# **SIEMENS**

### Data sheet

### 3RA2415-8XH31-1BB4

STAR-DELTA COMB. WITH ASI AC3, 5,5KW/400V DC24V, 3-POLE SZ S00, SCREW 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>	3RT2015-1BB41-0CC0
<ul> <li>2 of the supplied contactor</li> </ul>	3RT2015-1BB41
<ul> <li>3 of the supplied contactor</li> </ul>	3RT2015-1BB41
<ul> <li>of the supplied RS assembly kit</li> </ul>	3RA2913-2BB1
<ul> <li>of the supplied function module for communication</li> </ul>	3RA2711-1CA00

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		
<ul> <li>at AC-3 Rated value maximum</li> </ul>	V	690
Operating current		
• at AC-1		
— at 400 V at ambient temperature 40 °C	Α	18
Rated value		
— at 400 V at ambient temperature 60 °C	Α	16
Rated value		
• at AC-2 at 400 V Rated value	Α	12
• at AC-3		
— at 400 V Rated value	Α	12
Operating power		
• at AC-2 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	7.2
— 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		DC
Control supply voltage 1		
• for DC Rated value	V	24
Operating range factor control supply voltage rated		0.85 1.1
value of the magnet coil for DC		
Design of the surge suppressor		with varistor
Closing power of the magnet coil for DC	W	5.9
Holding power of the magnet coil for DC	W	5.9
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		
— instantaneous contact		3
— leading contact		0

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		
— with type of assignment 1 required		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 mounting rail
Height	mm	68
Width	mm	135
Depth	mm	145
Required spacing		
<ul><li>with side-by-side mounting</li></ul>		
<ul><li>with side-by-side mounting</li><li>forwards</li></ul>	mm	6
•	mm mm	6 0
— forwards		
— forwards — Backwards	mm	0
<ul><li>forwards</li><li>Backwards</li><li>upwards</li></ul>	mm mm	0 6
<ul><li>forwards</li><li>Backwards</li><li>upwards</li><li>downwards</li></ul>	mm mm mm	0 6 6
<ul> <li>forwards</li> <li>Backwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul>	mm mm mm	0 6 6
<ul> <li>forwards</li> <li>Backwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> <li>for grounded parts</li> </ul>	mm mm mm	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	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	
— single or multi-stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x (0,5 4 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 main contacts</li> </ul>	2x (20 16), 2x (18 14)
• for auxiliary contacts	
<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)

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:			
Product function Bus communication	Yes		
Protocol is supported			
AS-interface protocol	Yes		

## Ambient conditions:

Product function Control circuit interface with IO link

No

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











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

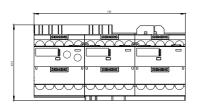
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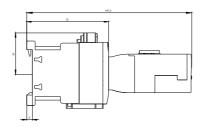
 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RA24158XH311BB4}$ 

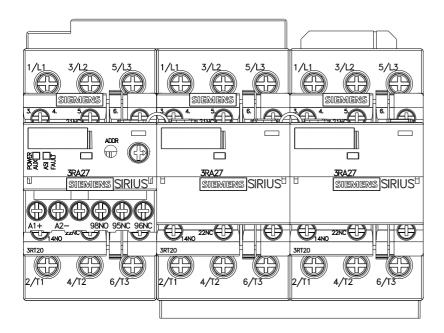
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RA24158XH311BB4/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=3RA24158XH311BB4&lang=en\_

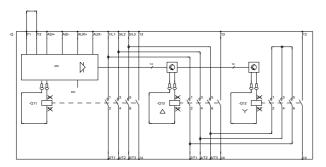






SITERS/IBRASIECK-KOMB

DREWRICHTUNG 1 (RECHTSLAUF)



STAR CEMIASCOMB.

BOTAGIGER (DIGHESCHONSE)

**last modified:** 11.03.2015