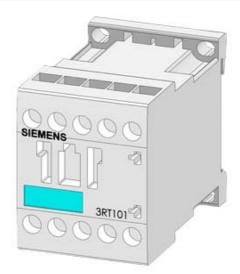
# **SIEMENS**

Data sheet 3RT1316-1AP00



CONTACTOR, AC-1 18A, 12KW/400 V AC 230 V, 50 HZ, 4-POLE, SIZE S00, 4 NO, SCREW CONNECTION

product brand name	SIRIUS	
Product designation	power contactor	
General technical data:		
Size of contactor	S00	
Degree of pollution	3	
Mechanical service life (switching cycles)		
<ul> <li>of the contactor typical</li> </ul>	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		
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	4	
Number of NC contacts for main contacts	0	

Number of NO contacts for main contacts	4
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
— at ambient temperature 60 °C Rated value	16 A
• at AC-3	
— at 400 V Rated value	9 A
Operating current	
<ul><li>with 1 current path at DC-1</li></ul>	
— 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
• with 3 current paths in series at DC-1	
— at 24 V Rated value	18 A
— at 110 V Rated value	18 A
Operating current	
<ul><li>with 1 current path at DC-3 at DC-5</li></ul>	
— 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 110 V Rated value	0.35 A
— at 24 V Rated value	18 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V Rated value	18 A
— at 24 V Rated value	18 A
Active power loss at AC-3 at 400 V for rated value of	1.24 W
the operating current per conductor	
Control circuit/ Control:	
Type of voltage of the control supply voltage	AC
Control supply voltage with AC	
● at 50 Hz Rated value	230 V

Control circuit/ Control:	
Type of voltage of the control supply voltage	AC
Control supply voltage with AC	
● at 50 Hz Rated value	230 V
• at 60 Hz Rated value	230 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	27 V·A
Inductive power factor with closing power of the coil	0.8
Apparent holding power of the magnet coil with AC	4.4 V·A
Inductive power factor with the holding power of the coil	0.27
Auxiliary circuit:	

Auxiliary circuit:	
Number of NC contacts	
<ul> <li>for auxiliary contacts</li> </ul>	
<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 the auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)

# Short-circuit: Design of the fuse link

required

• for short-circuit protection of the main circuit

— with type of assignment 1 required
 — with type of assignment 2 required
 fuse gL/gG: 35 A
 fuse gL/gG: 20 A
 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	57.5 mm
Width	45 mm
Depth	72 mm
Required spacing	

- for grounded parts
  - 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-section	
• 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>for AWG conductors for main contacts</li> </ul>	2x (20 16), 2x (18 14), 1x 12
Type of connectable conductor cross-section	
<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>for 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











of Machinery

Type Examination



CSA

Test

other

Shipping Approval





Certificates





GL





Shipping Approval



Confirmation

Environmental Confirmations

other

#### 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=3RT13161AP00

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT13161AP00

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT13161AP00&lang=en

