

Contactor assembly for star-delta (wye-delta) start AC-3, 90 kW/400 V 20-33 V AC/DC Size S3, screw terminal electrical and mechanical interlock 3 NO+3 NC, integrated varistor



product brand name	SIRIUS
product designation	Contactor assembly for star-delta (wye-delta) start
product type designation	3RA24
manufacturer's article number	
<ul style="list-style-type: none"> • 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 	3RT2046-1NB30 3RT2046-1NB30 3RT2037-1NB30 3RA2943-2C 3RA2816-0EW20
General technical data	
size of contactor	S3
product extension auxiliary switch	No
shock resistance at rectangular impulse	
<ul style="list-style-type: none"> • at AC • at DC 	6.7 g / 5 ms, 4.0 g / 10 ms 6.7 g / 5 ms, 4g / 10 ms
shock resistance with sine pulse	
<ul style="list-style-type: none"> • at AC • at DC 	10.6 g / 5 ms, 6.3 g / 10 ms 10.6 g / 5 ms, 6.3 g / 10 ms
mechanical service life (operating cycles)	
<ul style="list-style-type: none"> • of contactor typical • of the contactor with added auxiliary switch block typical 	10 000 000 10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibition (Date)	03/01/2017
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5 Melamine - 108-78-1
Weight	5.82 kg
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage 	-25 ... +60 °C -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	
<ul style="list-style-type: none"> • at AC-3 rated value maximum 	690 V
operational current	

<ul style="list-style-type: none"> ● at AC-3 <ul style="list-style-type: none"> — at 400 V rated value 	160 A
operating power	
<ul style="list-style-type: none"> ● at AC-3 <ul style="list-style-type: none"> — at 400 V rated value — at 690 V rated value 	90 kW 132 kW
operating frequency	
<ul style="list-style-type: none"> ● at AC-3 maximum 	850 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage 1 at AC	
<ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz 	20 ... 33 V 20 ... 33 V
control supply voltage 1 at DC	20 ... 33 V
operating range factor control supply voltage rated value of magnet coil at AC	
<ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz 	0.8 ... 1.1 0.85 ... 1.1
design of the surge suppressor	with varistor
apparent pick-up power of magnet coil at AC	
<ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz 	328 VA 328 VA
inductive power factor with closing power of the coil	
<ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz 	0.95 0.95
apparent holding power of magnet coil at AC	
<ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz 	8.2 VA 8.2 VA
inductive power factor with the holding power of the coil	
<ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz 	0.95 0.95
closing power of magnet coil at DC	154 W
holding power of magnet coil at DC	5.6 W
Auxiliary circuit	
number of NC contacts for auxiliary contacts	
<ul style="list-style-type: none"> ● instantaneous contact 	3
number of NO contacts for auxiliary contacts	
<ul style="list-style-type: none"> ● 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	
<ul style="list-style-type: none"> ● for short-circuit protection of the main circuit <ul style="list-style-type: none"> — with type of coordination 1 required — with type of coordination 2 required ● for short-circuit protection of the auxiliary switch required 	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 250 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A 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 DIN rail
height	180 mm
width	220 mm
depth	244 mm
required spacing	
<ul style="list-style-type: none"> ● with side-by-side mounting <ul style="list-style-type: none"> — forwards — backwards — upwards — downwards — at the side 	10 mm 0 mm 10 mm 10 mm 10 mm

- for grounded parts
 - forwards 10 mm
 - backwards 0 mm
 - upwards 10 mm
 - at the side 10 mm
 - downwards 10 mm
- for live parts
 - forwards 10 mm
 - backwards 0 mm
 - upwards 10 mm
 - downwards 10 mm
 - at the side 10 mm

Connections/ Terminals

type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil 	screw-type terminals screw-type terminals Screw-type terminals Screw-type terminals
type of connectable conductor cross-sections for main contacts	
<ul style="list-style-type: none"> • solid or stranded • finely stranded with core end processing • finely stranded without core end processing 	2x (2.5 ... 16 mm ²), 2x (10 ... 50 mm ²), 1x (10 ... 70 mm ²) 2x (2.5 ... 35 mm ²), 1x (2.5 ... 50 mm ²) 2x (10 ... 35 mm ²), 1x (10 ... 50 mm ²)
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts 	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14)

Safety related data

product function suitable for safety function	Yes
Electrical Safety	
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

Approvals Certificates

General Product Approval	other	Dangerous goods
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[Confirmation](#)

[Transport Information](#)

Environment

[Environmental Confirmations](#)

Further information

- Information on the packaging
<https://support.industry.siemens.com/cs/ww/en/view/109813875>
- Information for data generation and storage
<https://support.industry.siemens.com/cs/ww/en/view/109995012>
- 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?mfb=3RA2446-8XF32-1NB3>
- Cax online generator
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RA2446-8XF32-1NB3>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2446-8XF32-1NB3>

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

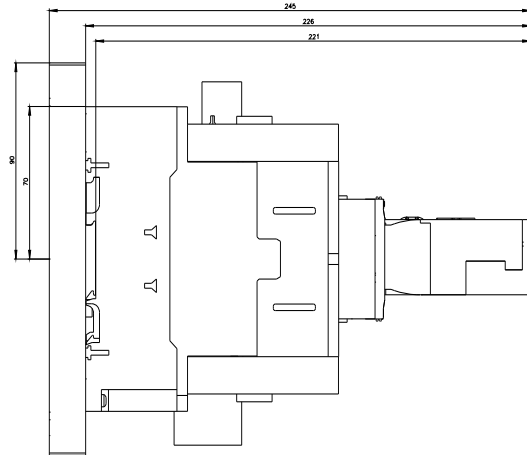
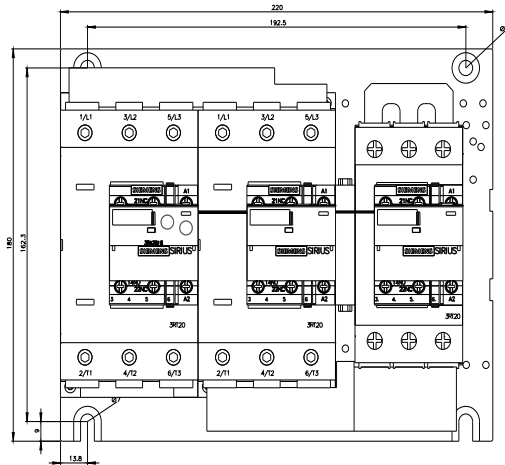
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2446-8XF32-1NB3&lang=en

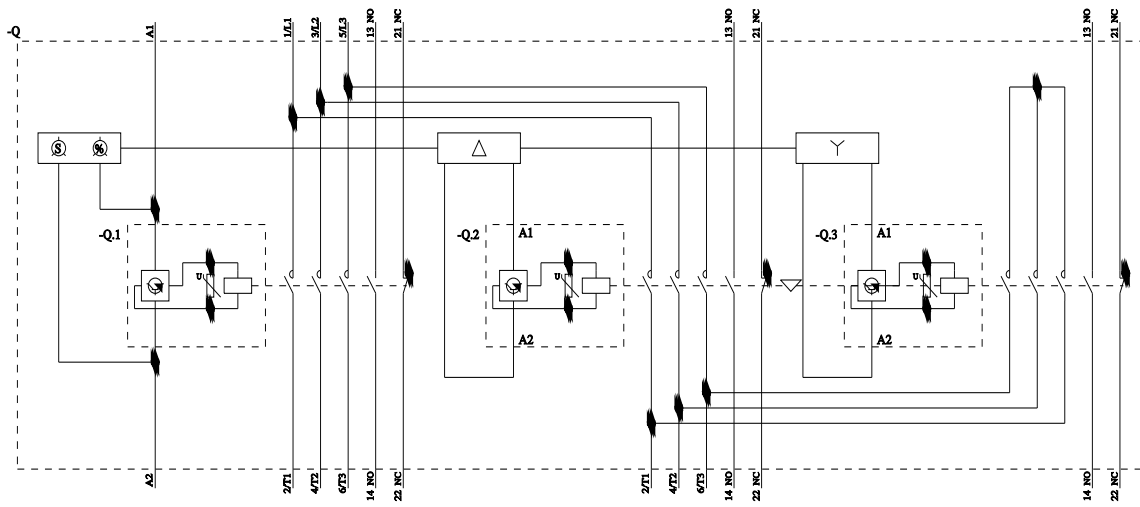
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2446-8XF32-1NB3/char>

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

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2446-8XF32-1NB3&objecttype=14&gridview=view1>





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