## **SIEMENS**

Data sheet 3RT2344-1AF00



contactor AC-1, 110 A, 400 V / 40  $^{\circ}$ C, 4-pole, 110 V AC, 50 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S3

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	
<ul> <li>at AC in hot operating state</li> </ul>	29.2 W
• at AC in hot operating state per pole	7.3 W
type of calculation of power loss depending on pole	quadratic
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 V
<ul> <li>of the auxiliary and control circuit with degree of pollution 3 rated value</li> </ul>	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
Weight	2.06 kg
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul> <li>during operation</li> </ul>	-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 %
Environmental footprint	
Environmental Product Declaration(EPD)	Yes
global warming potential [CO2 eq] total	481 kg
global warming potential [CO2 eq] during manufacturing	9.57 kg

global warming potential [CO2 eq] during operation	473 kg
global warming potential [CO2 eq] after end of life	-1.54 kg
Main circuit	
number of poles for main current circuit	4
number of NO contacts for main contacts	4
type of voltage for main current circuit	AC
operational current	110.0
<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated value</li> </ul>	110 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated	110 A
value	
<ul> <li>up to 690 V at ambient temperature 60 °C rated value</li> </ul>	100 A
• at AC-3	
— at 400 V rated value	38 A
minimum cross-section in main circuit at maximum AC-1 rated	35 mm²
value	
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	70 A
— at 60 V rated value	23 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
with 2 current paths in series at DC-1     at 24 V rated value.	70 A
<ul><li>— at 24 V rated value</li><li>— at 60 V rated value</li></ul>	70 A
— at 60 v rated value  — at 110 V rated value	70 A
— at 110 V rated value  — at 220 V rated value	5 A
— at 440 V rated value	1 A
with 3 current paths in series at DC-1	
— at 24 V rated value	70 A
— at 60 V rated value	70 A
— at 110 V rated value	70 A
— at 220 V rated value	70 A
— at 440 V rated value	2.9 A
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	20 A
— at 60 V rated value	6 A
— at 110 V rated value	2.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.15 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	70 A
— at 60 V rated value	70 A
— at 110 V rated value	70 A
— at 220 V rated value	7 A
— at 440 V rated value	0.42 A
with 3 current paths in series at DC-3 at DC-5     at 2427 pated value.	70 A
— at 24 V rated value	70 A
— at 60 V rated value	70 A
— at 110 V rated value — at 220 V rated value	70 A 35 A
— at 220 V rated value  — at 440 V rated value	0.8 A
no-load switching frequency	0.071
at AC	5 000 1/h
operating frequency at AC-1 maximum	1 000 1/s
Control circuit/ Control	
type of voltage	AC
type of voltage type of voltage of the control supply voltage	AC
control supply voltage at AC	

-1 FO	440.1/
at 50 Hz rated value	110 V
operating range factor control supply voltage rated value of	
magnet coil at AC	0.0 44
• at 50 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	000 1/4
• at 50 Hz	296 VA
inductive power factor with closing power of the coil	
● at 50 Hz	0.61
apparent holding power of magnet coil at AC	
• at 50 Hz	19 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.38
closing delay	
• at AC	13 50 ms
opening delay	
• at AC	10 21 ms
arcing time	10 20 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts	1
<ul><li>attachable</li></ul>	2
instantaneous contact	1
number of NO contacts for auxiliary contacts	1
• attachable	2
instantaneous contact	1
operational current at AC-12 maximum	10 A
operational current at AC-15	
at 230 V rated value	6 A
• at 400 V rated value	3 A
<ul> <li>at 500 V rated value</li> </ul>	2 A
at 690 V rated value	1 A
operational current at DC-12	
• at 24 V rated value	10 A
<ul> <li>at 48 V rated value</li> </ul>	6 A
<ul> <li>at 60 V rated value</li> </ul>	6 A
• at 110 V rated value	3 A
• at 125 V rated value	2 A
• at 220 V rated value	1 A
at 600 V rated value	0.15 A
operational current at DC-13	
at 24 V rated value	10 A
• at 48 V rated value	2 A
• at 110 V rated value	1 A
• at 125 V rated value	0.9 A
• at 220 V rated value	0.3 A
• at 600 V rated value	0.1 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	
design of the miniature circuit breaker for short-circuit protection	C characteristic: 10 A; 0.4 kA
of the auxiliary circuit up to 230 V	
design of the fuse link	
for short-circuit protection of the main circuit	
— with type of coordination 1 required	gG: 250 A (690 V, 100 kA)
<ul> <li>— with type of assignment 2 required</li> </ul>	gR: 250 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
factoring method side by side mounting	backward by +/- 22.5° on vertical mounting surface
fastening method side-by-side mounting	Yes

fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	140 mm
width	96 mm
depth	152 mm
required spacing	
<ul><li>with side-by-side mounting</li></ul>	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
for grounded parts	
— forwards	20 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
• for live parts	
— forwards	20 mm
— upwards	10 mm
— dpwards — downwards	10 mm
— at the side	10 mm
- at the side	TO THE
type of electrical connection	
	corow typo terminale
for main current circuit	screw-type terminals
for auxiliary and control circuit	screw-type terminals
at contactor for auxiliary contacts	Screw-type terminals
of magnet coil	Screw-type terminals
type of connectable conductor cross-sections for main contacts	
• stranded	2x (6 16 mm²), 2x (10 50 mm²), 1x (10 70 mm²)
<ul> <li>solid or stranded</li> </ul>	2x (2.5 16 mm²), 2x (6 16 mm²), 2x (10 50 mm²), 1x (10 70 mm²)
finely stranded with core end processing	2x (2.5 35 mm²), 1x (2.5 50 mm²)
connectable conductor cross-section for main contacts	
• solid	2.5 16 mm²
<ul> <li>solid or stranded</li> </ul>	4 70 mm²
• stranded	6 70 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	2.5 50 mm <sup>2</sup>
connectable conductor cross-section for auxiliary contacts	
<ul> <li>solid or stranded</li> </ul>	0.5 2.5 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	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)
— finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
for AWG cables for auxiliary contacts	2x (20 16), 2x (18 14)
AWG number as coded connectable conductor cross	( · ····-), -··(·-···)
section	
• for main contacts	10 2
for auxiliary contacts	20 14
afety related data	
product function	
mirror contact according to IEC 60947-4-1	Yes
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
pprovals Certificates	













EMV

**Test Certificates** 

Marine / Shipping



Type Test Certificates/Test Report







<u>KC</u>



Marine / Shipping

other

Railway

Dangerous goods

**Environment** 





Confirmation

**Special Test Certific-**<u>ate</u>

**Transport Information** 



**Environment** 

**Environmental Confirmations** 

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=3RT2344-1AF00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2344-1AF00

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2344-1AF00

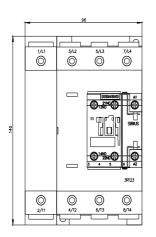
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

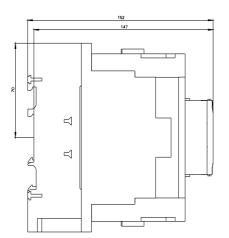
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2344-1AF00&lang=en

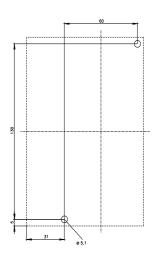
Characteristic: Tripping characteristics, I2t, Let-through current

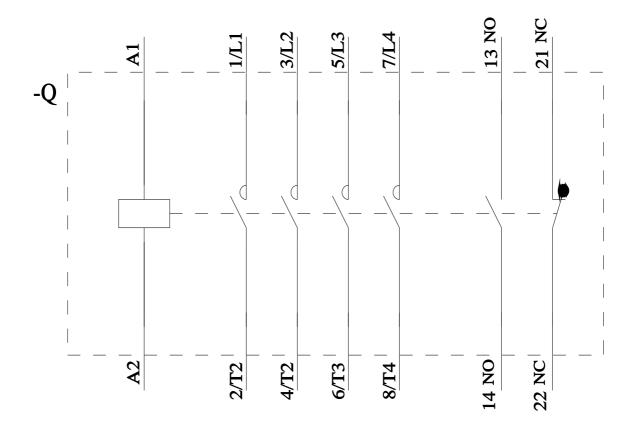
https://support.industry.siemens.com/cs/ww/en/ps/3RT2344-1AF00/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2344-1AF00&objecttype=14&gridview=view1









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