



contactor AC-1, 50 A, 400 V / 40 °C, 4-pole, 110 V AC, 50 Hz, auxiliary contacts: 1 NO + 1 NC, spring-loaded terminal, size: S0

product brand name	SIRIUS
product designation	Contactor
product type designation	3RT23
General technical data	
size of contactor	S0
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	12 W
• at AC in hot operating state per pole	3 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	8,3g / 5 ms, 5,3g / 10 ms
shock resistance with sine pulse	
• at AC	13,5g / 5 ms, 8,3g / 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)	10/01/2009
Weight	0.554 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 %
Environmental footprint	
Environmental Product Declaration (EPD)	Yes
Global Warming Potential [CO ₂ eq] total	166 kg
Global Warming Potential [CO ₂ eq] during manufacturing	2.26 kg

Global Warming Potential [CO2 eq] during operation	164 kg
Global Warming Potential [CO2 eq] after end of life	-0.152 kg
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 - 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 - at AC-4 at 400 V rated value	50 A 50 A 42 A 15.5 A 15.5 A
minimum cross-section in main circuit at maximum AC-1 rated value	10 mm ²
operating power - at AC-3 at 400 V rated value - at AC-4 at 400 V rated value	7.5 kW 7.5 kW
no-load switching frequency at AC	5 000 1/h
operating frequency at AC-1 maximum	1 000 1/h
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	110 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	77 VA
inductive power factor with closing power of the coil at 50 Hz	0.82
apparent holding power of magnet coil at AC at 50 Hz	9.8 VA
inductive power factor with the holding power of the coil at 50 Hz	0.25
closing delay at AC	8 ... 40 ms
opening delay at AC	4 ... 16 ms
arcing time	10 ... 10 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	10 A 3 A 2 A 1 A
operational current at DC-12 - at 24 V rated value - at 48 V rated value	10 A 6 A

• 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	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
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 / Q600
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: 63 A (690 V, 100 kA) gG: 20 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	102 mm
width	60 mm
depth	97 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	10 mm 10 mm 10 mm 0 mm 10 mm 10 mm 6 mm 10 mm 10 mm 10 mm 10 mm 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	spring-loaded terminals spring-loaded terminals Spring-type terminals Spring-type terminals
type of connectable conductor cross-sections for main contacts • solid • solid or stranded • finely stranded with core end processing • finely stranded without core end processing	2x (1 ... 10 mm ²) 2x (1 ... 10 mm ²) 2x (1 ... 6 mm ²) 2x (1 ... 6 mm ²)
connectable conductor cross-section for main contacts	
• solid	1 ... 10 mm ²

• solid or stranded • stranded • finely stranded with core end processing • finely stranded without core end processing	1 ... 10 mm ² 1 ... 10 mm ² 1 ... 6 mm ² 1 ... 6 mm ²
connectable conductor cross-section for auxiliary contacts	
• solid or stranded • finely stranded with core end processing • finely stranded without core end processing	0.5 ... 2.5 mm ² 0.5 ... 1.5 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 — finely stranded without core end processing • for AWG cables for auxiliary contacts	2x (0.5 ... 2.5 mm ²) 2x (0.5 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²) 2x (0.5 ... 2.5 mm ²) 2x (20 ... 14)
AWG number as coded connectable conductor cross section	
• for main contacts • for auxiliary contacts	18 ... 8 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

General Product Approval



[Confirmation](#)



EG-Konf.



UL



EMV	Test Certificates	Marine / Shipping
-----	-------------------	-------------------



RCM

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



ABS



BUREAU
VERITAS



DNV

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



PRS



RINA



RMRS

[Miscellaneous](#)

[Confirmation](#)

[Special Test Certificate](#)

Environment



[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=3RT2327-2AF00>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2327-2AF00>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2327-2AF00>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2327-2AF00&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2327-2AF00/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2327-2AF00&objecttype=14&gridview=view1>



