

Reversing contactor assembly AC-3, 18,5 kW/400 V, AC/DC 20-33V
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
<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 of the supplied RS assembly kit 	3RT2035-1NB30 3RT2035-1NB30 3RA2933-2AA1

General technical data	
Size of contactor	S2
<ul style="list-style-type: none"> product extension auxiliary switch 	Yes
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	
<ul style="list-style-type: none"> on the front 	IP20
Shock resistance at rectangular impulse	
<ul style="list-style-type: none"> at AC 	7.7g / 5 ms, 4.5g / 10 ms

<ul style="list-style-type: none"> • at DC 	7.7g / 5 ms, 4.5g / 10 ms
Shock resistance with sine pulse	
<ul style="list-style-type: none"> • at AC 	12g / 5 ms, 7g / 10 ms
<ul style="list-style-type: none"> • at DC 	12g / 5 ms, 7g / 10 ms
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

<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 	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 	55 A 4.5 A
<ul style="list-style-type: none"> • 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 	55 A 25 A
<ul style="list-style-type: none"> • 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 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 	35 A 2.5 A
<ul style="list-style-type: none"> • 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 	55 A 25 A
<ul style="list-style-type: none"> • with 3 current paths in series at DC-3 at DC-5 	

— at 24 V rated value	55 A
— at 110 V rated value	55 A
• operating power at AC-3	
— at 400 V rated value	18.5 kW
— at 690 V rated value	18.5 kW
• Operating power at AC-4 at 400 V rated value	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/DC
Control supply voltage 1 at AC	
• at 50 Hz	20 ... 33 V
• at 60 Hz	20 ... 33 V
Control supply voltage 1	
• at DC	20 ... 33 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
Design of the surge suppressor	with varistor
Apparent pick-up power of magnet coil at AC	
• at 50 Hz	40 V·A
• at 60 Hz	40 V·A
Inductive power factor with closing power of the coil	
• at 50 Hz	0.64
• at 60 Hz	0.5
Apparent holding power of magnet coil at AC	
• at 50 Hz	2 V·A
• at 60 Hz	2 V·A
Inductive power factor with the holding power of the coil	
• at 50 Hz	0.36
• at 60 Hz	0.39
Closing power of magnet coil at DC	23 W
Holding power of magnet coil at DC	1 W

Auxiliary circuit

• Number of NC contacts for auxiliary contacts per direction of rotation	0
• Number of NO contacts for auxiliary contacts per direction of rotation	1
• Number of NO contacts for auxiliary contacts instantaneous contact	2

Operating current of auxiliary contacts at AC-12 maximum	10 A
operating current of auxiliary contacts at AC-15	
• at 230 V	6 A
• at 400 V	3 A
operating current of auxiliary contacts at DC-13	
• at 24 V	10 A
• at 60 V	2 A
• at 110 V	1 A
• 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	
• at 480 V rated value	40 A
• at 600 V rated value	41 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	3 hp
— at 230 V rated value	7.5 hp
• for three-phase AC motor	
— at 220/230 V rated value	15 hp
— at 460/480 V rated value	30 hp
— at 575/600 V rated value	40 hp
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	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A
• 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: 80 A
• design of the fuse link for short-circuit protection of the auxiliary switch required	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	141 mm
width	120 mm
depth	130 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	
• 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	Declaration of Conformity	Test Certificates



CSA



UL



EG-Konf.

[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

Marine / Shipping



ABS



BUREAU VERITAS



LRS



PRS



RINA



RMRS

Marine / Shipping	other
-------------------	-------



DNV-GL
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=3RA2335-8XB30-1NB3>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2335-8XB30-1NB3>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2335-8XB30-1NB3>

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

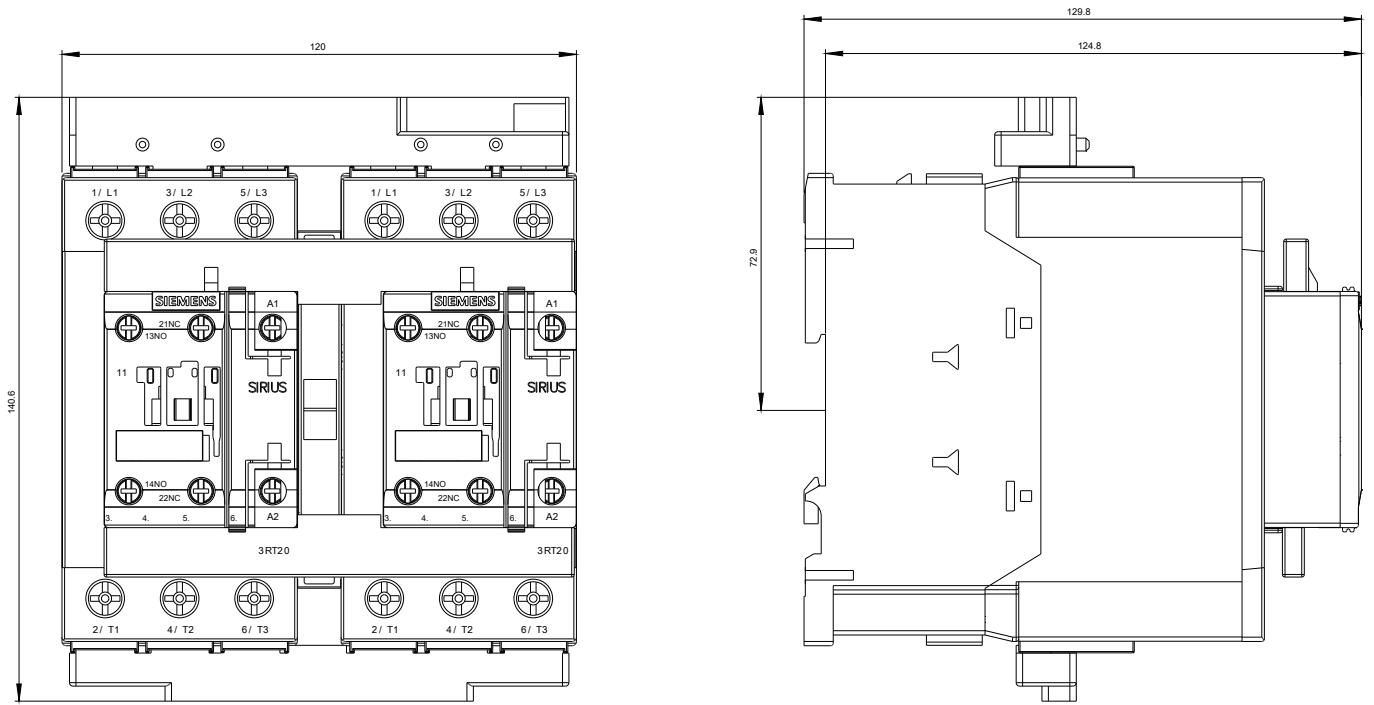
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2335-8XB30-1NB3&lang=en

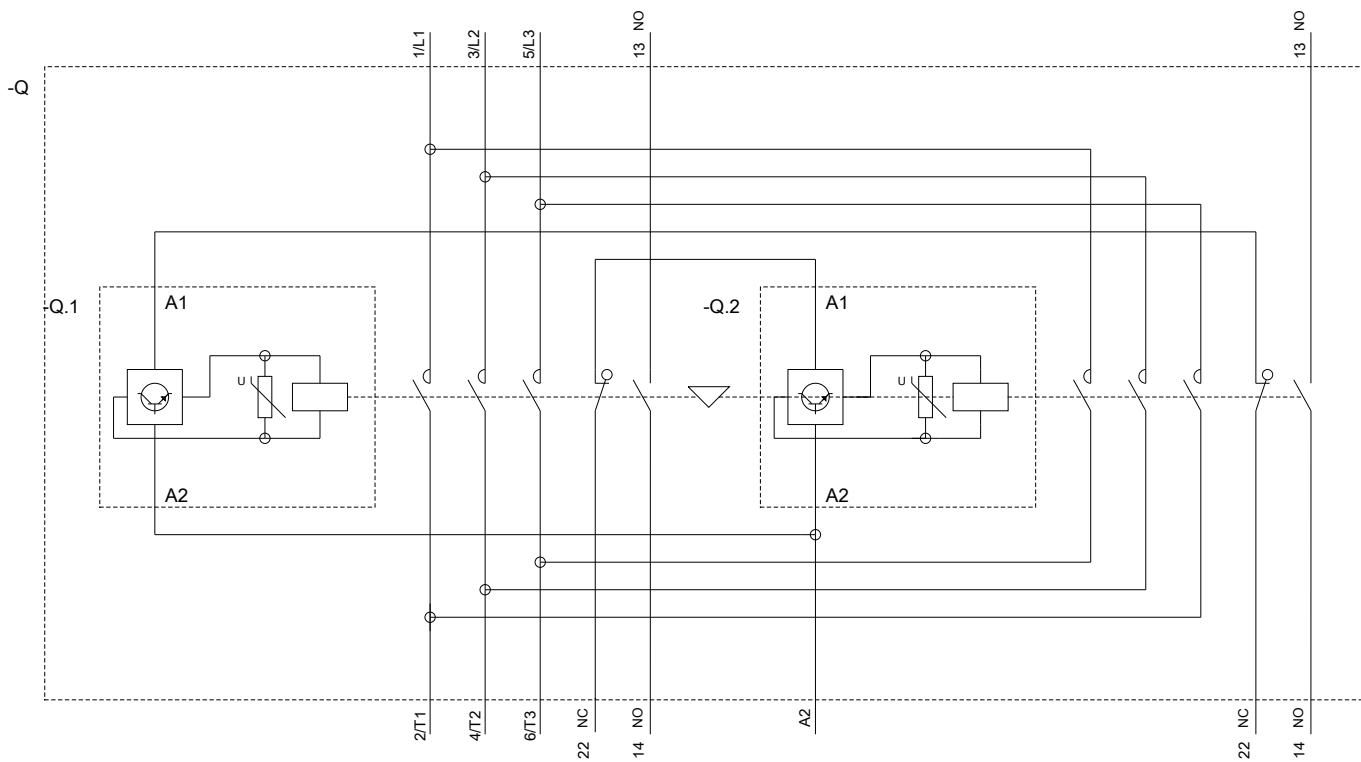
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2335-8XB30-1NB3/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2335-8XB30-1NB3&objectype=14&gridview=view1>





last modified:

08/25/2020