# **SIEMENS**

Data sheet 3RT1024-3AF00

Power contactor, AC-3 12 A, 5.5 kW / 400 V 110 V AC, 50 Hz 3-pole, Size S0 Spring-type terminal



Figure similar

Product brand name	SIRIUS	
Product designation	power contactor	
General technical data		
Size of contactor	S0	
Degree of pollution	3	
Protection class IP		
• on the front	IP20	
• of the terminal	IP00	
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	
Ambient conditions		
Installation altitude at height above sea level		
• maximum	2 000 m	

Ambient temperature	
during operation	-25 +60 °C
Aain 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	40 A
● at AC-1	
<ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> </ul>	40 A
<ul> <li>up to 690 V at ambient temperature 60 °C rated value</li> </ul>	35 A
• at AC-3	
— at 400 V rated value	12 A
• at AC-4 at 400 V rated value	12.5 A
Operating current	
• at 1 current path at DC-1	
— 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	
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	20 A
— at 110 V rated value	2.5 A
• with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 110 V rated value	15 A
• with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
Operating power	
• at AC-1	
— at 400 V rated value	23 kW
• at AC-2 at 400 V rated value	5.5 kW

• at AC-3	
— at 400 V rated value	5.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	7.5 kW
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	0.5 W

Control circuit/ Control	
Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
• at 50 Hz rated value	110 V
Control supply voltage frequency	
• 1 rated value	50 Hz
Operating range factor control supply voltage rated	
value of magnet coil at AC	
● at 50 Hz	0.8 1.1
Apparent pick-up power of magnet coil at AC	61 V·A
Inductive power factor with closing power of the coil	0.82
Apparent holding power of magnet coil at AC	7.8 V·A
Inductive power factor with the holding power of the	0.24
coil	

Auxiliary circuit	
Number of NC contacts	
● for auxiliary contacts	
<ul><li>instantaneous contact</li></ul>	0
Number of NO contacts	
● for auxiliary contacts	
— instantaneous contact	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 auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)

#### Short-circuit protection

#### Design of the fuse link

• for short-circuit protection of the main circuit

— with type of coordination 1 required

- with type of assignment 2 required

• for short-circuit protection of the auxiliary switch

fuse gL/gG: 10 A

fuse gL/gG: 63 A

fuse gL/gG: 25 A

required

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	85 mm
Width	45 mm
Depth	90 mm
Required spacing	
• for grounded parts	
— at the side	6 mm

## Connections/Terminals

Type of electrical	connection
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• for main current circuit

• for auxiliary and control current circuit

screw-type terminals

spring-loaded terminals

#### Type of connectable conductor cross-sections

• for main contacts

- single or multi-stranded

— finely stranded with core end processing

• at AWG conductors for main contacts

 $2x\ (1\ ...\ 2.5\ mm^2),\ 2x\ (2.5\ ...\ 6\ mm^2),\ max.\ 2x\ 10\ mm^2$ 

 $2x\ (1\ ...\ 2,5\ mm^2),\ 2x\ (2,5\ ...\ 6\ mm^2),\ max.\ 2x\ 10\ mm^2$ 

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

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

## Type of connectable conductor cross-sections

• for auxiliary contacts

- solid

— finely stranded with core end processing

processing

• at AWG conductors for auxiliary contacts

- finely stranded without core end

2x (0.25 ... 2.5 mm<sup>2</sup>)

2x (0.25 ... 1.5 mm²)

2x (0.25 ... 2.5 mm²)

2x (24 ... 14)

## Certificates/approvals

### **General Product Approval**

Functional Safety/Safety of Machinery Declaration of Conformity









Type Examination
Certificate



#### **Test Certificates**

### Marine / Shipping

Special Test Certificate Type Test
Certificates/Test
Report









## 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=3RT1024-3AF00

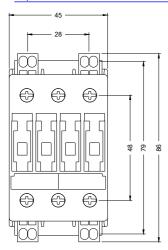
Cax online generator

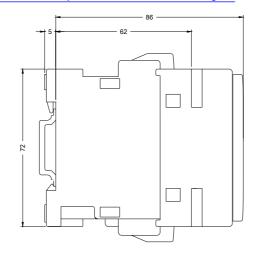
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1024-3AF00

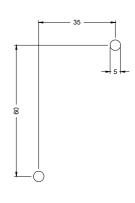
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

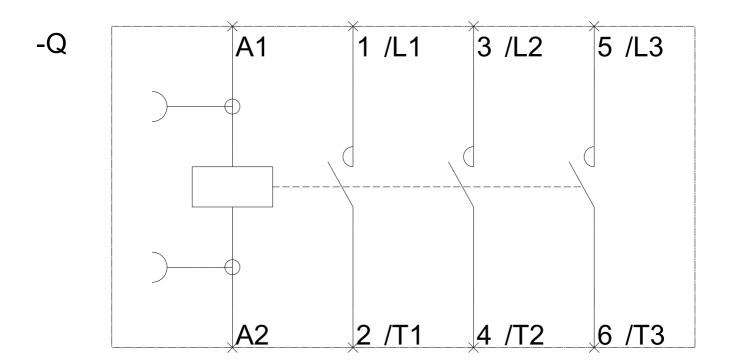
https://support.industry.siemens.com/cs/ww/en/ps/3RT1024-3AF00

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT1024-3AF00&lang=en









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