

Reversing contactor assembly AC-3, 15 kW/400 V, AC230V, 50/60Hz
 3-pole, Size S0 Spring-type terminal electrical and mechanical
 Interlock 2 NO integrated



Product brand name	SIRIUS
Product designation	Reversing contactor assembly
Product type designation	3RA23
Manufacturer's article number	<ul style="list-style-type: none"> • 1 of the supplied contactor 3RT2027-2AL20 • 2 of the supplied contactor 3RT2027-2AL20 • of the supplied RH assembly kit 3RA2923-2AA2

General technical data	
Size of contactor	S0
Product extension	Yes
<ul style="list-style-type: none"> • Auxiliary switch 	
Insulation voltage	690 V
<ul style="list-style-type: none"> • with degree of pollution 3 rated value 	
Degree of pollution	3
Surge voltage resistance rated value	6 kV
Protection class IP	IP20
<ul style="list-style-type: none"> • on the front 	
Shock resistance	12.5g / 5 ms and 7.8g / 10 ms
Shock resistance at rectangular impulse	

<ul style="list-style-type: none"> • at AC • at DC 	8,3g / 5 ms, 5,3g / 10 ms 10g / 5 ms, 7,5g / 10 ms
Shock resistance with sine pulse <ul style="list-style-type: none"> • at AC • at DC 	13,5g / 5 ms, 8,3g / 10 ms 15g / 5 ms, 10g / 10 ms
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

Installation altitude at height above sea level <ul style="list-style-type: none"> • 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
Operating current <ul style="list-style-type: none"> • at AC-1 at 400 V <ul style="list-style-type: none"> — at ambient temperature 40 °C rated value — at ambient temperature 60 °C rated value • at AC-2 at 400 V rated value • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value 	50 A 45 A 32 A 32 A
Operating current <ul style="list-style-type: none"> • at 1 current path at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value • with 2 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value • with 3 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value 	35 A 4.5 A 35 A 35 A 35 A 35 A
Operating current <ul style="list-style-type: none"> • at 1 current path at DC-3 at DC-5 	

— at 24 V rated value	20 A
— at 110 V rated value	2.5 A
• with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 110 V rated value	15 A
• with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
Operating power	
• at AC-2 at 400 V rated value	15 kW
• at AC-3	
— at 400 V rated value	15 kW
— at 500 V rated value	18.5 kW
— at 690 V rated value	15 kW
• at AC-4 at 400 V rated value	11 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	AC
Control supply voltage 1 at AC	
• at 50 Hz rated value	230 V
• at 60 Hz rated value	230 V
Operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 ... 1.1
• at 60 Hz	0.8 ... 1.1
Apparent pick-up power of magnet coil at AC	
• at 50 Hz	77 V·A
Inductive power factor with closing power of the coil	
• at 50 Hz	0.82
Apparent holding power of magnet coil at AC	
• at 50 Hz	9.8 V·A
Inductive power factor with the holding power of the coil	
• at 50 Hz	0.27

Auxiliary circuit	
Number of NO contacts for auxiliary contacts	

<ul style="list-style-type: none"> • per direction of rotation 	1
<ul style="list-style-type: none"> • instantaneous contact 	2
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 	6 A
<ul style="list-style-type: none"> • at 400 V 	3 A
Operating current of auxiliary contacts at DC-13	
<ul style="list-style-type: none"> • at 24 V 	10 A
<ul style="list-style-type: none"> • at 60 V 	2 A
<ul style="list-style-type: none"> • at 110 V 	1 A
<ul style="list-style-type: none"> • at 220 V 	0.3 A
Contact reliability of auxiliary contacts	< 1 error per 100 million operating cycles

UL/CSA ratings

Full-load current (FLA) for three-phase AC motor	
<ul style="list-style-type: none"> • at 480 V rated value 	27 A
<ul style="list-style-type: none"> • at 600 V rated value 	27 A
Yielded mechanical performance [hp]	
<ul style="list-style-type: none"> • for single-phase AC motor <ul style="list-style-type: none"> — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor <ul style="list-style-type: none"> — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value 	2 hp 5 hp 10 hp 20 hp 25 hp
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 assignment 2 required • for short-circuit protection of the auxiliary switch required 	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 125 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 50 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
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail
Height	114 mm
Width	90 mm
Depth	97 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 • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side 	<ul style="list-style-type: none"> 6 mm 0 mm 6 mm 6 mm 6 mm 6 mm 0 mm 6 mm 6 mm 6 mm 6 mm 0 mm 6 mm 6 mm 6 mm

Connections/ Terminals

Type of electrical connection <ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit 	<ul style="list-style-type: none"> spring-loaded terminals spring-loaded terminals
Type of connectable conductor cross-sections <ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — solid — single or multi-stranded — finely stranded with core end processing — finely stranded without core end processing • at AWG conductors for main contacts 	<ul style="list-style-type: none"> 2x (1 ... 10 mm²) 2x (1 ... 10 mm²) 2x (1 ... 6 mm²) 2x (1 ... 6 mm²) 1x (18 ... 8)
Type of connectable conductor cross-sections <ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing — finely stranded without core end processing • at AWG conductors for auxiliary contacts 	<ul style="list-style-type: none"> 2x (0,5 ... 2,5 mm²) 2x (0.5 ... 1.5 mm²) 2x (0.5 ... 1.5 mm²) 2x (20 ... 14)

Safety related data





B10 value <ul style="list-style-type: none"> • with high demand rate acc. to SN 31920 	<ul style="list-style-type: none"> 1 000 000
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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
 CSA  UL  EAC  EG-Konf.	Miscellaneous	Special Test Certificate

Marine / Shipping



Marine / Shipping	other	Railway
	Confirmation	Vibration and Shock

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2327-8XB30-2AL2>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2327-8XB30-2AL2>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2327-8XB30-2AL2>

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

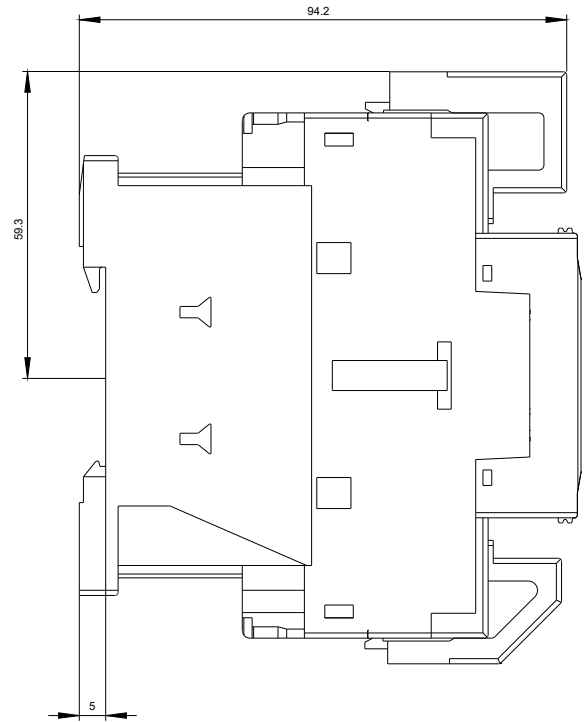
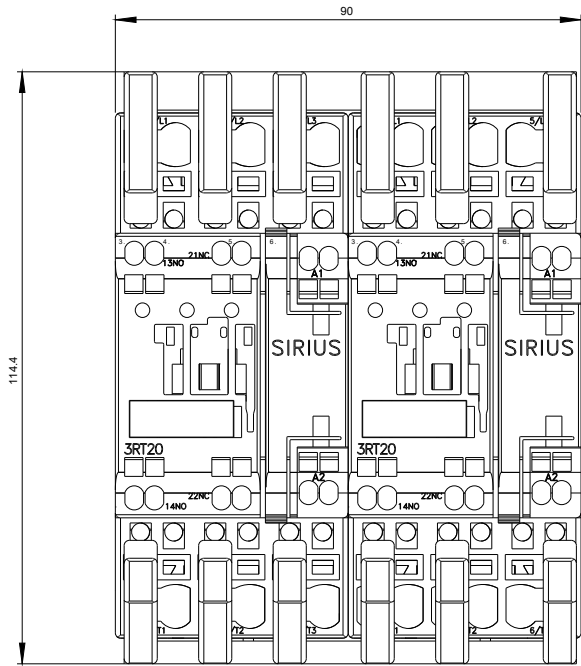
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2327-8XB30-2AL2&lang=en

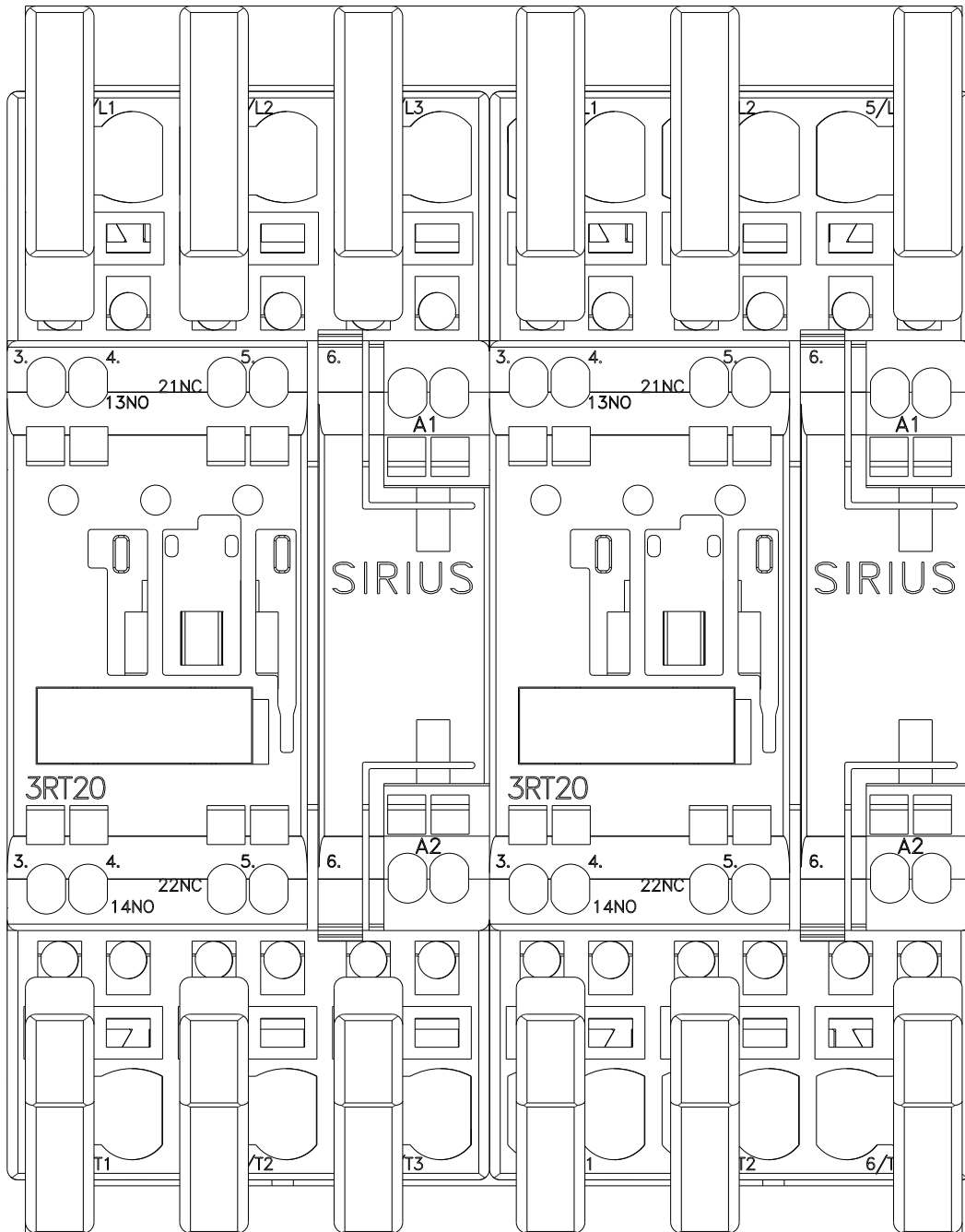
Characteristic: Tripping characteristics, I²t, Let-through current

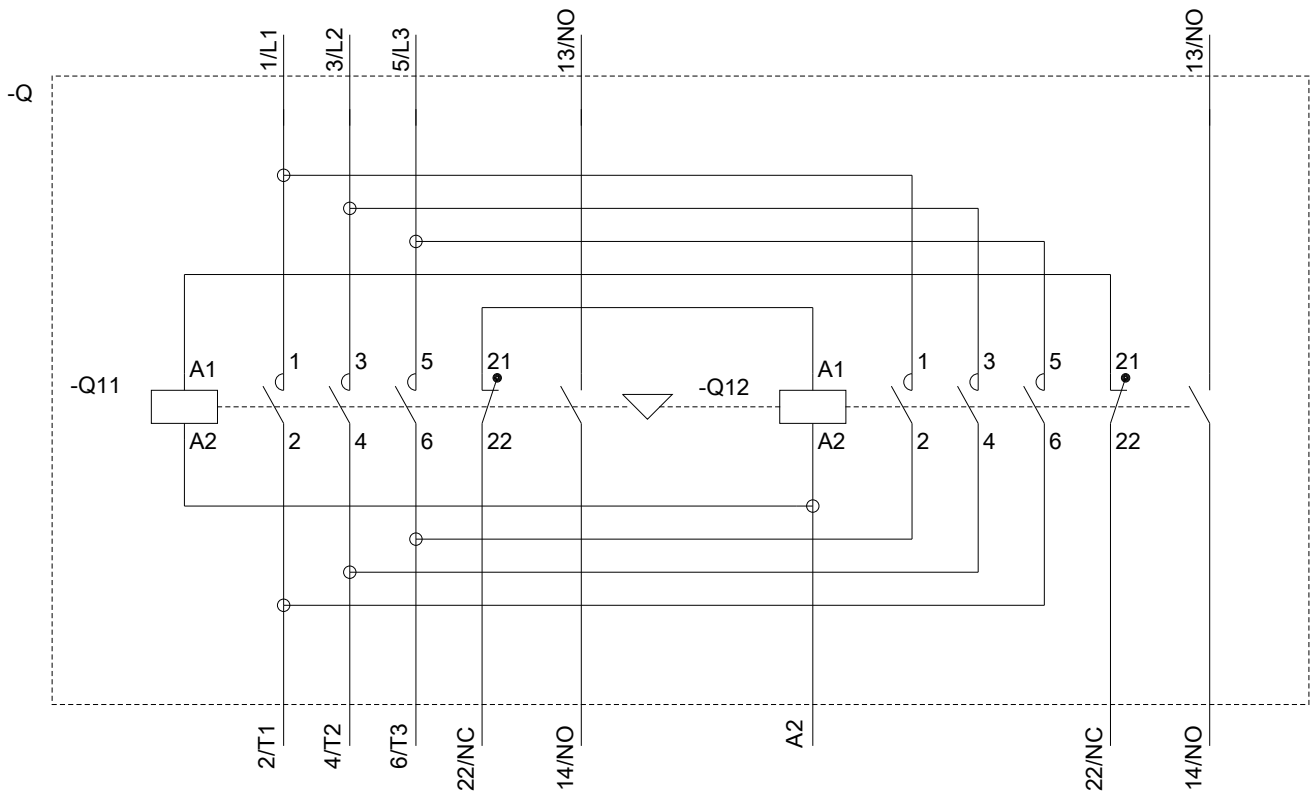
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2327-8XB30-2AL2/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2327-8XB30-2AL2&objecttype=14&gridview=view1>







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