



Contactor, AC-1, 18 A/400 V/40 °C, S00, 4-pole, 125 V DC, screw terminal

<b>product brand name</b>	SIRIUS
<b>product designation</b>	Contactor
<b>product type designation</b>	3RT23
<b>General technical data</b>	
<b>size of contactor</b>	S00
<b>product extension</b>	
• function module for communication	No
• auxiliary switch	Yes
<b>power loss [W] for rated value of the current</b>	
• at AC in hot operating state	4.4 W
• at AC in hot operating state per pole	1.1 W
• without load current share typical	4 W
<b>insulation voltage</b>	
• 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
<b>surge voltage resistance</b>	
• of main circuit rated value	6 kV
• of auxiliary circuit rated value	6 kV
<b>shock resistance at rectangular impulse</b>	
• at DC	6,7g / 5 ms, 4,2g / 10 ms
<b>shock resistance with sine pulse</b>	
• at DC	10,5g / 5 ms, 6,6g / 10 ms
<b>mechanical service life (switching cycles)</b>	
• of contactor typical	30 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
<b>reference code according to IEC 81346-2</b>	Q
<b>Substance Prohibitance (Date)</b>	10/01/2009
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	-55 ... +80 °C
<b>relative humidity minimum</b>	10 %
<b>relative humidity at 55 °C according to IEC 60068-2-30 maximum</b>	95 %
<b>Main circuit</b>	
<b>number of poles for main current circuit</b>	4
<b>number of NO contacts for main contacts</b>	4
<b>operational current</b>	
• at AC-1 at 400 V at ambient temperature 40 °C	18 A

rated value	
<ul style="list-style-type: none"> <li>at AC-1 <ul style="list-style-type: none"> <li>— up to 690 V at ambient temperature 40 °C</li> </ul> </li> </ul>	18 A
<ul style="list-style-type: none"> <li>at AC-1 <ul style="list-style-type: none"> <li>— up to 690 V at ambient temperature 60 °C</li> </ul> </li> </ul>	16 A
<ul style="list-style-type: none"> <li>at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul> </li> </ul>	9 A
<ul style="list-style-type: none"> <li>at AC-4 at 400 V rated value</li> </ul>	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>	
<ul style="list-style-type: none"> <li>at AC-3 at 400 V rated value</li> </ul>	4 kW
<ul style="list-style-type: none"> <li>at AC-4 at 400 V rated value</li> </ul>	4 kW
<b>short-time withstand current in cold operating state up to 40 °C</b>	
<ul style="list-style-type: none"> <li>limited to 1 s switching at zero current maximum</li> </ul>	Use minimum cross-section acc. to AC-1 rated value
<ul style="list-style-type: none"> <li>limited to 5 s switching at zero current maximum</li> </ul>	Use minimum cross-section acc. to AC-1 rated value
<ul style="list-style-type: none"> <li>limited to 10 s switching at zero current maximum</li> </ul>	Use minimum cross-section acc. to AC-1 rated value
<ul style="list-style-type: none"> <li>limited to 30 s switching at zero current maximum</li> </ul>	Use minimum cross-section acc. to AC-1 rated value
<ul style="list-style-type: none"> <li>limited to 60 s switching at zero current maximum</li> </ul>	Use minimum cross-section acc. to AC-1 rated value
<b>no-load switching frequency</b>	
<ul style="list-style-type: none"> <li>at DC</li> </ul>	10 000 1/h
operating frequency at AC-1 maximum	1 000 1/h
<b>Control circuit/ Control</b>	
<b>type of voltage</b>	DC
<b>type of voltage of the control supply voltage</b>	DC
<b>control supply voltage at DC</b>	
<ul style="list-style-type: none"> <li>rated value</li> </ul>	125 V
<b>operating range factor control supply voltage rated value of magnet coil at DC</b>	
<ul style="list-style-type: none"> <li>initial value</li> </ul>	0.8
<ul style="list-style-type: none"> <li>full-scale value</li> </ul>	1.1
<b>closing power of magnet coil at DC</b>	4 W
<b>holding power of magnet coil at DC</b>	4 W
<b>closing delay</b>	
<ul style="list-style-type: none"> <li>at DC</li> </ul>	30 ... 100 ms
<b>opening delay</b>	
<ul style="list-style-type: none"> <li>at DC</li> </ul>	7 ... 13 ms
<b>arcing time</b>	10 ... 15 ms
<b>control version of the switch operating mechanism</b>	Standard A1 - A2
<b>Auxiliary circuit</b>	
<b>number of NC contacts for auxiliary contacts</b>	
<ul style="list-style-type: none"> <li>attachable</li> </ul>	2
<b>number of NO contacts for auxiliary contacts</b>	
<ul style="list-style-type: none"> <li>attachable</li> </ul>	2
<b>Short-circuit protection</b>	
<b>product function short circuit protection</b>	No
<b>design of the fuse link</b>	
<ul style="list-style-type: none"> <li>for short-circuit protection of the main circuit <ul style="list-style-type: none"> <li>— with type of coordination 1 required</li> </ul> </li> </ul>	gG: 35 A (690 V, 100 kA)
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— with type of assignment 2 required</li> </ul> </li> </ul>	gG: 20 A (690 V, 100 kA)
<ul style="list-style-type: none"> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	gG: 10 A (690 V, 1 kA)
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
<b>fastening method</b>	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
<ul style="list-style-type: none"> <li>side-by-side mounting</li> </ul>	Yes
<b>height</b>	58 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

#### type of electrical connection

- for main current circuit
- for auxiliary and control circuit
- at contactor for auxiliary contacts
- of magnet coil

screw-type terminals  
 screw-type terminals  
 Screw-type terminals  
 Screw-type terminals

#### type of connectable conductor cross-sections

- for main contacts
  - solid
  - solid or stranded
  - finely stranded with core end processing
- at AWG cables for main contacts

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>), 2x 4 mm<sup>2</sup>  
 2x (0,5 ... 1,5 mm<sup>2</sup>), 2x (0,75 ... 2,5 mm<sup>2</sup>), 2x 4 mm<sup>2</sup>  
 2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)  
 2x (20 ... 16), 2x (18 ... 14), 2x 12

#### connectable conductor cross-section for main contacts

- solid
- solid or stranded
- stranded
- finely stranded with core end processing

0.5 ... 4 mm<sup>2</sup>  
 0.5 ... 4 mm<sup>2</sup>  
 0.5 ... 4 mm<sup>2</sup>  
 0.5 ... 2.5 mm<sup>2</sup>

#### connectable conductor cross-section for auxiliary contacts

- solid or stranded
- finely stranded with core end processing

0.5 ... 4 mm<sup>2</sup>  
 0.5 ... 2.5 mm<sup>2</sup>

#### type of connectable conductor cross-sections

- for auxiliary contacts
  - solid
  - solid or stranded
  - finely stranded with core end processing
- at AWG cables for auxiliary contacts

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)  
 2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>), 2x 4 mm<sup>2</sup>  
 2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)  
 2x (20 ... 16), 2x (18 ... 14), 2x 12

#### AWG number as coded connectable conductor cross section

- for main contacts
- for auxiliary contacts

20 ... 12  
 20 ... 12

### Safety related data

#### product function

- mirror contact according to IEC 60947-4-1
- T1 value for proof test interval or service life according to IEC 61508

Yes; with 3RH29  
 20 y

#### 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

### Certificates/ approvals

General Product Approval

EMC



[Confirmation](#)



Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates	Marine / Shipping
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[Type Examination Certificate](#)



EG-Konf.

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



ABS

Marine / Shipping



other	Railway	Dangerous Good
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[Confirmation](#)

[Environmental Conformations](#)



VDE

[Vibration and Shock](#)

[Transport Information](#)

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=3RT2316-1BG40>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2316-1BG40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2316-1BG40>

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

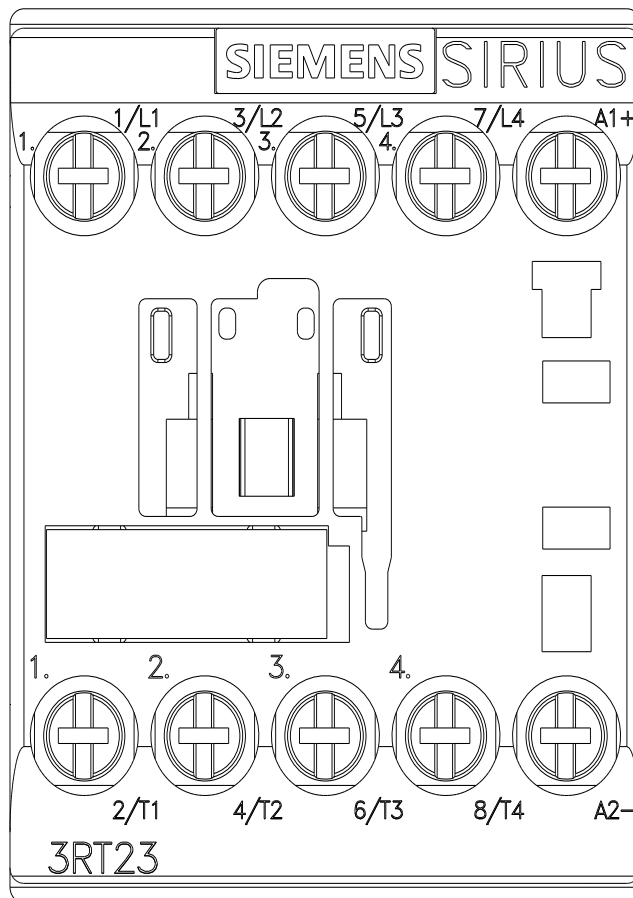
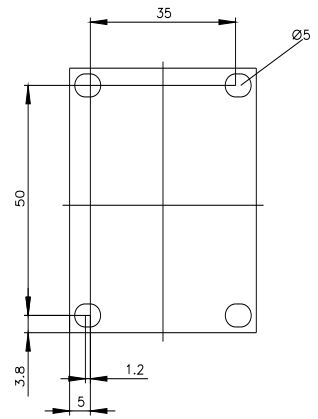
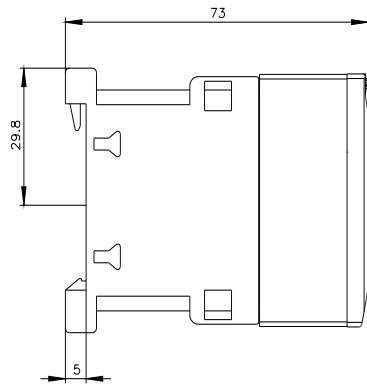
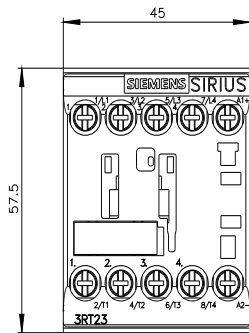
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2316-1BG40&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2316-1BG40&lang=en)

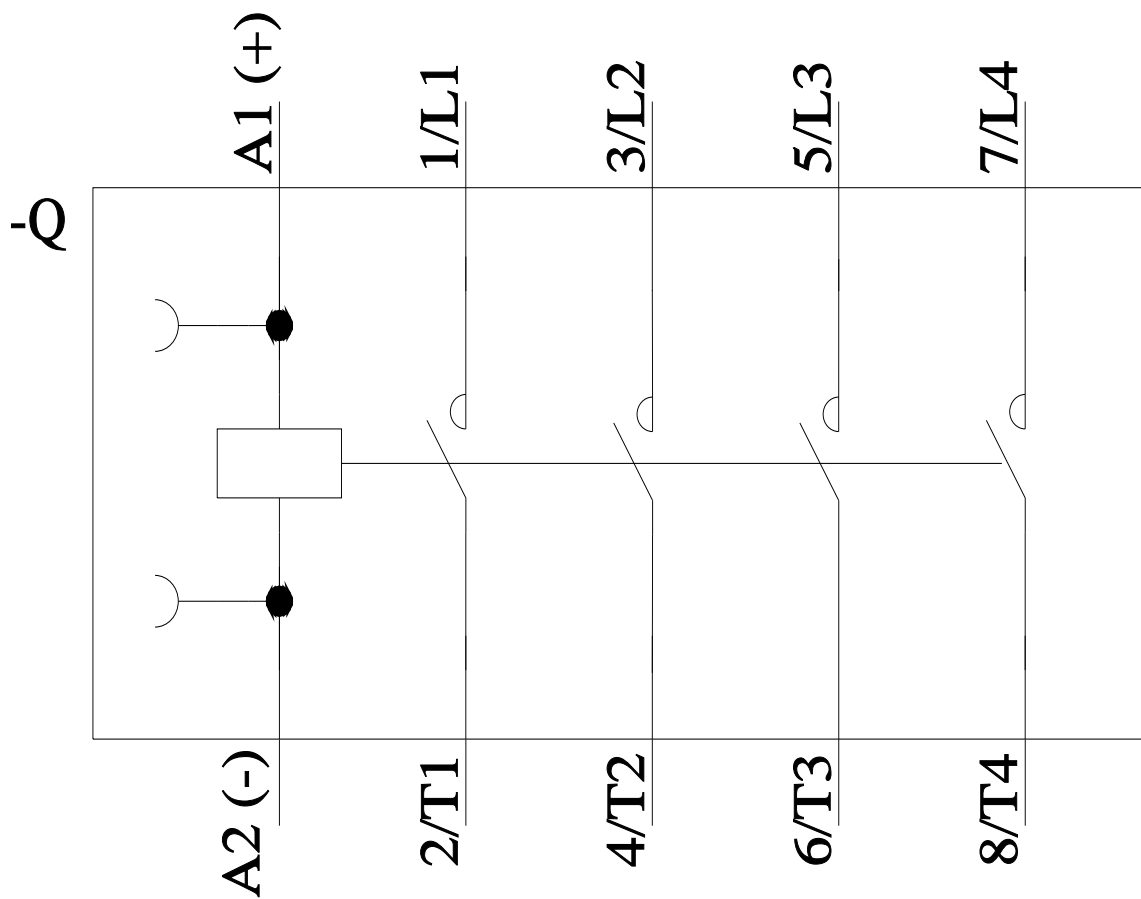
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2316-1BG40/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2316-1BG40&objecttype=14&gridview=view1>





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