# **SIEMENS**

Data sheet 3RT1034-1AR64



Power contactor, AC-3 32 A, 15 kW / 400 V 400 V AC, 50 Hz / 60 Hz, 440 V, 60 Hz, 2 NO + 2 NC, 3-pole, Size S2, Screw terminal !!! Phased-out product !!! Successor is SIRIUS 3RT2 Preferred successor type is

Figure similar

Product brand name	SIRIUS
Product designation	power contactor
General technical data	
Size of contactor	S2
Insulation voltage	
• rated value	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
<ul> <li>between coil and main contacts acc. to EN</li> </ul>	400 V
60947-1	
Protection class IP	
• on the front	IP20
of the terminal	IP00
Shock resistance at rectangular impulse	
• at AC	10g / 5 ms, 5g / 10 ms
Shock resistance with sine pulse	

• at AC	15g / 5 ms, 8g / 10 ms
Mechanical service life (switching cycles)	
of contactor typical	10 000 000
<ul> <li>of the contactor with added electronics- compatible 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 acc. to DIN EN 81346-2	Q
Ambient conditions	
Installation altitude at height above sea level	
• maximum	2 000 m
Ambient temperature	
<ul><li>during operation</li></ul>	-25 +60 °C
during storage	-55 +80 °C
Main circuit	
Number of poles for main current circuit	3
Number of NO contacts for main contacts	3
Number of NC contacts for main contacts	0
Operating current	
• at AC-1 at 400 V	
— at ambient temperature 40 °C rated value	50 A
• at AC-1	
— up to 690 V at ambient temperature 40 $^{\circ}$ C rated value	50 A
— up to 690 V at ambient temperature 60 $^{\circ}\mathrm{C}$ rated value	45 A
• at AC-3	
— at 400 V rated value	32 A
— at 690 V rated value	20 A
• at AC-4 at 400 V rated value	29 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	10 mm²
• at 40 °C minimum permissible	16 mm²
Operating current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	15.6 A
at 690 V rated value	11 A
Operating current	
• at 1 current path at DC-1	
— at 24 V rated value	45 A
— at 110 V rated value	4.5 A

<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	45 A
— at 110 V rated value	25 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	45 A
— at 110 V rated value	45 A
Operating current	
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	35 A
— at 110 V rated value	2.5 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	45 A
— at 110 V rated value	25 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	45 A
— at 110 V rated value	45 A
Operating power	
• at AC-1	
— at 230 V at 60 °C rated value	18 kW
— at 400 V rated value	31 kW
— at 690 V rated value	54 kW
— at 690 V at 60 °C rated value	54 kW
• at AC-2 at 400 V rated value	15 kW
● at AC-3	
— at 230 V rated value	7.5 kW
— at 400 V rated value	15 kW
— at 500 V rated value	18.5 kW
— at 690 V rated value	18.5 kW
Operating power for approx. 200000 operating cycles at AC-4	
● at 400 V rated value	8.2 kW
● at 690 V rated value	10 kW
Thermal short-time current limited to 10 s	320 A
Power loss [W] at AC-3 at 400 V for rated value of	1.8 W
the operating current per conductor	
No-load switching frequency	5 000 4/h
• at AC	5 000 1/h
Operating frequency	1 200 1/h
• at AC-1 maximum	
• at AC-2 maximum	750 1/h
• at AC-3 maximum	1 000 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	400 V
• at 60 Hz rated value	400 440 V
Control supply voltage frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
Operating range factor control supply voltage rated value of magnet coil at AC	
● at 50 Hz	0.8 1.1
● at 60 Hz	0.85 1.1
Apparent pick-up power of magnet coil at AC	120 V·A
Inductive power factor with closing power of the coil	0.7
Apparent holding power of magnet coil at AC	10.1 V·A
Inductive power factor with the holding power of the coil	0.42
Closing delay	
● at AC	11 30 ms
Opening delay	
● at AC	7 20 ms
Arcing time	10 15 ms
Auxiliary circuit	
Auxiliary circuit	
Auxiliary circuit  Number of NC contacts for auxiliary contacts	
	2
Number of NC contacts for auxiliary contacts	2
Number of NC contacts for auxiliary contacts  • instantaneous contact	2
Number of NC contacts for auxiliary contacts  • instantaneous contact  Number of NO contacts for auxiliary contacts	
Number of NC contacts for auxiliary contacts  • instantaneous contact  Number of NO contacts for auxiliary contacts  • instantaneous contact	2
Number of NC contacts for auxiliary contacts  • instantaneous contact  Number of NO contacts for auxiliary contacts  • instantaneous contact  Operating current at AC-12 maximum	2
Number of NC contacts for auxiliary contacts  • instantaneous contact  Number of NO contacts for auxiliary contacts  • instantaneous contact  Operating current at AC-12 maximum  Operating current at AC-15	2 10 A
Number of NC contacts for auxiliary contacts  • instantaneous contact  Number of NO contacts for auxiliary contacts  • instantaneous contact  Operating current at AC-12 maximum  Operating current at AC-15  • at 230 V rated value	2 10 A 6 A
Number of NC contacts for auxiliary contacts  • instantaneous contact  Number of NO contacts for auxiliary contacts  • instantaneous contact  Operating current at AC-12 maximum  Operating current at AC-15  • at 230 V rated value  • at 400 V rated value	2 10 A 6 A
Number of NC contacts for auxiliary contacts  • instantaneous contact  Number of NO contacts for auxiliary contacts  • instantaneous contact  Operating current at AC-12 maximum  Operating current at AC-15  • at 230 V rated value  • at 400 V rated value  Operating current at DC-12	2 10 A 6 A 3 A
Number of NC contacts for auxiliary contacts  • instantaneous contact  Number of NO contacts for auxiliary contacts  • instantaneous contact  Operating current at AC-12 maximum  Operating current at AC-15  • at 230 V rated value  • at 400 V rated value  Operating current at DC-12  • at 60 V rated value	2 10 A 6 A 3 A
Number of NC contacts for auxiliary contacts  • instantaneous contact  Number of NO contacts for auxiliary contacts  • instantaneous contact  Operating current at AC-12 maximum  Operating current at AC-15  • at 230 V rated value  • at 400 V rated value  Operating current at DC-12  • at 60 V rated value  • at 110 V rated value	2 10 A 6 A 3 A
Number of NC contacts for auxiliary contacts  • instantaneous contact  Number of NO contacts for auxiliary contacts  • instantaneous contact  Operating current at AC-12 maximum  Operating current at AC-15  • at 230 V rated value  • at 400 V rated value  Operating current at DC-12  • at 60 V rated value  • at 110 V rated value  • at 220 V rated value	2 10 A 6 A 3 A
Number of NC contacts for auxiliary contacts  • instantaneous contact  Number of NO contacts for auxiliary contacts  • instantaneous contact  Operating current at AC-12 maximum  Operating current at AC-15  • at 230 V rated value  • at 400 V rated value  Operating current at DC-12  • at 60 V rated value  • at 110 V rated value  • at 220 V rated value  Operating current at DC-13	2 10 A 6 A 3 A 6 A 3 A 1 A
Number of NC contacts for auxiliary contacts  • instantaneous contact  Number of NO contacts for auxiliary contacts  • instantaneous contact  Operating current at AC-12 maximum  Operating current at AC-15  • at 230 V rated value  • at 400 V rated value  Operating current at DC-12  • at 60 V rated value  • at 110 V rated value  • at 220 V rated value  Operating current at DC-13  • at 24 V rated value	2 10 A 6 A 3 A 6 A 3 A 1 A
Number of NC contacts for auxiliary contacts  • instantaneous contact  Number of NO contacts for auxiliary contacts  • instantaneous contact  Operating current at AC-12 maximum  Operating current at AC-15  • at 230 V rated value  • at 400 V rated value  Operating current at DC-12  • at 60 V rated value  • at 110 V rated value  • at 220 V rated value  Operating current at DC-13  • at 24 V rated value  • at 60 V rated value  • at 60 V rated value	2 10 A 6 A 3 A 6 A 3 A 1 A

UL/CSA ratings	
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	
<ul> <li>— with type of coordination 1 required</li> </ul>	fuse gL/gG: 125 A
— with type of assignment 2 required	fuse gL/gG: 63 A
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	fuse gL/gG: 10 A
Installation/ mounting/ dimensions	

Installation/ mounting/ dimensions	
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail
	according to DIN EN 50022
<ul> <li>Side-by-side mounting</li> </ul>	Yes
Height	112 mm
Width	55 mm
Depth	164 mm
Required spacing	
• for grounded parts	
— at the side	6 mm

Connections/Terminals	
Type of electrical connection	
• for main current circuit	screw-type terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals
Type of connectable conductor cross-sections	
• for main contacts	
— solid	2x (0.75 16 mm²)
— stranded	2x (0.75 25 mm²)
<ul><li>— single or multi-stranded</li></ul>	2x (0,75 16 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.75 16 mm²)
<ul> <li>finely stranded without core end</li> </ul>	2x (0.75 16 mm²)
processing	
<ul> <li>at AWG conductors for main contacts</li> </ul>	2x (18 2)
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)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>at AWG conductors for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14), 1x 12

### **General Product Approval**

**Functional** Safety/Safety of Machinery

**Declaration of** Conformity









Type Examination Certificate



#### **Test Certificates**

Marine / Shipping

Type Test Certificates/Test Report

Special Test Certificate

Miscellaneous







## Marine / Shipping

other



Miscellaneous

Confirmation

#### Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1034-1AR64

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1034-1AR64

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

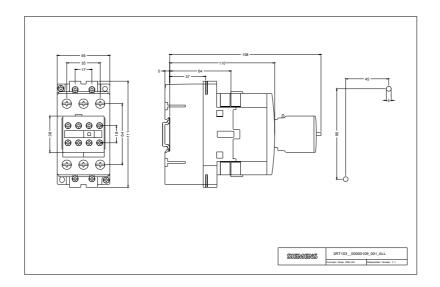
https://support.industry.siemens.com/cs/ww/en/ps/3RT1034-1AR64

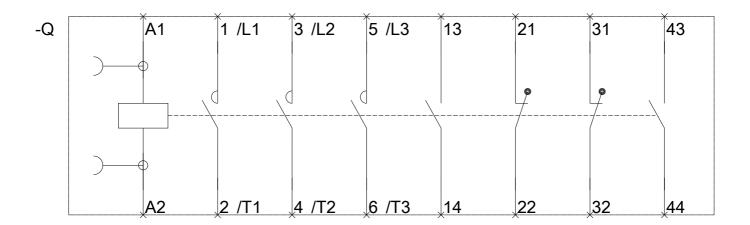
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT1034-1AR64&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT1034-1AR64/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1034-1AR64&objecttype=14&gridview=view1





last modified: 12/13/2018