

Contactor assembly for star-delta (wye-delta) start AC-3, 7.5 kW/400 V, 110 V AC 50 Hz / 120 V, 60Hz, 3-pole Size S00, Spring-type terminals electrical and mechanical interlock 3 NO integrated



product brand name

SIRIUS

product designation

Contactor assembly for star-delta (wye-delta) start

product type designation

3RA24

manufacturer's article number

- 1 of the supplied contactor
- 2 of the supplied contactor
- 3 of the supplied contactor
- of the supplied RS assembly kit
- of the supplied function module for wye-delta circuits

[3RT2017-2AF01](#)

[3RT2017-2AF01](#)

[3RT2015-2AF01](#)

[3RA2913-2BB2](#)

[3RA2816-0EW20](#)

General technical data

size of contactor

S00

product extension auxiliary switch

No

shock resistance at rectangular impulse

- at AC 6,7g / 5 ms, 4,2g / 10 ms
- at DC 6,7g / 5 ms, 4,2g / 10 ms

shock resistance with sine pulse

- at AC 10,5g / 5 ms, 6,6g / 10 ms
- at DC 10,5g / 5 ms, 6,6g / 10 ms

mechanical service life (switching cycles)

- of contactor typical 10 000 000
- of the contactor with added auxiliary switch block typical 10 000 000

reference code according to IEC 81346-2

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Substance Prohibitance (Date)

10/01/2009

Ambient conditions

installation altitude at height above sea level maximum

2 000 m

ambient temperature

- during operation -25 ... +60 °C
- during storage -55 ... +80 °C

Main circuit

number of poles for main current circuit

3

number of NO contacts for main contacts

3

number of NC contacts for main contacts

0

operating voltage

- at AC-3 rated value maximum 690 V

operational current

- at AC-3 — at 400 V rated value 16 A

operating power

- at AC-3 — at 400 V rated value 7.5 kW

— at 500 V rated value	10.3 kW
— at 690 V rated value	9.2 kW
operating frequency	
• at AC-3 maximum	1 000 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage 1 at AC	
• at 50 Hz rated value	110 V
• at 60 Hz rated value	110 V
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 ... 1.1
• at 60 Hz	0.85 ... 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	76 VA
• at 60 Hz	68 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.8
• at 60 Hz	0.75
apparent holding power of magnet coil at AC	
• at 50 Hz	13.4 VA
• at 60 Hz	10.8 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.25
• at 60 Hz	0.25
Auxiliary circuit	
number of NO contacts for auxiliary contacts	
• instantaneous contact	3
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: 35 A
— with type of assignment 2 required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 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
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail
height	84 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
- at the side

6 mm
6 mm

Connections/ Terminals

type of electrical connection

- for main current circuit
- for auxiliary and control circuit
- at contactor for auxiliary contacts
- of magnet coil

spring-loaded terminals
spring-loaded terminals
Spring-type terminals
Spring-type terminals

type of connectable conductor cross-sections

- for main contacts
 - solid
 - solid or stranded
 - finely stranded with core end processing
 - finely stranded without core end processing
- at AWG cables for main contacts

2x (0.5 ... 4 mm²)
2x (0.5 ... 4 mm²)
2x (0.5 ... 2.5 mm²)
2x (0.5 ... 2.5 mm²)
1x (20 ... 12)

type of connectable conductor cross-sections

- for auxiliary contacts
 - solid or stranded
 - finely stranded with core end processing
 - finely stranded without core end processing
- at AWG cables for auxiliary contacts

2x (0.5 ... 2.5 mm²)
2x (0.5 ... 1.5 mm²)
2x (0.5 ... 1.5 mm²)
2x (20 ... 14)

Safety related data

B10 value with high demand rate according to SN 31920

1 000 000

proportion of dangerous failures

- with low demand rate according to SN 31920
- with high demand rate according to SN 31920

40 %
75 %

failure rate [FIT] with low demand rate according to SN 31920

100 FIT

T1 value for proof test interval or service life according to IEC 61508

20 y

protection class IP on the front according to IEC 60529

IP20

touch protection on the front according to IEC 60529

finger-safe, for vertical contact from the front

Communication/ Protocol

product function bus communication

No

protocol is supported AS-Interface protocol

No

product function control circuit interface with IO link

No

Certificates/ approvals

General Product Approval

Declaration of Conformity

Test Certificates

[Confirmation](#)



EG-Konf.

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

Marine / Shipping



ABS



BUREAU
VERITAS



DNV



LRS



PRS



RINA

Marine / Shipping

other

Railway



RMRS

[Confirmation](#)

[Vibration and Shock](#)

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=3RA2416-8XF31-2AF0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2416-8XF31-2AF0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2416-8XF31-2AF0>

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

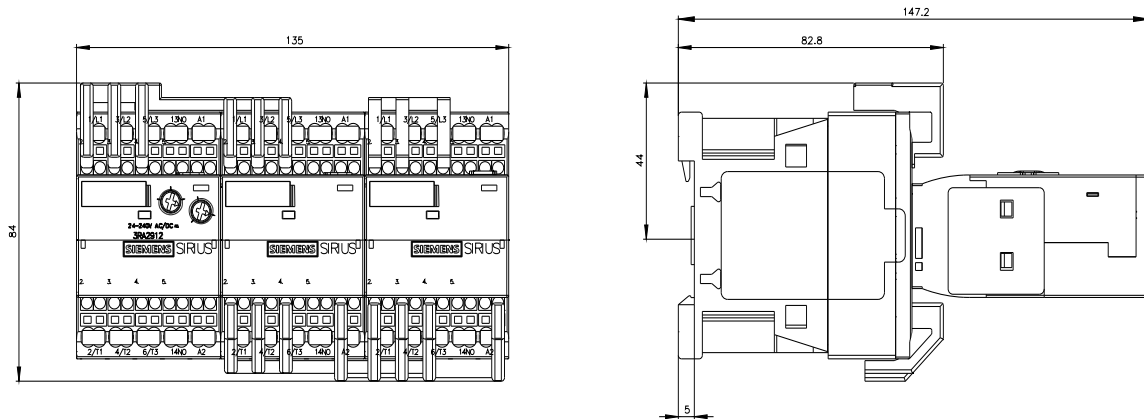
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2416-8XF31-2AF0&lang=en

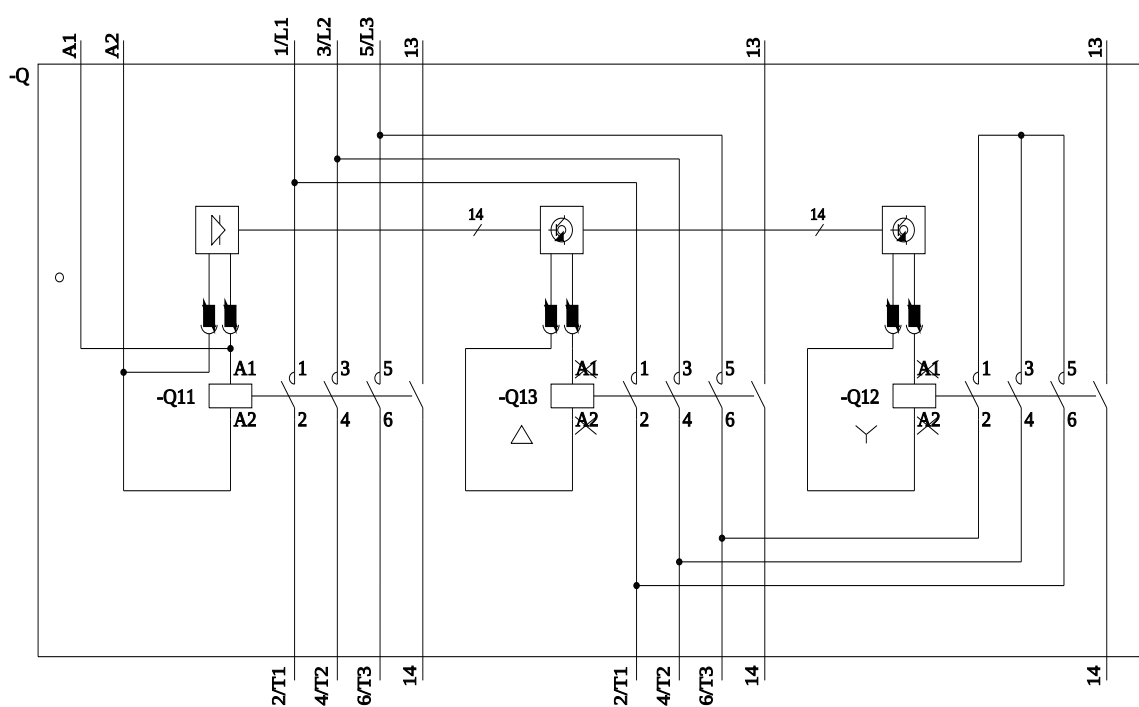
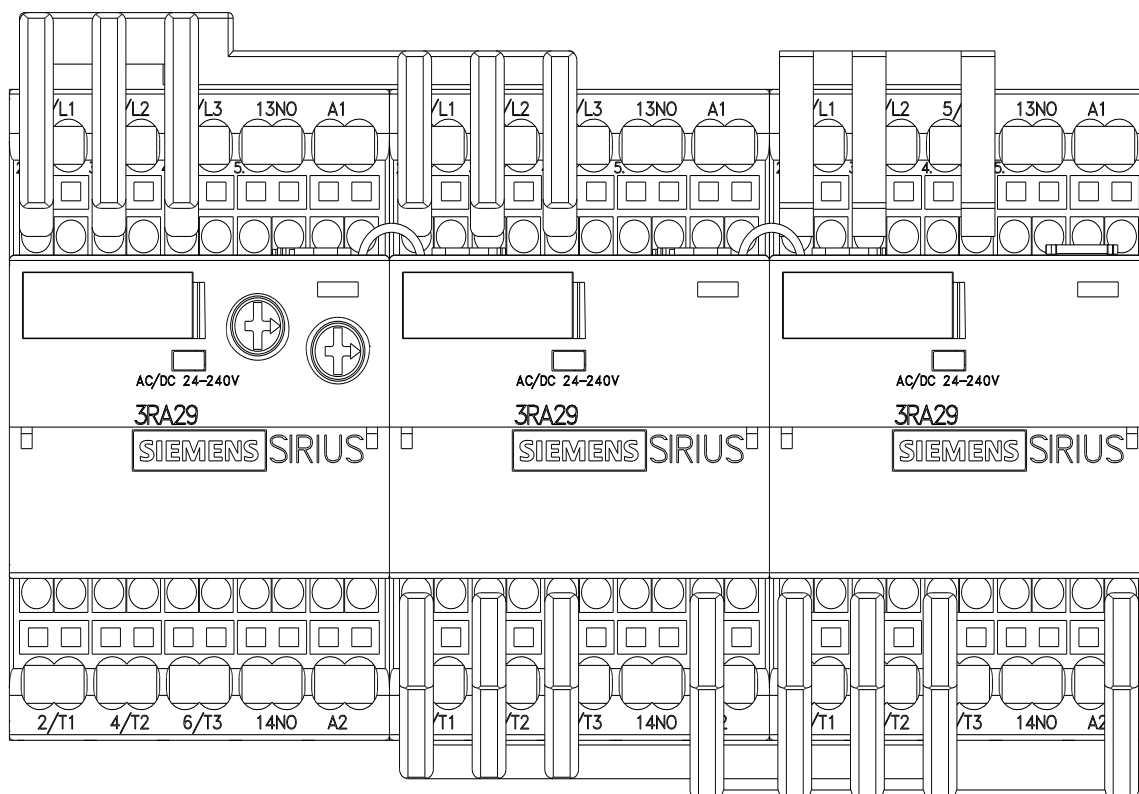
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2416-8XF31-2AF0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2416-8XF31-2AF0&objecttype=14&gridview=view1>





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