

Reversing contactor assembly AC-3,5,5 kW/400 V, AC24V, 50/60Hz
3-pole, Size S00 Spring-type terminal electrical and mechanical
interlock



Product brand name	SIRIUS
Product designation	Reversing contactor assembly
Product type designation	3RA23
Manufacturer's article number	• 1 of the supplied contactor 3RT2017-2AB02 • 2 of the supplied contactor 3RT2017-2AB02 • of the supplied RH assembly kit 3RA2913-2AA2

General technical data	
Size of contactor	S00
Product extension	Yes
• Auxiliary switch	
Insulation voltage	690 V
• with degree of pollution 3 rated value	
Degree of pollution	3
Surge voltage resistance rated value	6 kV
Protection class IP	IP20
• on the front	
Shock resistance	9.8g / 5 ms and 5.9g / 10 ms
Shock resistance at rectangular impulse	

• at AC	7,3g / 5 ms, 4,7g / 10 ms
• at DC	7.3g / 5 ms, 4.7g / 10 ms
Shock resistance with sine pulse	
• at AC	11,4g / 5 ms, 7,3g / 10 ms
• at DC	11,4g / 5 ms, 7,3g / 10 ms
Mechanical service life (switching cycles)	
• of contactor typical	10 000 000
• 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	
• maximum	2 000 m
Ambient temperature	
• during operation	-25 ... +60 °C
• 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	
• at AC-3 rated value maximum	690 V
Operating current	
• at AC-1 at 400 V	
— at ambient temperature 40 °C rated value	22 A
— at ambient temperature 60 °C rated value	20 A
• at AC-2 at 400 V rated value	7 A
• at AC-3	
— at 400 V rated value	12 A
Operating current	
• at 1 current path at DC-1	
— at 24 V rated value	20 A
— at 110 V rated value	2.1 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	20 A
— at 110 V rated value	12 A
• with 3 current paths in series at DC-1	
— at 24 V rated value	20 A
— at 110 V rated value	20 A
Operating current	
• at 1 current path at DC-3 at DC-5	

— at 24 V rated value	20 A
— at 110 V rated value	0.15 A
• with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	20 A
— at 110 V rated value	0.35 A
• with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	20 A
— at 110 V rated value	20 A
Operating power	
• at AC-2 at 400 V rated value	5.5 kW
• at AC-3	
— at 400 V rated value	5.5 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	5.5 kW
• at AC-4 at 400 V rated value	4 kW
No-load switching frequency	1 500 1/h
Operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	750 1/h
• at AC-4 maximum	250 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	24 V
• at 60 Hz rated value	24 V
Operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 ... 1.1
• at 60 Hz	0.85 ... 1.1
Apparent pick-up power of magnet coil at AC	
• at 50 Hz	37 V·A
Inductive power factor with closing power of the coil	
• at 50 Hz	0.8
Apparent holding power of magnet coil at AC	
• at 50 Hz	5.7 V·A
Inductive power factor with the holding power of the coil	
• at 50 Hz	0.28

Auxiliary circuit

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	11 A
• at 600 V rated value	11 A
Yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	0.5 hp
— at 230 V rated value	2 hp
• for three-phase AC motor	
— at 200/208 V rated value	1.5 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	7.5 hp
— at 575/600 V rated value	10 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: 50 A
— with type of assignment 2 required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 25 A
• 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	84 mm
Width	90 mm
Depth	83 mm
Required spacing	

• with side-by-side mounting	
— forwards	6 mm
— Backwards	0 mm
— upwards	6 mm
— downwards	6 mm
— at the side	6 mm
• for grounded parts	
— forwards	6 mm
— Backwards	0 mm
— upwards	6 mm
— at the side	6 mm
— downwards	6 mm
• for live parts	
— forwards	6 mm
— Backwards	0 mm
— upwards	6 mm
— downwards	6 mm
— at the side	6 mm

Connections/ Terminals

Type of electrical connection

• for main current circuit	spring-loaded terminals
• for auxiliary and control current circuit	spring-loaded terminals

Type of connectable conductor cross-sections

• for main contacts	
— solid	2x (0.5 ... 4 mm ²)
— single or multi-stranded	2x (0,5 ... 4 mm ²)
— finely stranded with core end processing	2x (0.5 ... 2.5 mm ²)
— finely stranded without core end processing	2x (0.5 ... 2.5 mm ²)
• at AWG conductors for main contacts	1x (20 ... 12)

Type of connectable conductor cross-sections

• for auxiliary contacts	
— single or multi-stranded	2x (0,5 ... 2,5 mm ²)
— finely stranded with core end processing	2x (0.5 ... 1.5 mm ²)
— finely stranded without core end processing	2x (0.5 ... 1.5 mm ²)
• at AWG conductors for auxiliary contacts	2x (20 ... 14)

Safety related data

B10 value

• with high demand rate acc. to SN 31920	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

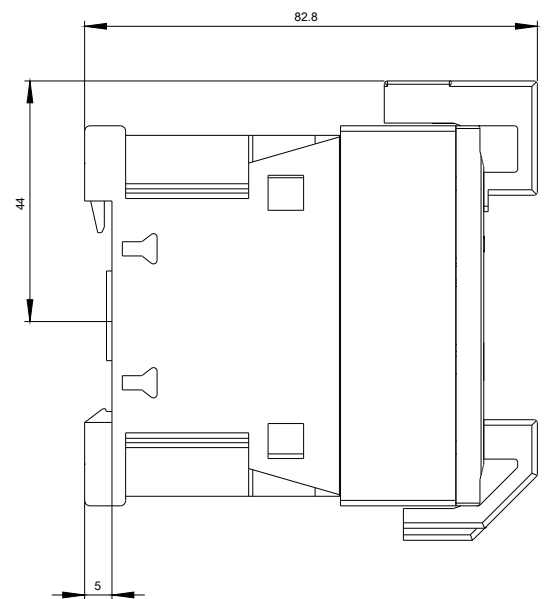
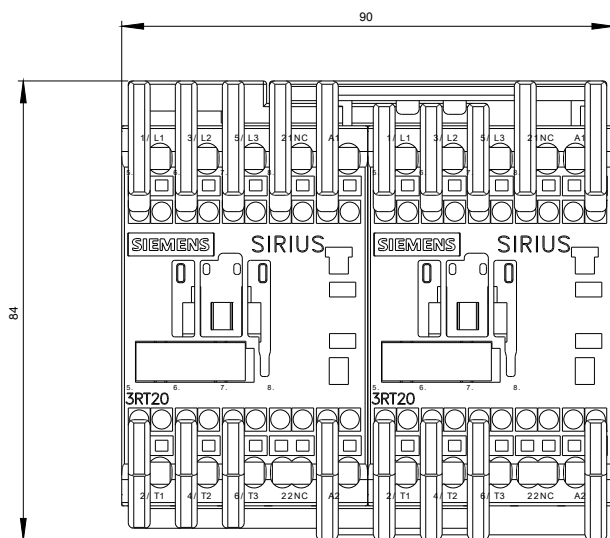
Test Certificates	Marine / Shipping
Type Test Certificates/Test Report	 ABS
	 BUREAU VERITAS
	 LRS
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	 RINA

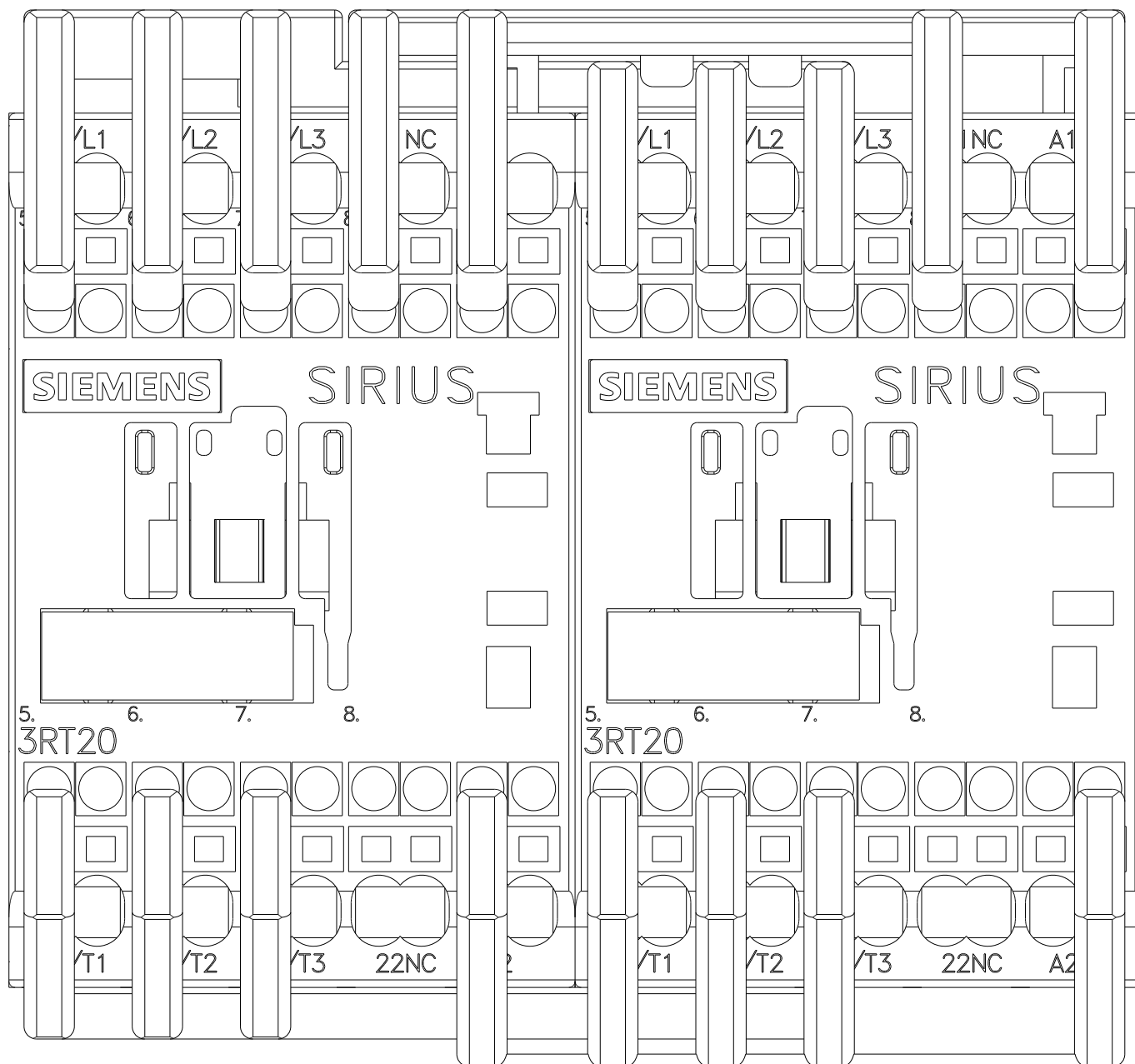
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 RMRS	 DNV-GL DNVGL.COM/AF	Confirmation Vibration and Shock

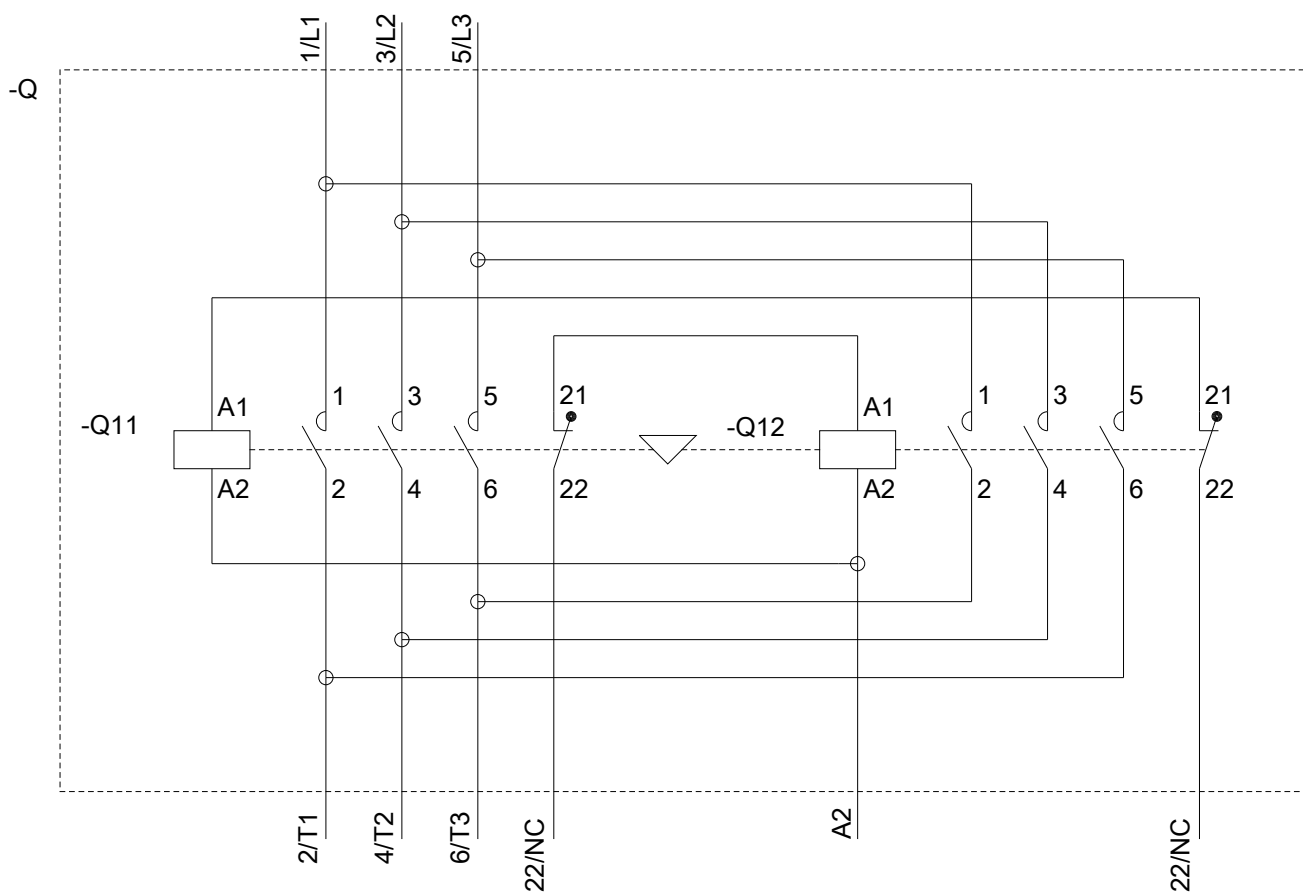
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2317-8XB30-2AB0&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2317-8XB30-2AB0/char>

Further characteristics (e.g. electrical endurance, switching frequency)
<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2317-8XB30-2AB0&objecttype=14&gridview=view1>







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