



contactor AC-1, 18 A, 400 V / 40 °C, 4-pole, 110 V AC, 50/60 Hz, spring-loaded terminal, size: S00

product brand name	SIRIUS
product designation	Contactor
product type designation	3RT23
<b>General technical data</b>	
size of contactor	S00
product extension	
• function module for communication	No
• auxiliary switch	Yes
power loss [W] for rated value of the current	
• at AC in hot operating state	4.4 W
• at AC in hot operating state per pole	1.1 W
type of calculation of power loss depending on pole	quadratic
insulation voltage	
• of main circuit with degree of pollution 3 rated value	690 V
• of the auxiliary and control circuit with degree of pollution 3 rated value	690 V
surge voltage resistance	
• of main circuit rated value	6 kV
• of auxiliary circuit rated value	6 kV
shock resistance at rectangular impulse	
• at AC	6,7g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at AC	10,5g / 5 ms, 6,6g / 10 ms
mechanical service life (operating cycles)	
• of contactor typical	30 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
Weight	0.252 kg
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-55 ... +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
<b>Environmental footprint</b>	
Environmental Product Declaration(EPD)	Yes
global warming potential [CO2 eq] total	94.8 kg
global warming potential [CO2 eq] during manufacturing	1.15 kg

global warming potential [CO <sub>2</sub> eq] during operation	93.8 kg
global warming potential [CO <sub>2</sub> eq] after end of life	-0.178 kg
<b>Main circuit</b>	
number of poles for main current circuit	4
number of NO contacts for main contacts	4
<b>operational current</b>	
• 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 <sup>2</sup>
<b>operating power</b>	
• at AC-3 at 400 V rated value	4 kW
• at AC-4 at 400 V rated value	4 kW
<b>no-load switching frequency</b>	
• at AC	10 000 1/h
operating frequency at AC-1 maximum	1 000 1/h
<b>Control circuit/ Control</b>	
type of voltage	AC
type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz rated value	110 V
• at 60 Hz rated value	110 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 VA
• at 60 Hz	24.3 VA
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 VA
• at 60 Hz	3.3 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.25
• at 60 Hz	0.25
<b>closing delay</b>	
• at AC	9 ... 35 ms
<b>opening delay</b>	
• at AC	7 ... 13 ms
<b>arcing time</b>	10 ... 15 ms
control version of the switch operating mechanism	Standard A1 - A2
<b>Auxiliary circuit</b>	
number of NC contacts for auxiliary contacts	
• attachable	2
number of NO contacts for auxiliary contacts	
• attachable	2
<b>Short-circuit protection</b>	
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
- for short-circuit protection of the auxiliary switch required

gG: 20 A (690 V, 100 kA)  
gG: 10 A (690 V, 1 kA)

#### Installation/ mounting/ dimensions

<b>mounting position</b>	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method side-by-side mounting	Yes
<b>fastening method</b>	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
<b>height</b>	70 mm
<b>width</b>	45 mm
<b>depth</b>	73 mm
<b>required spacing</b>	
• 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

<b>type of electrical connection</b>	
• for main current circuit	spring-loaded terminals
• for auxiliary and control circuit	spring-loaded terminals
• at contactor for auxiliary contacts	Spring-type terminals
• of magnet coil	Spring-type terminals
<b>type of connectable conductor cross-sections for main contacts</b>	
• solid	2x (0.5 ... 4 mm <sup>2</sup> )
• solid or stranded	2x (0.5 ... 4 mm <sup>2</sup> )
• finely stranded with core end processing	2x (0.5 ... 2.5 mm <sup>2</sup> )
• finely stranded without core end processing	2x (0.5 ... 2.5 mm <sup>2</sup> )
<b>connectable conductor cross-section for main contacts</b>	
• solid	0.5 ... 4 mm <sup>2</sup>
• solid or stranded	0.5 ... 4 mm <sup>2</sup>
• stranded	0.5 ... 4 mm <sup>2</sup>
• finely stranded with core end processing	0.5 ... 2.5 mm <sup>2</sup>
• finely stranded without core end processing	0.5 ... 2.5 mm <sup>2</sup>
<b>connectable conductor cross-section for auxiliary contacts</b>	
• solid or stranded	0.5 ... 4 mm <sup>2</sup>
• finely stranded with core end processing	0.5 ... 2.5 mm <sup>2</sup>
• finely stranded without core end processing	0.5 ... 2.5 mm <sup>2</sup>
<b>type of connectable conductor cross-sections</b>	
• for auxiliary contacts	
— solid	2x (0.5 ... 2.5 mm <sup>2</sup> )
— solid or stranded	2x (0.5 ... 4 mm <sup>2</sup> )
— finely stranded with core end processing	2x (0.5 ... 2.5 mm <sup>2</sup> )
— finely stranded without core end processing	2x (0.5 ... 2.5 mm <sup>2</sup> )
• for AWG cables for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14), 2x 12
<b>AWG number as coded connectable conductor cross-section</b>	
• for main contacts	20 ... 12
• for auxiliary contacts	20 ... 12

#### Safety related data

<b>product function</b>	
• mirror contact according to IEC 60947-4-1	Yes; with 3RH29

• positively driven operation according to IEC 60947-5-1	No
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Communication/ Protocol	
product function bus communication	No
Approvals Certificates	
General Product Approval	



Confirmation



EMV	Test Certificates	Marine / Shipping
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping	other
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[Miscellaneous](#)

[Confirmation](#)

Railway	Environment
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[Special Test Certificate](#)



[Environmental Confirmations](#)

#### Further information

##### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

##### 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=3RT2316-2AF00>

##### Cax online generator

<http://support.automation.siemens.com/WW/CAOrder/default.aspx?lang=en&mlfb=3RT2316-2AF00>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2316-2AF00>

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

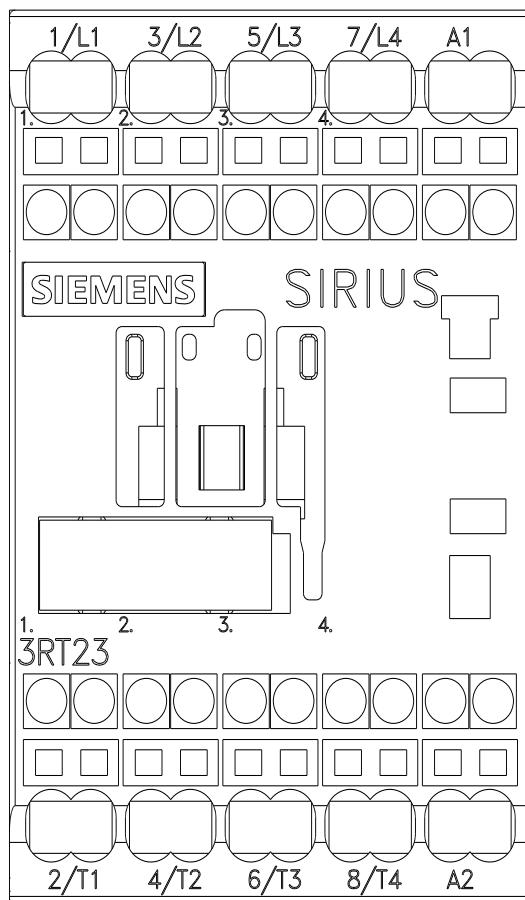
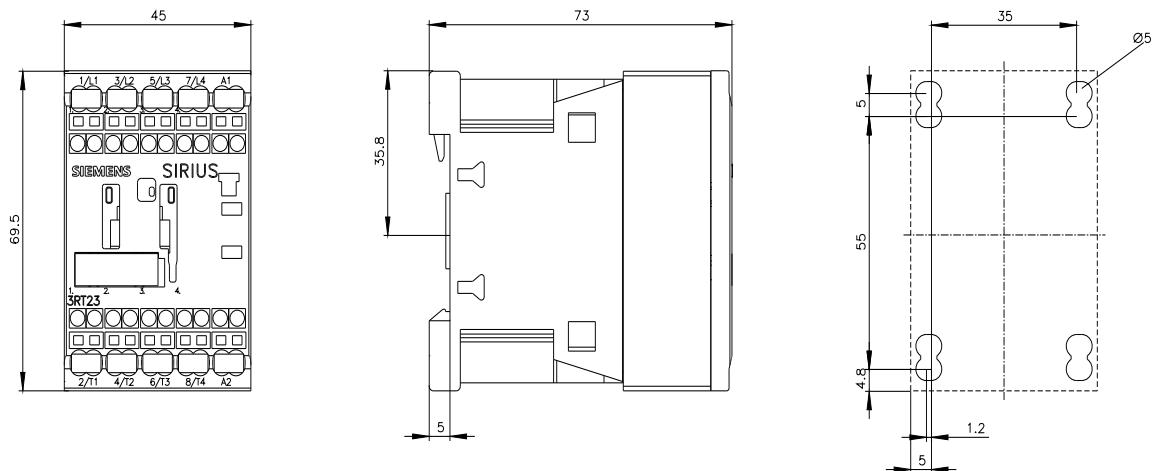
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2316-2AF00&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2316-2AF00&lang=en)

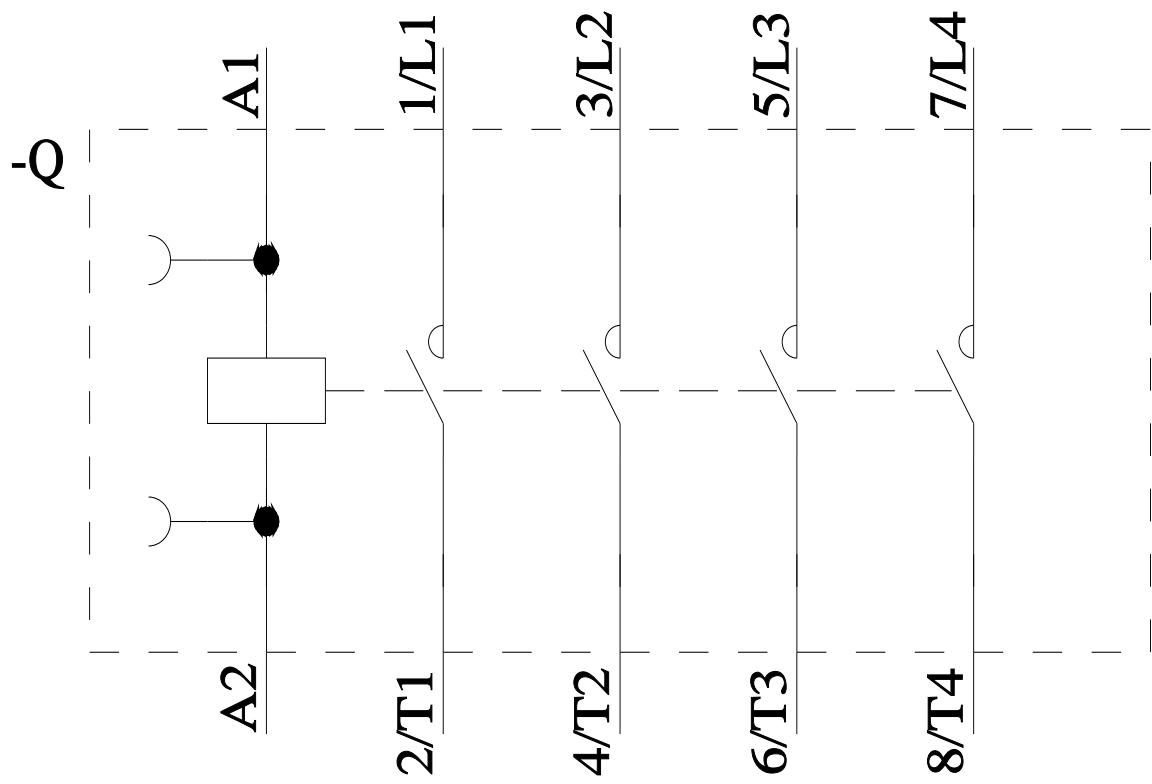
##### Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2316-2AF00/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2316-2AF00&objecttype=14&gridview=view1>





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last modified:

6/5/2024