SIEMENS

Data sheet

3RA2316-8XE30-1BB4

REV. COMB. FOR 3RA27, AC3, 4KW/400V, DC24V 3-POLE, SZ S00 SCREW TERMINAL ELECTR. AND MECH. INTERLOCK



product brand name	SIRIUS
Product designation	reversing contactor assembly 3RA23
Manufacturer article number	
 1 of the supplied contactor 	3RT2016-1BB42-0CC0
 2 of the supplied contactor 	3RT2016-1BB42
 of the supplied RH assembly kit 	3RA2913-2AA2
 of the supplied function module for communication 	3RA2711-1BA00

General technical data:		
Insulation voltage		
 with degree of pollution 3 Rated value 	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)		
 of the contactor typical 		10 000 000
 of the contactor with added auxiliary switch 		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		
at AC-3 Rated value maximum	V	690
Operating current		
• at AC-1		
 — at 400 V at ambient temperature 40 °C Rated value 	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	9
• at AC-4 at 400 V Rated value	Α	8.5
Operating current with 1 current path		
• at DC-1		
— at 24 V Rated value	Α	20
— at 110 V Rated value	Α	2.1
• at DC-3 at DC-5		
— at 24 V Rated value	Α	20
— at 110 V Rated value	Α	0.15
Operating current with 2 current paths in series		
• at DC-1		
— at 24 V Rated value	Α	20
— at 110 V Rated value	Α	12
• at DC-3 at DC-5		
— at 110 V Rated value	Α	0.35
— at 24 V Rated value	Α	20
Operating current with 3 current paths in series		
• at DC-1		
— at 24 V Rated value	Α	20
— at 110 V Rated value	Α	20
• at DC-3 at DC-5		
— at 110 V Rated value	Α	20
— at 24 V Rated value	Α	20
Operating power		
• at AC-2 at 400 V Rated value	kW	4
• at AC-4 at 400 V Rated value	kW	4
Operating power		
• at AC-3		
— at 400 V Rated value	kW	4
— at 500 V Rated value	kW	4.5
— at 690 V Rated value	kW	5.5

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		DC
Control supply voltage 1		
• for DC Rated value	V	24
Operating range factor control supply voltage rated value of the magnet coil for DC		0.85 1.1
Design of the surge suppressor		with varistor
Closing power of the magnet coil for DC	W	4
Holding power of the magnet coil for DC	W	4
Auxiliary circuit:		
Number of NC contacts		
 for auxiliary contacts 		
per direction of rotation		0
 instantaneous contact 		0
 lagging switching 		0
Number of NO contacts		
 for auxiliary contacts 		
per direction of rotation		0
 instantaneous contact 		0
— leading contact		0
Product expansion Auxiliary switch		Yes
Operating current of the auxiliary contacts at AC-12 maximum	Α	10
Operating current of the auxiliary contacts at AC-15		
● at 230 V	Α	6
• at 400 V	Α	3
Operating current of the auxiliary contacts at DC-13		
● at 24 V	Α	10
● at 60 V	Α	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	7.6
• at 600 V Rated value	Α	9
yielded mechanical performance [hp]		

• for single-phase AC motor at 110/120 V Rated value	metric hp	0.33
 for single-phase AC motor at 230 V Rated value 	metric hp	1
• for three-phase AC motor at 200/208 V Rated value	metric hp	2
• for three-phase AC motor at 220/230 V Rated value	metric hp	3
• for three-phase AC motor at 460/480 V Rated value	metric hp	5
• for three-phase AC motor at 575/600 V Rated value	metric hp	7.5
Contact rating of the auxiliary contacts acc. to UL		A600 / Q600

Short-circuit:	
Design of the fuse link	
 for short-circuit protection of the main circuit 	
— 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
 for short-circuit protection of the auxiliary switch required 	fuse gL/gG: 10 A

	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
	screw and snap-on mounting onto 35 mm standard mounting rail
mm	68
mm	90
mm	73
mm	6
mm	0
mm	6
mm	6
mm	6
mm	6
mm	0
mm	6
mm	6
	mm mm mm mm mm mm mm mm

• 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
for auxiliary and control current circuit		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)
 for AWG conductors for main contacts 		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)
 finely stranded with core end processing 		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• for AWG conductors for auxiliary contacts		2x (20 16), 2x (18 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
P 11 (PP1)		
Failure rate [FIT] with low demand rate acc. to SN 31920	FIT	100
	FIT y	100 20
31920 T1 value for proof test interval or service life acc. to		
31920 T1 value for proof test interval or service life acc. to IEC 61508		20
31920 T1 value for proof test interval or service life acc. to IEC 61508 Protection against electrical shock		20
31920 T1 value for proof test interval or service life acc. to IEC 61508 Protection against electrical shock Mechanical data:		20 finger-safe
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		20 finger-safe
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		20 finger-safe S00 Yes
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		20 finger-safe S00 Yes No
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		20 finger-safe S00 Yes
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		20 finger-safe S00 Yes No
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		20 finger-safe S00 Yes No

6

mm

- downwards

Ambient temperature

- during operation
- during storage

°C

-25 ... +60

°C

-55 ... +80

General Product Approval

Declaration of Conformity

Test Certificates









Type Test Certificates/Test Report

Special Test Certificate

Shipping Approval

















Shipping Approval

other





Environmental Confirmations other

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

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

Industry Mall (Online ordering system)

http://www.siemens.com/industrymal

Cax online generator

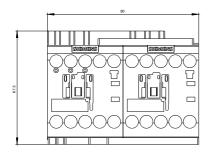
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA23168XE301BB4

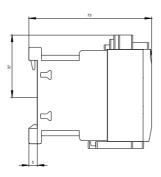
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

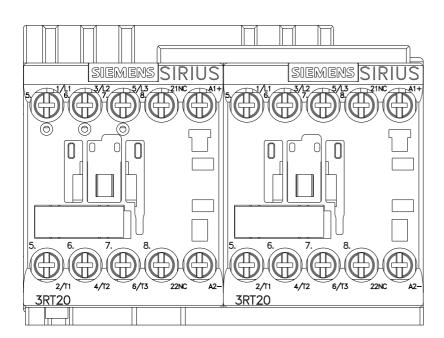
http://support.automation.siemens.com/WW/view/en/3RA23168XE301BB4/all

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

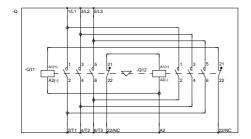
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA23168XE301BB4&lang=en







WENDEKOMBINATION BGR. S00



REVERSING COMB. SZ S00

last modified:

11.03.2015