# **SIEMENS**

Data sheet 3RT1034-1AC20



CONTACTOR, AC-3 15 KW/400 V, AC 24V 50/60HZ, 3-POLE, SIZE S2, SCREW CONNECTION  $\,$ 

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
Mechanical service life (switching cycles)	
<ul> <li>of the contactor typical</li> </ul>	10 000 000
<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	
Protection class IP	
• on the front	IP00
• of the terminal	IP00
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	2 000 m
maximum	
Ambient temperature	
<ul><li>during operation</li></ul>	-25 +60 °C

during storage	-55 +80 °C

Лаin 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
Connectable conductor cross-section in main circuit	
at AC-1	
• at 60 °C minimum permissible	10 mm²
<ul> <li>at 40 °C minimum permissible</li> </ul>	16 mm²
Operating current	
● at AC-1 at 400 V	
— at ambient temperature 40 °C Rated value	50 A
• at AC-1 up to 690 V	
— at ambient temperature 40 °C Rated value	50 A
— at ambient temperature 60 °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
Operating current for ≥ 200000 operating cycles at	
AC-4	15.6 A
at 400 V Rated value	11 A
at 690 V Rated value  Operating current	IIA
Operating current	
<ul><li>with 1 current path at DC-1</li><li>— at 24 V Rated value</li></ul>	45 A
	4.5 A
— at 110 V Rated value	4.3 A
with 2 current paths in series at DC-1  at 24 V Pated value.	45 A
— at 24 V Rated value	25 A
— at 110 V Rated value	23 A
with 3 current paths in series at DC-1	45 A
— at 24 V Rated value	45 A
— at 110 V Rated value  Operating current	45 A
<ul> <li>with 1 current path at DC-3 at DC-5</li> <li>— at 24 V Rated value</li> </ul>	35 A
	2.5 A
— at 110 V Rated value	2.07.
with 2 current paths in series at DC-3 at DC-5  at 440 V Pated value.	25 A
— at 110 V Rated value	25 A
— at 24 V Rated value	45 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	

— at 110 V Rated value	45 A
— at 24 V Rated value	45 A
Operating power	
• at AC-1	
— at 230 V at 60 °C Rated value	18 kW
— at 690 V at 60 °C Rated value	54 kW
Operating power for ≥ 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 restricted to 10 s	320 A
Active power loss at AC-3 at 400 V for rated value of	1.8 W
the operating current per conductor	
No-load switching frequency	
• with AC	5 000 1/h
Operating frequency	
• at AC-1 maximum	1 200 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	1 000 1/h
• at AC-4 maximum	250 1/h
Control circuit/ Control:	
Type of voltage of the control supply voltage	AC
Control supply voltage with AC	
at 50 Hz Rated value	24 V
● at 60 Hz Rated value	24 V
Rated value	50 Hz
Control supply voltage frequency 2 Rated value	60 Hz
Operating range factor control supply voltage rated value of the magnet coil with AC	
● at 50 Hz	0.8 1.1
● at 60 Hz	0.85 1.1
Apparent pick-up power of the magnet coil with AC	127 V·A
Inductive power factor with closing power of the coil	0.73
Apparent holding power of the magnet coil with AC	11.3 V·A
Inductive power factor with the holding power of the coil	0.41
Closing delay	
• with AC	11 30 ms
Arcing time	10 15 ms

Auxiliary circuit:

Number of NC contacts

• for auxiliary contacts

Contact reliability of the auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
● at 220 V Rated value	0.3 A
● at 110 V Rated value	1 A
• at 60 V Rated value	2 A
at 24 V Rated value	10 A
Operating current at DC-13	
• at 220 V Rated value	1 A
• at 110 V Rated value	3 A
• at 60 V Rated value	6 A
Operating current at DC-12	
• at 400 V Rated value	3 A
• at 230 V Rated value	6 A
Operating current at AC-15	
Operating current at AC-12 maximum	10 A
— instantaneous contact	0
for auxiliary contacts	
Number of NO contacts	
<ul> <li>instantaneous contact</li> </ul>	0

111 /	C C A	ratings:
OL	$\cup \cup \cap$	Tauriys.

Contact rating of the auxiliary contacts acc. to UL A600 / Q600

#### Short-circuit:

## Design of the fuse link

 $\bullet$  for short-circuit protection of the main circuit

with type of assignment 1 required
 with type of assignment 2 required
 fuse gL/gG: 125 A
 fuse gL/gG: 63 A
 fuse gL/gG: 10 A

• for short-circuit protection of the auxiliary switch

required

## Installation/ mounting/ dimensions:

installation/ mounting/ dimensions:	
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
Side-by-side mounting	Yes
Height	112 mm
Width	55 mm
Depth	115 mm
Required spacing	
<ul><li>for grounded parts</li></ul>	
— at the side	6 mm

#### Connections/ Terminals:

Type of electrical connecti	on
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for main current circuit
 for auxiliary and control current circuit
 screw-type terminals

#### Type of connectable conductor cross-section

• for main contacts

2x (0.75 ... 16 mm²) - solid

2x (0.75 ... 25 mm²) - stranded

2x (0,75 ... 16 mm²) - single or multi-stranded

2x (0.75 ... 16 mm²) - finely stranded with core end processing

2x (0.75 ... 16 mm²) - finely stranded without core end processing

2x (18 ... 2) • for AWG conductors for main contacts

#### Type of connectable conductor cross-section

• for auxiliary contacts

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

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) - finely stranded with core end processing

2x (20 ... 16), 2x (18 ... 14), 1x 12 • for AWG conductors for auxiliary contacts

## Certificates/ approvals:

#### **General Product Approval Declaration of Functional Test** Safety/Safety Conformity Certificates of Machinery







Type Examination



Type Test Certificates/Test Report

Test	
Certificates	

## **Shipping Approval**

**Special Test** Certificate











## **Shipping Approval**

other



other

Environmental Confirmations

Confirmation

### Further information

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

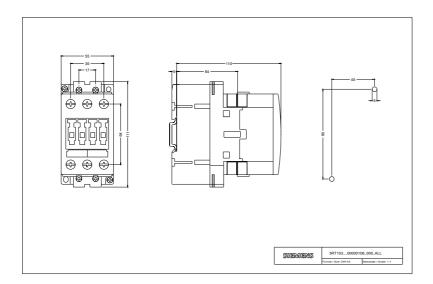
Industry Mall (Online ordering system)

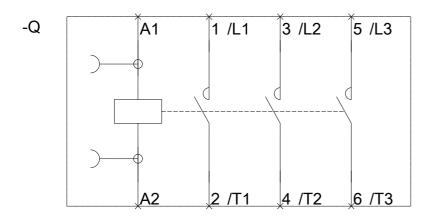
http://www.siemens.com/industrymall

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT10341AC20

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT10341AC20

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT10341AC20&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT10341AC20&lang=en</a>





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