

Reversing contactor assembly AC-3, 18 kW/400 V, 24 V DC 3-pole,
Size S0 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 3RT2028-1BB40 • 2 of the supplied contactor 3RT2028-1BB40 • of the supplied RS assembly kit 3RA2923-2AA1

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	9.8g / 5 ms and 5.9g / 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
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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 38 A 38 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 <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 	20 A 2.5 A

<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 15 A 35 A 35 A
Operating power	
<ul style="list-style-type: none"> • at AC-2 at 400 V rated value • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value — at 500 V rated value — at 690 V rated value • at AC-4 at 400 V rated value • (no-load operating) 	18.5 kW 18.5 kW 22 kW 18.5 kW 11 kW 1 500 1/h
Operating frequency	
<ul style="list-style-type: none"> • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum 	1 000 1/h 1 000 1/h 1 000 1/h 300 1/h

Control circuit/ Control

Type of voltage of the control supply voltage	DC
Control supply voltage 1	
<ul style="list-style-type: none"> • at DC rated value 	24 V
Closing power of magnet coil at DC	5.9 W
Holding power of magnet coil at DC	5.9 W

Auxiliary circuit

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	10 A
Operating current of auxiliary contacts at AC-15	
<ul style="list-style-type: none"> • at 230 V • at 400 V 	6 A 3 A
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 	10 A 2 A 1 A 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	
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<ul style="list-style-type: none"> • at 480 V rated value • at 600 V rated value 	<p>34 A</p> <p>27 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>5 hp</p> <p>10 hp</p> <p>25 hp</p> <p>25 hp</p>
Contact rating of auxiliary contacts according to UL	<p>A600 / Q600</p>

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: 125 A</p> <p>gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 50 A</p> <p>fuse gG: 10 A</p>
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Installation/ mounting/ dimensions

<ul style="list-style-type: none"> • (mounting position) 	<p>+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface</p>
<ul style="list-style-type: none"> • (mounting type) 	<p>screw and snap-on mounting onto 35 mm standard mounting rail</p>
(height)	<p>101 mm</p>
Width	<p>90 mm</p>
Depth	<p>107 mm</p>
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 	<p>6 mm</p> <p>0 mm</p> <p>6 mm</p> <p>6 mm</p> <p>6 mm</p> <p>6 mm</p> <p>6 mm</p> <p>6 mm</p> <p>6 mm</p> <p>6 mm</p> <p>6 mm</p>

— Backwards	0 mm
— upwards	6 mm
— downwards	6 mm
— at the side	6 mm

Connections/Terminals

Type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit 	<p>screw-type terminals</p> <p>screw-type terminals</p>
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 • at AWG conductors for main contacts 	<p>2x (1 ... 2.5 mm²), 2x (2.5 ... 10 mm²)</p> <p>2x (1 ... 2,5 mm²), 2x (2,5 ... 10 mm²)</p> <p>2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm²</p> <p>2x (16 ... 12), 2x (14 ... 8)</p>
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 • at AWG conductors for auxiliary contacts 	<p>2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²)</p> <p>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)</p> <p>2x (20 ... 16), 2x (18 ... 14)</p>

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 	<p>40 %</p> <p>75 %</p>
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
Protocol is supported	
<ul style="list-style-type: none"> • AS-interface protocol 	No
Product function Control circuit interface with IO link	No

Certificates/approvals

General Product Approval	Declaration of Conformity	Test Certificates
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[Miscellaneous](#)

[Special Test Certificate](#)

Marine / Shipping



other	Railway
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[Confirmation](#)

[Vibration and Shock](#)

Further information

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

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2328-8XB30-1BB4>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2328-8XB30-1BB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2328-8XB30-1BB4>

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

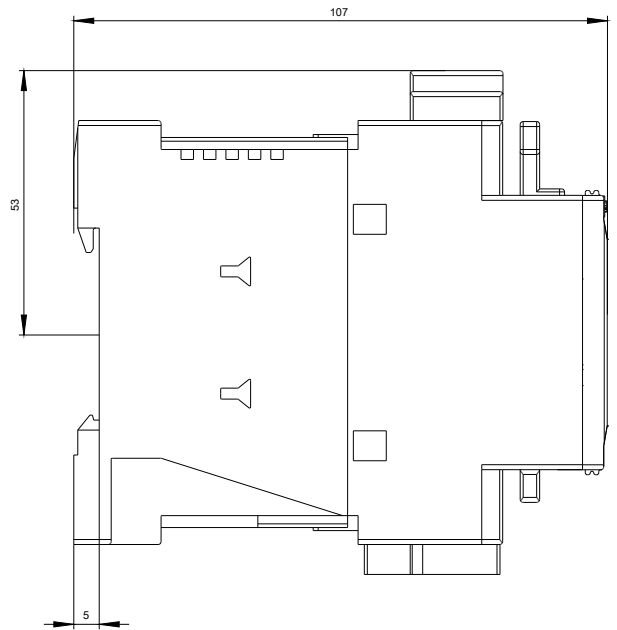
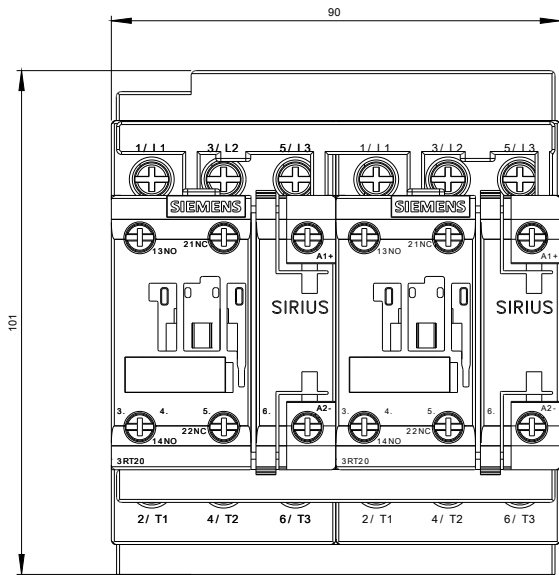
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2328-8XB30-1BB4&lang=en

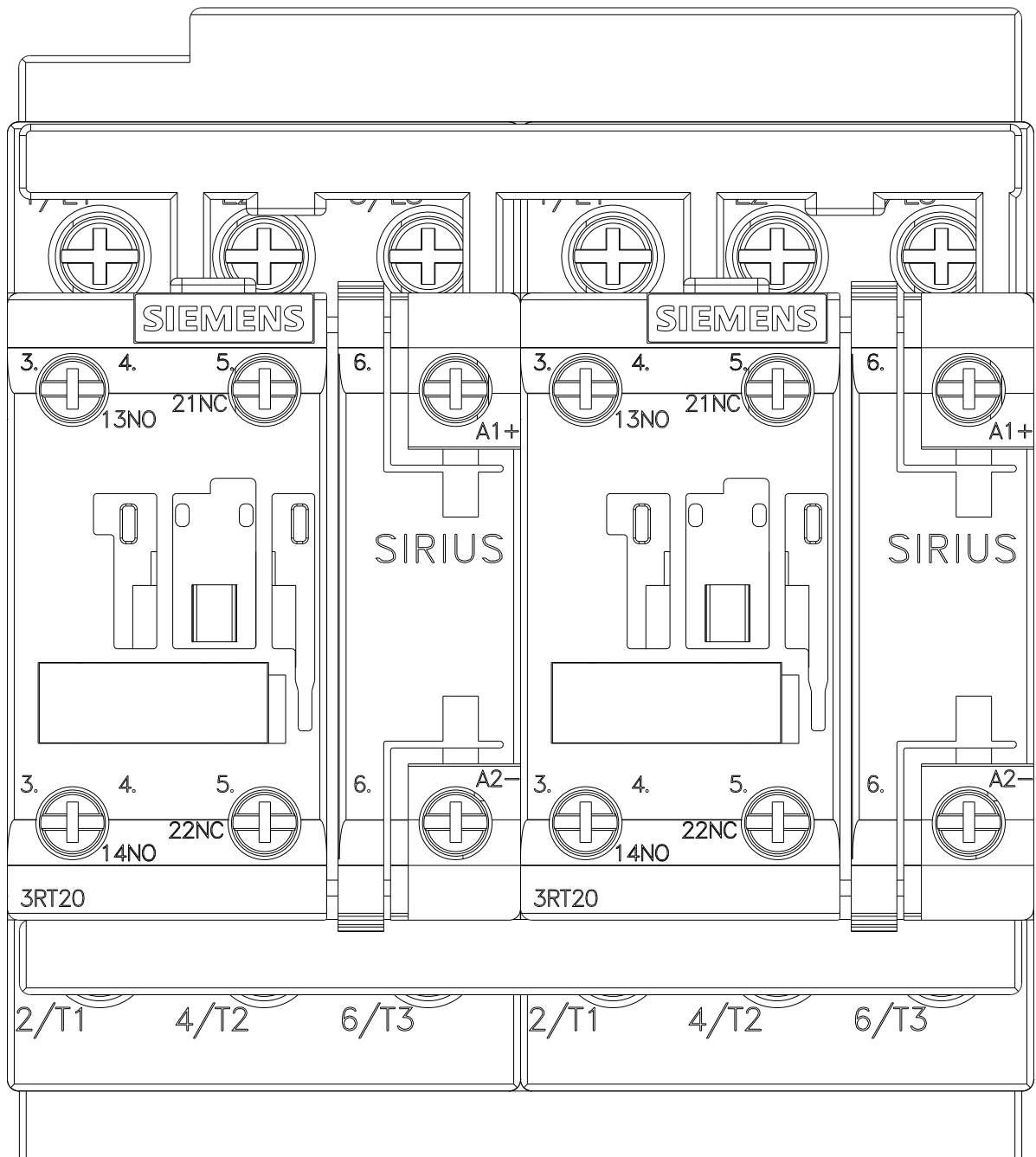
Characteristic: Tripping characteristics, I^t, Let-through current

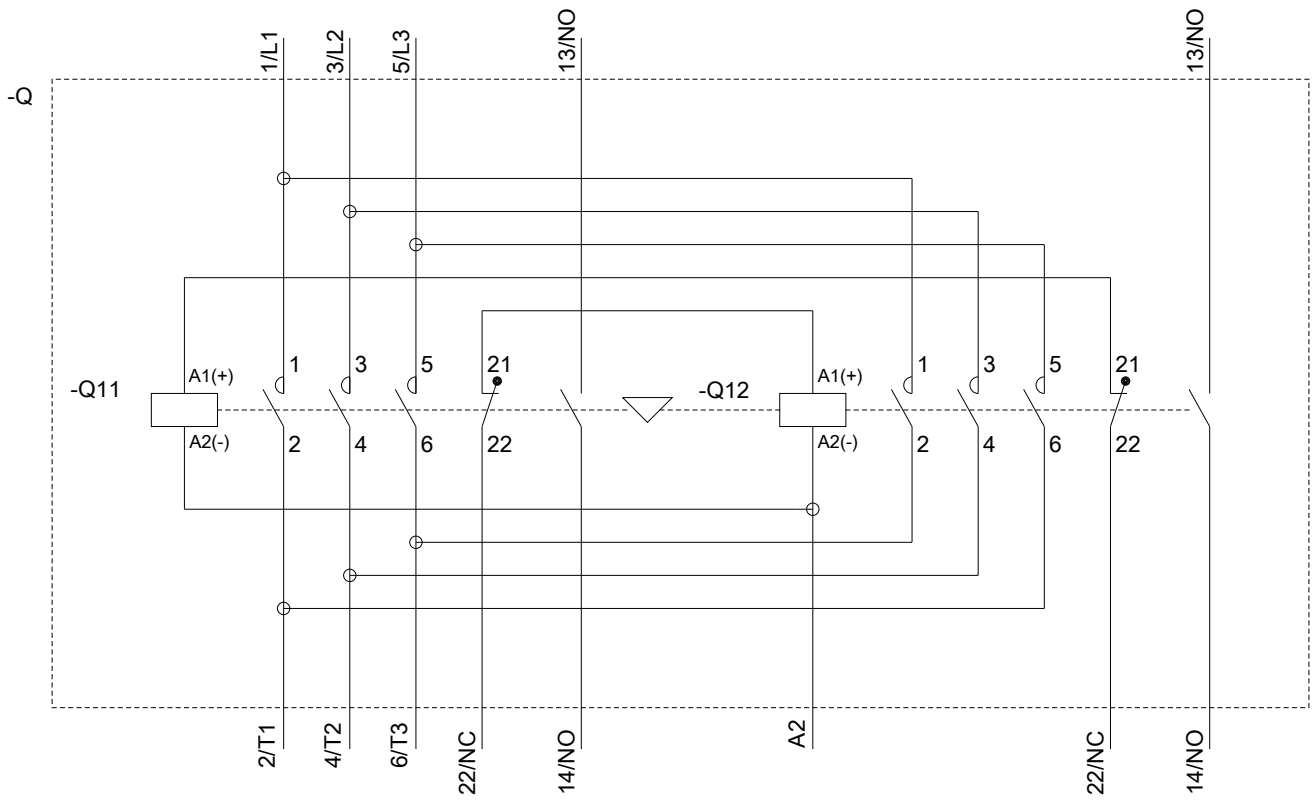
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2328-8XB30-1BB4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2328-8XB30-1BB4&objecttype=14&gridview=view1>







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