



Contactor assembly for star-delta (wye-delta) start AC-3, 90 kW/400 V 230 V AC, 50/60 Hz Size S3, screw terminal electrical and mechanical interlock 3 NO+3 NC

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 3RT2046-1AL20 • 2 of the supplied contactor 3RT2046-1AL20 • 3 of the supplied contactor 3RT2037-1AL20 • of the supplied RS assembly kit 3RA2943-2C • of the supplied function module for wye-delta circuits 3RA2816-0EW20
General technical data	
size of contactor	S3
product extension auxiliary switch	No
shock resistance at rectangular impulse	
• at AC	6.7 g / 5 ms, 4.0 g / 10 ms
shock resistance with sine pulse	
• at AC	10.6 g / 5 ms, 6.3 g / 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 IEC 81346-2	Q
Substance Prohibitance (Date)	01.03.2017
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	160 A
operating power	
• at AC-3	
— at 400 V rated value	90 kW
— at 690 V rated value	132 kW
operating frequency at AC-3 maximum	850 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 • at 60 Hz rated value	230 V 230 V
operating range factor control supply voltage rated value of magnet coil at AC • at 50 Hz • at 60 Hz	0.8 ... 1.1 0.85 ... 1.1
apparent pick-up power of magnet coil at AC • at 50 Hz • at 60 Hz	698 V·A 594 V·A
inductive power factor with closing power of the coil • at 50 Hz • at 60 Hz	0.62 0.55
apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz	52 V·A 38 V·A
inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz	0.35 0.41
Auxiliary circuit	
number of NC contacts for auxiliary contacts • instantaneous contact	3
number of NO contacts for auxiliary contacts • instantaneous contact	3
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 — with type of assignment 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 standard mounting rail
height	180 mm
width	220 mm
depth	244 mm
required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards	10 mm 0 mm 10 mm 10 mm 10 mm 10 mm 10 mm 0 mm 10 mm 10 mm 10 mm 10 mm 0 mm 10 mm

— downwards	10 mm		
— at the side	10 mm		
Connections/ Terminals			
type of electrical connection • 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 — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • at AWG cables for main contacts	2x (2.5 ... 16 mm²), 2x (10 ... 50 mm²), 1x (10 ... 70 mm²) 2x (2.5 ... 35 mm²), 1x (2.5 ... 50 mm²) 2x (10 ... 35 mm²), 1x (10 ... 50 mm²) 2x (10 ... 1/0), 1x (10 ... 2/0)		
type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing • at AWG cables for auxiliary contacts	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) 2x (20 ... 16), 2x (18 ... 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 • with high demand rate acc. to SN 31920	40 % 73 %		
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		
protection class IP on the front acc. to IEC 60529	IP20		
touch protection on the front acc. 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	other	Dangerous Good



[UK Declaration of Conformity](#)



[Confirmation](#)

[Transport Information](#)

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=3RA2446-8XF32-1AL2>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2446-8XF32-1AL2>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2446-8XF32-1AL2>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2446-8XF32-1AL2&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2446-8XF32-1AL2/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2446-8XF32-1AL2&objecttype=14&gridview=view1>

