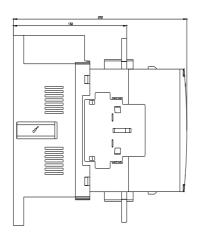
Characteristic: Tripping characteristics, I²t, Let-through current

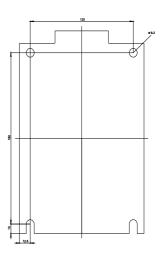
https://support.industry.siemens.com/cs/ww/en/ps/3RT1064-6LA06/cha

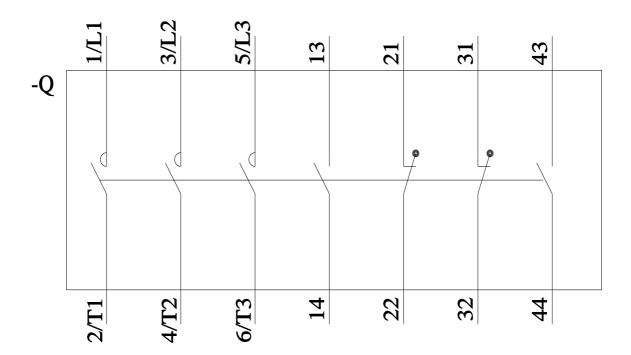
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1064-6LA06&objecttype=14&gridview=view1









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