# Data sheet



REV. COMB. AC3, 3KW/400V AC230V, 50/60 HZ, 3-POLE, SZ S00 SCREW TERMINAL ELECTR. AND MECH. INTERLOCK

product brand name	SIRIUS
Product designation	reversing contactor assembly 3RA23
Manufacturer article number	
<ul> <li>1 of the supplied contactor</li> </ul>	3RT2015-1AP02
<ul> <li>2 of the supplied contactor</li> </ul>	3RT2015-1AP02
<ul> <li>of the supplied RH assembly kit</li> </ul>	3RA2913-2AA1

General technical data:		
Insulation voltage		
<ul> <li>with degree of pollution 3 Rated value</li> </ul>	V	690
Degree of pollution		3
Shock resistance		9.8g / 5 ms and 5.9g / 10 ms
Surge voltage resistance Rated value	kV	6
Mechanical service life (switching cycles)		
<ul> <li>of the contactor typical</li> </ul>		10 000 000
<ul> <li>of the contactor with added auxiliary switch</li> </ul>		10 000 000
block typical		
Protection class IP		
• on the front		IP20
Equipment marking		
● acc. to DIN EN 81346-2		Q

Main circuit:	
Number of poles for main current circuit	3
Number of NC contacts for main contacts	0
Number of NO contacts for main contacts	3
Operating voltage	

<ul> <li>at AC-3 Rated value maximum</li> </ul>	V	690
Operating current		
• at AC-1		
<ul> <li>— at 400 V at ambient temperature 40 °C</li> <li>Rated value</li> </ul>	Α	18
— at 400 V at ambient temperature 60 °C Rated value	Α	16
• at AC-2 at 400 V Rated value	Α	7
• at AC-3		
— at 400 V Rated value	Α	7
• at AC-4 at 400 V Rated value	Α	6.5
Operating current with 1 current path		
● at DC-1		
— at 24 V Rated value	Α	15
— at 110 V Rated value	Α	1.5
• at DC-3 at DC-5		
— at 24 V Rated value	Α	15
— at 110 V Rated value	Α	0.1
Operating current with 2 current paths in series		
• at DC-1		
— at 24 V Rated value	Α	15
— at 110 V Rated value	Α	8.4
• at DC-3 at DC-5		
— at 110 V Rated value	Α	0.25
— at 24 V Rated value	Α	15
Operating current with 3 current paths in series		
• at DC-1		
— at 24 V Rated value	Α	15
— at 110 V Rated value	Α	15
• at DC-3 at DC-5		
— at 110 V Rated value	Α	15
— at 24 V Rated value	Α	15
Operating power		
• at AC-2 at 400 V Rated value	kW	3
• at AC-4 at 400 V Rated value	kW	3
Operating power		
• at AC-3		
— at 400 V Rated value	kW	3
— at 500 V Rated value	kW	3.5
— at 690 V Rated value	kW	4
Operating frequency		
• at AC-3 maximum	1/h	750

No-load switching frequency	1/h	1 500
Control circuit/ Control:		
Type of voltage of the control supply voltage		AC
Control supply voltage 1 with AC		
● at 50 Hz Rated value	V	230
● at 60 Hz Rated value	V	230
Operating range factor control supply voltage rated		
value of the magnet coil with AC		
• at 50 Hz		0.8 1.1
● at 60 Hz		0.85 1.1
Auxiliary circuit:		
Number of NC contacts		
• for auxiliary contacts		
<ul><li>per direction of rotation</li></ul>		0
<ul> <li>instantaneous contact</li> </ul>		0
<ul><li>— lagging switching</li></ul>		0
Number of NO contacts		
• for auxiliary contacts		
<ul><li>per direction of rotation</li></ul>		0
<ul> <li>instantaneous contact</li> </ul>		0
<ul><li>— leading contact</li></ul>		0
Product expansion Auxiliary switch		Yes
Operating current of the auxiliary contacts at AC-12	Α	10
maximum		
Operating current of the auxiliary contacts at AC-15	Δ.	
• at 230 V	A	6
• at 400 V	A	3
Operating current of the auxiliary contacts at DC-13		40
• at 24 V	A	10
● at 60 V	A	2
● at 110 V	Α	1
• at 220 V	Α	0.3
Contact reliability of the 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	Α	4.8
• at 600 V Rated value	Α	6.1
yielded mechanical performance [hp]		
• for single-phase AC motor at 110/120 V Rated value	metric hp	0.25

<ul> <li>for single-phase AC motor at 230 V Rated value</li> </ul>	metric hp	0.75
<ul> <li>for three-phase AC motor at 200/208 V Rated value</li> </ul>	metric hp	1.5
<ul> <li>for three-phase AC motor at 220/230 V Rated value</li> </ul>	metric hp	2
<ul> <li>for three-phase AC motor at 460/480 V Rated value</li> </ul>	metric hp	3
• for three-phase AC motor at 575/600 V Rated value	metric hp	5
Contact rating of the auxiliary contacts acc. to UL		A600 / Q600

Short-circuit:	
Design of the fuse link	
<ul> <li>for short-circuit protection of the main circuit</li> </ul>	
— with type of assignment 1 required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A
— with type of assignment 2 required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	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	mm	68
Width	mm	90
Depth	mm	73
Required spacing		
<ul><li>with side-by-side mounting</li></ul>		
— forwards	mm	6
— Backwards	mm	0
— upwards	mm	6
— downwards	mm	6
— at the side	mm	6
• for grounded parts		
— forwards	mm	6
— Backwards	mm	0
— upwards	mm	6
— at the side	mm	6
— downwards	mm	6
• for live parts		

— forwards	mm	6
— Backwards	mm	0
— upwards	mm	6
— downwards	mm	6
— at the side	mm	6
Connections/ Terminals:		
Type of electrical connection		
• for main current circuit		screw-type terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>		screw-type terminals
Type of connectable conductor cross-section		
• for main contacts		
— single or multi-stranded		2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x (0,5 4 mm²)
— finely stranded with core end processing		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>for AWG conductors for main contacts</li> </ul>		2x (20 16), 2x (18 14)
for auxiliary contacts		
— single or multi-stranded		2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>for AWG conductors for auxiliary contacts</li> </ul>		2x (20 16), 2x (18 14)
Apparent pick-up power of the magnet coil with AC		
● at 50 Hz	V·A	27
Safety related data:		
B10 value with high demand rate acc. to SN 31920		1 000 000
Proportion of dangerous failures		
<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	%	40
<ul><li>with low demand rate acc. to SN 31920</li><li>with high demand rate acc. to SN 31920</li></ul>	% %	40 75
• with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN	%	75
<ul> <li>with high demand rate acc. to SN 31920</li> <li>Failure rate [FIT] with low demand rate acc. to SN 31920</li> <li>T1 value for proof test interval or service life acc. to</li> </ul>	% FIT	75 100
<ul> <li>with high demand rate acc. to SN 31920</li> <li>Failure rate [FIT] with low demand rate acc. to SN 31920</li> <li>T1 value for proof test interval or service life acc. to IEC 61508</li> <li>Protection against electrical shock</li> </ul>	% FIT	75 100 20
with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN 31920  T1 value for proof test interval or service life acc. to IEC 61508	% FIT	75 100 20
with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN 31920  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  Mechanical data:	% FIT	75 100 20 finger-safe
with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN 31920  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  Mechanical data:  Size of contactor	% FIT	75 100 20 finger-safe
with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN 31920  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  Mechanical data: Size of contactor  Communication/ Protocol:	% FIT	75 100 20 finger-safe S00
with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN 31920  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  Mechanical data: Size of contactor  Communication/ Protocol:  Product function Bus communication  Protocol is supported      AS-interface protocol	% FIT	75 100 20 finger-safe
with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN 31920  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  Mechanical data: Size of contactor  Communication/ Protocol:  Product function Bus communication  Protocol is supported	% FIT	75 100 20 finger-safe  S00
with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN 31920  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  Mechanical data: Size of contactor  Communication/ Protocol:  Product function Bus communication  Protocol is supported      AS-interface protocol	% FIT	75 100 20 finger-safe  S00  No
with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN 31920  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  Mechanical data: Size of contactor  Communication/ Protocol:  Product function Bus communication  Protocol is supported      AS-interface protocol  Product function Control circuit interface with IO link  Ambient conditions: Installation altitude at height above sea level	% FIT	75 100 20 finger-safe  S00  No
with high demand rate acc. to SN 31920  Failure rate [FIT] with low demand rate acc. to SN 31920  T1 value for proof test interval or service life acc. to IEC 61508  Protection against electrical shock  Mechanical data: Size of contactor  Communication/ Protocol:  Product function Bus communication  Protocol is supported      AS-interface protocol  Product function Control circuit interface with IO link  Ambient conditions:	% FIT  y	75 100 20 finger-safe  S00  No No No

### Ambient temperature

- during operation
- during storage

°C

°C

-25 ... +60 -55 ... +80

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**General Product Approval** 

Declaration of Conformity

**Test Certificates** 









Special Test Certificate Type Test
Certificates/Test
Report

## **Shipping Approval**













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### **Shipping Approval**

# other





Environmental Confirmations

other

#### Further informatior

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

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

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

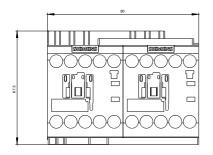
Cax online generator

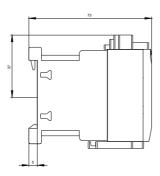
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA23158XB301AP0

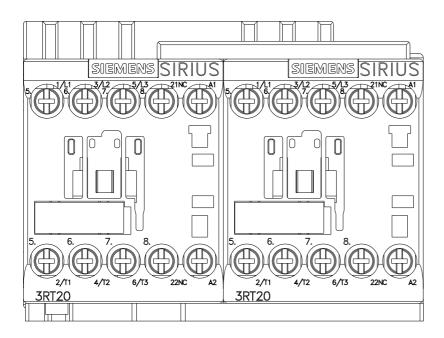
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RA23158XB301AP0/all

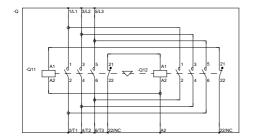
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA23158XB301AP0&lang=en







WENDEKOMBINATION BGR. S00



REVERSING COMB. SZ S00

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