

cont. ass. f. star-delta (wye-delta) start, I/O-Link AC-3, 7.5 kW/400 V, 24 V DC 3-pole, Size S00 screw terminals electrical and mechanical interlock 3 NO integrated



<b>Product brand name</b>	SIRIUS
<b>Product designation</b>	Contacteur 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="#">3RT2018-1BB41-0CC0</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 communication <a href="#">3RA2711-1CA00</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>	

<ul style="list-style-type: none"> <li>• on the front</li> </ul>	IP20
<b>Shock resistance</b>	9.8g / 5 ms and 5.9g / 10 ms
<b>Shock resistance at rectangular impulse</b>	
<ul style="list-style-type: none"> <li>• at AC</li> </ul>	7,3g / 5 ms, 4,7g / 10 ms
<ul style="list-style-type: none"> <li>• at DC</li> </ul>	7.3g / 5 ms, 4.7g / 10 ms
<b>Shock resistance with sine pulse</b>	
<ul style="list-style-type: none"> <li>• at AC</li> </ul>	11,4g / 5 ms, 7,3g / 10 ms
<ul style="list-style-type: none"> <li>• at DC</li> </ul>	11,4g / 5 ms, 7,3g / 10 ms
<b>Mechanical service life (switching cycles)</b>	
<ul style="list-style-type: none"> <li>• of contactor typical</li> </ul>	10 000 000
<ul style="list-style-type: none"> <li>• of the contactor with added auxiliary switch block typical</li> </ul>	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>	
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	2 000 m
<b>Ambient temperature</b>	
<ul style="list-style-type: none"> <li>• during operation</li> </ul>	-25 ... +60 °C
<ul style="list-style-type: none"> <li>• during storage</li> </ul>	-55 ... +80 °C

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>	
<ul style="list-style-type: none"> <li>• at AC-3 rated value maximum</li> </ul>	690 V
<b>Operating current</b>	
<ul style="list-style-type: none"> <li>• at AC-1 at 400 V <ul style="list-style-type: none"> <li>— at ambient temperature 40 °C rated value</li> <li>— at ambient temperature 60 °C rated value</li> </ul> </li> </ul>	25 A 20 A
<ul style="list-style-type: none"> <li>• at AC-2 at 400 V rated value</li> </ul>	25 A
<ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul> </li> </ul>	25 A
<b>Operating power</b>	
<ul style="list-style-type: none"> <li>• at AC-2 at 400 V rated value</li> </ul>	11 kW
<ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>	11 kW 11 kW 11 kW
<b>No-load switching frequency</b>	1 500 1/h
<b>Operating frequency</b>	
<ul style="list-style-type: none"> <li>• at AC-1 maximum</li> </ul>	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

<b>Type of voltage of the control supply voltage</b>	DC
<b>Control supply voltage 1</b>	
• at DC rated value	24 V
<b>Design of the surge suppressor</b>	with varistor
<b>Closing power of magnet coil at DC</b>	5.9 W
<b>Holding power of magnet coil at DC</b>	5.9 W

#### Auxiliary circuit

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

#### UL/CSA ratings

<b>Contact rating of auxiliary contacts according to UL</b>	A600 / Q600
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#### Short-circuit protection

<b>Design of the fuse link</b>	
• 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

<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>	68 mm
<b>Width</b>	135 mm
<b>Depth</b>	145 mm

Required spacing	
<ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>6 mm</li> <li>0 mm</li> <li>6 mm</li> <li>6 mm</li> <li>6 mm</li> <li>6 mm</li> <li>0 mm</li> <li>6 mm</li> <li>6 mm</li> <li>6 mm</li> <li>6 mm</li> <li>0 mm</li> <li>6 mm</li> <li>6 mm</li> <li>6 mm</li> </ul>

### Connections/ Terminals

<b>Type of electrical connection</b> <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control current circuit</li> </ul>	<ul style="list-style-type: none"> <li>screw-type terminals</li> <li>screw-type terminals</li> </ul>
<b>Type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— single or multi-stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• at AWG conductors for main contacts</li> </ul>	<ul style="list-style-type: none"> <li>2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>), 2x 4 mm<sup>2</sup></li> <li>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>)</li> <li>2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</li> <li>2x (20 ... 16), 2x (18 ... 14)</li> </ul>
<b>Type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— single or multi-stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• at AWG conductors for auxiliary contacts</li> </ul>	<ul style="list-style-type: none"> <li>2x (0,5 ... 1,5 mm<sup>2</sup>), 2x (0,75 ... 2,5 mm<sup>2</sup>)</li> <li>2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</li> <li>2x (20 ... 16), 2x (18 ... 14)</li> </ul>

### Safety related data

<b>B10 value</b> <ul style="list-style-type: none"> <li>• with high demand rate acc. to SN 31920</li> </ul>	<ul style="list-style-type: none"> <li>1 000 000</li> </ul>
<b>Proportion of dangerous failures</b> <ul style="list-style-type: none"> <li>• with low demand rate acc. to SN 31920</li> <li>• with high demand rate acc. to SN 31920</li> </ul>	<ul style="list-style-type: none"> <li>40 %</li> <li>75 %</li> </ul>
<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

### Communication/ Protocol

Product function Bus communication

Yes

Protocol is supported

- AS-Interface protocol

No

Product function Control circuit interface with IO link

Yes

### 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](#)



### Marine / Shipping



other

Railway

[Confirmation](#)

[Vibration and Shock](#)

### Further information

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

[www.siemens.com/sirius/catalogs](http://www.siemens.com/sirius/catalogs)

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2417-8XE31-1BB4>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2417-8XE31-1BB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2417-8XE31-1BB4>

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

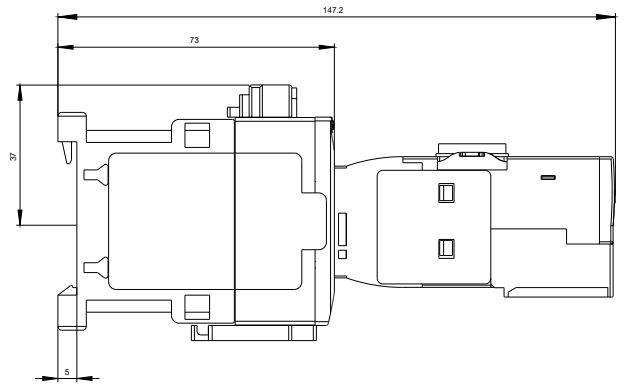
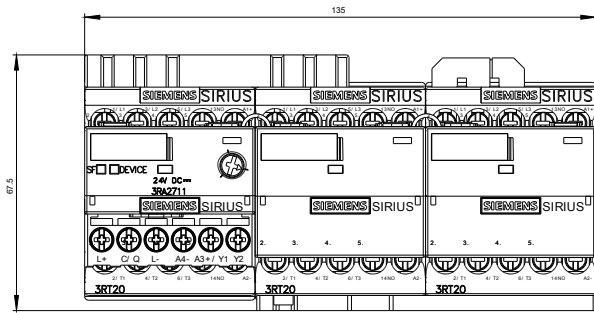
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2417-8XE31-1BB4&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2417-8XE31-1BB4&lang=en)

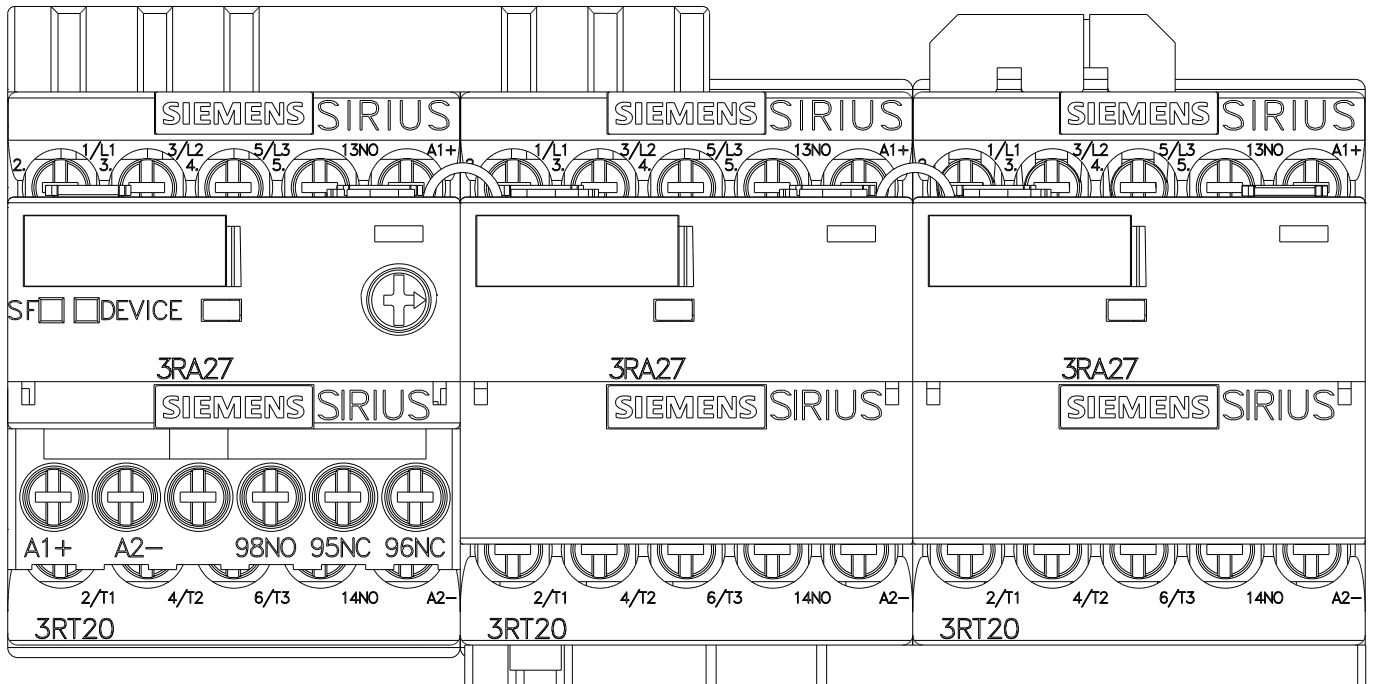
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

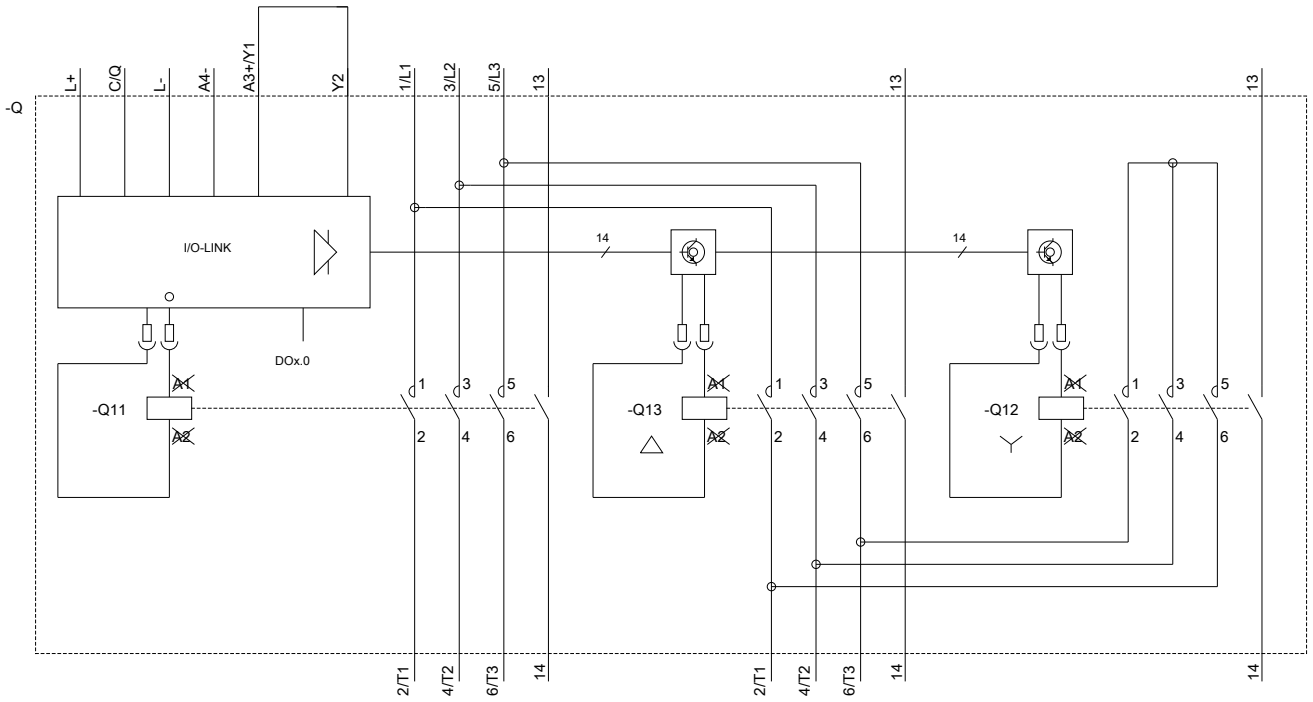
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2417-8XE31-1BB4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2417-8XE31-1BB4&objecttype=14&gridview=view1>







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