# **SIEMENS**

Data sheet 3RT1024-1BB40



CONTACTOR, AC-3 5.5 KW/400 V, DC 24 V, 3-POLE, SIZE S0, SCREW CONNECTION  $\,$ 

product brand name	SIRIUS
Product designation	power contactor
General technical data:	
Size of contactor	S0
Degree of pollution	3
Mechanical service life (switching cycles)	
• of the 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
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 maximum	2 000 m
Ambient temperature	
<ul><li>during operation</li></ul>	-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	12 A
• at AC-4 at 400 V Rated value	12.5 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
• with 2 current paths in series at DC-3 at DC-5	
— 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	0.5 W
the operating current per conductor	
Control circuit/ Control:	
Type of voltage of the control supply voltage	DC
Control supply voltage for DC	
Rated value	24 V
Operating range factor control supply voltage rated value of the magnet coil for DC	0.8 1.1
Closing power of the magnet coil for DC	5.4 W
Holding power of the magnet coil for DC	5.4 W

## Auxiliary circuit:

Number of NC contacts	
• for auxiliary contacts	
— instantaneous contact	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)

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Design	of t	he '	fuse	lin	k
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• 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

• for short-circuit protection of the auxiliary switch required

Installation/ mounting/ dimensions:

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Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
Side-by-side mounting	Yes
Height	85 mm
Width	45 mm
Depth	101 mm
Required spacing	
<ul><li>for grounded parts</li></ul>	
— at the side	6 mm

#### Connections/ Terminals

## Type of electrical connection

for main current circuit
 for auxiliary and control current circuit
 screw-type terminals

## 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
  - finely stranded with core end processing
- for AWG conductors for auxiliary contacts

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 mm<sup>2</sup>), 2x (2.5 ... 6 mm<sup>2</sup>)

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

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

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

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

## Certificates/ approvals:

## **General Product Approval**

Functional Safety/Safety of Machinery Declaration of Conformity









Type Examination



#### **Test Certificates**

Special Test Certificate Type Test
Certificates/Test
Report

other



**Shipping Approval** 





GL

## **Shipping Approval**



LRS





other

Environmental Confirmations

other

Confirmation

## 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=3RT10241BB40

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT10241BB40

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT10241BB40&lang=en







