# **SIEMENS**

## Data sheet

## 3RA2324-8XB30-1AL2



REV. COMB., AC3, 5.5KW/ 400V AC230V, 50/60HZ, 3-POLE, SZ S0 SCREW TERMINAL ELECTR. AND MECH. INTERLOCK 2NO INTEGR.

product brand name	SIRIUS
Product designation	star-delta (wye-delta) contactor assembly 3RA24
Manufacturer article number	
<ul> <li>1 of the supplied contactor</li> </ul>	3RT2024-1AL20
<ul> <li>2 of the supplied contactor</li> </ul>	3RT2024-1AL20
<ul> <li>of the supplied RH assembly kit</li> </ul>	3RA2923-2AA1

General technical data:		
Insulation voltage		
<ul> <li>with degree of pollution 3 Rated value</li> </ul>	V	690
Degree of pollution		3
Shock resistance		12.5g / 5 ms and 7.8g / 10 ms
Surge voltage resistance Rated value	kV	6
Mechanical service life (switching cycles)		
<ul> <li>of the contactor typical</li> </ul>		10 000 000
<ul> <li>of the contactor with added auxiliary switch</li> </ul>		10 000 000
block typical		
Protection class IP		
• on the front		IP20
Equipment marking		
• acc. to DIN EN 81346-2		Q

Main circuit:	
Number of poles for main current circuit	3
Number of NC contacts for main contacts	0
Number of NO contacts for main contacts	3
Operating voltage	

at AC-3 Rated value maximum  Operating current  at AC-1  — at 400 V at ambient temperature 40 °C Rated value  — at 400 V at ambient temperature 60 °C Rated value  at AC-2 at 400 V Rated value  at AC-3  — at 400 V Rated value  at AC-4 at 400 V Rated value	A A A	690 40 35 12
<ul> <li>at AC-1         <ul> <li>at 400 V at ambient temperature 40 °C</li> <li>Rated value</li> <li>at 400 V at ambient temperature 60 °C</li> <li>Rated value</li> </ul> </li> <li>at AC-2 at 400 V Rated value</li> <li>at AC-3         <ul> <li>at 400 V Rated value</li> </ul> </li> <li>at AC-4 at 400 V Rated value</li> </ul>	A A	35
<ul> <li>at 400 V at ambient temperature 40 °C Rated value</li> <li>at 400 V at ambient temperature 60 °C Rated value</li> <li>at AC-2 at 400 V Rated value</li> <li>at AC-3</li> <li>at 400 V Rated value</li> <li>at AC-4 at 400 V Rated value</li> </ul>	A A	35
Rated value  — at 400 V at ambient temperature 60 °C Rated value  • at AC-2 at 400 V Rated value  • at AC-3  — at 400 V Rated value  • at AC-4 at 400 V Rated value	A A	35
Rated value  • at AC-2 at 400 V Rated value  • at AC-3  — at 400 V Rated value  • at AC-4 at 400 V Rated value	Α	
<ul><li>at AC-3</li><li>— at 400 V Rated value</li><li>at AC-4 at 400 V Rated value</li></ul>		12
— at 400 V Rated value ● at AC-4 at 400 V Rated value	A	
• at AC-4 at 400 V Rated value	Α	
		12
	Α	12.5
Operating current with 1 current path		
• at DC-1		
— at 24 V Rated value	Α	35
— at 110 V Rated value	Α	4.5
• at DC-3 at DC-5		
— at 24 V Rated value	Α	20
— at 110 V Rated value	Α	2.5
Operating current with 2 current paths in series		
• at DC-1		
— at 24 V Rated value	Α	35
— at 110 V Rated value	Α	35
• at DC-3 at DC-5		
— at 110 V Rated value	Α	15
— at 24 V Rated value	Α	35
Operating current with 3 current paths in series		
• at DC-1		
— at 24 V Rated value	Α	35
— at 110 V Rated value	Α	35
• at DC-3 at DC-5		
— at 110 V Rated value	Α	35
— at 24 V Rated value	Α	35
Operating power		
• at AC-2 at 400 V Rated value	kW	5.5
• at AC-4 at 400 V Rated value	kW	5.5
Operating power		
• at AC-3		
— at 400 V Rated value	kW	5.5
— at 500 V Rated value	kW	7.5
— at 690 V Rated value	kW	7.5
Operating frequency		
• at AC-3 maximum	1/h	1 000

No-load switching frequency	1/h	1 500
Control circuit/ Control:		
Type of voltage of the control supply voltage		AC
Control supply voltage 1 with AC		
● at 50 Hz Rated value	V	230
● at 60 Hz Rated value	V	230
Operating range factor control supply voltage rated		
value of the magnet coil with AC		
● at 50 Hz		0.8 1.1
● at 60 Hz		0.8 1.1
Auxiliary circuit:		
Number of NC contacts		
<ul><li>for auxiliary contacts</li></ul>		
<ul><li>per direction of rotation</li></ul>		0
<ul><li>instantaneous contact</li></ul>		0
<ul><li>— lagging switching</li></ul>		0
Number of NO contacts		
• for auxiliary contacts		
<ul><li>per direction of rotation</li></ul>		0
<ul> <li>instantaneous contact</li> </ul>		0
— leading contact		0
Product expansion Auxiliary switch		Yes
Operating current of the auxiliary contacts at AC-12 maximum	Α	10
Operating current of the auxiliary contacts at AC-15		
• at 230 V	Α	6
• at 400 V	A	3
Operating current of the auxiliary contacts at DC-13		
• at 24 V	Α	10
• at 60 V	A	2
• at 110 V	A	1
• at 220 V	A	0.3
Contact reliability of the auxiliary contacts		< 1 error per 100 million operating cycles
	_	
UL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor	Α	11
at 480 V Rated value		
• at 600 V Rated value	Α	11
yielded mechanical performance [hp]	metric	1
<ul> <li>for single-phase AC motor at 110/120 V Rated value</li> </ul>	metric hp	1
value	110	

<ul> <li>for single-phase AC motor at 230 V Rated value</li> </ul>	metric hp	2
<ul> <li>for three-phase AC motor at 220/230 V Rated value</li> </ul>	metric hp	3
<ul> <li>for three-phase AC motor at 460/480 V Rated value</li> </ul>	metric hp	7.5
<ul> <li>for three-phase AC motor at 575/600 V Rated value</li> </ul>	metric hp	10
Contact rating of the auxiliary contacts acc. to UL		A600 / Q600

Short-circuit:	
Design of the fuse link	
• for short-circuit protection of the main circuit	
— with type of assignment 1 required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A
— with type of assignment 2 required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 A
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	fuse gL/gG: 10 A

mounting position		+/-180° rotation possible on vertical mounting
		surface; can be tilted forward and backward by +/-
		22.5° on vertical mounting surface
Mounting type		screw and snap-on mounting onto 35 mm standard
		mounting rail
Height	mm	101
Width	mm	90
Depth	mm	97
Required spacing		
<ul> <li>with side-by-side mounting</li> </ul>		
— forwards	mm	6
— Backwards	mm	0
— upwards	mm	6
— downwards	mm	6
— at the side	mm	6
• for grounded parts		
— forwards	mm	6
— Backwards	mm	0
— upwards	mm	6
— at the side	mm	6
— downwards	mm	6
• for live parts		
— forwards	mm	6
— Backwards	mm	0

— upwards	mm	6
— downwards	mm	6
— at the side	mm	6

Connections/ Terminals:		
Type of electrical connection		
• for main current circuit		screw-type terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>		screw-type terminals
Type of connectable conductor cross-section		
• for main contacts		
<ul><li>— single or multi-stranded</li></ul>		2x (1 2,5 mm²), 2x (2,5 10 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>		2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
<ul> <li>for AWG conductors for main contacts</li> </ul>		2x (16 12), 2x (14 8)
<ul> <li>for auxiliary contacts</li> </ul>		
<ul> <li>single or multi-stranded</li> </ul>		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)
<ul> <li>for AWG conductors for auxiliary contacts</li> </ul>		2x (20 16), 2x (18 14)
Apparent pick-up power of the magnet coil with AC		
● at 50 Hz	V·A	65

Safety related data:		
B10 value with high demand rate acc. to SN 31920		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>	%	75
Failure rate [FIT] with low demand rate acc. to SN 31920	FIT	100
T1 value for proof test interval or service life acc. to IEC 61508	у	20
Protection against electrical shock		finger-safe

Mechanical data:		
Size of contactor	S0	

Communication/ Protocol:		
Product function Bus communication	No	
Protocol is supported		
AS-interface protocol	No	
Product function Control circuit interface with IO link	No	

Ambient conditions:			
Installation altitude at height above sea level	m	2 000	
maximum			
Ambient temperature			
<ul><li>during operation</li></ul>	°C	-25 <b>+</b> 60	
during storage	°C	-55 <b>+</b> 80	

### Certificates/ approvals:

**General Product Approval** 

**Declaration of** Conformity

**Test** Certificates **Shipping Approval** 









**Special Test** Certificate



#### **Shipping Approval**













**Shipping Approval**  other



Environmental Confirmations

other

#### Further information

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

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

Industry Mall (Online ordering system) http://www.siemens.com/industrymall

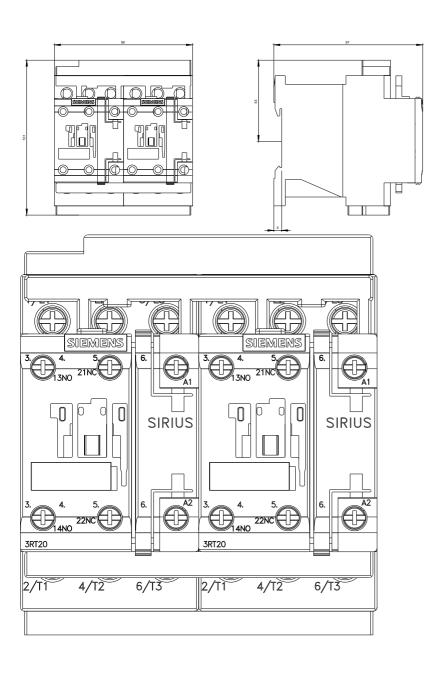
Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA23248XB301AL2

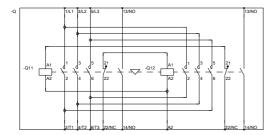
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RA23248XB301AL2/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA23248XB301AL2&lang=en



WENDEKOMBINATION BGR. S0



REVERSING COMB. SZ S

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