SIEMENS

Data sheet 3RT2325-2AG20-1AA0



contactor AC-1, 35 A, 400 V / 40 °C, 4-pole, 110 V AC, 50/60 Hz, auxiliary contacts: 1 NO + 1 NC, spring-loaded terminal, size: S0, upright mounting position

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	7.6 W
● at AC in hot operating state per pole	1.9 W
● without load current share typical	2.6 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	7,5g / 5 ms, 4,7g / 10 ms
shock resistance with sine pulse	
● at AC	11,8g / 5 ms, 7,4g / 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	0.54 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	

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Environmental Product Declaration(EPD)	Yes
global warming potential [CO2 eq] total	166 kg
global warming potential [CO2 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
type of voltage for main current circuit	AC
operational current	
● at AC-1 at 400 V at ambient temperature 40 °C rated value	35 A
● at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	35 A
— up to 690 V at ambient temperature 60 °C rated value	30 A
● at AC-3	
— at 400 V rated value	15.5 A
● at AC-4 at 400 V rated value	15.5 A
minimum cross-section in main circuit at maximum AC-1 rated value	10 mm²
operational current	
● at 1 current path at DC-1	
— at 24 V rated value	30 A
— at 60 V rated value	20 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	30 A
— at 60 V rated value	30 A
— at 110 V rated value	30 A
— at 220 V rated value	1 A
— at 440 V rated value	1 A
● with 3 current paths in series at DC-1	
— at 24 V rated value	30 A
— at 60 V rated value	30 A
— at 110 V rated value	30 A
— at 220 V rated value	30 A
— at 440 V rated value	2.9 A
● at 1 current path at DC-3 at DC-5	
— at 24 V rated value	20 A
— at 60 V rated value	5 A
— at 110 V rated value	2.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.09 A
● with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	30 A
— at 60 V rated value	30 A
— at 110 V rated value	15 A
— at 220 V rated value	3 A
— at 440 V rated value	0.27 A
● with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	30 A
— at 60 V rated value	30 A
— at 110 V rated value	30 A
— at 220 V rated value	10 A
— at 440 V rated value	0.6 A
operating power	

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● at AC-3 at 400 V rated value	7.5 kW
● at AC-4 at 400 V rated value	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
● at 60 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	81 VA
● at 60 Hz	79 VA
inductive power factor with closing power of the coil	
● at 50 Hz	0.72
● at 60 Hz	0.74
apparent holding power of magnet coil at AC	
● at 50 Hz	10.5 VA
● at 60 Hz	8.5 VA
inductive power factor with the holding power of the coil	
● at 50 Hz	0.25
● at 60 Hz	0.28
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	1
● attachable	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	10 A
● at 400 V rated value	3 A
● at 500 V rated value	2 A
● at 690 V rated value	1 A
operational current at DC-12	
● at 24 V rated value	10 A
● at 48 V rated value	6 A
● at 60 V rated value	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

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● 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 / Q600
Category Control Number (CCN)	E31519 (NLDX, NLDX7)
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	gG: 63 A (690 V, 100 kA)
— with type of coordination 2 required	gG: 20 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	standing, on horizontal 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	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	spring-loaded terminals
● for auxiliary and control circuit	spring-loaded terminals
● at contactor for auxiliary contacts	Spring-type terminals
● of magnet coil	Spring-type terminals
type of connectable conductor cross-sections	
● for main contacts	
— solid	2x (1 ... 10 mm²)
— solid or stranded	2x (1 ... 10 mm²)
— finely stranded with core end processing	2x (1 ... 6 mm²)
— finely stranded without core end processing	2x (1 ... 6 mm²)
● for AWG cables for main contacts	2x (18 ... 8)
connectable conductor cross-section for main contacts	
● solid	1 ... 10 mm²
● solid or stranded	1 ... 10 mm²
● stranded	1 ... 10 mm²
● finely stranded with core end processing	1 ... 6 mm²
● finely stranded without core end processing	1 ... 6 mm²
connectable conductor cross-section for auxiliary contacts	
● solid or stranded	0.5 ... 2.5 mm²
● finely stranded with core end processing	0.5 ... 1.5 mm²
● finely stranded without core end processing	0.5 ... 2.5 mm²

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type of connectable conductor cross-sections	
● for auxiliary contacts	
— solid	2x (0.5 ... 2.5 mm²)
— solid or stranded	2x (0.5 ... 2.5 mm²)
— finely stranded with core end processing	2x (0.5 ... 1.5 mm²)
— finely stranded without core end processing	2x (0.5 ... 2.5 mm²)
● for AWG cables for auxiliary contacts	2x (20 ... 14)
AWG number as coded connectable conductor cross section for main contacts	18 ... 8
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	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

Approvals Certificates

General Product Approval | **EMV**

CCC, EG-Konf., UKCA, cULus, EAC, RCM

Test Certificates | **Maritime application**

Special Test Certific-ate | Type Test Certific-ates/Test Report

ABS, BUREAU VERITAS, DNV, LRS

Maritime application | **other**

PRS, RINA, RMRS

Miscellaneous | Confirmation

Railway | **Environment**

Special Test Certific-ate | Environmental Con-firmations

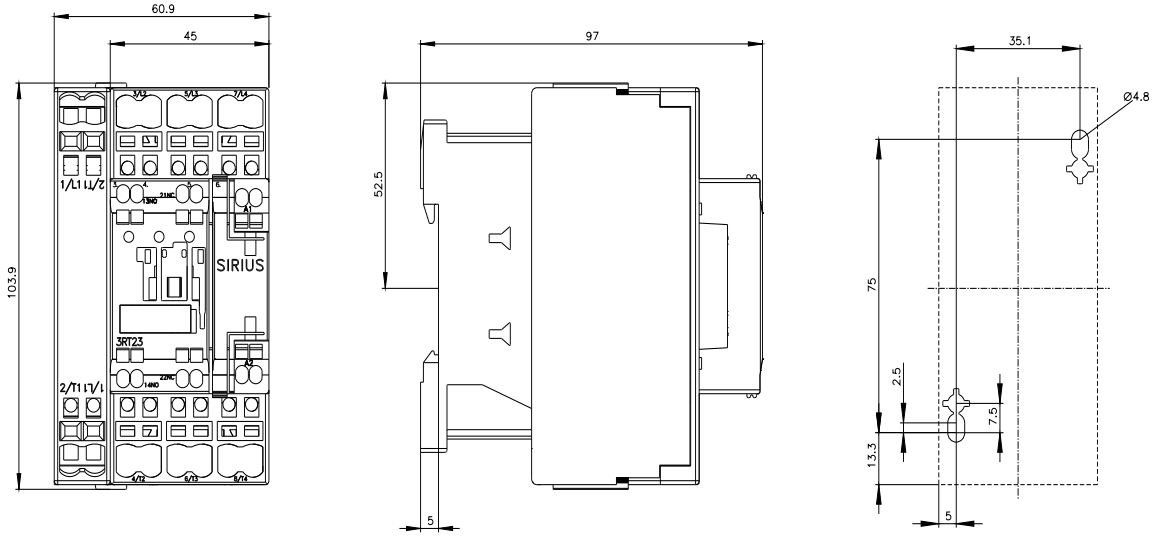
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Further information

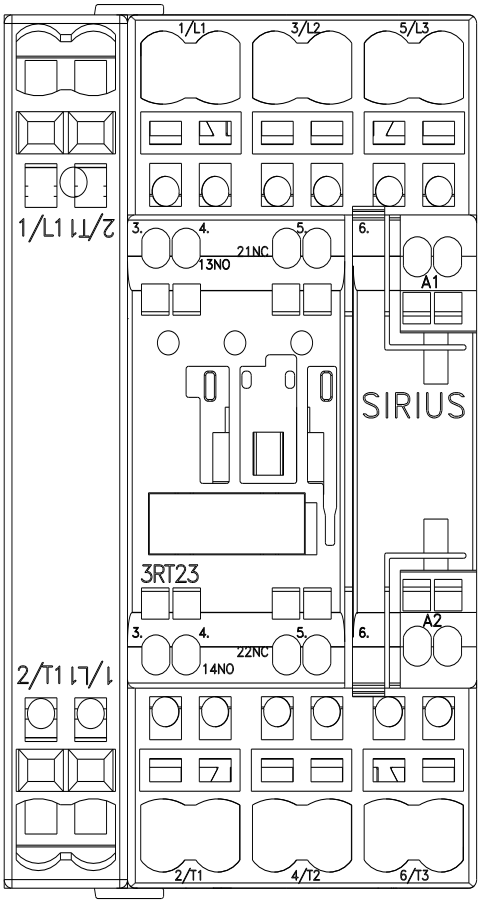
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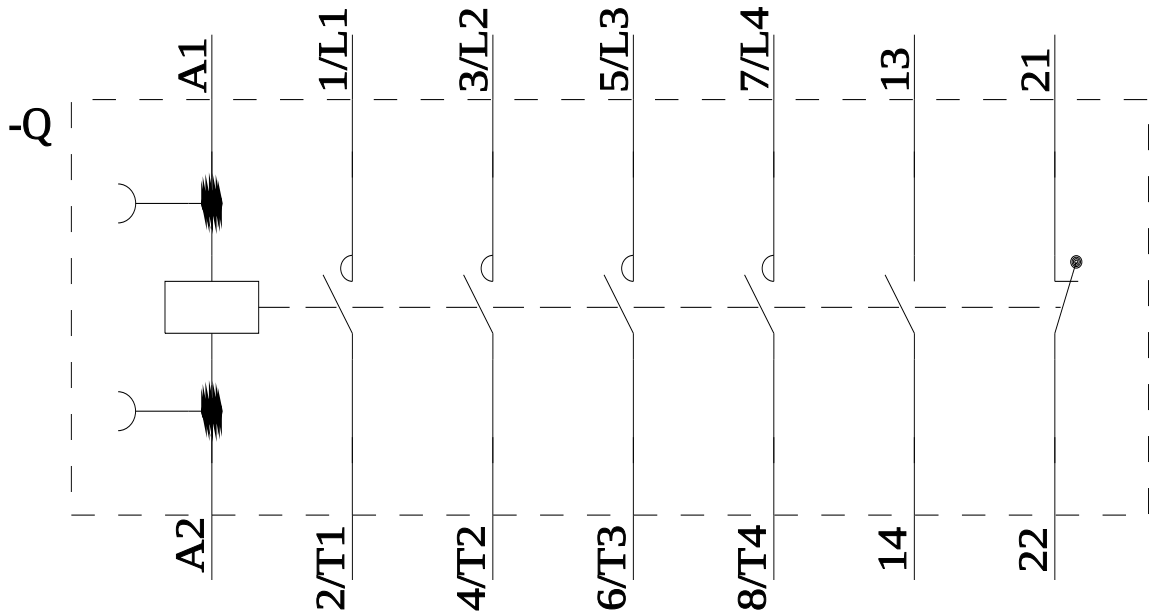
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Characteristic: Tripping characteristics, I²t, Let-through current
https://support.industry.siemens.com/cs/ww/en/ps/3RT2325-2AG20-1AA0/char
Further characteristics (e.g. electrical endurance, switching frequency)
https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2325-2AG20-1AA0&objecttype=14&gridview=view1



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