SIEMENS

Product data sheet 3RA2315-8XE30-1BB4



REV. COMB. W.I/O-LINK, AC3, 3KW/400V, DC24V 3-POLE, SZ S00 SCREW TERMINAL ELECTR. AND MECH. INTERLOCK

General technical data:		
Product brand name		SIRIUS
product designation		reversing contactor assembly 3RA23
Product function		reversing contactor
Size of the contactor		S00
Protection class IP / on the front		IP20
Degree of pollution		3
Insulation voltage / with degree of pollution 3 / rated value	V	690
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
during transport	°C	-55 80
during storage	°C	-55 80
during operating	°C	-25 60
Resistance against shock		9.8g / 5 ms and 5.9g / 10 ms
Impulse voltage resistance / rated value	kV	6
Active power loss / per conductor / typical	W	0.4
Item designation		
 according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 		К
according to DIN EN 61346-2		Q

Manufacturer article number	
of the function module for communication included in the scope of supply	3RA2711-1BA00
• 1 / of the contactor included in the scope of supply	3RT2015-1BB42-0CC0
• 2 / of the contactor included in the scope of supply	3RT2015-1BB42
of the RS applied assembly kit	3RA2913-2AA1
Mechanical operating cycles as operating time	
of the main contacts / typical	10,000,000
of the auxiliary contacts / typical	10,000,000
of the contactor / typical	10,000,000
of the contactor with added auxiliary switch block / typical	10,000,000

Communication:		
Product function		
bus-communication		Yes
control circuit interface with IO link		Yes
Protocol / will be supported / AS interface protocol		No

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 40 °C ambient temperature / rated value	Α	18
• at 60 °C ambient temperature / rated value	А	16
• at AC-2 / at 400 V / rated value	А	7
• at AC-3 / at 400 V / rated value	А	7
• at AC-4 / at 400 V / rated value	А	6.5
• with 1 current path / at DC-1		
• at 24 V / rated value	А	15
• at 110 V / rated value	А	1.5
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	Α	15
• at 110 V / rated value	Α	8.4
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	Α	15
• at 110 V / rated value	Α	15
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	Α	15

• at 110 V / rated value	Α	0.1
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	Α	15
• at 110 V / rated value	Α	0.25
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	Α	15
• at 110 V / rated value	Α	15
Service power		
• at AC-2 / at 400 V / rated value	kW	3
• 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
• at AC-4 / at 400 V / rated value	kW	1.15
Off-load operating frequency	1/h	15
Frequency of operation		
• at AC-1 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-2 / according to IEC 60947-6-2 / maximum	1/h	750
• at AC-3 / according to IEC 60947-6-2 / maximum	1/h	750
• at AC-4 / according to IEC 60947-6-2 / maximum	1/h	250

Control circuit:		
Design of activation		conventional
Design of the surge suppressor		with varistor
Type of voltage / of the controlled supply voltage		DC
Control supply voltage frequency		
• 1 / rated value	Hz	50
• 2 / rated value	Hz	60
Control supply voltage / 1		
for DC / rated value	V	24
Operating range factor control supply voltage rated value / of the solenoid		
• for DC		0.85 1.1
Pull-in power / of the solenoid / for DC	W	4
Holding power / of the solenoid / for DC	W	4
Resistive loss / of the magnet coil / for DC		
• typical	W	4

Auxiliary circuit:	
Product extension / auxiliary switch	Yes
Contact reliability / of the auxiliary contacts	< 1 error per 100 million operating cycles

per direction of rotation instantaneous switching lagging switching Number of NO contacts / for auxiliary contacts per direction of rotation instantaneous switching leading switching leading switching	Number of NC contacts / for auxiliary contacts		
• instantaneous switching • lagging switching Number of NO contacts / for auxiliary contacts • per direction of rotation • instantaneous switching • leading switching Operating current / of the auxiliary contacts • at AC-12 / maximum • at AC-15 • at 230 V • at 400 V • at 400 V • at 60 V • at 60 V • at 220 V • at 30 V • at 48 V • at 60 V • at 30 V • at 48 V • at 60 V • at 110 V • at 48 V • at 60 V • at 110 V • at 48 V • at 60 V • at 110 V	·		0
Number of NO contacts / for auxiliary contacts • per direction of rotation 0 • instantaneous switching 0 • leading switching 0 Operating current / of the auxiliary contacts A • at AC-12 / maximum A 10 • at 230 V A 6 • at 400 V A 3 • at 460 V A 6 • at 60 V A 6 • at 220 V A 1 • at 24 V A 10 • at 48 V A 2 • at 60 V A 2 • at 60 V A 2 • at 110 V A 1			0
 per direction of rotation instantaneous switching leading switching o Operating current / of the auxiliary contacts at AC-12 / maximum at AC-15 at 230 V at 400 V at 400 V at 48 V at 60 V at 110 V at 220 V at 220 V at 220 V at 24 V at 24 V at 48 V at 60 V at 24 V at 60 V at 60 V at 24 V at 60 V at 60 V at 24 V at 60 V at 60 V at 24 V at 60 V at 60 V at 10 at 48 V at 2 at 60 V at 110 V at 110 V 	lagging switching		0
 instantaneous switching leading switching Operating current / of the auxiliary contacts at AC-12 / maximum at AC-15 at 230 V at 400 V at 400 V at 48 V at 60 V at 110 V at 220 V at 220 V at 24 V at 24 V at 48 V at 60 V at 24 O at 24 V at 24 V at 48 V at 24 V at 48 V at 24 V at 24 V at 24 V at 3 at 24 V at 60 V at 24 V at 3 at 24 V at 60 V at 24 V at 24 V at 3 at 24 V at 3 at 24 V at 48 V at 2 at 50 V at 110 V at 110 V 	Number of NO contacts / for auxiliary contacts		
• leading switching 0 Operating current / of the auxiliary contacts • at AC-12 / maximum • at AC-15 • at 230 V • at 400 V • at 400 V • at 48 V • at 60 V • at 110 V • at 220 V • at 24 V • at 60 V • at 60 V • at 60 V • at 60 V • at 10 C-13 • at 24 V • at 60 V • at 60 V • at 60 V • at 60 V • at 20 V • at 110 V • at 20 V • at 3	• per direction of rotation		0
• at AC-12 / maximum • at AC-15 • at 230 V • at 400 V • at 48 V • at 60 V • at 110 V • at DC-13 • at 220 V • at DC-13 • at 24 V • at 60 V • at 60 V • at 60 V • at 60 V • at AC-15 • A A A A A A A A A A A A A A A A A A A	• instantaneous switching		0
• at AC-12 / maximum • at AC-15 • at 230 V • at 400 V • at DC-12 • at 48 V • at 60 V • at 110 V • at DC-13 • at 24 V • at 60 V • at 60 V • at 60 V • at 60 V • at 70 A A A A A A A A A A A A A	leading switching		0
• at AC-15 • at 230 V • at 400 V A 3 • at DC-12 • at 48 V • at 60 V • at 110 V • at 220 V • at DC-13 • at 24 V • at 60 V • at 60 V • at 60 V A A A A A A A A A A A A A	Operating current / of the auxiliary contacts		
• at 230 V • at 400 V • at 400 V • at DC-12 • at 48 V • at 60 V • at 110 V • at 220 V • at 24 V • at 48 V • at 60 V • at 60 V • at 48 V • at 24 V • at 60 V • at 48 V • at 60 V • at 110 V • at 48 V • at 60 V • at 110 V • at 110 V	• at AC-12 / maximum	А	10
• at 400 V • at DC-12 • at 48 V • at 60 V • at 110 V • at 220 V • at 24 V • at 48 V • at 60 V • at 60 V • at 70 A • A • A • A • A • A • A • A • A • A •	• at AC-15		
• at DC-12 • at 48 V • at 60 V • at 110 V • at 220 V • at DC-13 • at 24 V • at 60 V • at 60 V • at 60 V • at 60 V • at 110 V	• at 230 V	Α	6
• at 48 V • at 60 V • at 110 V • at 220 V • at DC-13 • at 24 V • at 48 V • at 60 V • at 110 V A A A A A A A A A A A A A	• at 400 V	А	3
• at 60 V • at 110 V • at 220 V • at DC-13 • at 24 V • at 48 V • at 60 V • at 110 V A A A A A A A A A A A A A	• at DC-12		
• at 110 V A 3 • at 220 V A 1 • at DC-13 • at 24 V A 10 • at 48 V A 2 • at 60 V A 1	• at 48 V	А	6
• at 220 V • at DC-13 • at 24 V • at 48 V • at 60 V • at 110 V A 1 A 1 A 2 A 1	• at 60 V	Α	6
• at DC-13 • at 24 V • at 48 V • at 60 V • at 110 V A 1	• at 110 V	Α	3
• at 24 V • at 48 V • at 60 V • at 110 V A 10 A 2 A 1	• at 220 V	Α	1
• at 48 V • at 60 V • at 110 V A 2 A 1	• at DC-13		
• at 60 V A 2 • at 110 V A 1	• at 24 V	А	10
• at 110 V A 1	• at 48 V	А	2
	• at 60 V	А	2
• at 220 V A 0.3	• at 110 V	А	1
	• at 220 V	Α	0.3

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
at type of coordination 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

Installation/mounting/dimensions:		
Built in orientation		any
Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail
Width	mm	90
Height	mm	68
Depth	mm	73
Distance, to be maintained, to the ranks assembly		

• forwards • backwards • upwards • upwards • upwards • downwards • sidewards Distance, to be maintained, to earthed part • forwards • backwards • upwards • upwards • sidewards Distance, to be maintained, to earthed part • forwards • backwards • mm 6 • downwards • sidewards Distance, to be maintained, conductive elements • forwards • backwards • mm 6 Distance, to be maintained, conductive elements • forwards • backwards • mm 6 • downwards • downwards • downwards • sidewards mm 6			
 upwards downwards sidewards mm 6 sidewards mm 6 Distance, to be maintained, to earthed part forwards backwards upwards upwards downwards sidewards forwards mm sidewards forwards forwards mm backwards upwards forwards backwards upwards upwards mm 6 	• forwards	mm	6
• downwards • sidewards Distance, to be maintained, to earthed part • forwards • backwards • upwards • downwards • sidewards Distance, to be maintained, conductive elements • forwards • forwards • mm 6 Distance, to be maintained, conductive elements • forwards • backwards mm 6 • backwards mm 6 • downwards mm 6 • downwards mm 6 • downwards mm 6 • mm 6	• backwards	mm	0
• sidewards Distance, to be maintained, to earthed part • forwards • backwards • upwards • downwards • sidewards • forwards • sidewards • forwards • forwards • forwards • forwards • forwards • forwards • backwards • backwards • backwards • backwards • upwards • downwards • downwards • mm 6	• upwards	mm	6
Distance, to be maintained, to earthed part • forwards	• downwards	mm	6
 forwards backwards upwards downwards sidewards mm sidewards mm forwards forwards backwards mm upwards downwards mm mm mm mm mm mm mm mm downwards mm mm<!--</td--><td>• sidewards</td><td>mm</td><td>6</td>	• sidewards	mm	6
 backwards upwards downwards sidewards sidewards mm 6 Distance, to be maintained, conductive elements forwards backwards mm backwards upwards downwards mm forwards mm mm 	Distance, to be maintained, to earthed part		
 upwards downwards sidewards mm sidewards mm 6 Distance, to be maintained, conductive elements forwards backwards upwards downwards mm downwards mm mm mm mm mm 	• forwards	mm	6
 downwards sidewards mm downwards mm 	• backwards	mm	0
 sidewards Distance, to be maintained, conductive elements forwards backwards upwards downwards mm mm<!--</td--><td>• upwards</td><td>mm</td><td>6</td>	• upwards	mm	6
Distance, to be maintained, conductive elements • forwards	• downwards	mm	6
 forwards backwards upwards downwards mm 6 mm 6 downwards mm 6 	• sidewards	mm	6
 backwards upwards downwards mm 6 mm 6 	Distance, to be maintained, conductive elements		
 upwards downwards mm 6 	• forwards	mm	6
• downwards mm 6	• backwards	mm	0
	• upwards	mm	6
• sidewards mm 6	• downwards	mm	6
	• sidewards	mm	6

Connections:	
Design of the electrical connection	
for main current circuit	screw-type terminals
for auxiliary and control current circuit	screw-type terminals
Type of the connectable conductor cross-section	
• for main contacts	
• solid	2 x (0.5 1.5 mm²), 2 x (0.75 2.5 mm²), 2 x (0.5 4 mm²)
• stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x (0.5 4 mm²)
• finely stranded	
 with conductor 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	
• solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• finely stranded	
 with conductor 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)

Certificates/approvals:		
Verification of suitability	CE / UL / CSA / CCC	

General Product Approval

Test Certificates



ROSTEST



Manufacturer

Shipping Approval













Shipping Approval

other



other

UL/CSA ratings				
yielded mechanical performance (hp)				
• for single-phase squirrel cage motors				
• at 110/120 V / rated value	hp	0.25		
• at 230 V / rated value	hp	0.75		
• for three-phase squirrel cage motors				
• at 200/208 V / rated value	hp	1.5		
• at 220/230 V / rated value	hp	2		
• at 460/480 V / rated value	hp	3		
• at 575/600 V / rated value	hp	5		
Operating current (FLA) / for three-phase squirrel cage motors				
• at 480 V / rated value	Α	4.8		
• at 600 V / rated value	Α	6.1		
Contact rating designation / for auxiliary contacts / according to UL		A600 / Q600		

Safety:		
B10 value / with high demand rate		
according to SN 31920		1,000,000
Failure rate (FIT value) / with low demand rate		
according to SN 31920	FIT	100
Proportion of dangerous failures		
• with low demand rate / according to SN 31920	%	40
• with high demand rate / according to SN 31920	%	75
T1 value / for proof test interval or service life		
according to IEC 61508	а	20
Protection against electrical shock		finger-safe

Further information:

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

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

Industry Mall (Online ordering system)

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

CAx-Online-Generator

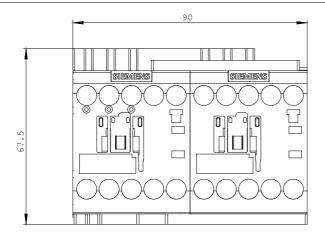
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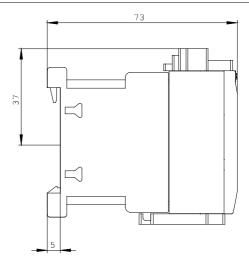
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

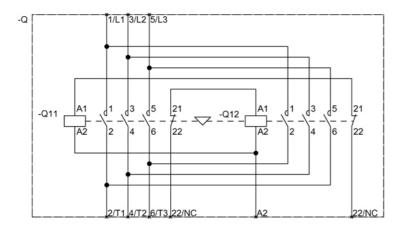
http://support.automation.siemens.com/WW/view/en/3RA2315-8XE30-1BB4/all

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2315-8XE30-1BB4







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