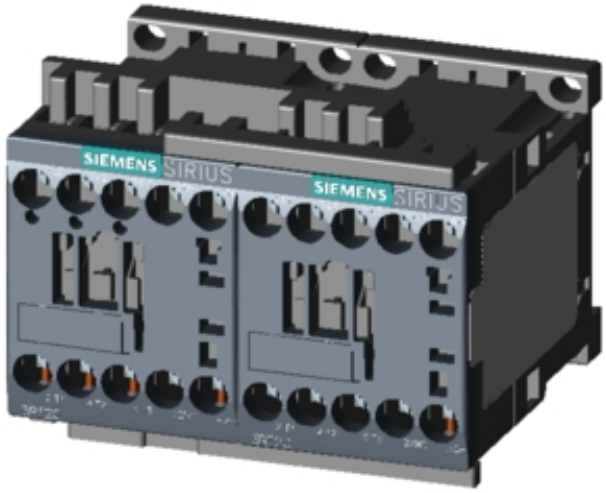
SIEMENS

Product data sheet 3RA2316-8XE30-1BB4



REV. COMB. W.I/O-LINK, AC3, 4KW/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	0.7
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		K
• 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		3RT2016-1BB42-0CC0
• 2 / of the contactor included in the scope of supply		3RT2016-1BB42
• of the RS applied assembly kit		3RA2913-2AA2
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	A	18
• at 60 °C ambient temperature / rated value	A	16
• at AC-2 / at 400 V / rated value	A	7
• at AC-3 / at 400 V / rated value	A	9
• at AC-4 / at 400 V / rated value	A	6.5
• with 1 current path / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	2.1
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	12
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	20
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	A	20

• at 110 V / rated value	A	0.15
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	0.35
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	20
Service power		
• at AC-2 / at 400 V / rated value	kW	4
• 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
• at AC-4 / at 400 V / rated value	kW	2
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

Number of NC contacts / for auxiliary contacts		
• per direction of rotation		0
• instantaneous switching		0
• lagging switching		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		
• at AC-12 / maximum	A	10
• at AC-15		
• at 230 V	A	6
• at 400 V	A	3
• at DC-12		
• at 48 V	A	6
• at 60 V	A	6
• 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	2
• at 110 V	A	1
• at 220 V	A	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	mm	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sidewards	mm	6
Distance, to be maintained, to earthed part		
• forwards	mm	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sidewards	mm	6
Distance, 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
• 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
CSA	ROSTEST	UL	Manufacturer

Shipping Approval					
ABS	DNV	GL	LRS	PRS	RINA

Shipping Approval	other
RMRS	other

UL/CSA ratings		
yielded mechanical performance (hp)		
• for single-phase squirrel cage motors		
• at 110/120 V / rated value	hp	0.33
• at 230 V / rated value	hp	1
• for three-phase squirrel cage motors		
• at 200/208 V / rated value	hp	2
• at 220/230 V / rated value	hp	3
• at 460/480 V / rated value	hp	5
• at 575/600 V / rated value	hp	7.5
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	A	7.6
• at 600 V / rated value	A	9
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	a	20
Protection against electrical shock		finger-safe

Further information:

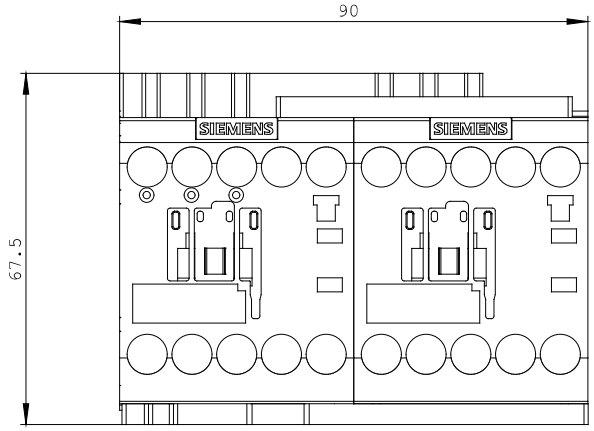
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

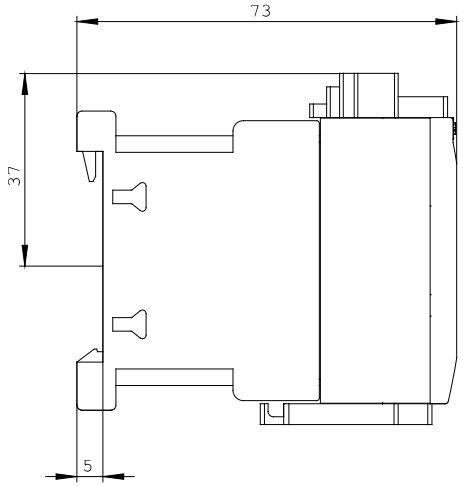
Industry Mall (Online ordering system)
http://www.siemens.com/industrial-controls/mall

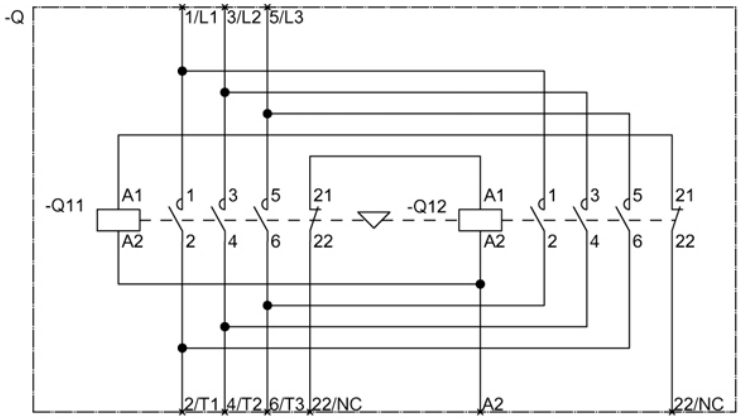
CAx-Online-Generator
http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3RA2316-8XE30-1BB4/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2316-8XE30-1BB4







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