## Data sheet

STAR-DELTA COMB. AC3, 11KW/400V AC110V, 50/60HZ, 3-POLE SZ S0, SCREW TERMINAL ELECTR. AND MECH. INTERLOCK 3NO+3NC 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>	3RT2024-1AG20
<ul> <li>2 of the supplied contactor</li> </ul>	3RT2024-1AG20
<ul> <li>3 of the supplied contactor</li> </ul>	3RT2024-1AG20
<ul> <li>of the supplied RS assembly kit</li> </ul>	3RA2923-2BB1
<ul> <li>of the supplied function module for wye-delta circuits</li> </ul>	3RA2816-0EW20

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	V	690
Operating current		
• at AC-1		
<ul> <li>— at 400 V at ambient temperature 40 °C</li> <li>Rated value</li> </ul>	Α	40
<ul> <li>— at 400 V at ambient temperature 60 °C</li> <li>Rated value</li> </ul>	Α	35
• at AC-2 at 400 V Rated value	Α	25
• at AC-3		
— at 400 V Rated value	Α	25
Operating power		
• at AC-2 at 400 V Rated value	kW	11
• at AC-4 at 400 V Rated value	kW	2
Operating power		
• at AC-3		
— at 400 V Rated value	kW	11
— at 500 V Rated value	kW	15.6
— at 690 V Rated value	kW	19
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	110
at 60 Hz Rated value	V	110
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		
<ul> <li>instantaneous contact</li> </ul>		3
— lagging switching		0
Number of NO contacts		
• for auxiliary contacts		
o for adxillary contacts		
instantaneous contact		3

Product expansion Auxiliary switch		No
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	Α	3
Operating current of the auxiliary contacts at DC-13	-	
● at 24 V	Α	10
● at 60 V	Α	2
● at 110 V	Α	1
● at 220 V	Α	0.3
Contact reliability of the auxiliary contacts		< 1 error per 100 million operating cycles
JL/CSA ratings:		
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		
<ul> <li>— with type of assignment 1 required</li> </ul>		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A
<ul> <li>— with type of assignment 2 required</li> </ul>		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 A
• for short-circuit protection of the auxiliary switch required		fuse gL/gG: 10 A
nstallation/ 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	135
Depth	mm	171
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 partsforwards

— Backwards

6

mm

mm

— 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 +60
during storage	°C	-55 <b>+</b> 80

## Certificates/ approvals:

General	Declaration of	Test	Shipping Approval
Product	Conformity	Certificates	
Approval			





Special Test Certificate







other

## **Shipping Approval**



GL

LRS







Environmental Confirmations

other

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

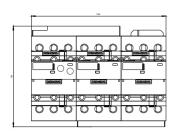
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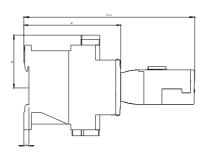
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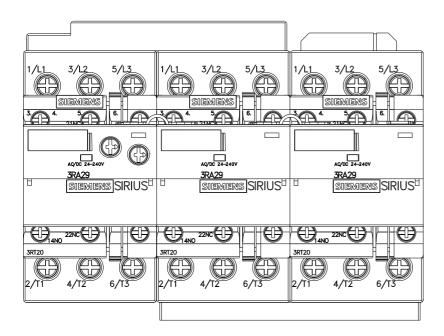
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RA24238XF321AG2/all

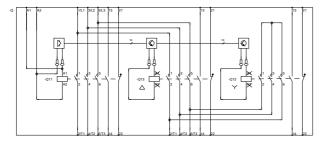
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA24238XF321AG2&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA24238XF321AG2&lang=en</a>







SITE BOGGRENEE; KINONISKW/400V



SITAR-EBBSICACCIMBS/18.5KW/400V

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