

Contactor assembly for star-delta (wye-delta) start AC-3, 22/30 kW/400 V, 110 V AC 50/60 Hz, 3-pole, size S2 screw terminals electrical and mechanical interlock 3 NO + 3 NC 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
<ul style="list-style-type: none"> <li>• Manufacturer's article number 1 of the supplied contactor</li> <li>• Manufacturer's article number 2 of the supplied contactor</li> <li>• Manufacturer's article number 3 of the supplied contactor</li> <li>• Manufacturer's article number of the supplied RS assembly kit</li> <li>• Manufacturer's article number of the supplied function module for wye-delta circuits</li> </ul>	<a href="#">3RT2035-1AG20</a>  <a href="#">3RT2035-1AG20</a>  <a href="#">3RT2026-1AG20</a>  <a href="#">3RA2933-2C</a>  <a href="#">3RA2816-0EW20</a>

General technical data	
<b>Size of contactor</b>	S2
<ul style="list-style-type: none"> <li>• product extension auxiliary switch</li> </ul>	No
<b>insulation voltage</b>	
<ul style="list-style-type: none"> <li>• with degree of pollution 3 at AC rated value</li> </ul>	690 V
<b>surge voltage resistance rated value</b>	6 kV

<b>protection class IP</b>	IP20
<ul style="list-style-type: none"> <li>• on the front</li> </ul>	
<b>Shock resistance at rectangular impulse</b>	11.8g / 5 ms, 7.4g / 10 ms
<ul style="list-style-type: none"> <li>• at AC</li> </ul>	
<b>Shock resistance with sine pulse</b>	18.5g / 5 ms, 11.6g / 10 ms
<ul style="list-style-type: none"> <li>• at AC</li> </ul>	
<b>Mechanical service life (switching cycles)</b>	
<ul style="list-style-type: none"> <li>• of contactor typical</li> <li>• of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000 10 000 000
<b>reference code acc. to DIN EN 81346-2</b>	Q

<b>Ambient conditions</b>	
<ul style="list-style-type: none"> <li>• installation altitude at height above sea level maximum</li> </ul>	2 000 m
<ul style="list-style-type: none"> <li>• ambient temperature during operation</li> </ul>	-25 ... +60 °C
<ul style="list-style-type: none"> <li>• ambient temperature during storage</li> </ul>	-55 ... +80 °C

<b>Main circuit</b>	
<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
<ul style="list-style-type: none"> <li>• operating voltage at AC-3 rated value maximum</li> </ul>	690 V
<ul style="list-style-type: none"> <li>• <ul style="list-style-type: none"> <li>— operating current at AC-3 at 400 V rated value</li> </ul> </li> </ul>	65 A
<ul style="list-style-type: none"> <li>• operating power at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul> </li> </ul>	22 kW
<ul style="list-style-type: none"> <li>• Operating power at AC-4 at 400 V rated value</li> </ul>	38 kW
<b>No-load switching frequency</b>	1 500 1/h
operating frequency at AC-3 maximum	1 000 1/h

<b>Control circuit/ Control</b>	
<b>Type of voltage of the control supply voltage</b>	AC
<b>Control supply voltage 1 at AC</b>	
<ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul>	110 V 110 V
<b>Operating range factor control supply voltage rated value of magnet coil at AC</b>	
<ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>	0.8 ... 1.1 0.85 ... 1.1
<b>Apparent pick-up power of magnet coil at AC</b>	
<ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>	422 V·A 378 V·A

<b>Inductive power factor with closing power of the coil</b>	
• at 50 Hz	0.69
• at 60 Hz	0.65
<b>Apparent holding power of magnet coil at AC</b>	
• at 50 Hz	36.4 V·A
• at 60 Hz	35 V·A
<b>Inductive power factor with the holding power of the coil</b>	
• at 50 Hz	0.36
• at 60 Hz	0.39

### Auxiliary circuit

• Number of NC contacts for auxiliary contacts instantaneous contact	3
• Number of NO contacts for auxiliary contacts 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

• 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: 160 A
• Design of the fuse link for short-circuit protection of the main circuit with type of assignment 2 required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 80 A
• design of the fuse link 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 fixing

<b>height</b>	142 mm
<b>width</b>	177.5 mm
<b>depth</b>	223 mm
<b>required spacing</b>	
<ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards 10 mm</li> <li>— backwards 0 mm</li> <li>— upwards 10 mm</li> <li>— downwards 10 mm</li> <li>— at the side 10 mm</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards 10 mm</li> <li>— backwards 0 mm</li> <li>— upwards 10 mm</li> <li>— at the side 10 mm</li> <li>— downwards 10 mm</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards 10 mm</li> <li>— backwards 0 mm</li> <li>— upwards 10 mm</li> <li>— downwards 10 mm</li> <li>— at the side 10 mm</li> </ul> </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>	<p>screw-type terminals</p> <p>screw-type terminals</p>
<ul style="list-style-type: none"> <li>• type of connectable conductor cross-sections for main contacts solid</li> <li>• type of connectable conductor cross-sections for main contacts single or multi-stranded</li> <li>• type of connectable conductor cross-sections for main contacts finely stranded with core end processing</li> <li>• type of connectable conductor cross-sections at AWG conductors for main contacts</li> <li>• type of connectable conductor cross-sections for auxiliary contacts single or multi-stranded</li> <li>• type of connectable conductor cross-sections for auxiliary contacts finely stranded with core end processing</li> <li>• type of connectable conductor cross-sections at AWG conductors for auxiliary contacts</li> </ul>	<p>2x (1 ... 35 mm<sup>2</sup>), 1x (1 ... 50 mm<sup>2</sup>)</p> <p>2x (1 ... 35 mm<sup>2</sup>), 1x (1 ... 50 mm<sup>2</sup>)</p> <p>2x (1 ... 25 mm<sup>2</sup>), 1x (1 ... 35 mm<sup>2</sup>)</p> <p>2x (18 ... 2), 1x (18 ... 1)</p> <p>2x (0,5 ... 1,5 mm<sup>2</sup>), 2x (0,75 ... 2,5 mm<sup>2</sup>)</p> <p>2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</p> <p>2x (20 ... 16), 2x (18 ... 14)</p>




## Safety related data

<b>B10 value</b>	
<ul style="list-style-type: none"> <li>with high demand rate acc. to SN 31920</li> </ul>	1 000 000
<b>proportion of dangerous failures</b>	
<ul style="list-style-type: none"> <li>with low demand rate acc. to SN 31920</li> </ul>	40 %
<ul style="list-style-type: none"> <li>with high demand rate acc. to SN 31920</li> </ul>	73 %
<b>failure rate [FIT]</b>	
<ul style="list-style-type: none"> <li>with low demand rate acc. to SN 31920</li> </ul>	100 FIT
<b>T1 value for proof test interval or service life acc. to IEC 61508</b>	20 y

## Communication/ Protocol

<b>product function bus communication</b>	No
<ul style="list-style-type: none"> <li>protocol is supported 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	other
	 EG-Konf.	<a href="#">Miscellaneous</a> <a href="#">Type Test Certificates/Test Report</a>		<a href="#">Confirmation</a>

## Further information

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

<https://www.siemens.com/ic10>

### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2434-8XF32-1AG2>

### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2434-8XF32-1AG2>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2434-8XF32-1AG2>

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

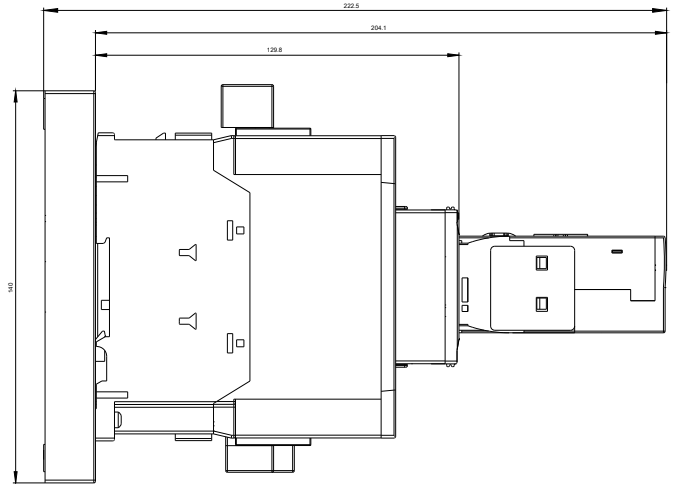
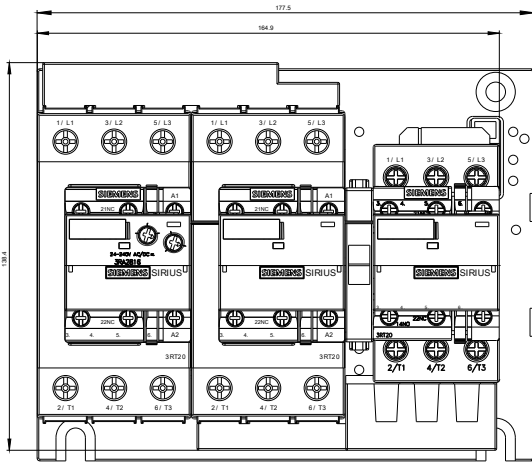
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2434-8XF32-1AG2&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2434-8XF32-1AG2&lang=en)

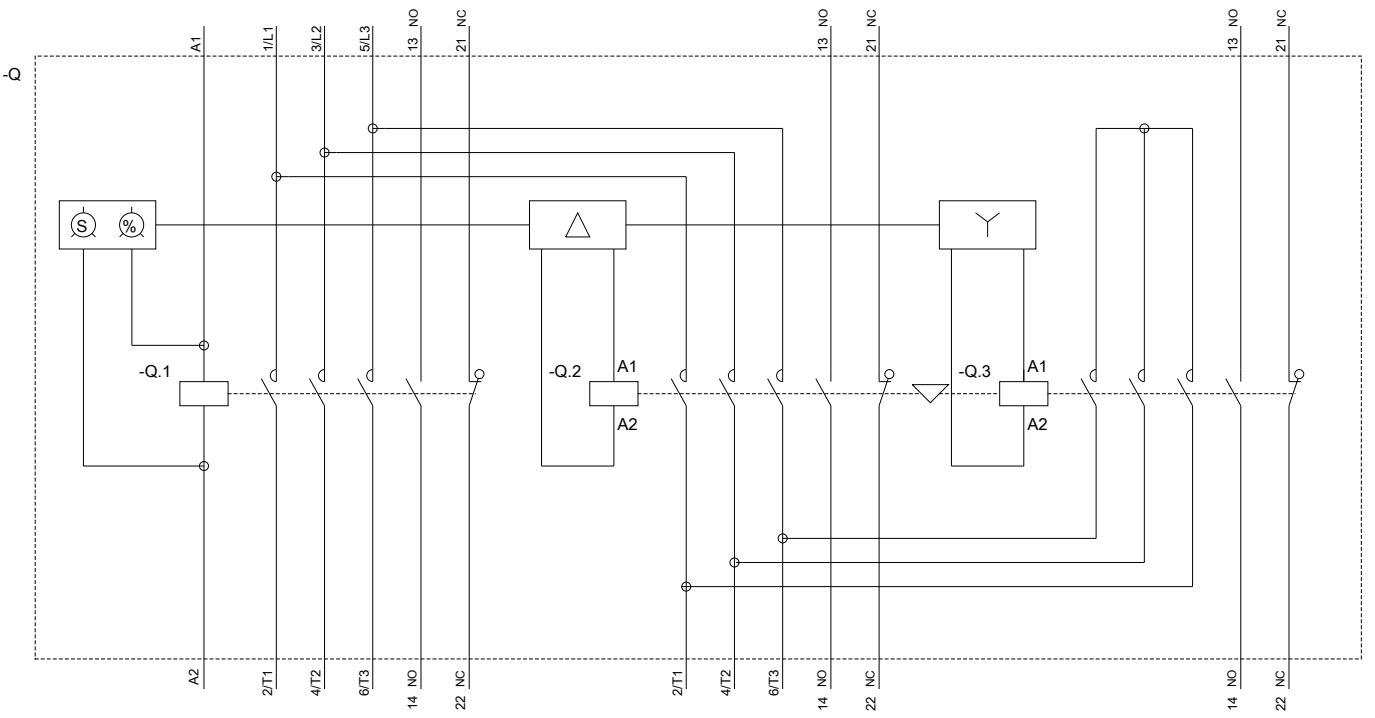
### Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2434-8XF32-1AG2/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2434-8XF32-1AG2&objecttype=14&gridview=view1>





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