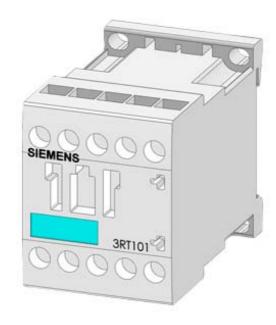
## **SIEMENS**

Data sheet 3RT1316-1BB40

CONTACTOR, AC-1, 12KW/400 V, AC-1 18 A, DC 24 V, 4-POLE, 4 NO, SIZE S00, SCREW CONNECTION



Product brand name	SIRIUS
Product designation	power contactor
General technical data	
Size of contactor	S00
Degree of pollution	3
Protection class IP	
• on the front	IP20
• of the terminal	IP20
Mechanical service life (switching cycles)	
of contactor typical	30 000 000
<ul> <li>of the contactor with added electronics-</li> </ul>	5 000 000
compatible auxiliary switch block typical	
<ul> <li>of the contactor with added auxiliary switch</li> </ul>	10 000 000
block typical	
Ambient conditions	
Installation altitude at height above sea level	
• maximum	2 000 m
Ambient temperature	
<ul><li>during operation</li></ul>	-25 +60 °C

Number of poles for main current circuit	4
Number of NO contacts for main contacts	4
Number of NC contacts for main contacts	0
Operating current	
● at AC-1 at 400 V	
— at ambient temperature 40 °C rated value	18 A
● at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	18 A
<ul> <li>up to 690 V at ambient temperature 60 °C rated value</li> </ul>	16 A
• at AC-3	
— at 400 V rated value	9 A
Operating current	
• at 1 current path at DC-1	
— at 24 V rated value	18 A
— at 110 V rated value	2.1 A
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	18 A
— at 110 V rated value	12 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	18 A
— at 110 V rated value	18 A
Operating current	
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	18 A
— at 110 V rated value	0.15 A
• with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	18 A
— at 110 V rated value	0.35 A
• with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	18 A
— at 110 V rated value	18 A
Operating power	
• at AC-1	
— at 400 V rated value	12 kW
• at AC-2 at 400 V rated value	4 kW
• at AC-3	
— at 400 V rated value	4 kW
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	1.24 W

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	0.85
Full-scale value	1.1
Closing power of magnet coil at DC	3.3 W
Holding power of magnet coil at DC	3.3 W
Auxiliary circuit	
Number of NC contacts	
• for auxiliary contacts	
— instantaneous contact	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	
<ul> <li>— with type of coordination 1 required</li> </ul>	fuse gL/gG: 35 A
— with type of assignment 2 required	fuse gL/gG: 20 A
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	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

Yes
57.5 mm
45 mm
72 mm
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 (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²)
<ul> <li>single or multi-stranded</li> </ul>	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 main contacts</li> </ul>	2x (20 16), 2x (18 14), 1x 12
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 of Machinery Declaration of Conformity









Type Examination
Certificate



rest	
Certif	ficates

Marine / Shipping

Special Test
Certificate











other

Confirmation

Miscellaneous

## 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=3RT1316-1BB40

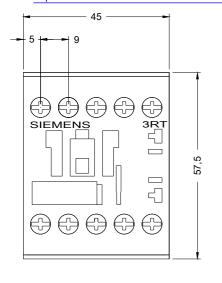
Cax online generator

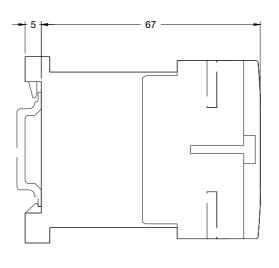
 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT1316-1BB40}$ 

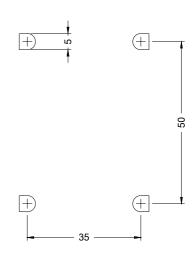
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

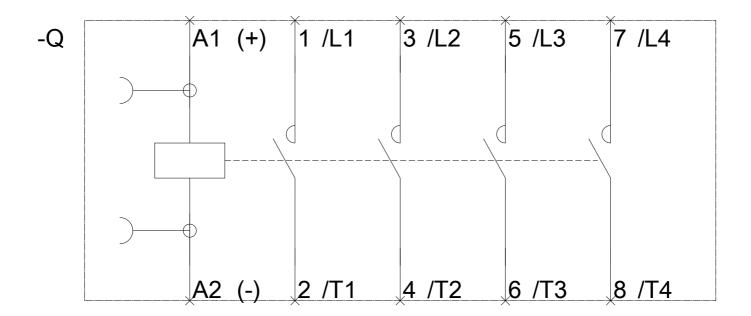
https://support.industry.siemens.com/cs/ww/en/ps/3RT1316-1BB40

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT1316-1BB40&lang=en









last modified: 11/26/2017