

REV. COMB., AC3, 18.5KW/ 400V AC110V 50HZ/120V
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 style="list-style-type: none"> • 1 of the supplied contactor • 2 of the supplied contactor • of the supplied RS assembly kit 	3RT2028-1AK60 3RT2028-1AK60 3RA2923-2AA1

General technical data:

Insulation voltage		
<ul style="list-style-type: none"> • with degree of pollution 3 Rated value 	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 style="list-style-type: none"> • of the contactor typical • of the contactor with added auxiliary switch block typical 		10 000 000 10 000 000
Protection class IP		
<ul style="list-style-type: none"> • on the front 		IP20
Equipment marking		
<ul style="list-style-type: none"> • 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		

<ul style="list-style-type: none"> • at AC-3 Rated value maximum 	V	690
Operating current		
<ul style="list-style-type: none"> • at AC-1 <ul style="list-style-type: none"> — 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 <ul style="list-style-type: none"> — at 400 V Rated value • at AC-4 at 400 V Rated value 	A	50
	A	45
	A	38
	A	38
	A	22
Operating current with 1 current path		
<ul style="list-style-type: none"> • at DC-1 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value • at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value 	A	35
	A	4.5
	A	20
	A	2.5
Operating current with 2 current paths in series		
<ul style="list-style-type: none"> • at DC-1 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value • at DC-3 at DC-5 <ul style="list-style-type: none"> — at 110 V Rated value — at 24 V Rated value 	A	35
	A	35
	A	15
	A	35
Operating current with 3 current paths in series		
<ul style="list-style-type: none"> • at DC-1 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value • at DC-3 at DC-5 <ul style="list-style-type: none"> — at 110 V Rated value — at 24 V Rated value 	A	35
	A	35
	A	35
	A	35
Operating power		
<ul style="list-style-type: none"> • at AC-2 at 400 V Rated value • at AC-4 at 400 V Rated value 	kW	18.5
	kW	11
Operating power		
<ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V Rated value — at 500 V Rated value — at 690 V Rated value 	kW	18.5
	kW	22
	kW	18.5
Operating frequency		
<ul style="list-style-type: none"> • at AC-3 maximum 	1/h	1 000

No-load switching frequency	1/h	1 500
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Control circuit/ Control:

Type of voltage of the control supply voltage		AC
Control supply voltage 1 with AC		
• at 50 Hz Rated value	V	110
• at 60 Hz Rated value	V	120
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		
• for auxiliary contacts		
— per direction of rotation		0
— instantaneous contact		0
— lagging switching		0
Number of NO contacts		
• for auxiliary contacts		
— per direction of rotation		0
— instantaneous contact		0
— leading contact		0
Product expansion Auxiliary switch		Yes
Operating current of the auxiliary contacts at AC-12 maximum	A	10
Operating current of the auxiliary contacts at AC-15		
• at 230 V	A	6
• at 400 V	A	3
Operating current of the auxiliary contacts at DC-13		
• at 24 V	A	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		
• at 480 V Rated value	A	34
• at 600 V Rated value	A	27
yielded mechanical performance [hp]		
• for single-phase AC motor at 110/120 V Rated value	metric hp	3

• for single-phase AC motor at 230 V Rated value	metric hp	5
• for three-phase AC motor at 220/230 V Rated value	metric hp	10
• for three-phase AC motor at 460/480 V Rated value	metric hp	25
• for three-phase AC motor at 575/600 V Rated value	metric hp	25
Contact rating of the auxiliary contacts acc. to UL		A600 / Q600

Short-circuit:

Design of the fuse link		
<ul style="list-style-type: none"> • for short-circuit protection of the main circuit <ul style="list-style-type: none"> — with type of assignment 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required 		gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 125 A gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 50 A fuse gL/gG: 10 A

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
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 style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards 	mm	6 0 6 6 6 6 0 6 6 6 6 0 6

- downwards
- at the side

mm	6
mm	6

Connections/ Terminals:

Type of electrical connection		
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit 		screw-type terminals screw-type terminals
Type of connectable conductor cross-section		
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing • for AWG conductors for main contacts • for auxiliary contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing • for AWG conductors for auxiliary contacts 		2x (1 ... 2,5 mm ²), 2x (2,5 ... 10 mm ²) 2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ² 2x (16 ... 12), 2x (14 ... 8) 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14)
Apparent pick-up power of the magnet coil with AC		
<ul style="list-style-type: none"> • at 50 Hz 	V·A	77

Safety related data:

B10 value with high demand rate acc. to SN 31920		1 000 000
Proportion of dangerous failures		
<ul style="list-style-type: none"> • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 	%	40 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	y	20
Protection against electrical shock		finger-safe

Mechanical data:

Size of contactor		S0
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Communication/ Protocol:

Product function Bus communication		No
Protocol is supported		
<ul style="list-style-type: none"> • AS-interface protocol 		No
Product function Control circuit interface with IO link		No

Ambient conditions:

Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
<ul style="list-style-type: none"> • during operation • during storage 	°C	-25 ... +60 -55 ... +80

Certificates/ approvals:

General Product Approval	Declaration of Conformity	Test Certificates	Shipping Approval
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[Special Test Certificate](#)



Shipping Approval



Shipping Approval	other
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[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

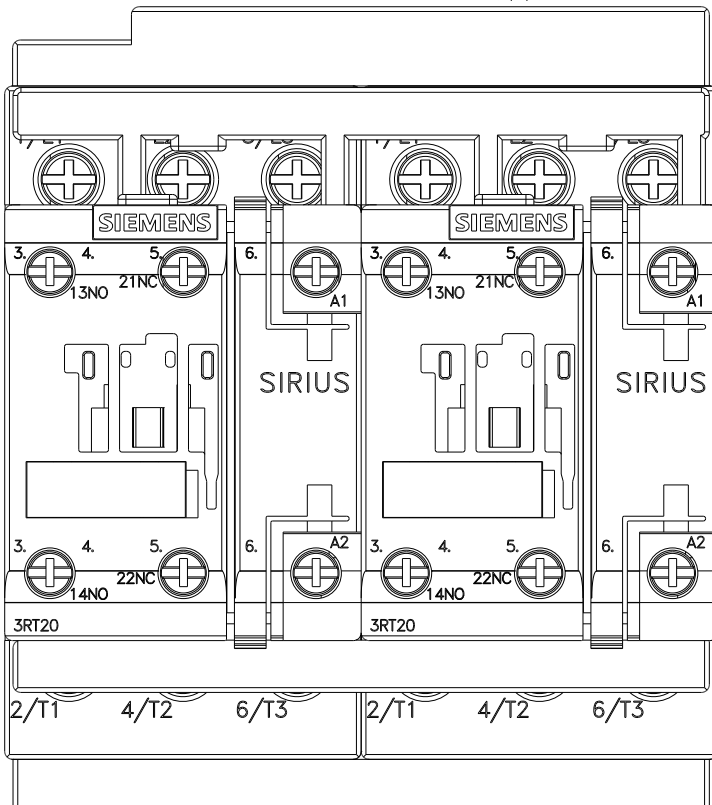
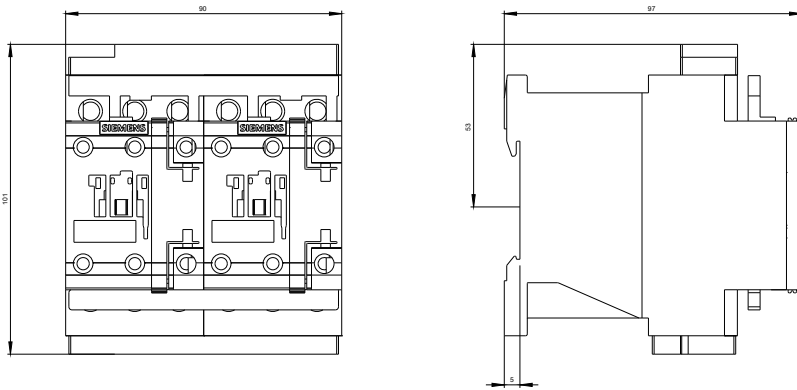
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RA23288XB301AK6>

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

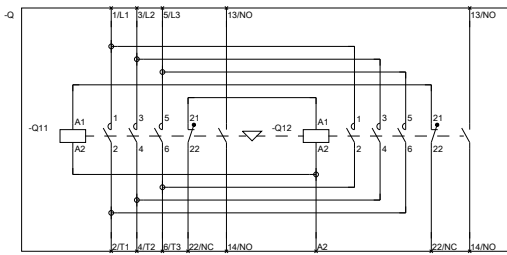
<http://support.automation.siemens.com/WW/view/en/3RA23288XB301AK6/all>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RA23288XB301AK6&lang=en



WENDEKOMBINATION BGR. 50



REVERSING COMB. SZ 50

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