

STAR-DELTA COMB. AC3, 22KW/400V AC24V, 50/60HZ, 3-POLE, SZ S0, SCREW TERMINAL ELECTR. AND MECH. INTERLOCK 3NO+3NC INTEGR.



Product brand name	SIRIUS
Product designation	Contactor assembly for star-delta (wye-delta) start
Product type designation	3RA24
Manufacturer's article number	<div><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 wye-delta circuits</li></ul></div>

- [3RT2027-1AC20](#)
- [3RT2027-1AC20](#)
- [3RT2026-1AC20](#)
- [3RA2923-2BB1](#)
- [3RA2816-0EW20](#)

General technical data	
Size of contactor	S0
Product extension	No
Insulation voltage	
• with degree of pollution 3 rated value	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
Protection class IP	

<ul style="list-style-type: none"> <li>• on the front</li> </ul>	IP20
<b>Shock resistance at rectangular impulse</b>	
<ul style="list-style-type: none"> <li>• at AC</li> </ul>	8,3g / 5 ms, 5,3g / 10 ms
<ul style="list-style-type: none"> <li>• at DC</li> </ul>	10g / 5 ms, 7,5g / 10 ms
<b>Shock resistance with sine pulse</b>	
<ul style="list-style-type: none"> <li>• at AC</li> </ul>	13,5g / 5 ms, 8,3g / 10 ms
<ul style="list-style-type: none"> <li>• at DC</li> </ul>	15g / 5 ms, 10g / 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>Equipment marking</b>	
<ul style="list-style-type: none"> <li>• acc. to DIN EN 81346-2</li> </ul>	Q

#### Ambient conditions

<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> <li>• at AC-2 at 400 V rated value</li> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul> </li> </ul>	50 A 42 A 40 A 50 A
<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> <li>• at AC-2 maximum</li> <li>• at AC-3 maximum</li> <li>• at AC-4 maximum</li> </ul>	1 000 1/h 1 000 1/h 1 000 1/h 300 1/h

#### Control circuit/ Control

<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>	24 V 24 V

<b>Operating range factor control supply voltage rated value of magnet coil at AC</b>	
• at 50 Hz	0.8 ... 1.1
• at 60 Hz	0.8 ... 1.1
<b>Apparent pick-up power of magnet coil at AC</b>	
• at 50 Hz	65 V·A
<b>Inductive power factor with closing power of the coil</b>	
• at 50 Hz	0.82
<b>Apparent holding power of magnet coil at AC</b>	
• at 50 Hz	8.5 V·A
<b>Inductive power factor with the holding power of the coil</b>	
• at 50 Hz	0.25

#### Auxiliary circuit

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

<b>Design of the fuse link</b>	
• for short-circuit protection of the main circuit	
— with type of coordination 1 required	gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 125 A
— with type of assignment 2 required	gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 50 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>	101 mm
<b>Width</b>	135 mm
<b>Depth</b>	171 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 6 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 6 mm</li> <li>— downwards 6 mm</li> <li>— at the side 6 mm</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards 6 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 6 mm</li> <li>— at the side 6 mm</li> <li>— downwards 6 mm</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards 6 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 6 mm</li> <li>— downwards 6 mm</li> <li>— at the side 6 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>	screw-type terminals screw-type terminals
<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 2x (1 ... 2.5 mm²), 2x (2.5 ... 10 mm²)</li> <li>— single or multi-stranded 2x (1 ... 2.5 mm²), 2x (2.5 ... 10 mm²)</li> <li>— finely stranded with core end processing 2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm²</li> </ul> </li> <li>• at AWG conductors for main contacts 2x (16 ... 12), 2x (14 ... 8)</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 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²)</li> <li>— finely stranded with core end processing 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)</li> </ul> </li> <li>• at AWG conductors for auxiliary contacts 2x (20 ... 16), 2x (18 ... 14)</li> </ul>	

## 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
<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
<b>Protocol is supported</b>	
• AS-interface protocol	No

## Certificates/approvals

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



GL

Marine / Shipping	other
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LRS



PRS



RINA



RMRS



DNVGL.COM/AF

[Environmental Confirmations](#)

other	Railway
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[Confirmation](#)

[Vibration and Shock](#)

## Further information

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

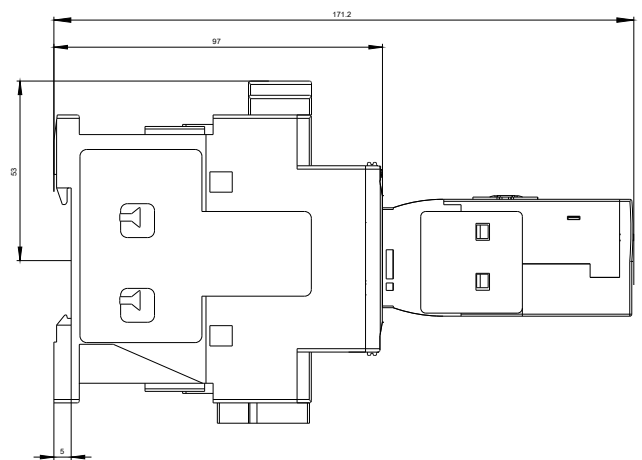
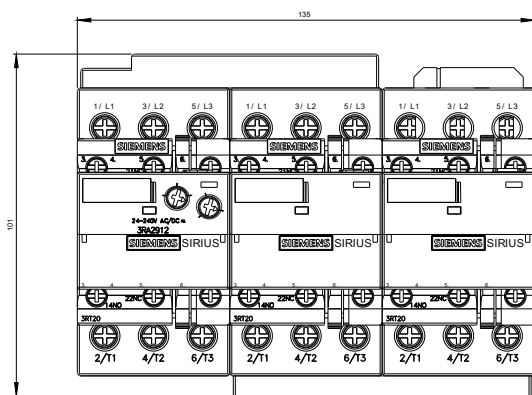
<http://www.siemens.com/industrial-controls/catalogs>

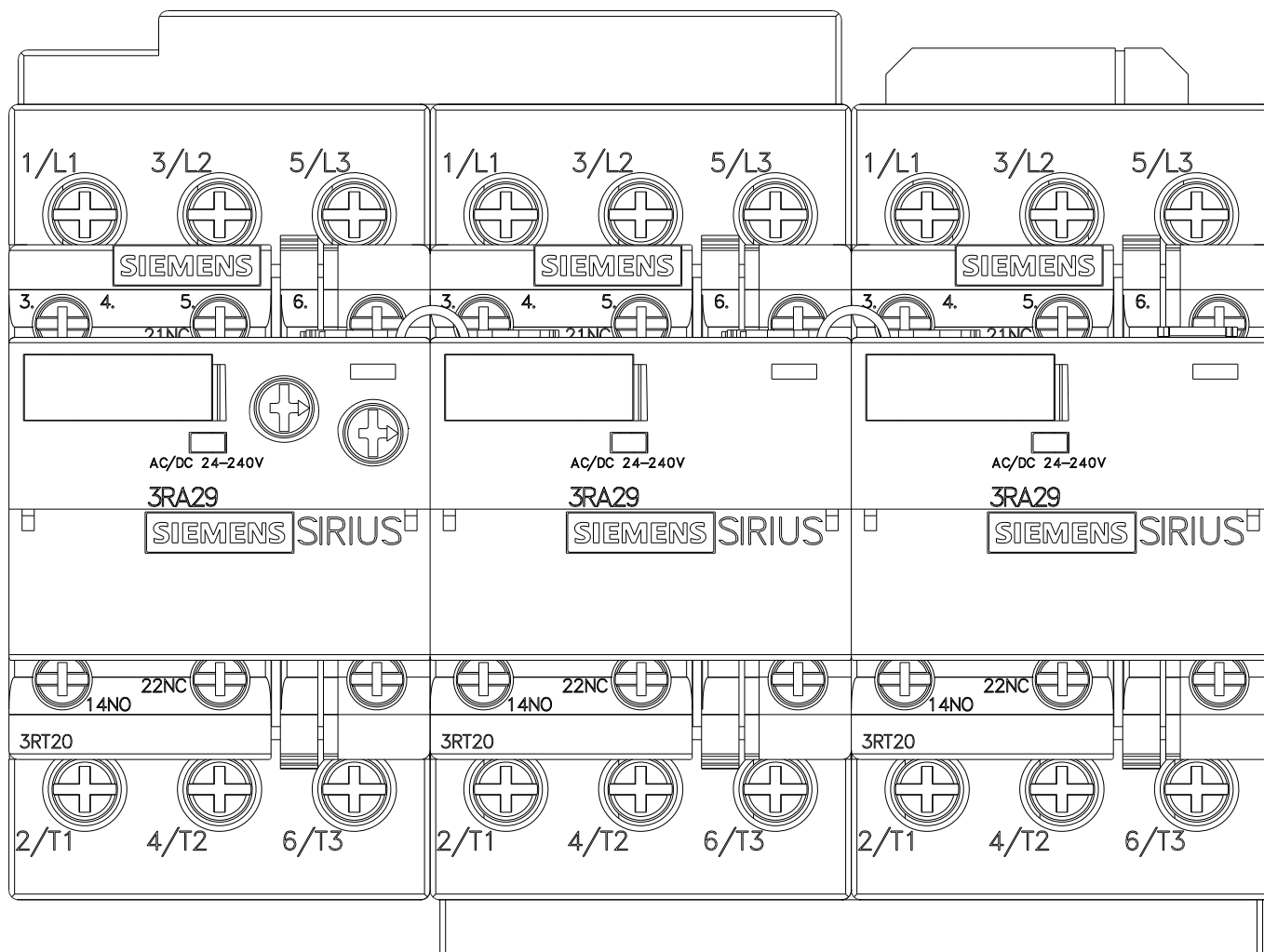
**Industry Mall (Online ordering system)**

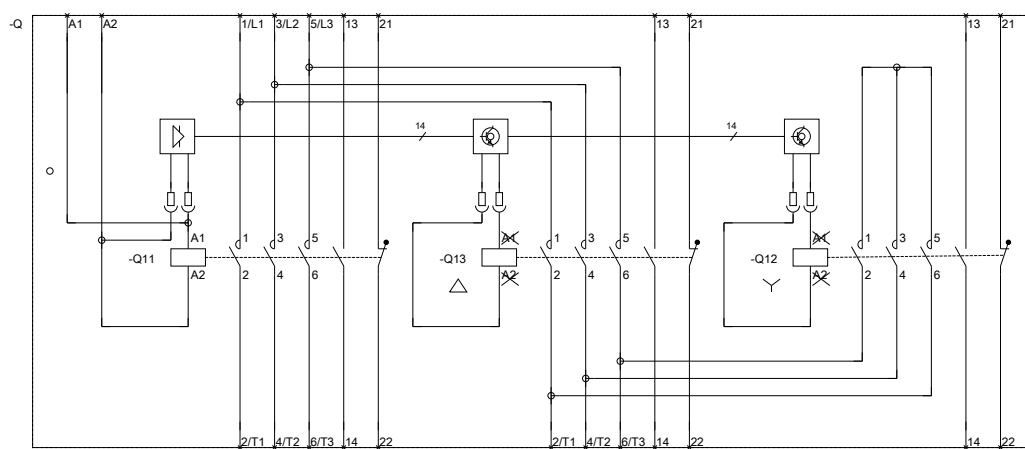
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2426-8XF32-1AC2>

**Cax online generator**

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