# **SIEMENS**

## **Product data sheet**

3RA2328-8XE30-1BB4



REV. COMB. W.I/O-LINK, AC3, 18.5KW/400V, DC24V 3-POLE, SZ SO SCREW TERMINAL ELECTR. AND MECH. INTERLOCK 2NO INTEGR.

General technical data:		
Product brand name		SIRIUS
product designation		reversing contactor assembly 3RA23
Product function		reversing contactor
Size of the contactor		S0
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	1.6
Item designation		
<ul> <li>according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</li> </ul>		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	3RT2028-1BB40-0CC0
• 2 / of the contactor included in the scope of supply	3RT2028-1BB40
of the RS applied assembly kit	3RA2923-2AA1
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	50
• at 60 °C ambient temperature / rated value	Α	45
• at AC-2 / at 400 V / rated value	Α	38
• at AC-3 / at 400 V / rated value	Α	38
• at AC-4 / at 400 V / rated value	Α	18.5
• with 1 current path / at DC-1		
• at 24 V / rated value	Α	35
• at 110 V / rated value	Α	4.5
<ul> <li>with 2 current paths in series / at DC-1</li> </ul>		
• at 24 V / rated value	Α	35
• at 110 V / rated value	Α	35
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	Α	35
• at 110 V / rated value	Α	35
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	Α	20

• at 110 V / rated value	Α	2.5
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	Α	35
• at 110 V / rated value	Α	15
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	Α	35
• at 110 V / rated value	Α	35
Service power		
• at AC-2 / at 400 V / rated value	kW	18.5
• at AC-3		
• at 400 V / rated value	kW	18.5
• at 500 V / rated value	kW	22
• at 690 V / rated value	kW	18.5
• at AC-4 / at 400 V / rated value	kW	9.5
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	1,000
• at AC-3 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-4 / according to IEC 60947-6-2 / maximum	1/h	300

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		0.8 1.1
Pull-in power / of the solenoid / for DC	W	5.9
Holding power / of the solenoid / for DC	W	5.9
Resistive loss / of the magnet coil / for DC		
• typical	W	5.9

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
<ul> <li>per direction of rotation</li> <li>instantaneous switching</li> <li>leading switching</li> <li>o</li> </ul> Operating current / of the auxiliary contacts <ul> <li>at AC-12 / maximum</li> <li>at AC-15</li> <li>at 230 V</li> <li>at 400 V</li> <li>at 400 V</li> <li>at 48 V</li> <li>at 60 V</li> <li>at 110 V</li> <li>at 220 V</li> <li>at 220 V</li> <li>at 220 V</li> <li>at 24 V</li> <li>at 24 V</li> <li>at 48 V</li> <li>at 60 V</li> <li>at 24 V</li> <li>at 60 V</li> <li>at 60 V</li> <li>at 24 V</li> <li>at 60 V</li> <li>at 60 V</li> <li>at 24 V</li> <li>at 60 V</li> <li>at 60 V</li> <li>at 24 V</li> <li>at 60 V</li> <li>at 60 V</li> <li>at 10</li> <li>at 48 V</li> <li>at 24 V</li> <li>at 60 V</li> <li>at 10</li> </ul>	lagging switching		0
<ul> <li>instantaneous switching</li> <li>leading switching</li> <li>Operating current / of the auxiliary contacts</li> <li>at AC-12 / maximum</li> <li>at AC-15</li> <li>at 230 V</li> <li>at 400 V</li> <li>at 400 V</li> <li>at 48 V</li> <li>at 60 V</li> <li>at 110 V</li> <li>at 220 V</li> <li>at 220 V</li> <li>at 24 V</li> <li>at 24 V</li> <li>at 48 V</li> <li>at 60 V</li> <li>at 24 O</li> <li>at 24 V</li> <li>at 24 V</li> <li>at 48 V</li> <li>at 24 V</li> <li>at 48 V</li> <li>at 24 V</li> <li>at 24 V</li> <li>at 24 V</li> <li>at 3</li> <li>at 24 V</li> <li>at 60 V</li> <li>at 24 V</li> <li>at 3</li> <li>at 24 V</li> <li>at 60 V</li> <li>at 24 V</li> <li>at 24 V</li> <li>at 3</li> <li>at 24 V</li> <li>at 3</li> <li>at 24 V</li> <li>at 48 V</li> <li>at 2</li> <li>at 50 V</li> <li>at 110 V</li> <li>at 110 V</li> </ul>	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	А	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	Α	10
• at 110 V A 1	• at 48 V	А	2
	• at 60 V	Α	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: 100 A
• at type of coordination 2 / required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 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	101
Depth	mm	107
Distance, to be maintained, to the ranks assembly		

forwards	mm	6
backwards	mm	0
upwards	mm	6
downwards	mm	6
sidewards	mm	6
ance, to be maintained, to earthed part		
forwards	mm	6
backwards	mm	0
upwards	mm	6
downwards	mm	6
sidewards	mm	6
ance, to be maintained, conductive elements		
forwards	mm	6
backwards	mm	0
upwards	mm	6
downwards	mm	6
sidewards	mm	6

Connections:	
Design of the electrical connection	
for main current circuit	screw-type terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals
Type of the connectable conductor cross-section	
• for main contacts	
• solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)
• stranded	2x (1 2.5 mm²), 2x (2.5 10 mm²)
• finely stranded	
<ul> <li>with conductor end processing</li> </ul>	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
• for AWG conductors / for main contacts	2x (16 12), 2x (14 8)
• for auxiliary contacts	
• solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• finely stranded	
<ul> <li>with conductor 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)

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

## **General Product Approval**

#### **Test Certificates**



ROSTEST



Manufacturer

## **Shipping Approval**













**Shipping Approval** 

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other

UL/CSA ratings				
yielded mechanical performance (hp)				
for single-phase squirrel cage motors				
• at 110/120 V / rated value	hp	3		
• at 230 V / rated value	hp	5		
• for three-phase squirrel cage motors				
• at 220/230 V / rated value	hp	10		
• at 460/480 V / rated value	hp	25		
• at 575/600 V / rated value	hp	25		
Operating current (FLA) / for three-phase squirrel cage motors				
• at 480 V / rated value	Α	34		
• at 600 V / rated value	Α	27		
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				
<ul> <li>with low demand rate / according to SN 31920</li> </ul>	%	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**

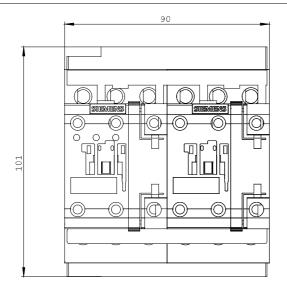
http://www.siemens.com/cax

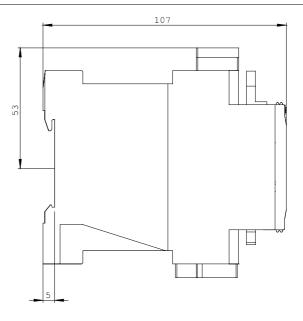
#### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

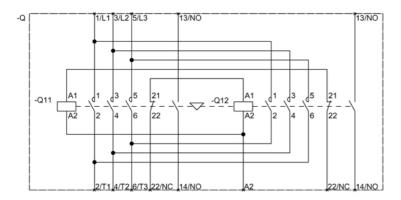
http://support.automation.siemens.com/WW/view/en/3RA2328-8XE30-1BB4/all

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RA2328-8XE30-1BB4







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