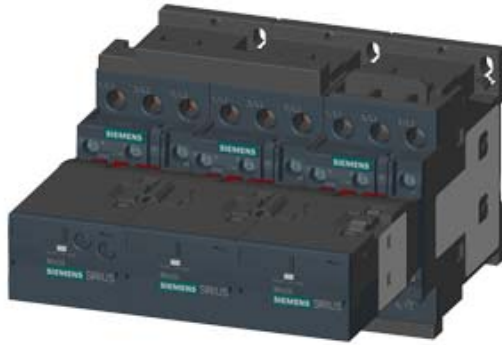


STAR-DELTA COMB. AC3, 11KW/400V AC230V, 50/60HZ, 3-POLE SZ S0, SCREW TERMINAL ELECTR. AND MECH. INTERLOCK 3NO+3NC INTEGR.



product brand name	SIRIUS
Product designation	star-delta (weye-delta) contactor assembly 3RA24
<b>Manufacturer article number</b>	
<ul style="list-style-type: none"> <li>• 1 of the supplied contactor</li> <li>• 2 of the supplied contactor</li> <li>• 3 of the supplied contactor</li> <li>• of the supplied RS assembly kit</li> <li>• of the supplied function module for weye-delta circuits</li> </ul>	<a href="#">3RT2024-1AL20</a> <a href="#">3RT2024-1AL20</a> <a href="#">3RT2024-1AL20</a> <a href="#">3RA2923-2BB1</a> <a href="#">3RA2816-0EW20</a>

General technical data:		
<b>Insulation voltage</b>		
<ul style="list-style-type: none"> <li>• with degree of pollution 3 Rated value</li> </ul>	V	690
<b>Degree of pollution</b>		3
<b>Shock resistance</b>		12.5g / 5 ms and 7.8g / 10 ms
<b>Surge voltage resistance Rated value</b>	kV	6
<b>Mechanical service life (switching cycles)</b>		
<ul style="list-style-type: none"> <li>• of the contactor typical</li> <li>• of the contactor with added auxiliary switch block typical</li> </ul>		10 000 000 10 000 000
<b>Protection class IP</b>		
<ul style="list-style-type: none"> <li>• on the front</li> </ul>		IP20
<b>Equipment marking</b>		
<ul style="list-style-type: none"> <li>• acc. to DIN EN 81346-2</li> </ul>		Q

Main circuit:	
<b>Number of poles for main current circuit</b>	3

<b>Number of NC contacts for main contacts</b>		0
<b>Number of NO contacts for main contacts</b>		3
<b>Operating voltage</b>		
• at AC-3 Rated value maximum	V	690
<b>Operating current</b>		
• at AC-1		
— at 400 V at ambient temperature 40 °C Rated value	A	40
— at 400 V at ambient temperature 60 °C Rated value	A	35
• at AC-2 at 400 V Rated value	A	25
• at AC-3		
— at 400 V Rated value	A	25
<b>Operating power</b>		
• at AC-2 at 400 V Rated value	kW	11
• at AC-4 at 400 V Rated value	kW	2
<b>Operating power</b>		
• 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
<b>Operating frequency</b>		
• at AC-3 maximum	1/h	1 000
<b>No-load switching frequency</b>	1/h	1 500

#### Control circuit/ Control:

<b>Type of voltage of the control supply voltage</b>		AC
<b>Control supply voltage 1 with AC</b>		
• at 50 Hz Rated value	V	230
• at 60 Hz Rated value	V	230
<b>Operating range factor control supply voltage rated value of the magnet coil with AC</b>		
• at 50 Hz		0.8 ... 1.1
• at 60 Hz		0.8 ... 1.1

#### Auxiliary circuit:

<b>Number of NC contacts</b>		
• for auxiliary contacts		
— instantaneous contact		3
— lagging switching		0
<b>Number of NO contacts</b>		
• for auxiliary contacts		
— instantaneous contact		3
— leading contact		0

<b>Product expansion Auxiliary switch</b>		No
<b>Operating current of the auxiliary contacts at AC-12 maximum</b>	A	10
<b>Operating current of the auxiliary contacts at AC-15</b>		
• at 230 V	A	6
• at 400 V	A	3
<b>Operating current of the auxiliary contacts at DC-13</b>		
• at 24 V	A	10
• at 60 V	A	2
• at 110 V	A	1
• at 220 V	A	0.3
<b>Contact reliability of the auxiliary contacts</b>		< 1 error per 100 million operating cycles

#### UL/CSA ratings:

<b>Contact rating of the auxiliary contacts acc. to UL</b>		A600 / Q600
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#### Short-circuit:

<b>Design of the fuse link</b>		
• 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
• for short-circuit protection of the auxiliary switch required		fuse gL/gG: 10 A

#### Installation/ mounting/ dimensions:

<b>mounting position</b>		+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
<b>Mounting type</b>		screw and snap-on mounting onto 35 mm standard mounting rail
<b>Height</b>	mm	101
<b>Width</b>	mm	135
<b>Depth</b>	mm	171
<b>Required spacing</b>		
• with side-by-side mounting		
— 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:

<b>Type of electrical connection</b>		
• for main current circuit		screw-type terminals
• for auxiliary and control current circuit		screw-type terminals
<b>Type of connectable conductor cross-section</b>		
• for main contacts		
— single or multi-stranded		2x (1 ... 2,5 mm <sup>2</sup> ), 2x (2,5 ... 10 mm <sup>2</sup> )
— finely stranded with core end processing		2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup>
• for AWG conductors for main contacts		2x (16 ... 12), 2x (14 ... 8)
• for auxiliary contacts		
— single or multi-stranded		2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )
— finely stranded with core end processing		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
• for AWG conductors for auxiliary contacts		2x (20 ... 16), 2x (18 ... 14)
<b>Apparent pick-up power of the magnet coil with AC</b>		
• at 50 Hz	V·A	65

#### Safety related data:

<b>B10 value with high demand rate acc. to SN 31920</b>		1 000 000
<b>Proportion of dangerous failures</b>		
• with low demand rate acc. to SN 31920	%	40
• with high demand rate acc. to SN 31920	%	75
<b>Failure rate [FIT] with low demand rate acc. to SN 31920</b>	FIT	100
<b>T1 value for proof test interval or service life acc. to IEC 61508</b>	y	20
<b>Protection against electrical shock</b>		finger-safe

#### Mechanical data:

<b>Size of contactor</b>		S0
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#### Communication/ Protocol:


<b>Product function Bus communication</b>		No
<b>Protocol is supported</b>		
• AS-interface protocol		No
<b>Product function Control circuit interface with IO link</b>		No

### Ambient conditions:

Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
• during operation	°C	-25 ... +60
• during storage	°C	-55 ... +80

### Certificates/ approvals:

General Product Approval	Declaration of Conformity	Test Certificates	Shipping Approval
	 EG-Konf.	<a href="#">Special Test Certificate</a>	 ABS  BUREAU VERITAS  DNV

Shipping Approval	other
 GL  LRS  PRS  RINA  RMRS	<a href="#">Environmental Confirmations</a>

other
<a href="#">other</a>

### 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

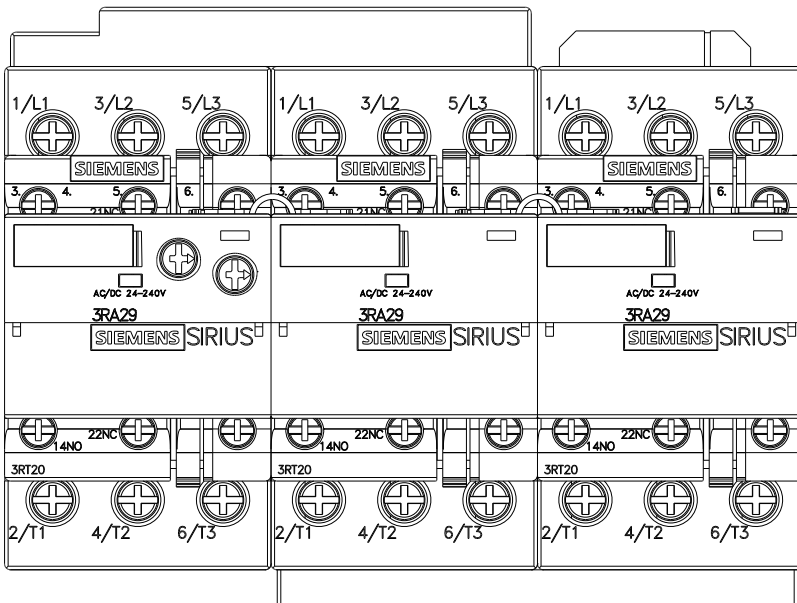
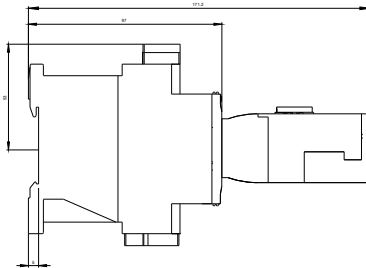
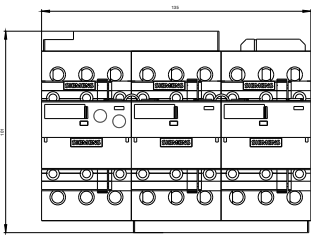
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA24238XF321AL2>

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

<http://support.automation.siemens.com/WW/view/en/3RA24238XF321AL2/all>

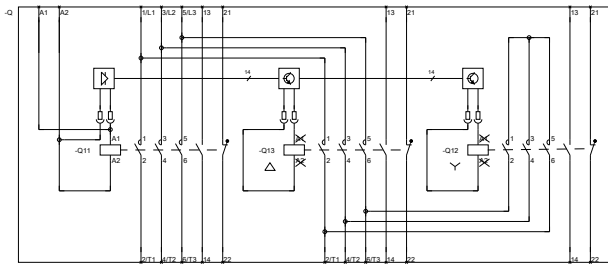
#### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA24238XF321AL2&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA24238XF321AL2&lang=en)



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