



contactor AC-1, 110 A, 400 V / 40 °C, 4-pole, 110 V AC, 50 Hz / 120 V, 60 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal

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

General technical data

size of contactor	S3
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	29.2 W
• at AC in hot operating state per pole	7.3 W
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	8 kV
• of auxiliary circuit rated value	6 kV
shock resistance at rectangular impulse	
• at AC	6.7 g / 5 ms, 4.0 g / 10 ms
shock resistance with sine pulse	
• at AC	10.6 g / 5 ms, 6.3 g / 10 ms
mechanical service life (operating cycles)	
• of contactor typical	10 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	09/01/2017

Ambient conditions

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 %

Main circuit

number of poles for main current circuit	4
number of NO contacts for main contacts	4
operational current	
• at AC-1 at 400 V at ambient temperature 40 °C rated value	110 A

- at AC-1
 - up to 690 V at ambient temperature 40 °C rated value
 - up to 690 V at ambient temperature 60 °C rated value
 - at AC-3
 - at 400 V rated value
- minimum cross-section in main circuit at maximum AC-1 rated value
- short-time withstand current in cold operating state up to 40 °C**
- limited to 1 s switching at zero current maximum
 - limited to 5 s switching at zero current maximum
 - limited to 10 s switching at zero current maximum
 - limited to 30 s switching at zero current maximum
 - limited to 60 s switching at zero current maximum
- no-load switching frequency**
- at AC
- operating frequency at AC-1 maximum

110 A

100 A

38 A

35 mm²

Use minimum cross-section acc. to AC-1 rated value

Use minimum cross-section acc. to AC-1 rated value

Use minimum cross-section acc. to AC-1 rated value

Use minimum cross-section acc. to AC-1 rated value

Use minimum cross-section acc. to AC-1 rated value

5 000 1/h

1 000 1/s

Control circuit/ Control

- type of voltage**
- type of voltage of the control supply voltage**
- control supply voltage at AC**
- at 50 Hz rated value
 - at 60 Hz rated value
- operating range factor control supply voltage rated value of magnet coil at AC**
- at 50 Hz
 - at 60 Hz
- apparent pick-up power of magnet coil at AC**
- at 50 Hz
 - at 60 Hz
- inductive power factor with closing power of the coil**
- at 50 Hz
 - at 60 Hz
- apparent holding power of magnet coil at AC**
- at 50 Hz
 - at 60 Hz
- inductive power factor with the holding power of the coil**
- at 50 Hz
 - at 60 Hz
- closing delay**
- at AC
- opening delay**
- at AC
- arcing time**
- control version of the switch operating mechanism**

AC

AC

110 V

120 V

0.8 ... 1.1

0.85 ... 1.1

348 VA

296 VA

0.62

0.55

25 VA

18 VA

0.35

0.41

13 ... 50 ms

10 ... 21 ms

10 ... 20 ms

Standard A1 - A2

Auxiliary circuit

- number of NC contacts for auxiliary contacts**
- attachable
 - instantaneous contact
- number of NO contacts for auxiliary contacts**
- attachable
 - instantaneous contact
- operational current at AC-12 maximum
- operational current at AC-15**
- at 230 V rated value
 - at 400 V rated value
 - at 500 V rated value
 - at 690 V rated value
- operational current at DC-12**
- at 24 V rated value
 - at 48 V rated value
 - at 60 V rated value

1

2

1

1

2

1

10 A

6 A

3 A

2 A

1 A

10 A

6 A

6 A

• at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value	3 A 2 A 1 A 0.15 A
operational current at DC-13 • at 24 V rated value • at 48 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value	10 A 2 A 1 A 0.9 A 0.3 A 0.1 A
design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required	gG: 10 A (230 V, 400 A)
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
contact rating of auxiliary contacts according to UL	A600 / P600
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 — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required	gG: 250 A (690 V, 100 kA) gR: 250 A (690 V, 100 kA) 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 DIN rail according to DIN EN 60715
• side-by-side mounting	Yes
height	140 mm
width	96 mm
depth	152 mm
required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — forwards — upwards — at the side — downwards • for live parts — forwards — upwards — downwards — at the side	20 mm 10 mm 10 mm 0 mm 20 mm 10 mm 10 mm 10 mm 20 mm 10 mm 10 mm 10 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 • stranded • solid or stranded • finely stranded with core end processing	2x (6 ... 16 mm²), 2x (10 ... 50 mm²), 1x (10 ... 70 mm²) 2x (2.5 ... 16 mm²), 2x (6 ... 16 mm²), 2x (10 ... 50 mm²), 1x (10 ... 70 mm²) 2x (2.5 ... 35 mm²), 1x (2.5 ... 50 mm²)
connectable conductor cross-section for main contacts • solid	2.5 ... 16 mm²

• solid or stranded • stranded • finely stranded with core end processing	4 ... 70 mm ² 6 ... 70 mm ² 2.5 ... 50 mm ²
connectable conductor cross-section for auxiliary contacts	
• solid or stranded • finely stranded with core end processing	0.5 ... 2.5 mm ² 0.5 ... 2.5 mm ²
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 ²), 2x (0.75 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14)
AWG number as coded connectable conductor cross section	
• for main contacts • for auxiliary contacts	10 ... 2 20 ... 14

Safety related data

product function	
• mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1	Yes No
T1 value for proof test interval or service life according to IEC 61508	20 a
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



[Confirmation](#)



[KC](#)



EMC	Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates	Marine / Shipping
-----	---------------------------------------	---------------------------	-------------------	-------------------



[Type Examination Certificate](#)



[Type Test Certificates/Test Report](#)



Marine / Shipping	other
-------------------	-------



[Confirmation](#)

Railway	Dangerous Good
---------	----------------

[Vibration and Shock](#)

[Transport Information](#)

Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RT2344-1AK60>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2344-1AK60>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2344-1AK60>

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

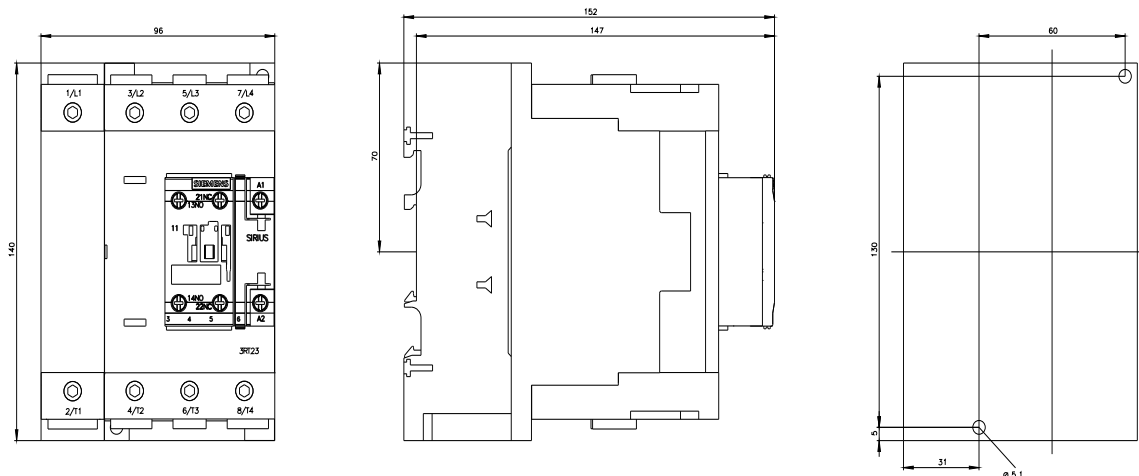
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2344-1AK60&lang=en

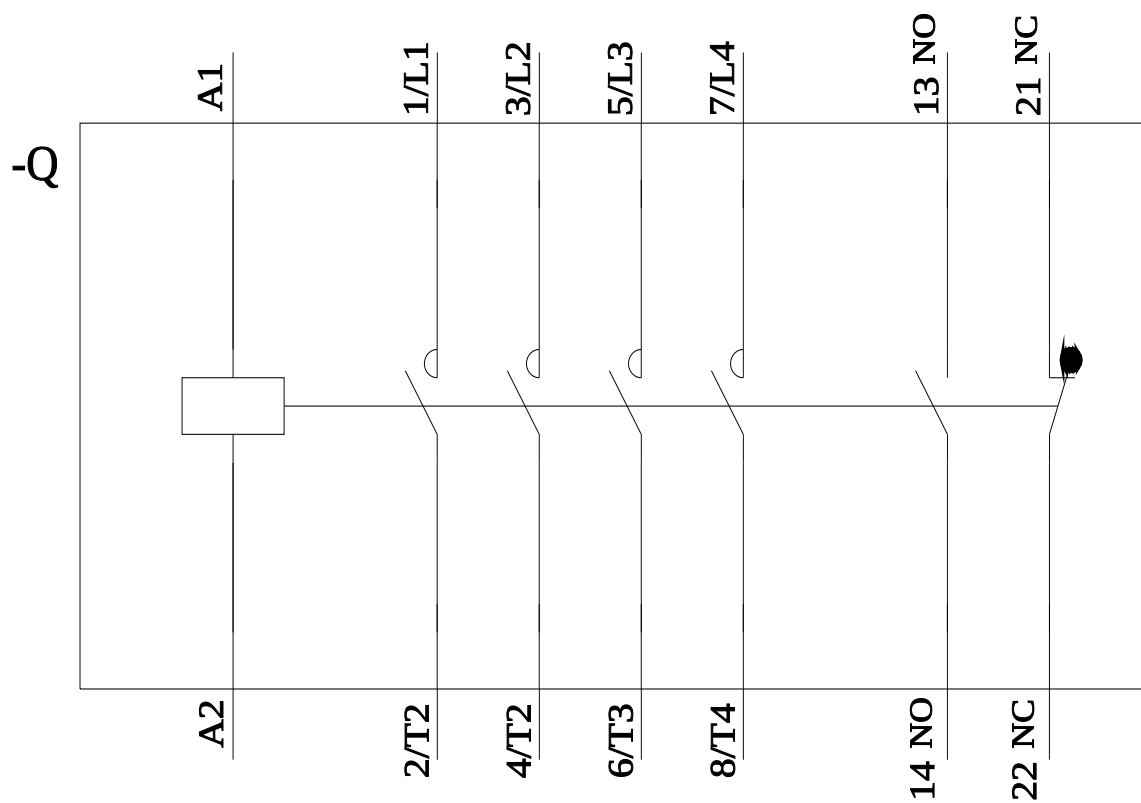
Characteristic: Tripping characteristics, I^2t , Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2344-1AK60/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2344-1AK60&objecttype=14&gridview=view1>





last modified:

11/21/2022 