# **SIEMENS**

Data sheet 3RT1034-1BM44

Power contactor, AC-3 32 A, 15 kW / 400 V 220 V DC, 2 NO + 2 NC, 3-pole, Size S2 Screw terminal !!! Phased-out product !!! Successor is SIRIUS 3RT2



Figure similar

Product brand name	SIRIUS
Product designation	power contactor
General technical data	
Size of contactor	S2
Insulation voltage	
• rated value	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
<ul> <li>between coil and main contacts acc. to EN</li> </ul>	400 V
60947-1	
Protection class IP	
• on the front	IP20
<ul><li>of the terminal</li></ul>	IP00
Shock resistance at rectangular impulse	
• at DC	10g / 5 ms, 5g / 10 ms
Shock resistance with sine pulse	

• at DC	15g / 5 ms, 8g / 10 ms
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
Reference code acc. to DIN EN 81346-2	Q
Ambient conditions	
Installation altitude at height above sea level	
• maximum	2 000 m
Ambient temperature	
during operation	-25 +60 °C
during storage	-55 +80 °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	50 A
• at AC-1	
<ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> </ul>	50 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	45 A
• at AC-3	
— at 400 V rated value	32 A
— at 690 V rated value	20 A
• at AC-4 at 400 V rated value	29 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	10 mm²
• at 40 °C minimum permissible	16 mm²
Operating current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	15.6 A
• at 690 V rated value	11 A
Operating current	
• at 1 current path at DC-1	
— at 24 V rated value	45 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	45 A
— at 110 V rated value	25 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	45 A
— at 110 V rated value	45 A
Operating current	
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	35 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	45 A
— at 110 V rated value	25 A
• with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	45 A
— at 110 V rated value	45 A
Operating power	
• at AC-1	
— at 230 V at 60 °C rated value	18 kW
— at 400 V rated value	31 kW
— at 690 V rated value	54 kW
— at 690 V at 60 °C rated value	54 kW
• at AC-2 at 400 V rated value	15 kW
• at AC-3	
— at 230 V rated value	7.5 kW
— at 400 V rated value	15 kW
— at 500 V rated value	18.5 kW
— at 690 V rated value	18.5 kW
Operating power for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	8.2 kW
• at 690 V rated value	10 kW
Thermal short-time current limited to 10 s	320 A
Power loss [W] at AC-3 at 400 V for rated value of	1.8 W
the operating current per conductor	
No-load switching frequency	4 500 4/h
• at DC	1 500 1/h
Operating frequency	1 200 1/b
• at AC-1 maximum	1 200 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	1 000 1/h
<ul> <li>at AC-4 maximum</li> </ul>	250 1/h

Control circuit/ Control	
Type of voltage of the control supply voltage	DC
Control supply voltage at DC	
• rated value	220 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	13.3 W
Holding power of magnet coil at DC	13.3 W
Closing delay	
• at DC	50 95 ms
Opening delay	
• at DC	20 30 ms
Arcing time	10 15 ms
Auxiliary circuit	
Number of NC contacts for auxiliary contacts	
• instantaneous contact	2
Number of NO contacts for auxiliary contacts	
• instantaneous contact	2
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)
UL/CSA ratings	
Contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
Design of the fuse link	
• for short-circuit protection of the main circuit	
— with type of coordination 1 required	fuse gL/gG: 125 A
— with type of assignment 2 required	fuse gL/gG: 63 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	112 mm
Width	55 mm
Depth	179 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 (0.75 16 mm²)
— stranded	2x (0.75 25 mm²)
<ul><li>— single or multi-stranded</li></ul>	2x (0,75 16 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.75 16 mm²)
<ul> <li>finely stranded without core end</li> </ul>	2x (0.75 16 mm²)
processing	
<ul> <li>at AWG conductors for main contacts</li> </ul>	2x (18 2)
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



#### **Test Certificates**

Marine / Shipping

Special Test Certificate

Type Test Certificates/Test Report

Miscellaneous







### 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=3RT1034-1BM44

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1034-1BM44

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

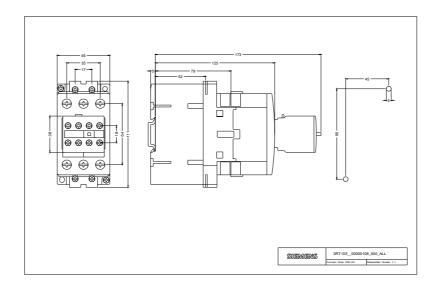
https://support.industry.siemens.com/cs/ww/en/ps/3RT1034-1BM44

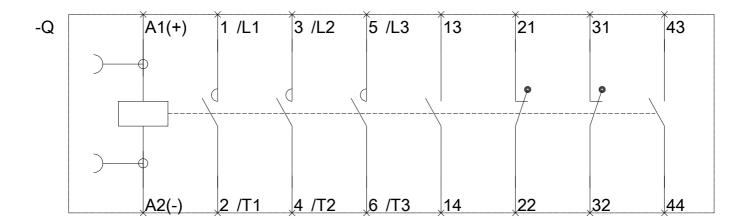
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT1034-1BM44&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT1034-1BM44/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1034-1BM44&objecttype=14&gridview=view1





last modified: 12/13/2018