

Contactor assembly for star-delta (wye-delta) start AC-3, 11 kW/400 V, 24 V DC 3-pole, Size S0 Spring-type terminal electrical and mechanical interlock 3 NO + 3 NC 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 3RT2024-2BB40 • 2 of the supplied contactor 3RT2024-2BB40 • 3 of the supplied contactor 3RT2024-2BB40 • of the supplied RS assembly kit 3RA2923-2BB2 • of the supplied function module for wye-delta circuits 3RA2816-0EW20

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

• on the front	IP20
Shock resistance	9.8g / 5 ms and 5.9g / 10 ms
Shock resistance at rectangular impulse	
• at AC	7,5g / 5 ms, 4,7g / 10 ms
• at DC	10g / 5 ms, 7,5g / 10 ms
Shock resistance with sine pulse	
• at AC	11,8g / 5 ms, 7,4g / 10 ms
• at DC	15g / 5 ms, 10g / 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 acc. to DIN EN 81346-2	Q

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
Operating current	
• at AC-1 at 400 V	
— at ambient temperature 40 °C rated value	40 A
— at ambient temperature 60 °C rated value	35 A
• at AC-2 at 400 V rated value	25 A
• at AC-3	
— at 400 V rated value	25 A
Operating power	
• 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	15.6 kW
— at 690 V rated value	19 kW
• at AC-4 at 400 V rated value	2 kW
No-load switching frequency	1 500 1/h
Operating frequency	

• 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	13.8 W
Holding power of magnet coil at DC	13.8 W

Auxiliary circuit

Number of NC contacts for auxiliary contacts	
• instantaneous contact	3
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: 63 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	114 mm

Width	135 mm
Depth	181 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	
Type of electrical connection	
• for main current circuit • for auxiliary and control current circuit	spring-loaded terminals spring-loaded terminals
Type of connectable conductor cross-sections	
• for main contacts — solid 2x (1 ... 10 mm²) — single or multi-stranded 2x (1 ... 10 mm²) — finely stranded with core end processing 2x (1 ... 6 mm²) — finely stranded without core end processing 2x (1 ... 6 mm²) • at AWG conductors for main contacts 1x (18 ... 8)	
Type of connectable conductor cross-sections	
• for auxiliary contacts — single or multi-stranded 2x (0,5 ... 2,5 mm²) — finely stranded with core end processing 2x (0.5 ... 1.5 mm²) — finely stranded without core end processing 2x (0.5 ... 1.5 mm²) • at AWG conductors for auxiliary contacts 2x (20 ... 14)	

Safety related data

B10 value	
• with high demand rate acc. to SN 31920	1 000 000
Proportion of dangerous failures	
• with low demand rate acc. to SN 31920	40 %
• with high demand rate acc. to SN 31920	75 %
Failure rate [FIT]	
• 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	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	Marine / Shipping
--------------------------	---------------------------	-------------------	-------------------



[Miscellaneous](#)

[Special Test Certificate](#)



Marine / Shipping

other



[Confirmation](#)

Railway

[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=3RA2423-8XF32-2BB4>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2423-8XF32-2BB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2423-8XF32-2BB4>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2423-8XF32-2BB4&lang=en

Characteristic: Tripping characteristics, I^2t , Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2423-8XF32-2BB4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2423-8XF32-2BB4&objecttype=14&gridview=view1>





