

Reversing contactor assembly AC-3, 11 kW/400 V 110 V AC 50 Hz/120 V 60 Hz, 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"> <li>• 1 of the supplied contactor 3RT2026-1AK60</li> <li>• 2 of the supplied contactor 3RT2026-1AK60</li> <li>• of the supplied RH assembly kit 3RA2923-2AA1</li> </ul>

General technical data	
Size of contactor	S0
Product extension	<ul style="list-style-type: none"> <li>• Auxiliary switch Yes</li> </ul>
Insulation voltage	<ul style="list-style-type: none"> <li>• with degree of pollution 3 at AC rated value 690 V</li> </ul>
Surge voltage resistance rated value	6 kV
Protection class IP	<ul style="list-style-type: none"> <li>• on the front IP20</li> </ul>
Shock resistance at rectangular impulse	<ul style="list-style-type: none"> <li>• at AC 8,3g / 5 ms, 5,3g / 10 ms</li> <li>• at DC 10g / 5 ms, 7,5g / 10 ms</li> </ul>

<b>Shock resistance with sine pulse</b>	
• at AC	13,5g / 5 ms, 8,3g / 10 ms
• at DC	15g / 5 ms, 10g / 10 ms
<b>Mechanical service life (switching cycles)</b>	
• of contactor typical	10 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
<b>Reference code acc. to DIN EN 81346-2</b>	Q

#### Ambient conditions

<b>Installation altitude at height above sea level</b>	
• maximum	2 000 m
<b>Ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	-55 ... +80 °C

#### Main circuit

<b>Number of poles for main current circuit</b>	3
<b>Number of NO contacts for main contacts</b>	3
<b>Number of NC contacts for main contacts</b>	0
<b>Operating voltage</b>	
• at AC-3 rated value maximum	690 V
<b>Operating current</b>	
• at AC-3	
— at 400 V rated value	25 A
<b>Operating current</b>	
• at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	4.5 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
• with 3 current paths in series at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
<b>Operating current</b>	
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	20 A
— at 110 V rated value	2.5 A
• with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 110 V rated value	15 A
• with 3 current paths in series at DC-3 at DC-5	

— at 24 V rated value	35 A
— at 110 V rated value	35 A
<b>Operating power</b>	
• at AC-3	
— at 400 V rated value	11 kW
— at 500 V rated value	11 kW
— at 690 V rated value	11 kW
• at AC-4 at 400 V rated value	7.5 kW
<b>No-load switching frequency</b>	1 500 1/h
Operating frequency at AC-3 maximum	1 000 1/h

#### Control circuit/ Control

<b>Type of voltage of the control supply voltage</b>	AC
<b>Control supply voltage 1 at AC</b>	
• at 50 Hz rated value	110 V
• at 60 Hz rated value	120 V
<b>Operating range factor control supply voltage rated value of magnet coil at AC</b>	
• at 50 Hz	0.8 ... 1.1
• at 60 Hz	0.8 ... 1.1
<b>Apparent pick-up power of magnet coil at AC</b>	
• at 50 Hz	77 V·A
<b>Inductive power factor with closing power of the coil</b>	
• at 50 Hz	0.82
<b>Apparent holding power of magnet coil at AC</b>	
• at 50 Hz	9.8 V·A
<b>Inductive power factor with the holding power of the coil</b>	
• at 50 Hz	0.27

#### Auxiliary circuit

<b>Number of NO contacts for auxiliary contacts</b>	
• per direction of rotation	1
• instantaneous contact	2
<b>Operating current of auxiliary contacts at AC-12 maximum</b>	10 A
<b>Operating current of auxiliary contacts at AC-15</b>	
• at 230 V	6 A
• at 400 V	3 A
<b>Operating current of auxiliary contacts at DC-13</b>	
• at 24 V	10 A
• at 60 V	2 A
• at 110 V	1 A
• at 220 V	0.3 A

<b>Contact reliability of auxiliary contacts</b>	< 1 error per 100 million operating cycles
<b>UL/CSA ratings</b>	
<b>Full-load current (FLA) for three-phase AC motor</b>	
• at 480 V rated value	21 A
• at 600 V rated value	22 A
<b>Yielded mechanical performance [hp]</b>	
• for single-phase AC motor	
— at 110/120 V rated value	2 hp
— at 230 V rated value	3 hp
• for three-phase AC motor	
— at 220/230 V rated value	7.5 hp
— at 460/480 V rated value	15 hp
— at 575/600 V rated value	20 hp
<b>Contact rating of auxiliary contacts according to UL</b>	A600 / Q600
<b>Short-circuit protection</b>	
<b>Design of the fuse link</b>	
• for short-circuit protection of the main circuit	
— with type of coordination 1 required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 100 A
— with type of assignment 2 required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A
• for short-circuit protection of the auxiliary switch required	fuse gG: 10 A
<b>Installation/ mounting/ dimensions</b>	
<b>Mounting position</b>	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
<b>Mounting type</b>	screw and snap-on mounting onto 35 mm standard mounting rail
<b>Height</b>	101 mm
<b>Width</b>	90 mm
<b>Depth</b>	97 mm
<b>Required spacing</b>	
• 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

<b>Type of electrical connection</b>	
• for main current circuit	screw-type terminals
• for auxiliary and control current circuit	screw-type terminals
<b>Type of connectable conductor cross-sections</b>	
• for main contacts	
— solid	2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )
— single or multi-stranded	2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )
— finely stranded with core end processing	2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup>
• at AWG conductors for main contacts	2x (16 ... 12), 2x (14 ... 8)
<b>Type of connectable conductor cross-sections</b>	
• for auxiliary contacts	
— single or multi-stranded	2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
— finely stranded with core end processing	2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
• at AWG conductors for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14)





## Safety related data

<b>B10 value</b>	
• with high demand rate acc. to SN 31920	1 000 000
<b>Proportion of dangerous failures</b>	
• with low demand rate acc. to SN 31920	40 %
• with high demand rate acc. to SN 31920	75 %
<b>Failure rate [FIT]</b>	
• with low demand rate acc. to SN 31920	100 FIT
<b>T1 value for proof test interval or service life acc. to IEC 61508</b>	20 y


## Communication/ Protocol

<b>Product function Bus communication</b>	Yes
<b>Protocol is supported</b>	
• AS-Interface protocol	No
Product function Control circuit interface with IO link	No

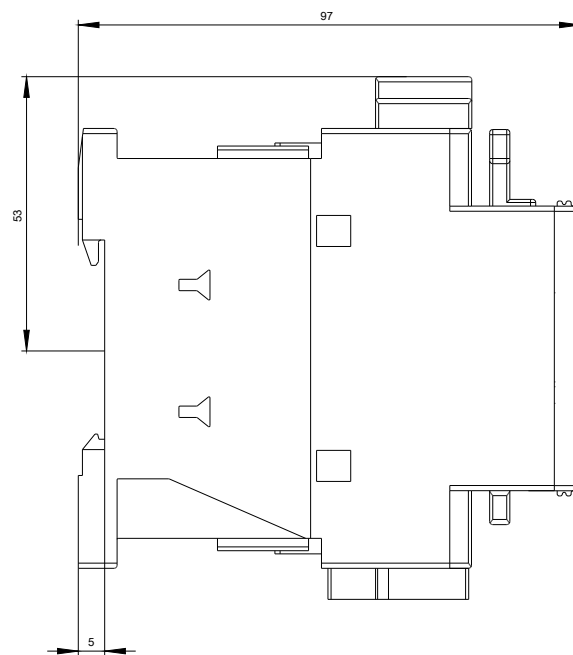
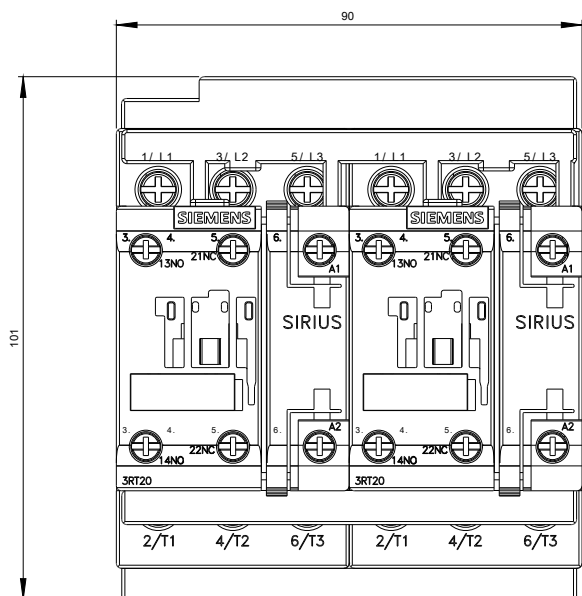
## Certificates/ approvals

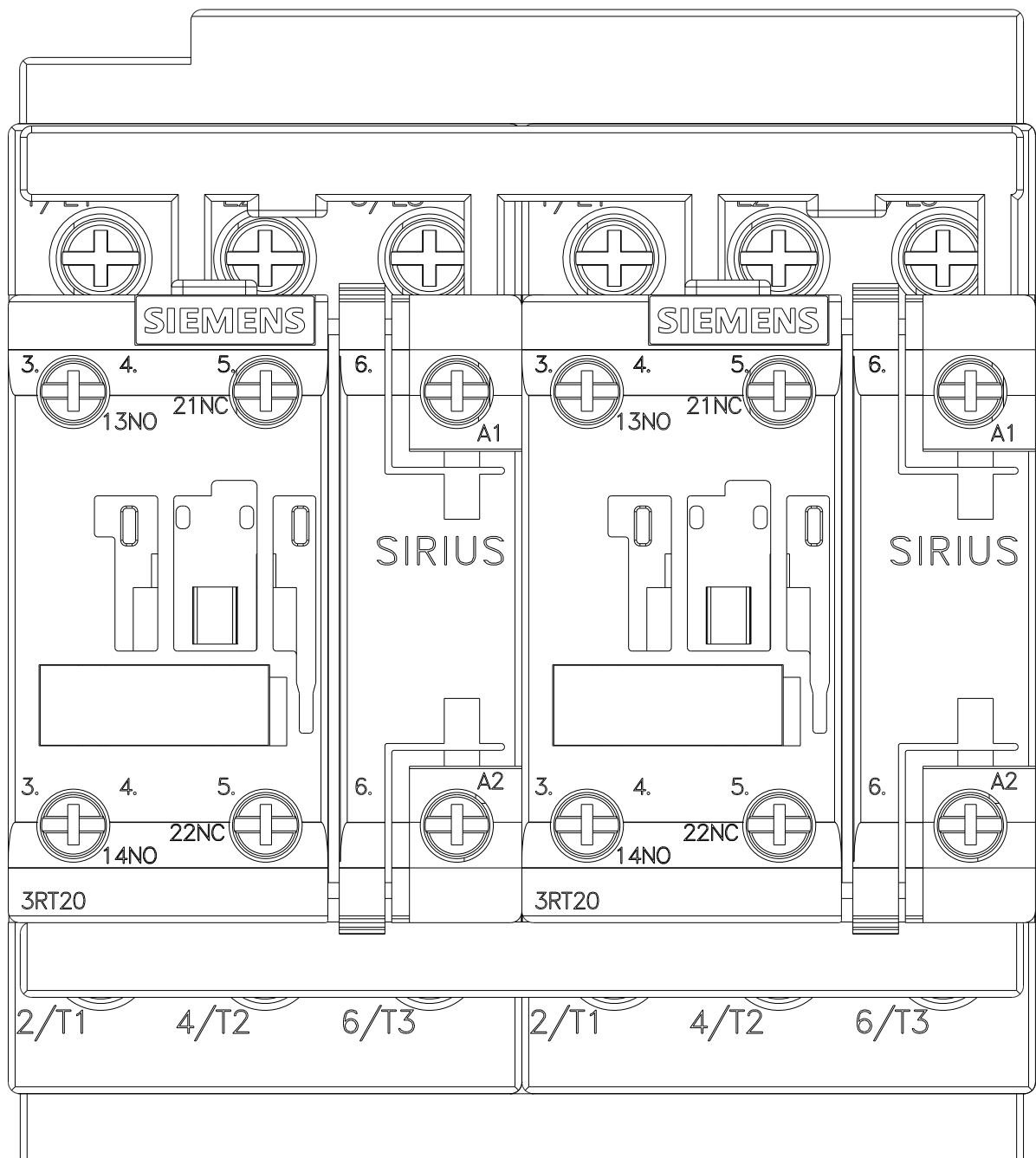
General Product Approval			Declaration of Conformity	Test Certificates
			 EG-Konf.	Miscellaneous Special Test Certificate

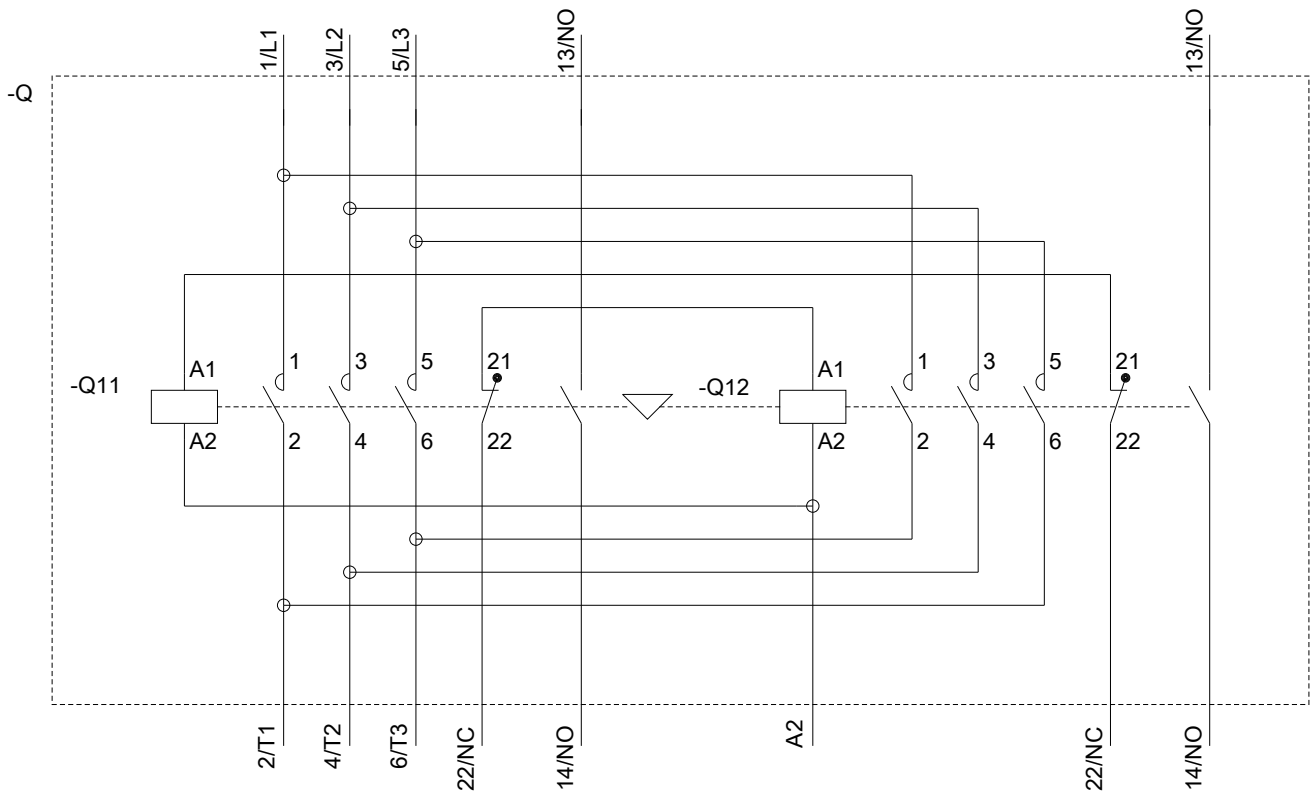
Marine / Shipping					
					

Marine / Shipping	other	Railway
	Confirmation	Vibration and Shock

Further information







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