# **SIEMENS**

### Data sheet

3RA2416-8XF31-2AF0

STAR-DELTA COMB. AC3, 7,5KW/400V AC110V, 50/60HZ, 3-POLE SZ S00, SPRING-LOADED TERMINAL ELECTR. AND MECH. INTERLOCK 3NO 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>	3RT2017-2AF01
<ul> <li>2 of the supplied contactor</li> </ul>	3RT2017-2AF01
<ul> <li>3 of the supplied contactor</li> </ul>	3RT2015-2AF01
<ul> <li>of the supplied RS assembly kit</li> </ul>	3RA2913-2BB2
<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		9.8g / 5 ms and 5.9g / 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	٧	690
Operating current		
• at AC-1		
— at 400 V at ambient temperature 40 °C Rated value	Α	22
— at 400 V at ambient temperature 60 °C Rated value	Α	20
at AC-2 at 400 V Rated value	Α	16
• at AC-3		
— at 400 V Rated value	Α	16
Operating power		
• at AC-2 at 400 V Rated value	kW	7.5
Operating power		
• at AC-3		
— at 400 V Rated value	kW	7.5
— at 500 V Rated value	kW	10.3
— at 690 V Rated value	kW	9.2
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
Operating range factor control supply voltage rated value of the magnet coil with AC		
● at 50 Hz		0.8 1.1
● at 60 Hz		0.85 1.1
Auxiliary circuit:		
Number of NC contacts		
• for auxiliary contacts		
<ul> <li>instantaneous contact</li> </ul>		0
<ul><li>— lagging switching</li></ul>		0
Number of NO contacts		
• for auxiliary contacts		
<ul> <li>instantaneous contact</li> </ul>		3
— leading contact		0
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: 35 A
— with type of assignment 2 required		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 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
Height		mounting rail
<del>-</del>	mm	mounting rail 84
Width	mm mm	84 135
Width Depth		84
Width	mm	84 135
Width Depth	mm	84 135
Width Depth Required spacing	mm	84 135
Width  Depth  Required spacing  • with side-by-side mounting	mm mm	84 135 145
Width  Depth  Required spacing  • with side-by-side mounting  — forwards	mm mm	84 135 145
Width  Depth  Required spacing  • with side-by-side mounting  — forwards  — Backwards	mm mm mm	84 135 145 6 0
Width  Depth  Required spacing  • with side-by-side mounting  — forwards  — Backwards  — upwards	mm mm mm mm	84 135 145 6 0 6
Width  Depth  Required spacing  • with side-by-side mounting  — forwards  — Backwards  — upwards  — downwards	mm mm mm mm mm	84 135 145 6 0 6 6
Width  Depth  Required spacing  • with side-by-side mounting — forwards — Backwards — upwards — downwards — at the side	mm mm mm mm mm	84 135 145 6 0 6 6
Width  Depth  Required spacing  • with side-by-side mounting  — forwards  — Backwards  — upwards  — downwards  — at the side  • for grounded parts	mm mm mm mm mm mm	84 135 145 6 0 6 6 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		spring-loaded terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>		spring-loaded terminals
Type of connectable conductor cross-section		
• for main contacts		
<ul><li>— single or multi-stranded</li></ul>		2x (0,5 4 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>		2x (0.5 2.5 mm²)
<ul> <li>finely stranded without core end processing</li> </ul>		2x (0.5 2.5 mm²)
<ul> <li>for AWG conductors for main contacts</li> </ul>		1x (20 12)
<ul><li>for auxiliary contacts</li></ul>		
<ul> <li>single or multi-stranded</li> </ul>		2x (0,5 2,5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>		2x (0.5 1.5 mm²)
<ul> <li>finely stranded without core end processing</li> </ul>		2x (0.5 1.5 mm²)
<ul> <li>for AWG conductors for auxiliary contacts</li> </ul>		2x (20 14)
Apparent pick-up power of the magnet coil with AC		
● at 50 Hz	V·A	27

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	S00	
Communication/ Protocol:		

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>+80</b>

### Certificates/ approvals:

General	Declaration of	Test	Shipping Approval
Product	Conformity	Certificates	
Approval			





**Special Test** Certificate







other

### **Shipping Approval**















Environmental Confirmations

#### other

other

## Further information

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

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

Industry Mall (Online ordering system)

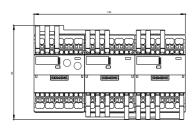
http://www.siemens.com/industrymall

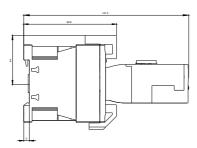
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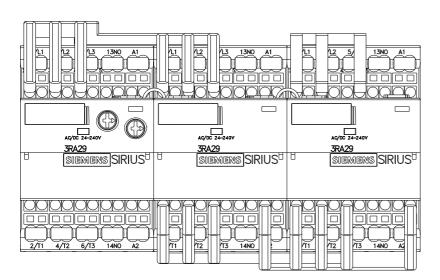
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA24168XF312AF0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RA24168XF312AF0/all

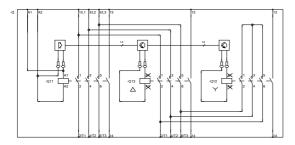
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA24168XF312AF0&lang=en







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