# **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
at AC in hot operating state per pole	17 W
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	1 000 V
of auxiliary circuit with degree of pollution 3 rated value	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)	
of contactor typical	10 000 000
<ul> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> </ul>	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
SVHC substance name	Blei - 7439-92-1
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 value	275 A
• at AC-1	
— up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	275 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ 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 690 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	68 A
value	
• 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 value	68 A
minimum cross-section in main circuit at maximum AC-1 rated value	150 mm²
operational current for approx. 200000 operating cycles at AC-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
<ul><li>with 2 current paths in series at DC-1</li></ul>	
— at 24 V rated value	200 A
— at 60 V rated value	200 A

-t 000 Vt- d l	00 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	
— 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	
— 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
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— 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
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
— 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-	
4	
• at 400 V rated value	54 kW
at 690 V rated value	82 kW
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	90 000 kVA
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	150 000 VA
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	190 000 VA
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	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
limited to 5 s switching at zero current maximum	2 807 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	2 082 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	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	
• at AC	2 000 1/h
• at DC	2 000 1/h
operating frequency	
<ul><li>at AC-1 maximum</li></ul>	750 1/h
<ul> <li>at AC-2 maximum</li> </ul>	250 1/h
<ul> <li>at AC-3 maximum</li> </ul>	500 1/h
• at AC-3e maximum	500 1/h
at AC-4 maximum	130 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
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	Without operating mechanism
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	2
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
<ul> <li>at 500 V rated value</li> </ul>	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 40 V rated value     at 60 V rated value	2 A
at 110 V rated value	1 A
at 125 V rated value	0.9 A
	0.9 A
<ul> <li>at 220 V rated value</li> </ul>	0.3 A
<ul><li>at 220 V rated value</li><li>at 600 V rated value</li></ul>	
• at 600 V rated value	0.3 A 0.1 A
at 600 V rated value     contact reliability of auxiliary contacts	0.3 A
at 600 V rated value     contact reliability of auxiliary contacts  UL/CSA ratings	0.3 A 0.1 A
at 600 V rated value  contact reliability of auxiliary contacts  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor	0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
at 600 V rated value  contact reliability of auxiliary contacts  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor      at 480 V rated value	0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
at 600 V rated value  contact reliability of auxiliary contacts  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor      at 480 V rated value      at 600 V rated value	0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
at 600 V rated value  contact reliability of auxiliary contacts  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor      at 480 V rated value      at 600 V rated value  yielded mechanical performance [hp]	0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)
at 600 V rated value  contact reliability of auxiliary contacts  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor      at 480 V rated value      at 600 V rated value  yielded mechanical performance [hp]  for 3-phase AC motor	0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)  180 A 192 A
at 600 V rated value  contact reliability of auxiliary contacts  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  at 480 V rated value  at 600 V rated value  yielded mechanical performance [hp]  for 3-phase AC motor  at 200/208 V rated value	0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)  180 A 192 A 60 hp
at 600 V rated value  contact reliability of auxiliary contacts  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  at 480 V rated value  at 600 V rated value  yielded mechanical performance [hp]  for 3-phase AC motor	0.3 A 0.1 A 1 faulty switching per 100 million (17 V, 1 mA)  180 A 192 A

— 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)
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	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	202 111111
with side-by-side mounting	
with side-by-side mounting     — forwards	20 mm
— iorwards — upwards	10 mm
— upwarus — downwards	10 mm
— at the side	0 mm
	O IIIII
for grounded parts     forwards	20 mm
— forwards	20 mm 10 mm
— upwards	
— at the side	10 mm
— downwards	10 mm
• for live parts	00
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm
Connections/ Terminals	
type of electrical connection	Connection has
• for main current circuit	Connection bar
for auxiliary and control circuit     at control to auxiliary controls	screw-type terminals
at contactor for auxiliary contacts     af magnet seil.	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	70 240 mm²
• stranded	70 240 mm²
connectable conductor cross-section for auxiliary contacts	0.5 4 2222
solid or stranded     finally atranded with case and processing.	0.5 4 mm <sup>2</sup>
finely stranded with core end processing	0.5 2.5 mm²
type of connectable conductor cross-sections	
for auxiliary contacts	0. (0.5. 4.5
— 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)
— finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>for AWG cables for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14), 1x 12
<u> </u>	
AWG number as coded connectable conductor cross section	
AWG number as coded connectable conductor cross	18 14
AWG number as coded connectable conductor cross section  • for auxiliary contacts	18 14
AWG number as coded connectable conductor cross section  • for auxiliary contacts	18 14
AWG number as coded connectable conductor cross section  • for auxiliary contacts  Safety related data	18 14 Yes

B10 value with high demand rate according to SN 31920	1 000 000
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
and the second s	

Certificates/ approvals

### **General Product Approval**





Confirmation



**KC** 



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Type Examination Cer**tificate** 





Type Test Certificates/Test Report

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

#### Marine / Shipping other









Miscellaneous

Confirmation

other Railway

**Special Test Certific-Miscellaneous** 

<u>ate</u>

Vibration and Shock

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

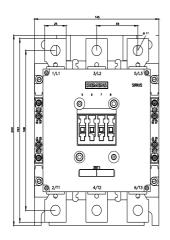
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

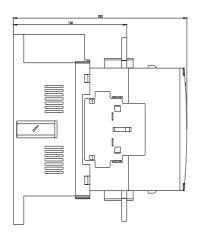
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT1064-6LA06&lang=en

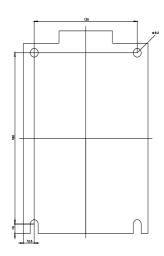
Characteristic: Tripping characteristics, I²t, Let-through current

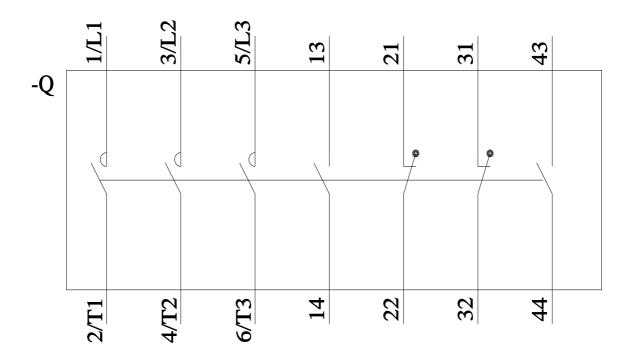
https://support.industry.siemens.com/cs/ww/en/ps/3RT1064-6LA06/char

Further characteristics (e.g. electrical endurance, switching frequency)
<a href="http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1064-6LA06&objecttype=14&gridview=view1">http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1064-6LA06&objecttype=14&gridview=view1</a>









last modified:

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