

Contactor assembly for star-delta (wye-delta) start AC-3, 11 kW/400 V, 24 V DC 3-pole, Size S00 screw terminal electrical and mechanical interlock 3 NO integrated



<b>Product brand name</b>	SIRIUS
<b>Product designation</b>	Contactor assembly for star-delta (wye-delta) start
<b>Product type designation</b>	3RA24
<b>Manufacturer's article number</b>	<ul style="list-style-type: none"> <li>• 1 of the supplied contactor <a href="#">3RT2018-1BB41</a></li> <li>• 2 of the supplied contactor <a href="#">3RT2018-1BB41</a></li> <li>• 3 of the supplied contactor <a href="#">3RT2016-1BB41</a></li> <li>• of the supplied RS assembly kit <a href="#">3RA2913-2BB1</a></li> <li>• of the supplied function module for wye-delta circuits <a href="#">3RA2816-0EW20</a></li> </ul>

General technical data	
<b>Size of contactor</b>	S00
<b>Product extension</b>	No
<ul style="list-style-type: none"> <li>• Auxiliary switch</li> </ul>	
<b>Insulation voltage</b>	690 V
<ul style="list-style-type: none"> <li>• with degree of pollution 3 rated value</li> </ul>	
<b>Degree of pollution</b>	3
<b>Surge voltage resistance rated value</b>	6 kV
<b>Protection class IP</b>	

• on the front	IP20
<b>Shock resistance</b>	9.8g / 5 ms and 5.9g / 10 ms
<b>Shock resistance at rectangular impulse</b>	
• at AC	7,3g / 5 ms, 4,7g / 10 ms
• at DC	7.3g / 5 ms, 4.7g / 10 ms
<b>Shock resistance with sine pulse</b>	
• at AC	11,4g / 5 ms, 7,3g / 10 ms
• at DC	11,4g / 5 ms, 7,3g / 10 ms
<b>Mechanical service life (switching cycles)</b>	
• of contactor typical	10 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
<b>Reference code acc. to DIN EN 81346-2</b>	Q

### Ambient conditions

<b>Installation altitude at height above sea level</b>	
• maximum	2 000 m

### Main circuit

<b>Number of poles for main current circuit</b>	3
<b>Number of NO contacts for main contacts</b>	3
<b>Number of NC contacts for main contacts</b>	0
<b>Operating voltage</b>	
• at AC-3 rated value maximum	690 V
<b>Operating current</b>	
• at AC-1 at 400 V	
— at ambient temperature 40 °C rated value	25 A
— at ambient temperature 60 °C rated value	20 A
• at AC-2 at 400 V rated value	25 A
• at AC-3	
— at 400 V rated value	25 A
<b>Operating power</b>	
• at AC-2 at 400 V rated value	11 kW
• at AC-3	
— at 400 V rated value	11 kW
— at 500 V rated value	11 kW
— at 690 V rated value	11 kW
• (no-load operating)	1 500 1/h
<b>Operating frequency</b>	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	1 000 1/h
• at AC-3 maximum	1 000 1/h
• at AC-4 maximum	300 1/h

Control circuit/ Control	
Type of voltage of the control supply voltage	DC
Control supply voltage 1	
• at DC rated value	24 V
Closing power of magnet coil at DC	5.9 W
Holding power of magnet coil at DC	5.9 W

Auxiliary circuit	
Number of NC contacts for auxiliary contacts	
• instantaneous contact	0
Number of NO contacts for auxiliary contacts	
• instantaneous contact	3
Operating current of auxiliary contacts at AC-12 maximum	10 A
Operating current of auxiliary contacts at AC-15	
• at 230 V	6 A
• at 400 V	3 A
Operating current of auxiliary contacts at DC-13	
• at 24 V	10 A
• at 60 V	2 A
• at 110 V	1 A
• at 220 V	0.3 A
Contact reliability of auxiliary contacts	< 1 error per 100 million operating cycles

UL/CSA ratings	
Contact rating of auxiliary contacts according to UL	A600 / Q600

Short-circuit protection	
Design of the fuse link	
• for short-circuit protection of the main circuit	
— with type of coordination 1 required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 50 A
— with type of assignment 2 required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 25 A
• for short-circuit protection of the auxiliary switch required	fuse 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)	68 mm
Width	135 mm
Depth	145 mm
Required spacing	
• with side-by-side mounting	

— forwards	6 mm
— Backwards	0 mm
— upwards	6 mm
— downwards	6 mm
— at the side	6 mm
• for grounded parts	
— forwards	6 mm
— Backwards	0 mm
— upwards	6 mm
— at the side	6 mm
— downwards	6 mm
• for live parts	
— forwards	6 mm
— Backwards	0 mm
— upwards	6 mm
— downwards	6 mm
— at the side	6 mm

## 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-sections</b>	
• for main contacts	
— solid	2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>
— single or multi-stranded	2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> ), 2x (0,5 ... 4 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> )
• at AWG conductors for main contacts	2x (20 ... 16), 2x (18 ... 14)
<b>Type of connectable conductor cross-sections</b>	
• 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> )
• at AWG conductors for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14)

## Safety related data

<b>B10 value</b>	
• with high demand rate acc. to SN 31920	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]</b>	
• with low demand rate acc. to SN 31920	100 FIT

T1 value for proof test interval or service life acc. to IEC 61508	20 y
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### Communication/ Protocol

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

### Certificates/approvals

General Product Approval	Declaration of Conformity	Test Certificates		Marine / Shipping
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[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



ABS

### Marine / Shipping



### other Railway

[Confirmation](#)

[Vibration and Shock](#)

### Further information

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

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

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2417-8XF31-1BB4>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2417-8XF31-1BB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2417-8XF31-1BB4>

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

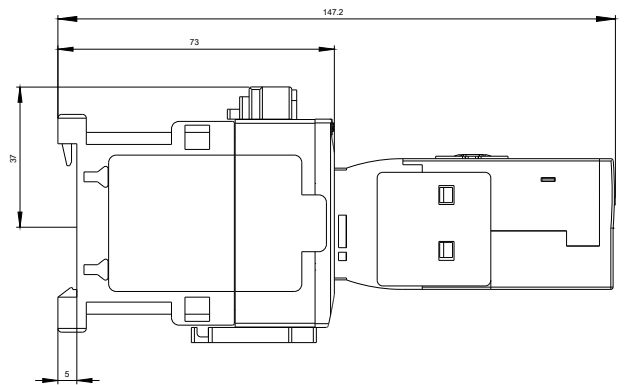
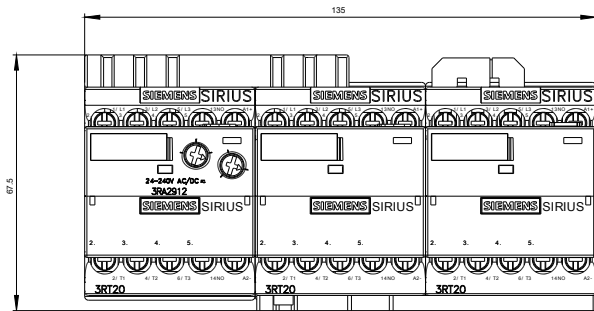
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2417-8XF31-1BB4&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2417-8XF31-1BB4&lang=en)

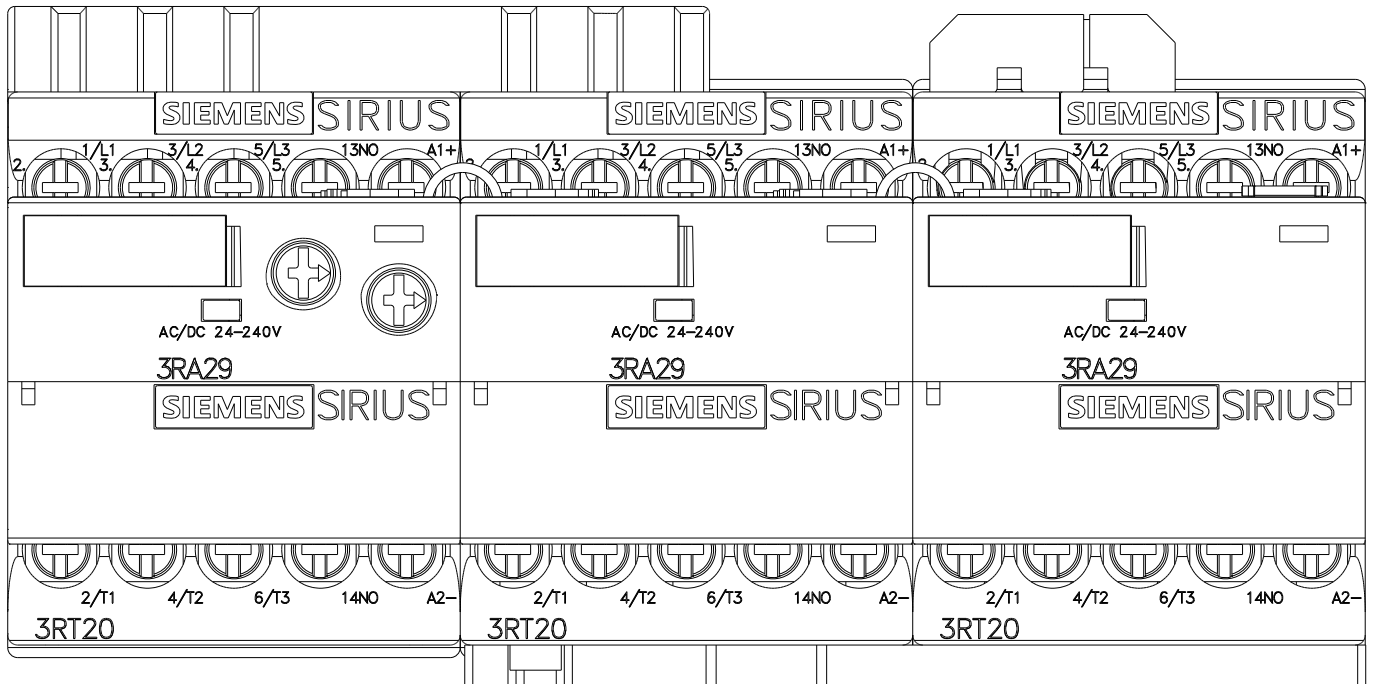
**Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current**

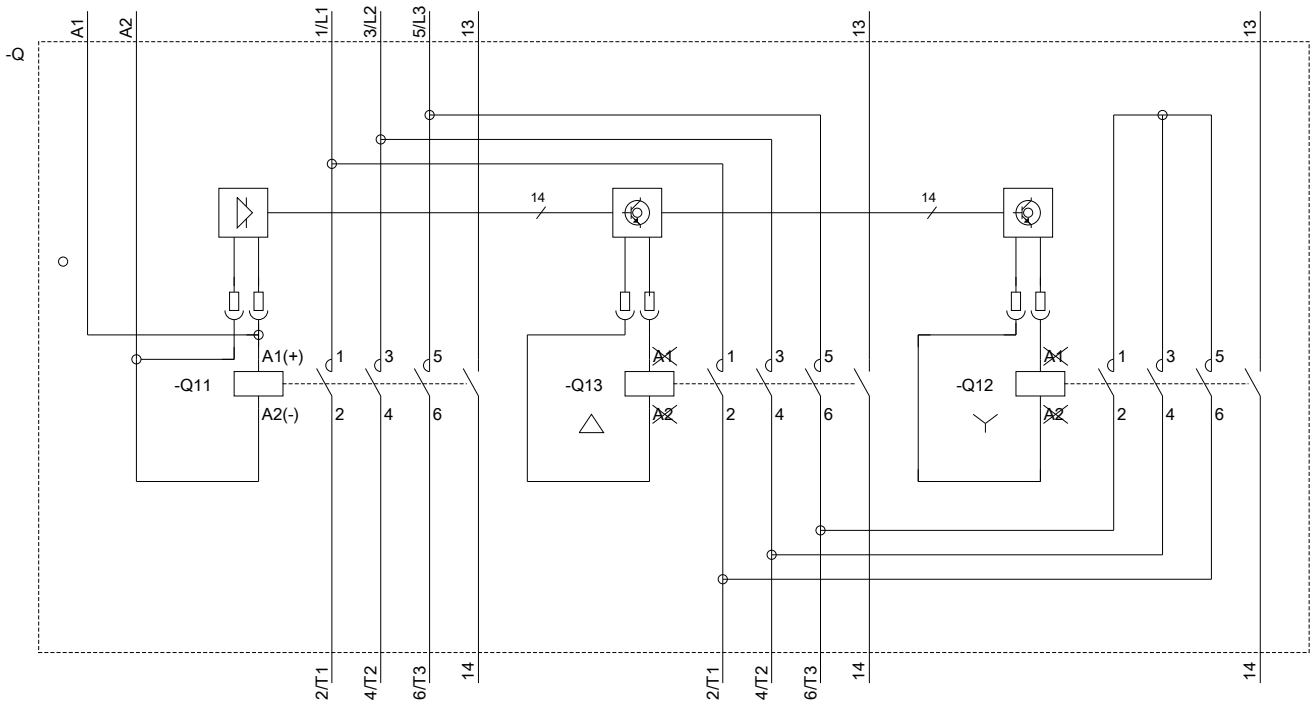
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2417-8XF31-1BB4/char>

**Further characteristics (e.g. electrical endurance, switching frequency)**

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2417-8XF31-1BB4&objecttype=14&gridview=view1>







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