## **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	
Protection class IP		
• on the front	IP20	
• of the terminal	IP00	
Mechanical service life (switching cycles)		
<ul> <li>of 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	
Ambient conditions		
Ambient temperature		
<ul><li>during operation</li></ul>	-25 +60 °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	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	0.5 W
the operating current per conductor	
Control circuit/ Control	
Type of voltage of the control supply voltage	DC
Control supply voltage at DC	
• rated value	24 V
Operating range factor control supply voltage rated	
value of magnet coil at DC	
• initial value	0.8
Full-scale value	1.1
Closing power of magnet coil at DC	5.4 W
Holding power of magnet coil at DC	5.4 W
Auxiliary circuit	
Number of NC contacts	
for auxiliary contacts	
<ul> <li>instantaneous contact</li> </ul>	0
Number of NO contacts	
<ul> <li>for auxiliary contacts</li> </ul>	
<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 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	
<ul> <li>— with type of coordination 1 required</li> </ul>	fuse gL/gG: 63 A
— with type of assignment 2 required	fuse gL/gG: 25 A
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A

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	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	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 (1 2.5 mm²), 2x (2.5 6 mm²), max. 2x 10 mm²
<ul><li>— single or multi-stranded</li></ul>	2x (1 2,5 mm²), 2x (2,5 6 mm²), max. 2x 10 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	2x (1 2.5 mm²), 2x (2.5 6 mm²)
<ul> <li>at AWG conductors for main contacts</li> </ul>	2x (16 12), 2x (14 10), 1x 8
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

### Certificates/approvals

# General Product Approval Functional Safety/Safety Onformity Certificates Of Machinery







Type Examination
Certificate



Special Test Certificate

#### **Test Certificates**

#### Marine / Shipping

Type Test
Certificates/Test
Report

Miscellaneous









#### Marine / Shipping

#### other





Environmental Confirmations

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=3RT1024-1BB40

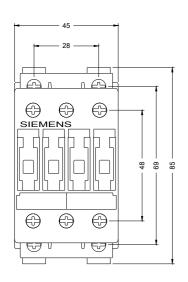
Cax online generator

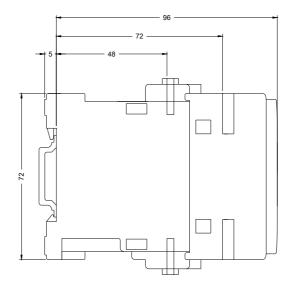
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1024-1BB40

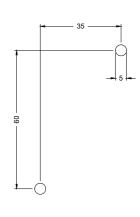
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

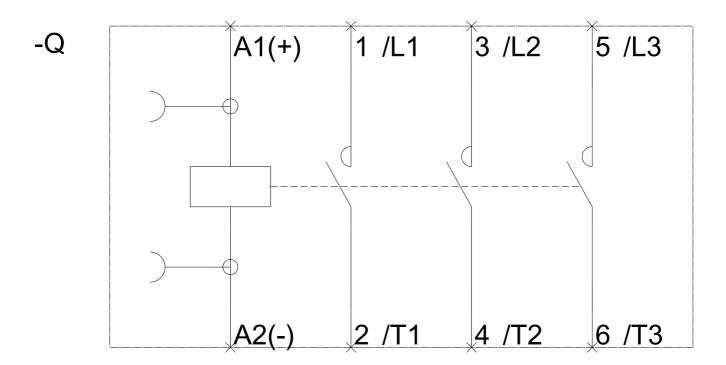
https://support.industry.siemens.com/cs/ww/en/ps/3RT1024-1BB40

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT1024-1BB40&lang=en









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