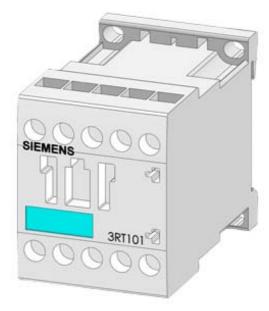
# **SIEMENS**

Data sheet 3RT1316-1AP00

Contactor, AC-1, 18 A, 12 kW 400 V 230 V AC, 50/60 Hz 4-pole, Size S00, 4 NO Screw terminal !!! Phased-out product !!! Successor is SIRIUS 3RT2 Preferred successor type is >>3RT2316-1AP00<<



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)	
<ul> <li>of contactor typical</li> </ul>	30 000 000
<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
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Aain circuit	
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	
<ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> </ul>	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	AC
Control supply voltage at AC	
• at 50 Hz rated value	230 V
• at 60 Hz rated value	230 V
Control supply voltage frequency	
1 rated value	50 Hz
• 2 rated value	60 Hz
Operating range factor control supply voltage rated value of magnet coil at AC	
● at 50 Hz	0.8 1.1
● at 60 Hz	0.85 1.1
Apparent pick-up power of magnet coil at AC	27 V·A
Inductive power factor with closing power of the coil	0.8
Apparent holding power of magnet coil at AC	4.4 V·A
Inductive power factor with the holding power of the coil	0.27
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
<ul> <li>— with type of assignment 2 required</li> </ul>	fuse gL/gG: 20 A
• for short-circuit protection of the auxiliary switch	fuse gL/gG: 10 A
required	

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	
<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 (0.5 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)	
— finely stranded with core end processing	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



Declaration	of
Conformity	

Miscellaneous

Test Certificates

Special Test Certificate

Marine / Shipping









#### 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=3RT1316-1AP00

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT1316-1AP00}\\$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT1316-1AP00

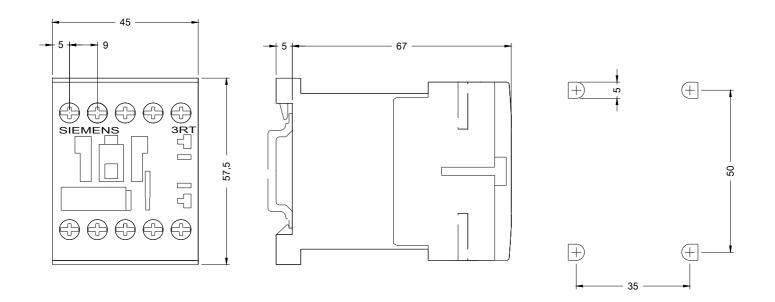
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT1316-1AP00&lang=en

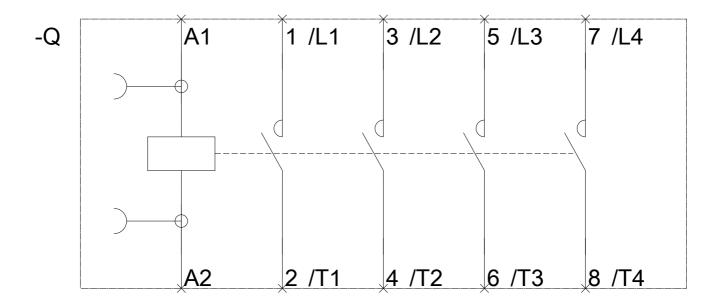
Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT1316-1AP00/char

Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1316-1AP00&objecttype=14&gridview=view1





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