## **SIEMENS**

Product data sheet 3RA2335-8XB30-1AL2

REV. COMB., AC3:18.5KW/400V, 230V AC 50/60HZ, 3-POLE, SIZE S2 SCREW CONNECTION ELECTR. AND MECH. INTERLOCK 2NO INTEGR.

General technical data:			
product brand name		SIRIUS	
Product function		Reversing contactor assembly	
Size of contactor		S2	
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 height above sea level / maximum	m	2,000	
Ambient temperature / during storage	°C	-55 <b>+</b> 80	
Ambient temperature / during operation	°C	-25 +60	
Surge voltage resistance / Rated value	kV	6	
Active power loss / per conductor / typical	W	2.2	
Manufacturer article number			
• 1 / of the supplied contactor		3RT2035-1AL20	
• 2 / of the supplied contactor		3RT2035-1AL20	
of the supplied RS assembly kit		3RA2934-2BB1	
Mechanical service life (switching cycles)			
of the contactor / typical		10,000,000	
of the contactor with added auxiliary switch block / typical		10,000,000	
Communication/ Protocol:			
Product function			
Bus communication		No	
Control circuit interface with IO link		No	
Protocol / is 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 NC contacts / for main contacts			
Number of NO contacts / for main contacts		3	
	V	3 690	

• at AC-1 / at 400 V		
• at ambient temperature 40 °C / Rated value	Α	60
• at ambient temperature 60 °C / Rated value	Α	55
• at AC-2 / at 400 V / Rated value	Α	40
• at AC-3 / at 400 V / Rated value	Α	40
• at AC-4 / at 400 V / Rated value	Α	35
• with 1 current path / at DC-1		
• at 24 V / Rated value	Α	55
• 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	55
• at 110 V / Rated value	Α	25
<ul> <li>with 3 current paths in series / at DC-1</li> </ul>		
• at 24 V / Rated value	Α	55
• at 110 V / Rated value	Α	55
<ul><li>with 1 current path / at DC-3 / at DC-5</li></ul>		
• at 24 V / Rated value	Α	35
• at 110 V / Rated value	Α	2.5
<ul> <li>with 2 current paths in series / at DC-3 / at DC-5</li> </ul>		
• at 24 V / Rated value	Α	55
• at 110 V / Rated value	Α	25
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / Rated value	Α	55
at 110 V / Rated value	Α	55
Operating power		
• at AC-2 / at 400 V / Rated value	kW	18.5
• at AC-3		
• at 400 V / Rated value	kW	18.5
• at 690 V / Rated value	kW	18.5
• at AC-4 / at 400 V / Rated value	kW	18.5
No-load switching frequency	1/h	1,500
Operating frequency		
• at AC-1 / maximum	1/h	1,000
• at AC-2 / maximum	1/h	750
• at AC-3 / maximum	1/h	1,000
• at AC-4 / maximum	1/h	300

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
• with AC / 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
• with AC / at 60 Hz		0.85 1.1
Apparent pick-up power / of the magnet coil / with AC		
• at 50 Hz	V-A	210
• at 60 Hz	V-A	188
Inductive power factor / with closing power of the coil		
• at 50 Hz		0.69
• at 60 Hz		0.65
Apparent holding power / of the magnet coil / with AC		
• at 50 Hz	V-A	17.2
• at 60 Hz	V-A	16.5
Inductive power factor / with the holding power of the coil		
• at 50 Hz		0.36
• at 60 Hz		0.39

Auxiliary circuit:		
Product expansion / 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 contact		0
• lagging switching		0
Number of NO contacts / for auxiliary contacts		
• per direction of rotation		0
• instantaneous contact		0
• leading contact		0
Operating current / of the auxiliary contacts		
• at AC-12 / maximum	Α	10
• at AC-15		
• at 230 V	Α	6
• at 400 V	Α	3
• at DC-12		
• at 48 V	Α	6
• at 60 V	Α	6
• at 110 V	Α	3
• at 220 V	Α	1

• at DC-13		
• at 24 V	Α	10
• at 48 V	Α	2
• at 60 V	Α	2
• at 110 V	Α	1
• at 220 V	Α	0.3

Short-circuit:	
Design of the fuse link	
• for short-circuit protection of the main circuit	
<ul> <li>with type of assignment 1 / required</li> </ul>	gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A
• for short-circuit protection of the auxiliary switch / required	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
Width	mm	120
Height	mm	141
Depth	mm	130

Connections/ terminals:	
Design of the 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 (1 35 mm²), 1x (1 50 mm²)
• finely stranded / with core end processing	2x (1 25 mm²), 1x (1 35 mm²)
for AWG conductors / for main contacts	2x (18 2), 1x (18 1)
Type of connectable conductor cross-section	
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)

## Certificates/ approvals:

## **Declaration of Conformity**



UL/CSA ratings:		
yielded mechanical performance [hp]		
for single-phase AC motor		
• at 110/120 V / Rated value	hp	3
• at 230 V / Rated value	hp	7.5
• for three-phase AC motor		
• at 220/230 V / Rated value	hp	15
• at 460/480 V / Rated value	hp	30
• at 575/600 V / Rated value	hp	40
Full-load current (FLA) / for three-phase AC motor		
• at 480 V / Rated value	Α	40
• at 600 V / Rated value	Α	41
Contact rating / of the auxiliary contacts / acc. to UL		A600 / Q600

Safety related data:		
B10 value / with high demand rate		
• acc. to SN 31920		1,000,000
Failure rate [FIT] / with low demand rate		
• acc. to SN 31920	FIT	100
Proportion of dangerous failures		
• with low demand rate / acc. to SN 31920	%	40
• with high demand rate / acc. to SN 31920	%	73
T1 value / for proof test interval or service life		
• acc. to IEC 61508	а	20

## Further information:

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

 $\underline{\text{http://www.siemens.com/industrial-controls/catalogs}}$ 

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

Cax online generator

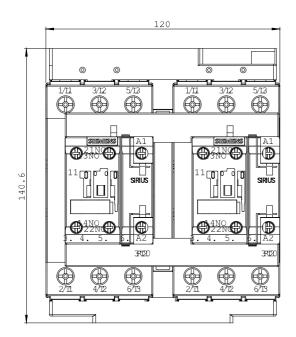
http://www.siemens.com/cax

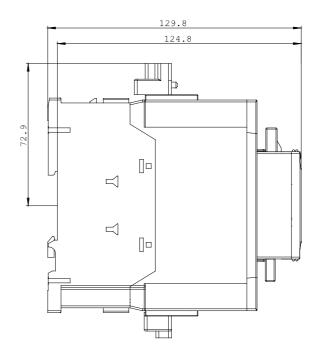
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

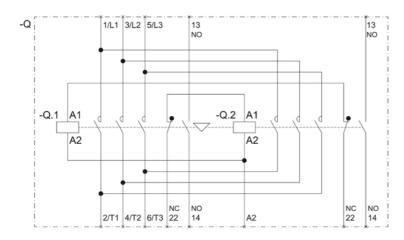
 $\underline{\text{http://support.automation.siemens.com/WW/view/en/3RA2335-8XB30-1AL2/all}}$ 

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RA2335-8XB30-1AL2







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