

REV. COMB., AC3, 5.5KW/ 400V AC230V, 50/60HZ, 3-POLE, SZ S0
SPRING-LOADED TERMINAL ELECTR. AND MECH. INTERLOCK
2NO INTEGR.



Product brand name	SIRIUS
Product designation	Reversing contactor assembly
Product type designation	3RA23
Manufacturer's article number	
• 1 of the supplied contactor	3RT2024-2AL20
• 2 of the supplied contactor	3RT2024-2AL20
• of the supplied RH assembly kit	3RA2923-2AA2

General technical data	
Size of contactor	S0
Product extension	
• Auxiliary switch	Yes
Insulation voltage	
• with degree of pollution 3 rated value	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
Protection class IP	
• on the front	IP20
Shock resistance at rectangular impulse	
• at AC	7,5g / 5 ms, 4,7g / 10 ms

• at DC	10g / 5 ms, 7,5g / 10 ms
Shock resistance with sine pulse	
• at AC	11,8g / 5 ms, 7,4g / 10 ms
• at DC	15g / 5 ms, 10g / 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
Equipment marking	
• acc. to DIN EN 81346-2	Q

Ambient conditions

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 — at ambient temperature 60 °C rated value • at AC-2 at 400 V rated value • at AC-3 — at 400 V rated value	40 A 35 A 12 A 12 A
Operating current	
• at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value • with 3 current paths in series at DC-1 — 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	
• at 1 current path at DC-3 at DC-5 — at 24 V rated value — at 110 V rated value	20 A 2.5 A

• with 2 current paths in series at DC-3 at DC-5 — at 24 V rated value — at 110 V rated value • with 3 current paths in series at DC-3 at DC-5 — at 24 V rated value — at 110 V rated value	35 A 15 A 35 A 35 A
No-load switching frequency	1 500 1/h
Operating frequency • 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	AC
Control supply voltage 1 at AC • at 50 Hz rated value • at 60 Hz rated value	230 V 230 V
Operating range factor control supply voltage rated value of magnet coil at AC • at 50 Hz • at 60 Hz	0.8 ... 1.1 0.8 ... 1.1
Apparent pick-up power of magnet coil at AC • at 50 Hz	65 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	8.5 V·A
Inductive power factor with the holding power of the coil • at 50 Hz	0.25

Auxiliary circuit	
Number of NO contacts • for auxiliary contacts — 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 • at 230 V • at 400 V	6 A 3 A
Operating current of auxiliary contacts at DC-13 • at 24 V	10 A

• at 60 V • at 110 V • at 220 V	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	
• at 480 V rated value • at 600 V rated value	11 A 11 A
Yielded mechanical performance [hp]	
• for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value	1 hp 2 hp 3 hp 7.5 hp 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 — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 A fuse gL/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	
• with side-by-side mounting — forwards — Backwards — upwards — downwards — at the side • for grounded parts — forwards	6 mm 0 mm 6 mm 6 mm 6 mm 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 (1 ... 10 mm ²)
— single or multi-stranded	2x (1 ... 10 mm ²)
— finely stranded with core end processing	2x (1 ... 6 mm ²)
— finely stranded without core end processing	2x (1 ... 6 mm ²)
• at AWG conductors for main contacts	1x (18 ... 8)
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
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
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Protocol is supported

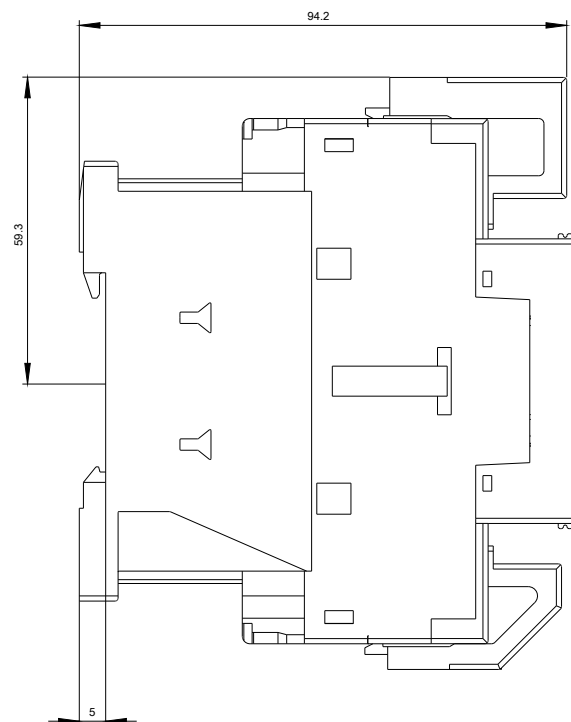
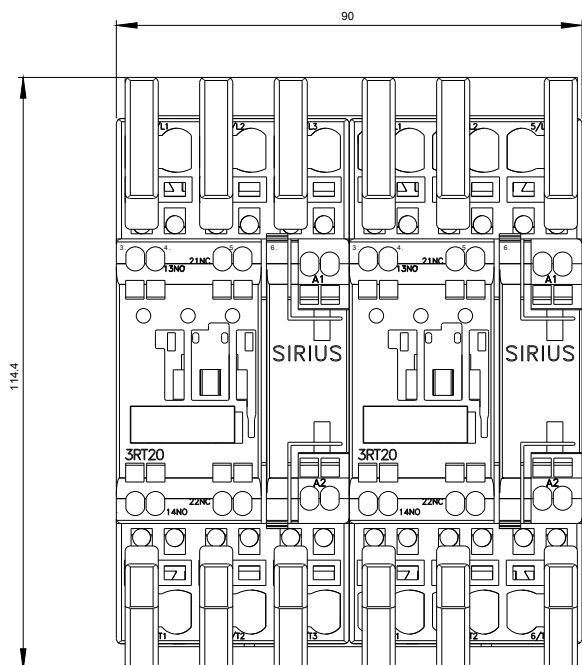
- AS-interface protocol

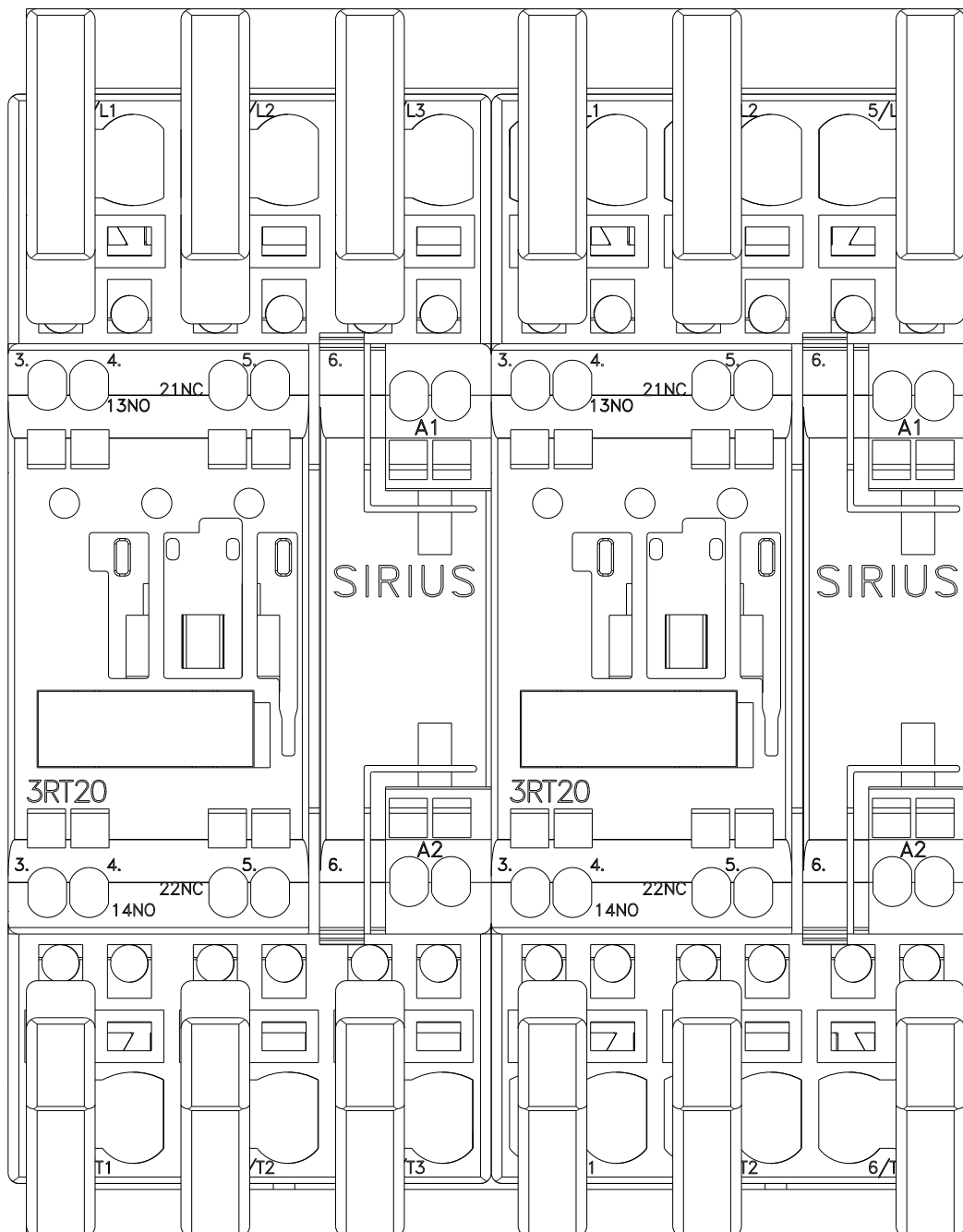
No

Certificates/approvals

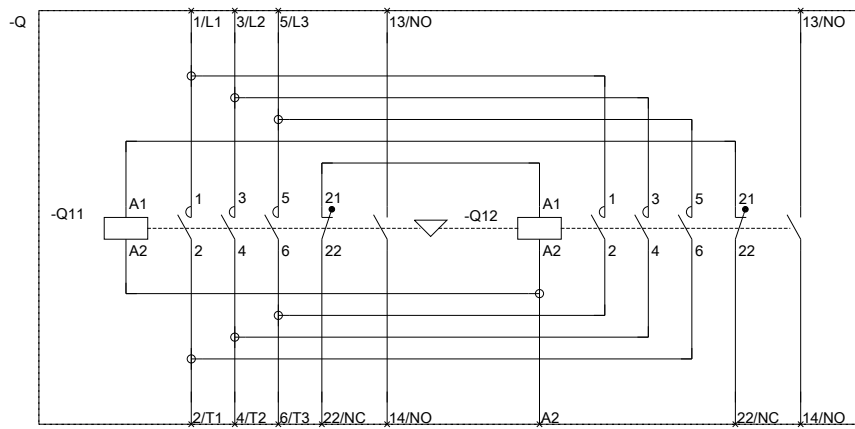
General Product Approval		Declaration of Conformity	Test Certificates	Marine / Shipping	
 UL	 EAC	 EG-Konf.	Special Test Certificate	 ABS	 BUREAU VERITAS
Marine / Shipping					other
 GL	 LRS	 PRS	 RMRS	 DNVGL.COM/AF	Environmental Confirmations
other		Railway			
Confirmation		Vibration and Shock			

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WENDEKOMBINATION BGR. S0



REVERSING COMB. SZ S0

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