## **SIEMENS**

Data sheet 3RT2325-1AG20



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

product brand name	SIRIUS
product designation	Contactor
product type designation	3RT23
General technical data	
size of contactor	S0
product extension	
<ul> <li>function module for communication</li> </ul>	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	7.6 W
• at AC in hot operating state per pole	1.9 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	
<ul> <li>of main circuit rated value</li> </ul>	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)	
<ul> <li>of contactor typical</li> </ul>	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	0.475 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 [CO2 eq] total	166 kg
global warming potential [CO2 eq] during manufacturing	2.26 kg

global warming notantial ICCCs and during an artists	164 kg
global warming potential [CO2 eq] during operation	164 kg
global warming potential [CO2 eq] after end of life  Main circuit	-0.152 kg
	4
number of NO contacts for main contacts	4
number of NO contacts for main contacts type of voltage for main current circuit	AC
operational current	AC
at AC-1 at 400 V at ambient temperature 40 °C rated	35 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated	35 A
value	20.4
<ul> <li>— up to 690 V at ambient temperature 60 °C rated value</li> </ul>	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	10 mm²
value	
operational current	
• at 1 current path at DC-1	20 A
— at 24 V rated value	30 A 20 A
— at 60 V rated value — at 110 V rated value	20 A 4.5 A
— at 110 V rated value  — at 220 V rated value	4.5 A 1 A
— at 220 V rated value  — at 440 V rated value	0.4 A
with 2 current paths in series at DC-1	0.471
— 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
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— 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	7.5 NW
at AC-4 at 400 V rated value  at AC-4 at 400 V rated value	7.5 kW
at AC-4 at 400 V rated value  no-load switching frequency	7.5 kW
• 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	
• at 60 Hz	0.85 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	0.05	
• at 50 Hz	0.25	
• at 60 Hz	0.28	
closing delay	0. 40	
• at AC	8 40 ms	
opening delay	4 16 mg	
• at AC	4 16 ms	
arcing time	10 10 ms Standard A1 - A2	
control version of the switch operating mechanism	Standard A1 - A2	
Auxiliary circuit	4	
number of NC contacts for auxiliary contacts	1	
attachable     instantaneous contact	2	
• instantaneous contact	1	
number of NO contacts for auxiliary contacts  • attachable	2	
instantaneous contact	1	
operational current at AC-12 maximum	10 A	
operational current at AC-15	107	
• 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     at 690 V rated value	1A	
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	
• at 600 V rated value	0.1 A	
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)	
JL/CSA ratings		
contact rating of auxiliary contacts according to UL	A600 / Q600	
Short-circuit protection		
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 assignment 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	gg. 10 A (090 V, 1 kA)
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	85 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	40
— forwards	10 mm
— upwards	10 mm
— at the side	6 mm
— downwards	10 mm
• for live parts	40
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	6 mm
Connections/ Terminals	
type of electrical connection	
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	0 (4 05 3) 0 (05 40 3)
• solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)
solid or stranded	2x (1 2.5 mm²), 2x (2.5 10 mm²)
finely stranded with core end processing	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
connectable conductor cross-section for main contacts	4 40 2
• solid	1 10 mm²
solid or stranded     stranded	1 10 mm²
stranded     finally atranded with case and processing.	1 10 mm²
finely stranded with core end processing	1 10 mm²
connectable conductor cross-section for auxiliary contacts	0.5 2.5 mm²
solid or stranded     finally stranded with core and processing.	0.5 2.5 mm <sup>2</sup>
finely stranded with core end processing  type of connectable conductor cross sections	0.5 2.5 mm²
type of connectable conductor cross-sections	
for auxiliary contacts	2v (0.5 1.5 mm²) 2v (0.75 2.5 mm²)
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
solid or stranded  finely stranded with core and processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
e for AMC applies for auxiliary contacts	
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor gross	2x (20 16), 2x (18 14)
for AWG cables for auxiliary contacts  AWG number as coded connectable conductor cross section	2X (20 16), 2X (16 14)
AWG number as coded connectable conductor cross	2x (20 16), 2x (18 14)
AWG number as coded connectable conductor cross section	
AWG number as coded connectable conductor cross section  • for main contacts  • for auxiliary contacts	16 8
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  Safety related data	16 8
AWG number as coded connectable conductor cross section  • for main contacts  • for auxiliary contacts  Safety related data  product function	16 8 20 14
AWG number as coded connectable conductor cross section  • for main contacts • for auxiliary contacts  Safety related data	16 8

protection class IP on the front according to IEC 60529

touch protection on the front according to IEC 60529

finger-safe, for vertical contact from the front

Communication/ Protocol

product function bus communication

Approvals Certificates

General Product Approval

EMV













**Test Certificates** 

Marine / Shipping

Type Test Certificates/Test Report

Special Test Certificate









Marine / Shipping

other

Railway

EPD

Environment

Environmental Confirmations



**Miscellaneous** 

Confirmation

Special Test Certificate

## 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=3RT2325-1AG20

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT2325-1AG20}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2325-1AG20

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

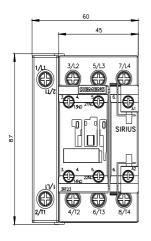
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2325-1AG20\&lang=en}$ 

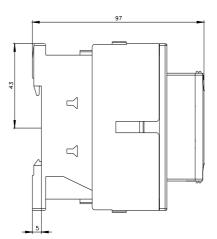
Characteristic: Tripping characteristics, I²t, Let-through current

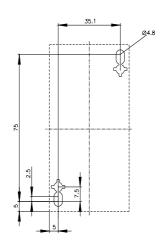
https://support.industry.siemens.com/cs/ww/en/ps/3RT2325-1AG20/char

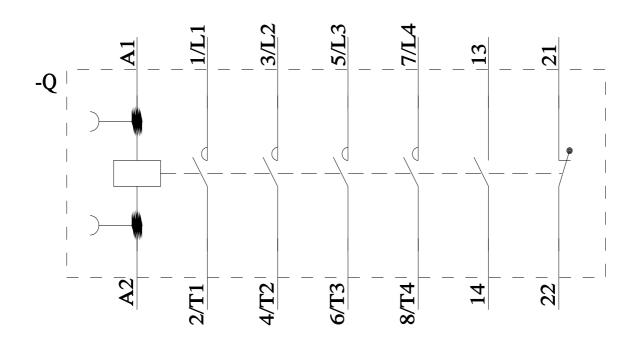
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2325-1AG20&objecttype=14&gridview=view1









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