# **SIEMENS**

Data sheet 3RT1023-1AK60



CONTACTOR, AC-3 4 KW/400 V, AC 110 V 50 HZ / 120 V 60 HZ 3-POLE, SIZE S0, SCREW CONNECTION

Figure similar

product brand name	SIRIUS
Product designation	power contactor

General technical data:		
Size of contactor	S0	
Degree of pollution	3	
Mechanical service life (switching cycles)		
<ul> <li>of the contactor typical</li> </ul>	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	
Protection class IP		
• on the front	IP20	
• of the terminal	IP20	
Equipment marking		
• acc. to DIN EN 61346-2	Q	
• acc. to DIN EN 81346-2	Q	

Ambient conditions:		
Installation altitude at height above sea level	2 000 m	
maximum		
Ambient temperature		
during operation	-25 +60 °C	

Main circuit:	
Number of poles for main current circuit	3
Number of NC contacts for main contacts	0

Number of NO contacts for main contacts	3
Operating current	
● at AC-1 at 400 V	
— at ambient temperature 40 °C Rated value	40 A
● at AC-1 up to 690 V	
— at ambient temperature 40 °C Rated value	40 A
— at ambient temperature 60 °C Rated value	35 A
• at AC-3	
— at 400 V Rated value	9 A
• at AC-4 at 400 V Rated value	8.5 A
Operating current	
<ul><li>with 1 current path at DC-1</li></ul>	
— at 24 V Rated value	35 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	35 A
— at 110 V Rated value	35 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 V Rated value	35 A
— at 110 V Rated value	35 A
Operating current	
<ul><li>with 1 current path at DC-3 at DC-5</li></ul>	
— at 24 V Rated value	20 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 110 V Rated value	15 A
— at 24 V Rated value	35 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V Rated value	35 A
— at 24 V Rated value	35 A
Active power loss at AC-3 at 400 V for rated value of	0.4 W
the operating current per conductor	
Control circuit/ Control:	
Type of voltage of the control supply voltage	AC
Control supply voltage with AC	
• at 50 Hz Rated value	110 V
• at 60 Hz Rated value	120 V
Rated value	50 Hz
Control supply voltage frequency 2 Rated value	60 Hz
Operating range factor control supply voltage rated value of the magnet coil with AC	
● at 50 Hz	0.8 1.1

● at 60 Hz	0.8 1.1
Apparent pick-up power of the magnet coil with AC	69 V·A
Inductive power factor with closing power of the coil	0.76
Apparent holding power of the magnet coil with AC	7.5 V·A
Inductive power factor with the holding power of the coil	0.28

Auxiliary circuit:	
Number of NC contacts	
for auxiliary contacts	
<ul> <li>instantaneous contact</li> </ul>	0
Number of NO contacts	
for auxiliary contacts	
<ul> <li>instantaneous contact</li> </ul>	0
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V Rated value	6 A
• at 400 V Rated value	3 A
Operating current at DC-12	
• at 60 V Rated value	6 A
• at 110 V Rated value	3 A
• at 220 V Rated value	1 A
Operating current at DC-13	
• at 24 V Rated value	10 A
● at 60 V Rated value	2 A
● at 110 V Rated value	1 A
● at 220 V Rated value	0.3 A
Contact reliability of the auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)

# Short-circuit:

# Design of the fuse link

for short-circuit protection of the main circuit
 — with type of assignment 1 required
 — with type of assignment 2 required
 fuse gL/gG: 63 A
 fuse gL/gG: 25 A
 fuse gL/gG: 10 A

required

Installation/ mounting/ dimensions:

Mounting type

screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022

Yes

Height

	according to DIN EN 50022
Side-by-side mounting	Yes
Height	85 mm
Width	45 mm
Depth	91 mm

#### Required spacing

• for grounded parts

- at the side

6 mm

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# Type of electrical connection

- for main current circuit
- for auxiliary and control current circuit

# Type of connectable conductor cross-section

- for main contacts
  - solid
  - single or multi-stranded
  - finely stranded with core end processing
- for AWG conductors for main contacts

# Type of connectable conductor cross-section

- for auxiliary contacts
  - solid
- for AWG conductors for auxiliary contacts

screw-type terminals

screw-type terminals

2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), max. 2x 10 mm²

2x (1 ... 2,5 mm²), 2x (2,5 ... 6 mm²), max. 2x 10 mm²

2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²)

2x (16 ... 12), 2x (14 ... 10), 1x 8

- finely stranded with core end processing

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), max. 2x (0.75 ... 4 mm²)

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)

2x (20 ... 16), 2x (18 ... 14), 1x 12

# Certificates/ approvals:

# **General Product Approval**

**Functional** Safety/Safety of Machinery

**Declaration of** Conformity

**Test** Certificates







Type Examination



Type Test Certificates/Test Report

# **Test**

### Certificates

**Special Test** Certificate



Shipping Approval









# other

Environmental Confirmations

Confirmation

other

# Further information

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

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

#### Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

# Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT10231AK60

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT10231AK60

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT10231AK60&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT10231AK60&lang=en</a>







