# **SIEMENS**

Data sheet 3RT2325-2AG20

4NO CONTACTOR, AC1: 35A AC 110V 50/60HZ 4-POLE, 4NO, SZ: S0, SPRING-LOADED TERMINAL 1NO+1NC INTEGR.



Figure similar

product brand name	SIRIUS
Product designation	3RT2 contactor

General technical data	
Size of contactor	S0
Product extension	
<ul> <li>function module for communication</li> </ul>	No
Auxiliary switch	Yes
Insulation voltage	
• rated value	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
<ul> <li>between coil and main contacts acc. to EN 60947-1</li> </ul>	400 V
Protection class IP	
• on the front	IP20
• of the terminal	IP20

Shock resistance	
at rectangular impulse	
— at AC	7,5g / 5 ms, 4,7g / 10 ms
• with sine pulse	
— at AC	11,8g / 5 ms, 7,4g / 10 ms
Mechanical service life (switching cycles)	
of contactor typical	10 000 000
<ul> <li>of the contactor with added electronics- compatible auxiliary switch block typical</li> </ul>	5 000 000
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000
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
Main circuit	
Number of poles for main current circuit	4
Number of NO contacts for main contacts	4
Number of NC contacts for main contacts	0
Operating voltage	
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V

Number of NO contacts for main contacts	4
Number of NC contacts for main contacts	0
Operating voltage	
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
Operating current	
• at AC-1 at 400 V	
— at ambient temperature 40 °C rated value	35 A
• at AC-1	
<ul> <li>up to 690 V at ambient temperature 40 °C rated value</li> </ul>	35 A
<ul> <li>up to 690 V at ambient temperature 60 °C rated value</li> </ul>	30 A
• at AC-2 at 400 V rated value	15.5 A
• at AC-3	
— at 400 V rated value	15.5 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	6 mm²
• at 40 °C minimum permissible	10 mm²
Operating current	
• at 1 current path at DC-1	
— at 24 V rated value	30 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 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 110 V rated value	30 A
— at 220 V rated value	30 A
— at 440 V rated value	2.9 A
Operating current	
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	20 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 110 V rated value	15 A
— at 220 V rated value	3 A
— at 24 V rated value	30 A
— at 440 V rated value	0.27 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V rated value	30 A
— at 220 V rated value	10 A
— at 24 V rated value	30 A
— at 440 V rated value	0.6 A
Operating power	
• at AC-1	
— at 230 V rated value	20 kW
— at 230 V at 60 °C rated value	11 kW
— at 400 V rated value	20 kW
— at 400 V at 60 °C rated value	20 kW
• at AC-2 at 400 V rated value	7.5 kW
• at AC-3	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
Thermal short-time current limited to 10 s	124 A
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	0.9 W

5 000 1/h	
1 000 1/h	
1 000 1/h	
1 000 1/h	
300 1/h	
	1 000 1/h 1 000 1/h 1 000 1/h

Control circuit/ Control	
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	65 V·A
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	7.6 V·A
Inductive power factor with the holding power of the coil	
● at 50 Hz	0.25
Closing delay	
• at AC	9 38 ms
Opening delay	
• at AC	4 16 ms
Arcing time	10 10 ms

Auxiliary circuit	
Number of NC contacts	
<ul><li>for auxiliary contacts</li></ul>	
<ul> <li>instantaneous contact</li> </ul>	1
Number of NO contacts	
<ul><li>for auxiliary contacts</li></ul>	
<ul> <li>instantaneous contact</li> </ul>	1
Operating current at AC-12 maximum	10 A
Operating 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

Contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
● at 600 V rated value	0.1 A
• at 220 V rated value	0.3 A
• at 125 V rated value	0.9 A
• at 110 V rated value	1 A
• at 60 V rated value	2 A
• at 48 V rated value	2 A
• at 24 V rated value	10 A
Operating current at DC-13	
• at 600 V rated value	0.15 A
• at 220 V rated value	1 A
• at 125 V rated value	2 A
• at 110 V rated value	3 A
• at 60 V rated value	6 A
• at 48 V rated value	6 A
• at 24 V rated value	10 A
Operating current at DC-12	

UL/CSA ratings	
Full-load current (FLA) for three-phase AC motor	
• at 480 V rated value	14 A
• at 600 V rated value	17 A
Yielded mechanical performance [hp]	
<ul><li>for single-phase AC motor</li></ul>	
<ul> <li>at 110/120 V rated value</li> </ul>	1 hp
— at 230 V rated value	3 hp
• for three-phase AC motor	
— at 200/208 V rated value	3 hp
— at 220/230 V rated value	5 hp
— at 460/480 V rated value	10 hp
— at 575/600 V rated value	15 hp
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
  - with type of assignment 2 required
- for short-circuit protection of the auxiliary switch required

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A

fuse gL/gG: 10 A

### Installation/ mounting/ dimensions

Mounting position	+/-180° rotation possible on vertical mounting surface; can be
<b>6</b> F	tilted forward and backward by +/- 22.5° on vertical mounting
	surface
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
<ul> <li>Side-by-side mounting</li> </ul>	Yes
Height	102 mm
Width	60 mm
Depth	97 mm
Required spacing	
<ul><li>with side-by-side mounting</li></ul>	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
• for grounded parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— at the side	6 mm
— downwards	0 mm
• for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	6 mm
Connections/Terminals	
Type of electrical connection	
for main current circuit	spring-loaded terminals
for auxiliary and control current circuit	spring-loaded terminals
Type of connectable conductor cross-sections	
• for main contacts	
— solid	2x (1 10 mm²)
— single or multi-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)
at AWG conductors for main contacts	2x (18 8)
Type of connectable conductor cross-sections	2. (10 0)
for auxiliary contacts	
- IOI auxiliary contacts	

— single or multi-stranded
 — finely stranded with core end processing
 — finely stranded without core end
 processing

2x (0.5 ... 2,5 mm²)
2x (0.5 ... 2.5 mm²)
2x (0.5 ... 2.5 mm²)

Safety related data	
B10 value	
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	1 000 000
Proportion of dangerous failures	
<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	40 %
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	73 %
Failure rate [FIT]	
<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	100 FIT
Product function	
<ul> <li>Mirror contact acc. to IEC 60947-4-1</li> </ul>	Yes
T1 value for proof test interval or service life acc. to IEC 61508	20 y

2x (20 ... 14)

#### Certificates/approvals

# General Product Approval

Declaration of Conformity

Test Certificates





• at AWG conductors for auxiliary contacts







Typprüfbescheinigu ng/Werkszeugnis

Test	Shipping Approval
Certificates	

spezielle Prüfbescheinigunge

n











GL

### **Shipping Approval**

## other





Umweltbestätigung

Bestätigungen

### Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/industrial-controls/catalogs

#### Industry Mall (Online ordering system)

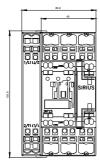
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2325-2AG20

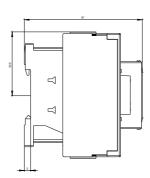
#### Cax online generator

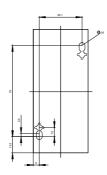
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2325-2AG20

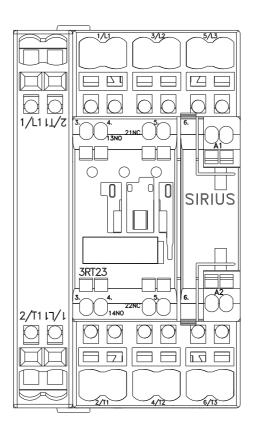
# Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT2325-2AG20

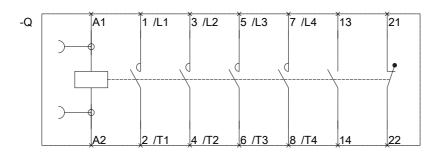
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2325-2AG20&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2325-2AG20&lang=en</a>











last modified: 10/07/2016