

Reversing contactor assembly, AC-3, 18.5 kW 400 V, 220 V AC/50 Hz/240 V AC/60 Hz 3-pole, Size S2 screw 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 3RT2035-1AG20 • 2 of the supplied contactor 3RT2035-1AG20 • of the supplied RS assembly kit 3RA2933-2AA1

General technical data	
Size of contactor	S2
Product extension	Yes
<ul style="list-style-type: none"> • Auxiliary switch • Insulation voltage with degree of pollution 3 at AC rated value 	690 V
Surge voltage resistance rated value	6 kV
<ul style="list-style-type: none"> • protection class IP on the front 	IP20
Shock resistance at rectangular impulse	11.8g / 5 ms, 11.6g / 10 ms
<ul style="list-style-type: none"> • at AC 	
Shock resistance with sine pulse	18.5g / 5 ms, 11.6g / 10 ms
<ul style="list-style-type: none"> • at AC 	

Mechanical service life (switching cycles)	
<ul style="list-style-type: none"> • of contactor typical 	10 000 000
<ul style="list-style-type: none"> • of the contactor with added auxiliary switch block typical 	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 	-25 ... +60 °C
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • at AC-3 rated value maximum 	690 V
Operating current	
<ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value 	41 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 	55 A 4.5 A 55 A 25 A 55 A 55 A
Operating current	
<ul style="list-style-type: none"> • at 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value • with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value • with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value 	35 A 2.5 A 55 A 25 A 55 A 55 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 • at AC-4 at 400 V rated value 	18.5 kW 18.5 kW 18.5 kW
No-load switching frequency	1 500 1/h
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 <ul style="list-style-type: none"> • at 50 Hz rated value • at 60 Hz rated value 	220 V 240 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
Apparent pick-up power of magnet coil at AC <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	210 V·A 188 V·A
Inductive power factor with closing power of the coil <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	0.69 0.65
Apparent holding power of magnet coil at AC <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	17.2 V·A 16.5 V·A
Inductive power factor with the holding power of the coil <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	0.36 0.39

Auxiliary circuit

Number of NC contacts for auxiliary contacts <ul style="list-style-type: none"> • per direction of rotation 	0
Number of NO contacts for auxiliary contacts <ul style="list-style-type: none"> • per direction of rotation • instantaneous contact 	1 2
Operating current of auxiliary contacts at AC-12 maximum <ul style="list-style-type: none"> • Operating current of auxiliary contacts at AC-15 at 230 V • operating current of auxiliary contacts at AC-15 at 400 V • operating current of auxiliary contacts at DC-13 at 24 V 	10 A 6 A 3 A 10 A

<ul style="list-style-type: none"> • Operating current of auxiliary contacts at DC-13 at 60 V • Operating current of auxiliary contacts at DC-13 at 110 V • Operating current of auxiliary contacts at DC-13 at 220 V 	<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

Full-load current (FLA) for three-phase AC motor	
<ul style="list-style-type: none"> • at 480 V rated value • at 600 V rated value 	<p>40 A</p> <p>41 A</p>
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 	<p>3 hp</p> <p>7.5 hp</p> <p>15 hp</p> <p>30 hp</p> <p>40 hp</p>
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 	<p>gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A</p> <p>gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 80 A</p> <p>fuse gG: 10 A</p>

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 and snap-on mounting onto 35 mm standard mounting rail
Height	141 mm
Width	120 mm
Depth	130 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 	<p>10 mm</p> <p>0 mm</p> <p>10 mm</p> <p>10 mm</p> <p>10 mm</p>

- 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
- Type of electrical connection for auxiliary and control current circuit screw-type terminals

Type of connectable conductor cross-sections

- for main contacts
 - solid 2x (1 ... 35 mm²), 1x (1 ... 50 mm²)
 - single or multi-stranded 2x (1 ... 35 mm²), 1x (1 ... 50 mm²)
 - finely stranded with core end processing 2x (1 ... 25 mm²), 1x (1 ... 35 mm²)
- 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 mm²), 2x (0,75 ... 2,5 mm²)
 - finely stranded with core end processing 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
- at AWG conductors for auxiliary contacts 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 40 %
- with high demand rate acc. to SN 31920 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

Communication/ Protocol

product function bus communication

Yes

Protocol is supported

• AS-Interface protocol

No

Product function Control circuit interface with IO link

No

Certificates/ approvals

General Product Approval



CSA



UL



EG-Konf.

Declaration of Conformity

[Miscellaneous](#)

Test Certificates

[Type Test Certificates/Test Report](#)

Marine / Shipping



ABS



BUREAU
VERITAS



LRS



PRS



RINA



RMRS

Marine / Shipping

other



DNVGL.COM/AF

[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=3RA2335-8XB30-1AP6>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2335-8XB30-1AP6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2335-8XB30-1AP6>

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

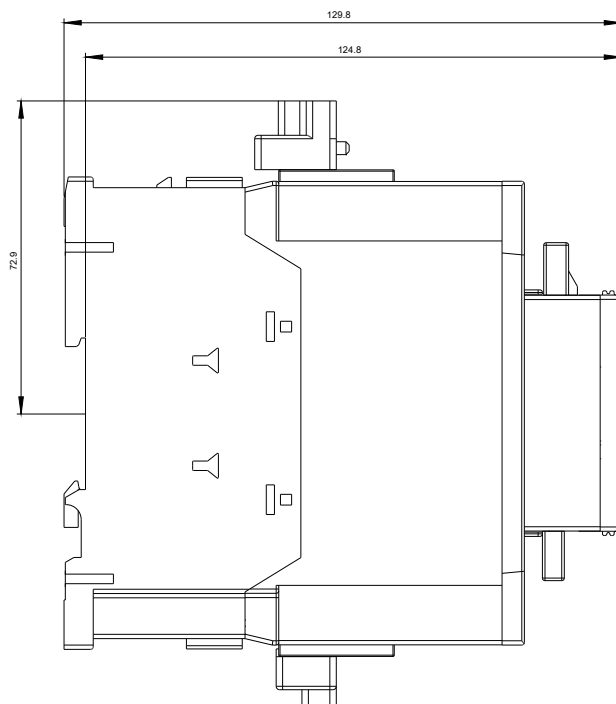
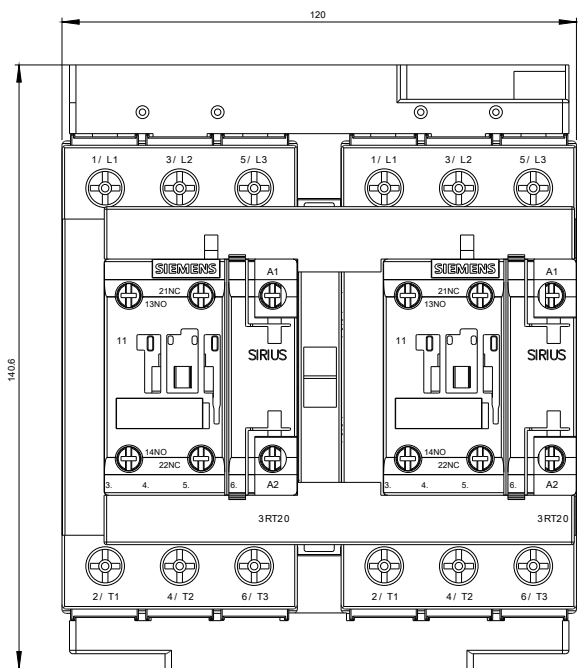
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2335-8XB30-1AP6&lang=en

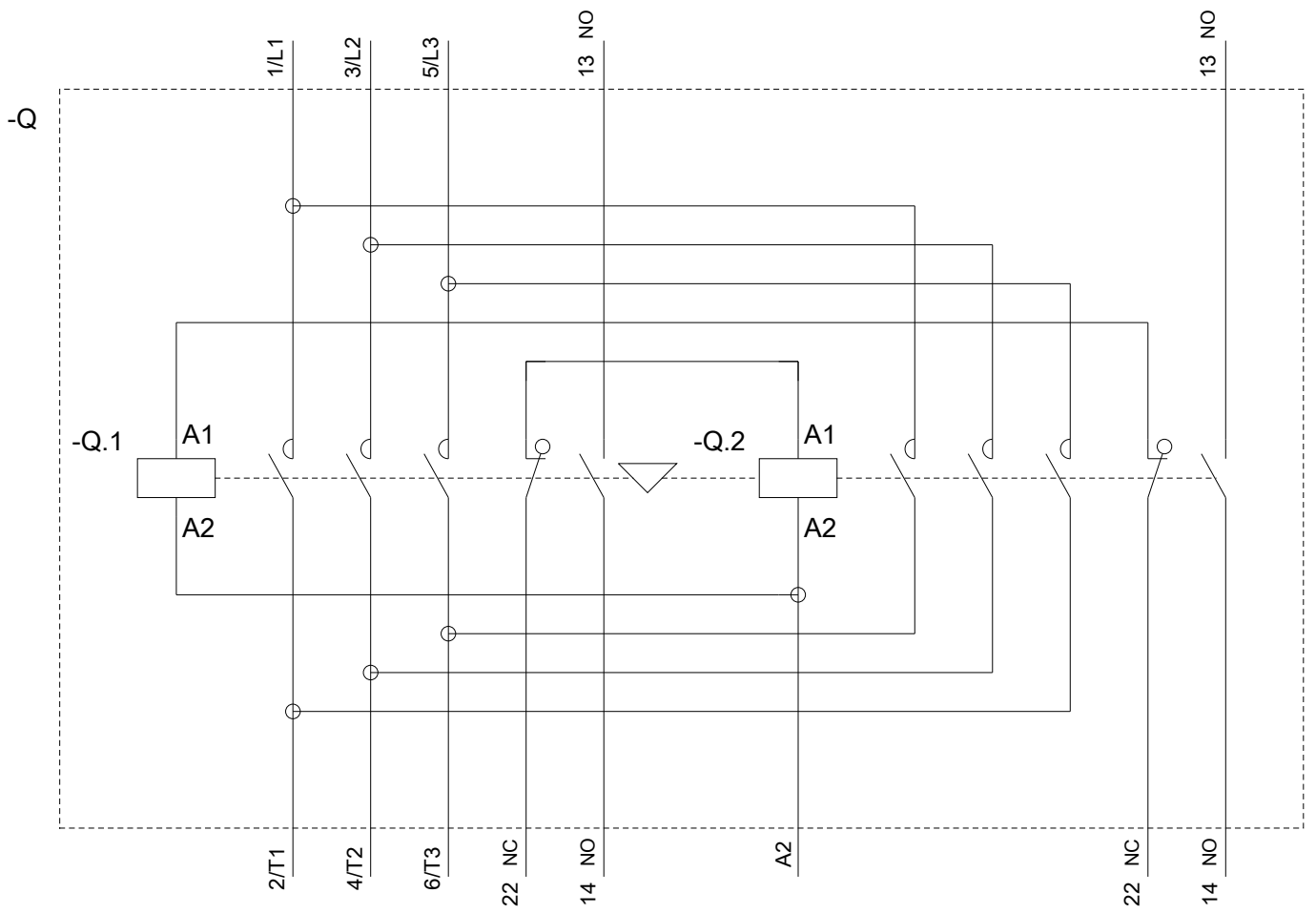
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2335-8XB30-1AP6/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2335-8XB30-1AP6&objecttype=14&gridview=view1>





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