



Contactor, AC-1, 18 A/400 V/40 °C, S00, 4-pole, 24 V DC, screw terminal

product brand name	SIRIUS
product designation	Contactor
product type designation	3RT23
General technical data	
size of contactor	S00
product extension	
• function module for communication	No
• auxiliary switch	Yes
surge voltage resistance	
• of main circuit rated value	6 kV
• of auxiliary circuit rated value	6 kV
shock resistance at rectangular impulse	
• at DC	6,7g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at DC	10,5g / 5 ms, 6,6g / 10 ms
mechanical service life (switching cycles)	
• of contactor typical	30 000 000
• of the contactor with added auxiliary switch block typical	30 000 000
reference code acc. to IEC 81346-2	Q
Substance Prohibance (Date)	01.10.2009 00:00:00
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
• ambient temperature during operation	-25 ... +60 °C
• ambient temperature 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
operational 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 mm²
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 DC	10 000 1/h
operating frequency at AC-1 maximum	1 000 1/h
Control circuit/ Control	
type of voltage	DC
type of voltage of the control supply voltage	DC
• control supply voltage at DC rated value	24 V
operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.8
• full-scale value	1.1
closing power of magnet coil at DC	4 W
holding power of magnet coil at DC	4 W
closing delay	
• at DC	30 ... 100 ms
opening delay	
• at DC	7 ... 13 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
fastening method	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	
Connections/ Terminals		
type of electrical connection		
● for main current circuit	screw-type terminals	
● for auxiliary and control 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), 2x 4 mm²	
— solid or 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 cables for main contacts	2x (20 ... 16), 2x (18 ... 14), 2x 12	
connectable conductor cross-section for main contacts		
● solid	0.5 ... 4 mm²	
● solid or 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		
● solid or stranded	0.5 ... 4 mm²	
● finely stranded with core end processing	0.5 ... 2.5 mm²	
type of connectable conductor cross-sections		
● for auxiliary contacts		
— solid	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)	
— solid or 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 cables for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14), 2x 12	
● AWG number as coded connectable conductor cross section for main contacts	20 ... 12	
● AWG number as coded connectable conductor cross section 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 IEC 61508	20 y	
protection class IP on the front acc. to IEC 60529	IP20	
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front	
Communication/ Protocol		
product function bus communication	No	
Certificates/ approvals		
General Product Approval	EMC	Declaration of Conformity



[Miscellaneous](#)

Declaration of Conformity	Test Certificates	Marine / Shipping
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EG-Konf.

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



ABS



LRS

Marine / Shipping	other
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PRS



RINA



RMRS



DNV-GL

[Confirmation](#)



VDE

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=3RT2316-1BB40>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2316-1BB40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2316-1BB40>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

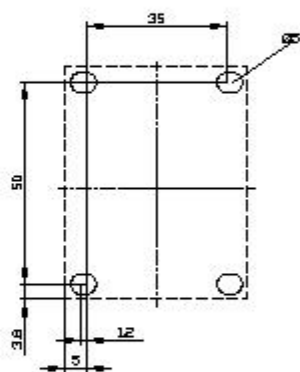
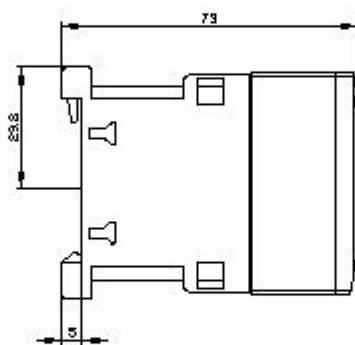
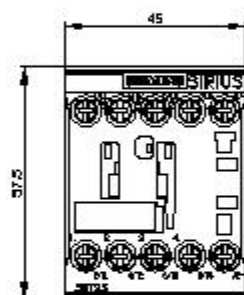
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2316-1BB40&lang=en

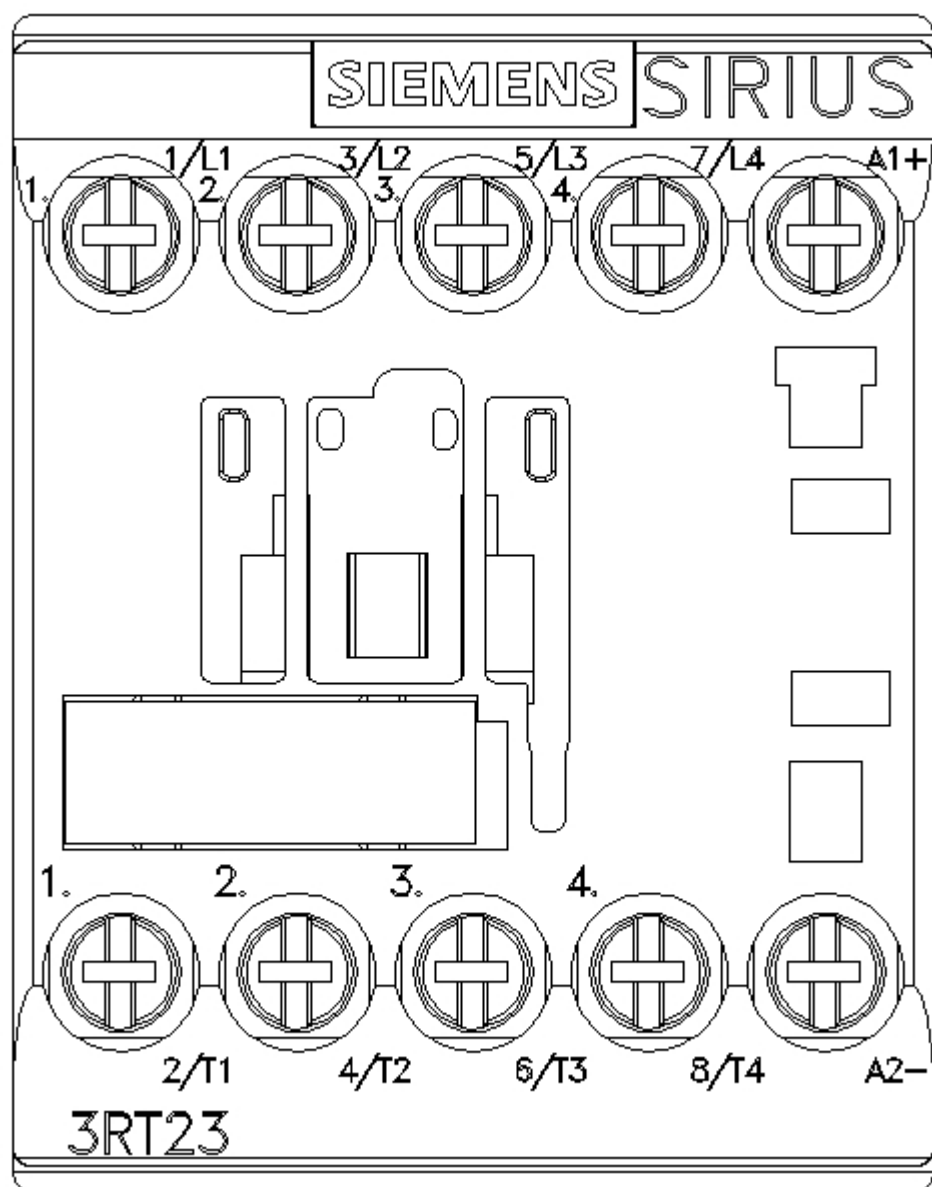
Characteristic: Tripping characteristics, I_t, Let-through current

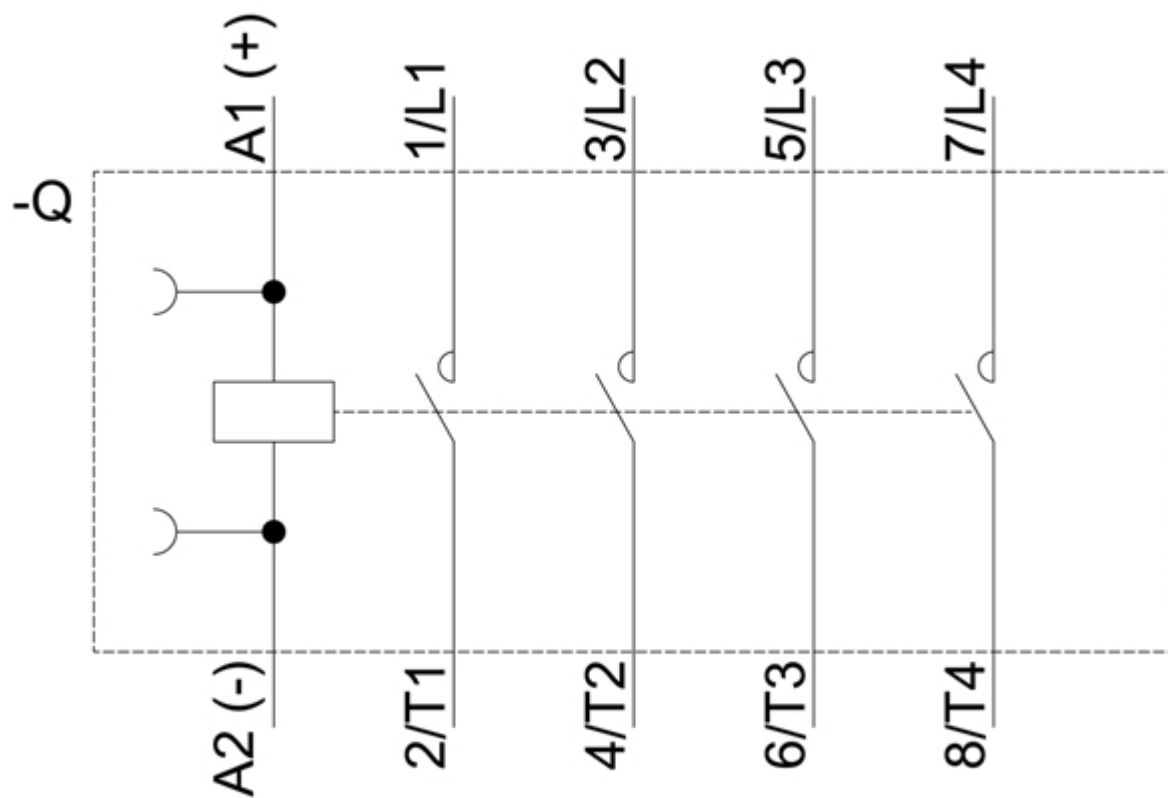
<https://support.industry.siemens.com/cs/ww/en/ps/3RT2316-1BB40/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2316-1BB40&objecttype=14&gridview=view1>







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