



contactor AC-1, 140 A, 400 V / 40 °C, 4-pole, 230 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	
• at AC in hot operating state	47.2 W
• at AC in hot operating state per pole	11.8 W
• without load current share typical	7.2 W
type of calculation of power loss current-dependent	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	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
• at DC	6.7 g / 5 ms, 4g / 10 ms
shock resistance with sine pulse	
• at AC	10.6 g / 5 ms, 6.3 g / 10 ms
• at DC	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
Net Weight	2.07 kg
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
type of voltage for main current circuit	AC
operational current	
at AC-1 at 400 V at ambient temperature 40 °C rated value	140 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	140 A 130 A
minimum cross-section in main circuit at maximum AC-1 rated value	50 mm ²
operational current	
- at 1 current path at DC-1 - at 24 V rated value - at 60 V rated value - at 110 V rated value - at 220 V rated value - at 440 V rated value - with 2 current paths in series at DC-1 - at 24 V rated value - at 60 V rated value - at 110 V rated value - at 220 V rated value - at 440 V rated value - with 3 current paths in series at DC-1 - at 24 V rated value - at 60 V rated value - at 110 V rated value - at 220 V rated value - at 440 V rated value - at 1 current path at DC-3 at DC-5 - at 24 V rated value - at 60 V rated value - at 110 V rated value - at 220 V rated value - at 440 V rated value - with 2 current paths in series at DC-3 at DC-5 - at 24 V rated value - at 60 V rated value - at 110 V rated value - at 220 V rated value - at 440 V rated value - with 3 current paths in series at DC-3 at DC-5 - at 24 V rated value - at 60 V rated value - at 110 V rated value - at 220 V rated value - at 440 V rated value	80 A 60 A 9 A 2 A 0.6 A 80 A 80 A 80 A 10 A 1.8 A 80 A 80 A 80 A 80 A 4.5 A 20 A 6.5 A 2.5 A 1 A 0.15 A 80 A 80 A 80 A 7 A 0.42 A 80 A 80 A 80 A 35 A 0.8 A
no-load switching frequency	
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 of the control supply voltage	AC
control supply voltage at AC	
at 50 Hz rated value	230 V

operating range factor control supply voltage rated value of magnet coil at AC • at 50 Hz	0.8 ... 1.1
apparent pick-up power of magnet coil at AC • 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 • attachable • instantaneous contact	1 2 1
number of NO contacts for auxiliary contacts • attachable • instantaneous contact	1 2 1
operational current at AC-12 maximum	10 A
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	6 A 3 A 2 A 1 A
operational current at DC-12 • at 24 V rated value • at 48 V rated value • at 60 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 6 A 6 A 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
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 of the auxiliary circuit up to 230 V	C characteristic: 10 A; 0.4 kA
design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of coordination 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 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	
• with side-by-side mounting — 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 — downwards 10 mm — at the side 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 2x (6 ... 16 mm²), 2x (10 ... 50 mm²), 1x (10 ... 70 mm²) — solid or stranded 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) • for AWG cables for main contacts 2x (10 ... 1/0), 1x (10 ... 2/0)	
connectable conductor cross-section for main contacts	
• solid 2.5 ... 16 mm² • solid or stranded 4 ... 70 mm² • stranded 6 ... 70 mm² • finely stranded with core end processing 2.5 ... 50 mm²	
connectable conductor cross-section for auxiliary contacts	
• solid or stranded 0.5 ... 2.5 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) — 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 extended as coded connectable conductor cross section for main contacts	10 ... 2/0
AWG number as coded connectable conductor cross section for auxiliary contacts	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
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

Environmental Product Declaration	
• 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
• global warming potential [CO2 eq] / total	481 kg
Environment	General Product Approval



[Environmental Con-
firmations](#)



EG-Konf.



UL

General Product Approval	EMV	Test Certificates	Maritime application
		Special Test Certificate	Type Test Certificates/Test Report

Maritime application	other

other	Railway	Dangerous goods
Confirmation	Special Test Certificate	Transport Information

Further information

Information on the packaging

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

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3RT2346-1AP00>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2346-1AP00>

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

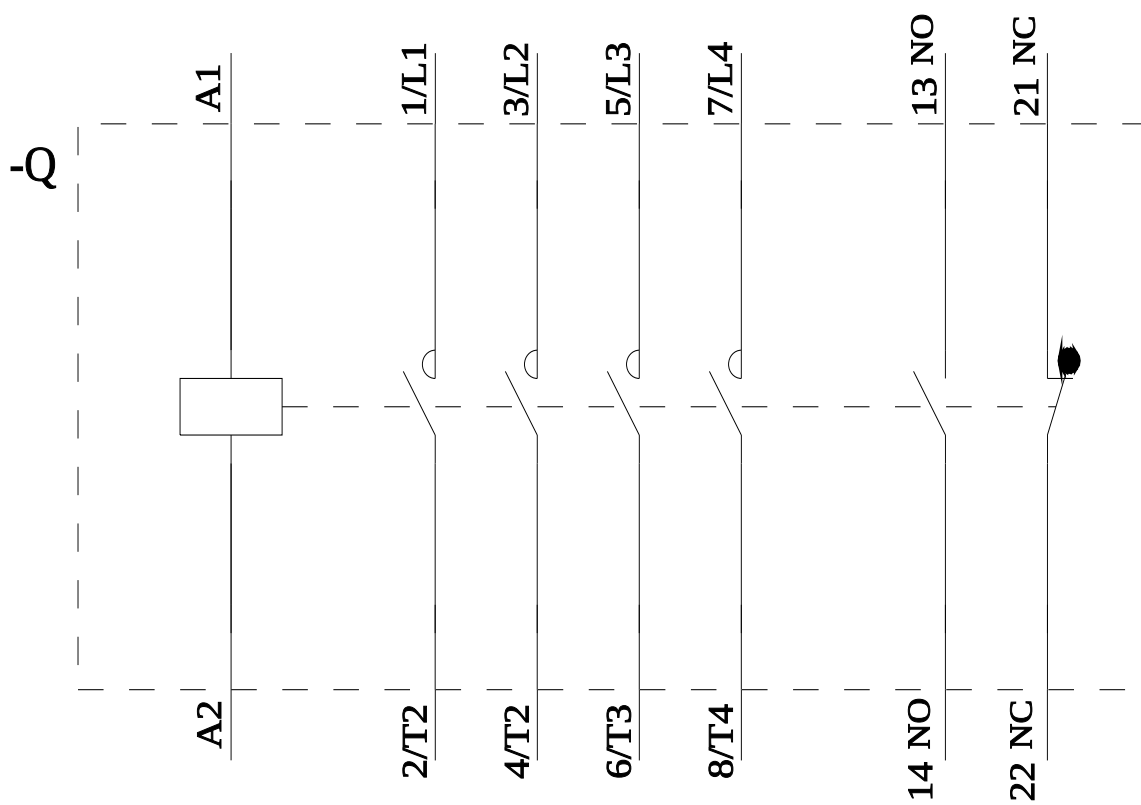
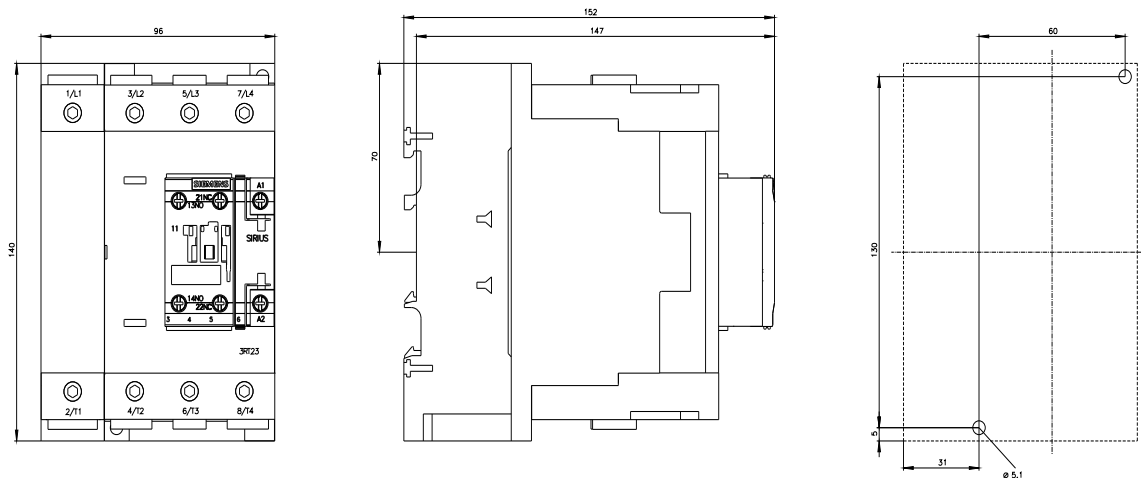
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2346-1AP00&lang=en

Cax online generator

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Characteristic curves

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