SIEMENS

Data sheet 3RT2316-1AP00

Contactor, AC-1, 18 A/400 V/40 $^{\circ}$ C, S00, 4-pole, 230 V AC, 50/60 Hz, screw terminal



product brand name	SIRIUS
product designation	Contactor
product type designation	3RT23

S00
No
Yes
6 kV
6 kV
IP20
IP20
6,7g / 5 ms, 4,2g / 10 ms
10,5g / 5 ms, 6,6g / 10 ms

 of contactor typical 	30 000 000
of the contactor with added auxiliary switch	30 000 000
block typical	
reference code acc. to DIN EN 81346-2	Q

Ambient conditions	
• installation altitude at height above sea level	2 000 m
maximum	
ambient temperature	
during operation	-25 +60 °C
during storage	-55 +80 °C
relative humidity	
during operation	95 %

Main circuit	
number of poles for main current circuit	4
number of NO contacts for main contacts	4
operating voltage	
• at AC	
— at 50 Hz rated value	690 V
— at 60 Hz rated value	690 V
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
 up to 690 V at ambient temperature 60 °C rated value 	16 A
• at AC-3	
— at 400 V rated value	9 A
 at AC-4 at 400 V rated value 	8.5 A
minimum cross-section in main circuit	
 at maximum AC-1 rated value 	2.5 mm ²
operating power	
● at AC-3	
— at 400 V rated value	4 kW
 at AC-4 at 400 V rated value 	4 kW
short-time withstand current in cold operating state up to 40 °C	
 limited to 1 s switching at zero current maximum 	Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	Use minimum cross-section acc. to AC-1 rated value

 limited to 10 s switching at zero current maximum 	Use minimum cross-section acc. to AC-1 rated value
 limited to 30 s switching at zero current maximum 	Use minimum cross-section acc. to AC-1 rated value
 limited to 60 s switching at zero current maximum 	Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	10 000 1/h
operating frequency	
• at AC-1 maximum	1 000 1/h
Control circuit/ Control	
type of voltage	AC
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
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	
● at 50 Hz	27 V·A
● at 60 Hz	24.3 V·A
inductive power factor with closing power of the coil	
● at 50 Hz	0.8
● at 60 Hz	0.75
apparent holding power of magnet coil at AC	
● at 50 Hz	4.2 V·A
● at 60 Hz	3.3 V·A
inductive power factor with the holding power of the coil	
● at 50 Hz	0.25
• at 60 Hz	0.25

● at 50 Hz	0.25
● at 60 Hz	0.25
closing delay	
● at AC	9 35 ms
opening delay	
• at AC	3.5 14 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Standard A1 - A2

Auxiliary circuit	
number of NC contacts for auxiliary contacts	
• attachable	2

number of NO contacts for auxiliary contacts

• attachable

2

Short-circuit protection	
product function short circuit protection	No
design of the fuse link	
 for short-circuit protection of the main circuit 	
 — with type of coordination 1 required 	gG: 35 A (690 V, 100 kA)
— with type of assignment 2 required	gG: 20 A (690 V, 100 kA)
 for short-circuit protection of the auxiliary switch required 	gG: 10 A (690 V, 1 kA)

Installation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
side-by-side mounting	Yes
height	58 mm
width	45 mm
depth	73 mm
required spacing	
with side-by-side mounting	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
 for grounded parts 	
— forwards	10 mm
— upwards	10 mm
— at the side	6 mm
— downwards	10 mm
• for live parts	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	6 mm

type of electrical connection • for main current circuit • for auxiliary and control current circuit type of connectable conductor cross-sections connectable conductor cross-sections

• for main contacts	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
— single or multi-stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 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), 2x 12
connectable conductor cross-section for main	
contacts	
• solid	0.5 4 mm²
single or multi-stranded	0.5 4 mm²
• stranded	0.5 4 mm²
finely stranded with core end processing	0.5 2.5 mm²
connectable conductor cross-section for auxiliary contacts	
single or multi-stranded	0.5 4 mm²
finely stranded with core end processing	0.5 2.5 mm ²
 type of connectable conductor cross-sections for auxiliary contacts 	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 single or multi-stranded 	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• type of connectable conductor cross-sections at	2x (20 16), 2x (18 14), 2x 12
AWG conductors for auxiliary contacts	
AWG number as coded connectable conductor cross	
section	00 40
• for main contacts	20 12
for auxiliary contacts	20 12
Safety related data	
product function	
• mirror contact acc. to IEC 60947-4-1	Yes; with 3RH29
T1 value for proof test interval or service life acc. to	20 y
IEC 61508	
protection against electrical shock	finger-safe
Communication/ Protocol	
product function bus communication	No
Certificates/ approvals	

General Product Approval

EMC

Functional Safety/Safety of Machinery











Type Examination
Certificate

Declaration of Conformity

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report

Special Test Certificate





Marine / Shipping





LRS









Confirmation

other



Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2316-1AP00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2316-1AP00

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2316-1AP00

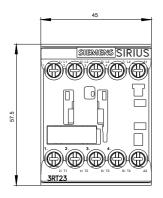
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2316-1AP00&lang=en

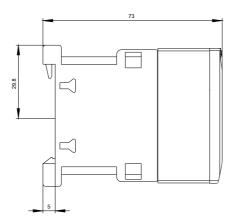
Characteristic: Tripping characteristics, I2t, Let-through current

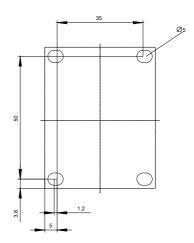
https://support.industry.siemens.com/cs/ww/en/ps/3RT2316-1AP00/char

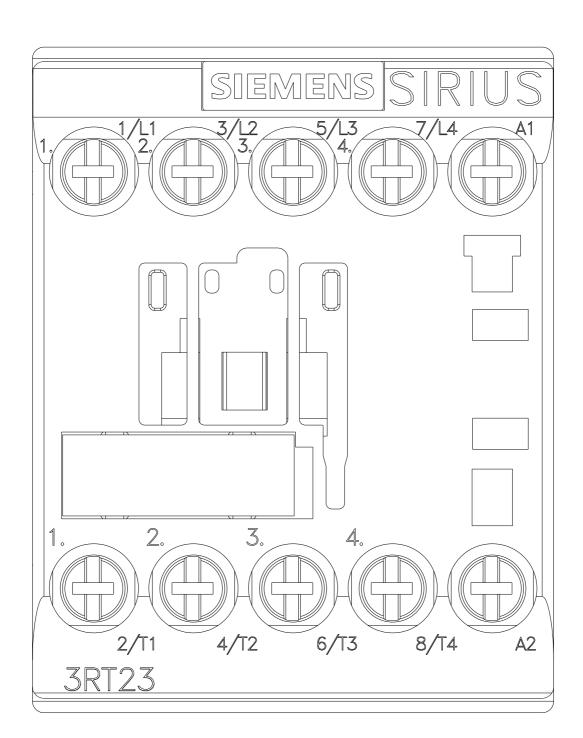
Further characteristics (e.g. electrical endurance, switching frequency)

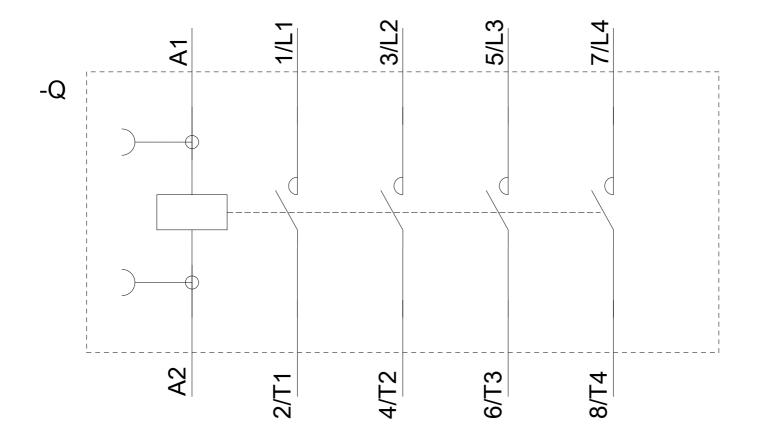
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