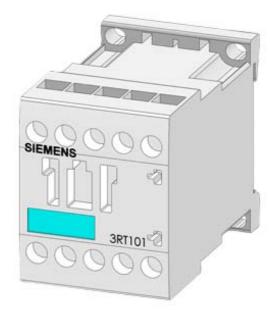
SIEMENS

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)	
of contactor typical	30 000 000
 of the contactor with added electronics- compatible auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
Reference code acc. to DIN EN 81346-2	Q
Ambient conditions	
Installation altitude at height above sea level	

2 000 m

• maximum

Alain circuit	1
Number of poles for main current circuit Number of NO contacts for main contacts	4
Number of NC contacts for main contacts Number of NC contacts for main contacts	0
Operating current	O
• at AC-1 at 400 V	
	18 A
— at ambient temperature 40 °C rated value	10 A
• at AC-1	18 A
 up to 690 V at ambient temperature 40 °C rated value 	10 A
— up to 690 V at ambient temperature 60 °C	16 A
rated value	
• 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
• with 2 current paths in series at DC-1	
— 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	
• 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	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
COIL	
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	
— with type of coordination 1 required	fuse gL/gG: 35 A
with type of assignment 2 required	fuse gL/gG: 20 A
71 3	

• 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
 Side-by-side mounting 	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
 for auxiliary and control current circuit 	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)
 single or multi-stranded 	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)
 at AWG conductors for main contacts 	2x (20 16), 2x (18 14), 1x 12
Type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid	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)
 at AWG conductors for auxiliary contacts 	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

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

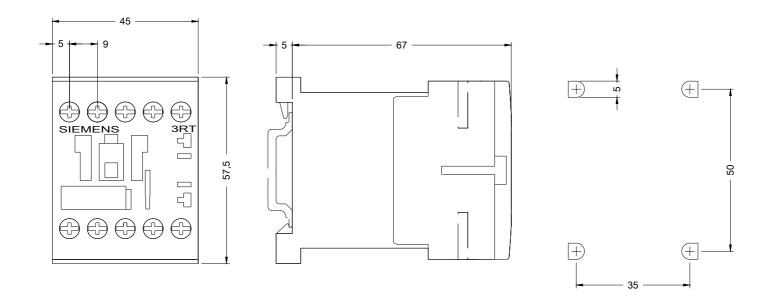
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1316-1AP00&lang=en

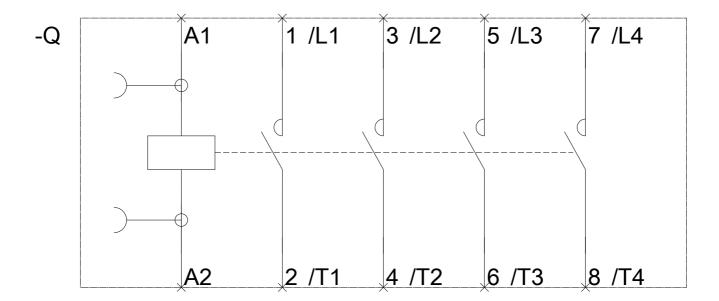
Characteristic: Tripping characteristics, I2t, Let-through current

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

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

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





last modified: 06/07/2019