

Contactor assembly for star-delta (wye-delta) start, AS-i AC-3, 55 kW/400 V, 20-33 V AC/DC 3-pole, Size S2 Screw 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
<ul style="list-style-type: none"> • Manufacturer's article number 1 of the supplied contactor • Manufacturer's article number 2 of the supplied contactor • Manufacturer's article number 3 of the supplied contactor • Manufacturer's article number of the supplied RS assembly kit • Manufacturer's article number of the supplied function module for communication 	3RT2037-1NB30-0CC0 3RT2037-1NB30 3RT2035-1NB30 3RA2933-2BB1 3RA2712-1CA00

General technical data	
Size of contactor	S2
<ul style="list-style-type: none"> • product extension auxiliary switch 	No
insulation voltage	
<ul style="list-style-type: none"> • with degree of pollution 3 at AC rated value 	690 V
surge voltage resistance rated value	6 kV

protection class IP	IP20
<ul style="list-style-type: none"> • on the front 	
Shock resistance at rectangular impulse	7.7g / 5 ms, 4.5g / 10 ms
<ul style="list-style-type: none"> • at DC 	
Shock resistance with sine pulse	12g / 5 ms, 7g / 10 ms
<ul style="list-style-type: none"> • at DC 	
Mechanical service life (switching 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 acc. to DIN EN 81346-2	Q

Ambient conditions	
<ul style="list-style-type: none"> • installation altitude at height above sea level maximum 	2 000 m
<ul style="list-style-type: none"> • ambient temperature during operation 	-25 ... +60 °C
<ul style="list-style-type: none"> • ambient temperature 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
<ul style="list-style-type: none"> • operating voltage at AC-3 rated value maximum 	690 V
<ul style="list-style-type: none"> • <ul style="list-style-type: none"> — operating current at AC-3 at 400 V rated value 	115 A
<ul style="list-style-type: none"> • operating power at AC-3 <ul style="list-style-type: none"> — at 400 V rated value 	55 kW
<ul style="list-style-type: none"> • Operating power at AC-4 at 400 V rated value 	48.5 kW
No-load switching frequency	1 500 1/h
operating frequency at AC-3 maximum	700 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	
<ul style="list-style-type: none"> • at DC 	20 ... 33 V
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 	82 V·A 82 V·A
Inductive power factor with closing power of the coil	

<ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	<p>0.64</p> <p>0.5</p>
Apparent holding power of magnet coil at AC <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	<p>6 V·A</p> <p>6 V·A</p>
Inductive power factor with the holding power of the coil <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	<p>0.36</p> <p>0.39</p>
Closing power of magnet coil at DC	28 W
Holding power of magnet coil at DC	4 W

Auxiliary circuit	
<ul style="list-style-type: none"> • Number of NC contacts for auxiliary contacts instantaneous contact 	3
<ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • at 230 V • at 400 V 	<p>6 A</p> <p>3 A</p>
operating current of auxiliary contacts at DC-13 <ul style="list-style-type: none"> • at 24 V • at 60 V • at 110 V • at 220 V 	<p>10 A</p> <p>2 A</p> <p>1 A</p> <p>0.3 A</p>
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	
<ul style="list-style-type: none"> • 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: 250 A
<ul style="list-style-type: none"> • Design of the fuse link for short-circuit protection of the main circuit with type of assignment 2 required 	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 125 A
<ul style="list-style-type: none"> • design of the fuse link for short-circuit protection of the auxiliary switch required 	fuse gG: 10 A

Installation/ mounting/ dimensions	
<ul style="list-style-type: none"> • 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 fixing
height	142 mm
width	177.5 mm
depth	223 mm
required spacing	
• with side-by-side mounting	
— forwards	10 mm
— backwards	0 mm
— upwards	10 mm
— downwards	10 mm
— at the side	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	
• for main current circuit	screw-type terminals
• for auxiliary and control current circuit	screw-type terminals
• type of connectable conductor cross-sections for main contacts solid	2x (1 ... 35 mm ²), 1x (1 ... 50 mm ²)
• type of connectable conductor cross-sections for main contacts single or multi-stranded	2x (1 ... 35 mm ²), 1x (1 ... 50 mm ²)
• type of connectable conductor cross-sections for main contacts finely stranded with core end processing	2x (1 ... 25 mm ²), 1x (1 ... 35 mm ²)
• type of connectable conductor cross-sections at AWG conductors for main contacts	2x (18 ... 2), 1x (18 ... 1)
• type of connectable conductor cross-sections for auxiliary contacts single or multi-stranded	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²)
• type of connectable conductor cross-sections for auxiliary contacts finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• type of connectable conductor cross-sections at AWG conductors for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14)




Safety related data

B10 value	
<ul style="list-style-type: none"> with high demand rate acc. to SN 31920 	1 000 000
proportion of dangerous failures	
<ul style="list-style-type: none"> with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920 	40 % 73 %
failure rate [FIT]	
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> protocol is supported AS-Interface protocol 	Yes
Product function Control circuit interface with IO link	No

Certificates/ approvals

General Product Approval	Declaration of Conformity	Test Certificates	Marine / Shipping	other
	 EG-Konf.	Miscellaneous Type Test Certificates/Test Report		Confirmation

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=3RA2437-8XH32-1NB3>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2437-8XH32-1NB3>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2437-8XH32-1NB3>

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

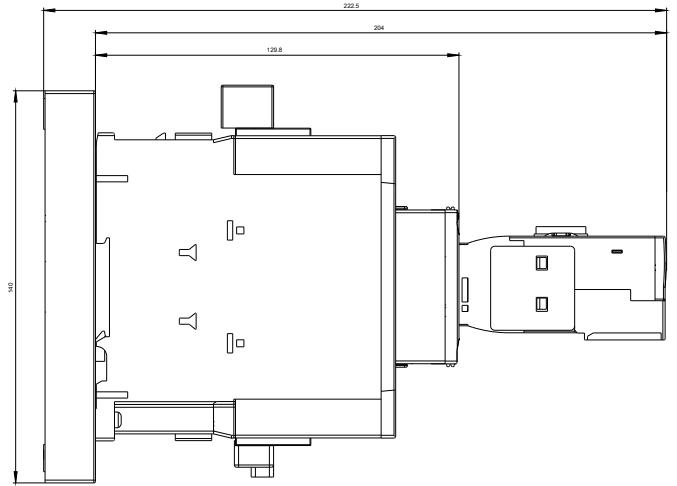
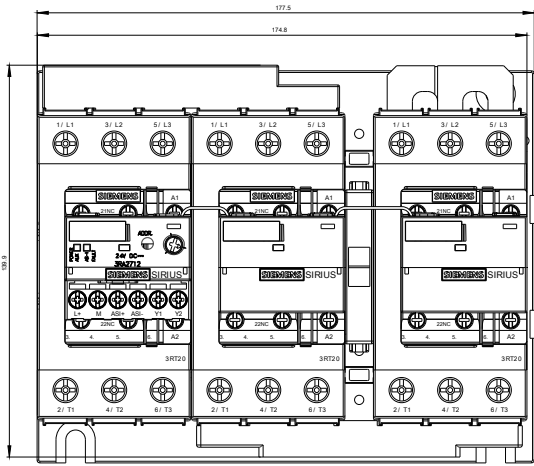
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2437-8XH32-1NB3&lang=en

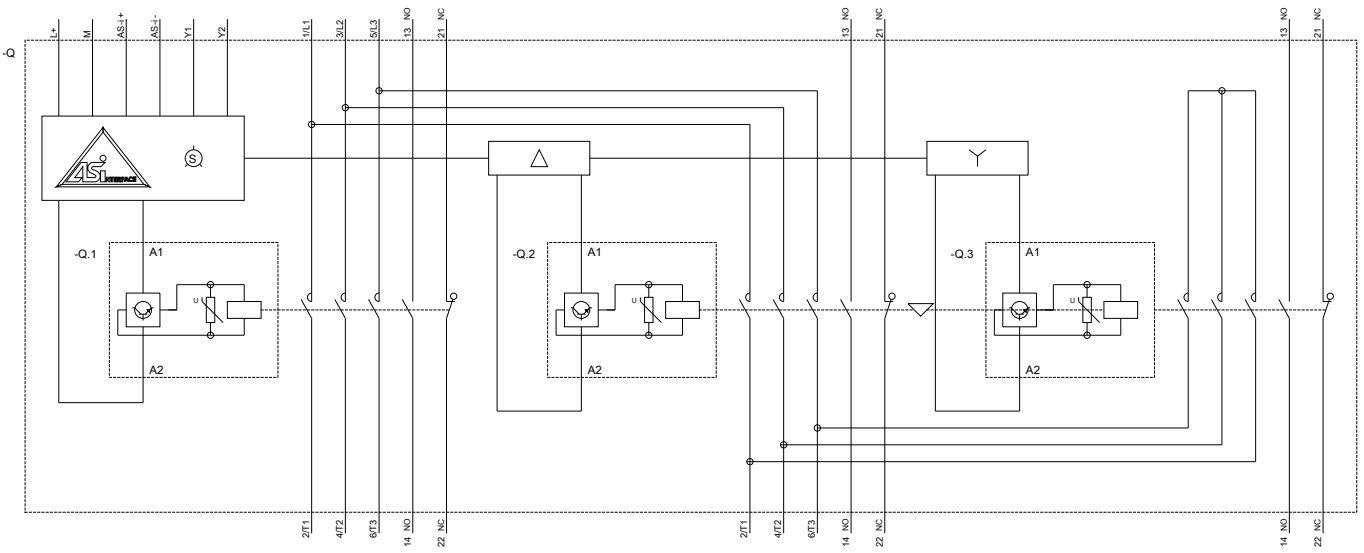
Characteristic: Tripping characteristics, I^t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2437-8XH32-1NB3/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2437-8XH32-1NB3&objectype=14&gridview=view1>





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