

Contactor assembly for star-delta (wye-delta) start AC-3, 37 kW/400 V, 230 V AC 50/60 Hz, 3-pole, size S2 screw terminals 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 3RT2035-1AL20 • 2 of the supplied contactor 3RT2035-1AL20 • 3 of the supplied contactor 3RT2027-1AL20 • of the supplied RS assembly kit 3RA2933-2C • of the supplied function module for wye-delta circuits 3RA2816-0EW20
General technical data	
size of contactor	S2
product extension auxiliary switch	No
shock resistance at rectangular impulse	• at AC 11.8g / 5 ms, 7.4g / 10 ms
shock resistance with sine pulse	• at AC 18.5g / 5 ms, 11.6g / 10 ms
mechanical service life (operating 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	Q
Substance Prohibittance (Date)	10/01/2014
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
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 80 A
operating power	• at AC-3 — at 400 V rated value 37 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 • 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	422 VA 378 VA
inductive power factor with closing power of the coil • at 50 Hz • at 60 Hz	0.69 0.65
apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz	36.4 VA 35 VA
inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz	0.36 0.39
Auxiliary circuit	
number of NC contacts for auxiliary contacts • instantaneous contact	3
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 — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 80 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 fixing
height	142 mm
width	177.5 mm
depth	223 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 10 mm 0 mm 10 mm

— downwards	10 mm
— at the side	10 mm

Connections/ Terminals

type of electrical connection	
• for main current circuit	screw-type terminals
• for auxiliary and control circuit	screw-type terminals
• at contactor for auxiliary contacts	Screw-type terminals
• of magnet coil	Screw-type terminals
type of connectable conductor cross-sections for main contacts	
• solid	2x (1 ... 35 mm ²), 1x (1 ... 50 mm ²)
• solid or stranded	2x (1 ... 35 mm ²), 1x (1 ... 50 mm ²)
• finely stranded with core end processing	2x (1 ... 25 mm ²), 1x (1 ... 35 mm ²)
type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid or stranded	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
— finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• for AWG cables for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14)

Safety related data

proportion of dangerous failures	
• with low demand rate according to SN 31920	40 %
• with high demand rate according to SN 31920	73 %
B10 value with high demand rate according to SN 31920	1 000 000
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
IEC 61508	
T1 value	
• for proof test interval or service life according to IEC 61508	20 a

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	Test Certificates	Marine / Shipping
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[Confirmation](#)



[Type Test Certificates/Test Report](#)



other	Dangerous Good	Environment
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[Confirmation](#)

[Transport Information](#)

[Environmental Confirmations](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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=3RA2435-8XF32-1AL2>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2435-8XF32-1AL2>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2435-8XF32-1AL2>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2435-8XF32-1AL2&lang=en

Characteristic: Tripping characteristics, I_t, Let-through current



