## **SIEMENS**

## Data sheet

## 3RA2338-8XB30-1AC2

Reversing contactor assembly, AC-3, 37 kW 400 V, 24 V AC, 50/60 Hz 3-pole, Size S2 screw terminal electrical and mechanical interlock 2 NO integrated



Figure similar

	_
product brand name	SIRIUS
Product designation	Reversing contactor assembly
Product type designation	3RA23
Manufacturer's article number	
<ul> <li>1 of the supplied contactor</li> </ul>	3RT2038-1AC20
<ul> <li>2 of the supplied contactor</li> </ul>	3RT2038-1AC20
<ul> <li>of the supplied RS assembly kit</li> </ul>	3RA2933-2AA1

General technical data		
Size of contactor	S2	
Product extension		
Auxiliary switch	Yes	
<ul> <li>Insulation voltage with degree of pollution 3 at AC rated value</li> </ul>	690 V	
Surge voltage resistance rated value	6 kV	
<ul> <li>protection class IP on the front</li> </ul>	IP20	
Shock resistance at rectangular impulse		
• at AC	11.8g / 5 ms, 11.6g / 10 ms	

Shock resistance with sine pulse	
• at AC	18.5g / 5 ms, 11.6g / 10 ms
Mechanical service life (switching cycles)	
<ul> <li>of contactor typical</li> </ul>	10 000 000
<ul> <li>of the contactor with added auxiliary switch</li> </ul>	10 000 000
block typical	
Reference code acc. to DIN EN 81346-2	Q
Ambient conditions	
Installation altitude at height above sea level	
• maximum	2 000 m
Ambient temperature	
<ul> <li>during operation</li> </ul>	-25 +60 °C
during storage	-55 +80 °C
Aain circuit	
Number of poles for main current circuit	3
Number of NO contacts for main contacts	3
Number of NC contacts for main contacts	0
Operating voltage	
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
Operating current	
● at AC-3	
— at 400 V rated value	80 A
Operating current	
<ul> <li>at 1 current path at DC-1</li> </ul>	
— at 24 V rated value	55 A
— at 110 V rated value	4.5 A
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	55 A
— at 110 V rated value	25 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	55 A
— at 110 V rated value	55 A
Operating current	
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 110 V rated value	2.5 A
• with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	55 A
— at 110 V rated value	25 A
• with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	55 A

— at 110 V rated value	55 A
Operating power	
• at AC-3	
— at 400 V rated value	37 kW
— at 690 V rated value	45 kW
<ul> <li>at AC-4 at 400 V rated value</li> </ul>	30 kW
No-load switching frequency	1 500 1/h
Operating frequency at AC-3 maximum	500 1/h
Control circuit/ Control	
Type of voltage of the control supply voltage	AC
Control supply voltage 1 at AC	
• at 50 Hz rated value	24 V
• at 60 Hz rated value	24 V
Operating range factor control supply voltage rated	
value of magnet coil at AC	
• at 50 Hz	0.8 1.1
● at 60 Hz	0.85 1.1
Apparent pick-up power of magnet coil at AC	
• at 50 Hz	210 V·A
● at 60 Hz	188 V·A
Inductive power factor with closing power of the coil	
• at 50 Hz	0.69
● at 60 Hz	0.65
Apparent holding power of magnet coil at AC	
• at 50 Hz	17.2 V·A
● at 60 Hz	16.5 V·A
Inductive power factor with the holding power of the	
coil	
● at 50 Hz	0.36
● at 60 Hz	0.39
Auxiliary circuit	
Number of NC contacts for auxiliary contacts	
<ul> <li>per direction of rotation</li> </ul>	0
Number of NO contacts for auxiliary contacts	
<ul> <li>per direction of rotation</li> </ul>	1
• instantaneous contact	2
Operating current of auxiliary contacts at AC-12 maximum	10 A
<ul> <li>Operating current of auxiliary contacts at AC-15 at 230 V</li> </ul>	6 A
<ul> <li>operating current of auxiliary contacts at AC-15 at 400 V</li> </ul>	3 A

<ul> <li>operating current of auxiliary contacts at DC-13 at 24 V</li> </ul>	10 A		
<ul> <li>Operating current of auxiliary contacts at DC-13 at 60 V</li> </ul>	2 A		
<ul> <li>Operating current of auxiliary contacts at DC-13 at 110 V</li> </ul>	1 A		
<ul> <li>Operating current of auxiliary contacts at DC-13 at 220 V</li> </ul>	0.3 A		
contact reliability of 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	65 A		
• at 600 V rated value	62 A		
Yielded mechanical performance [hp]			
<ul> <li>for single-phase AC motor</li> </ul>			
— at 110/120 V rated value	5 hp		
— at 230 V rated value	15 hp		
<ul> <li>for three-phase AC motor</li> </ul>			
— at 220/230 V rated value	20 hp		
— at 460/480 V rated value	50 hp		
— at 575/600 V rated value	60 hp		
Contact rating of auxiliary contacts according to UL	A600 / Q600		
Short-circuit protection			
Design of the fuse link			
• for short-circuit protection of the main circuit			
— with type of coordination 1 required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 250 A		
— with type of assignment 2 required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A		
<ul> <li>for short-circuit protection of the auxiliary switch</li> </ul>	fuse gG: 10 A		
required			
Installation/ mounting/ dimensions			
<ul> <li>mounting position</li> </ul>	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface		
mounting position     Mounting type	tilted forward and backward by +/- 22.5° on vertical mounting		
	tilted forward and backward by +/- 22.5° on vertical mounting surface		
Mounting type	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail		
Mounting type Height	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 141 mm		
Mounting type Height Width	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 141 mm 120 mm		
Mounting type Height Width Depth	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 141 mm 120 mm		
Mounting type Height Width Depth Required spacing	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 141 mm 120 mm		
Mounting type Height Width Depth Required spacing • with side-by-side mounting	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 141 mm 120 mm 130 mm		
Mounting type Height Width Depth Required spacing • with side-by-side mounting — forwards	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 141 mm 120 mm 130 mm		

- downwards     10 mm       - at the side     10 mm       - or grounded parts     10 mm       - backwards     0 mm       - backwards     0 mm       - upwards     10 mm       - at the side     10 mm       - downwards     10 mm       - downwards     10 mm       - downwards     10 mm       - forwards     10 mm       - forwards     10 mm       - forwards     10 mm       - forwards     10 mm       - downwards     10 mm       - at the side     10 mm       - at the side     10 mm       - for auxiliary contaction for auxiliary and contacts     screw-type terminals       - for auxiliary c		
<ul> <li>For grounded parts         <ul> <li>for wards</li> <li>forwards</li> <li>mm</li> <li>Backwards</li> <li>mm</li> <li>Backwards</li> <li>mm</li> <li>at the side</li> <li>mm</li> <li>downwards</li> <li>mm</li> <li>downwards</li> <li>mm</li> <li>downwards</li> <li>mm</li> <li>downwards</li> <li>mm</li> <li>downwards</li> <li>mm</li> <li>downwards</li> <li>mm</li> <li>forwards</li> <li>mm</li> <li>Backwards</li> <li>mm</li> <li>Backwards</li> <li>mm</li> <li>Backwards</li> <li>mm</li> <li>downwards</li> <li>downwards</li> <li>downwards</li> <li>downwards</li> <li>downm</li> <li>downm</li> <lidown< li=""></lidown<></ul></li></ul>	— downwards	10 mm
- forwards       10 mm         - Backwards       0 mm         - upwards       10 mm         - at the side       10 mm         - at the side       10 mm         - downwards       10 mm         - forwards       10 mm         - forwards       10 mm         - forwards       10 mm         - forwards       10 mm         - gowards       10 mm         - downwards       10 mm         - at the side       0 mm         - at the side       10 mm         - at the side       10 mm         - at the side       10 mm         - fore usclassecontor coreasesclose       screw-type terminals	— at the side	10 mm
	<ul> <li>for grounded parts</li> </ul>	
	— forwards	10 mm
	— Backwards	0 mm
	— upwards	10 mm
<ul> <li>for live parts         <ul> <li>forwards</li> <li>forwards</li> <li>forwards</li> <li>forwards</li> <li>forwards</li> <li>forwards</li> <li>forwards</li> <li>form</li> <li>gradient and the side</li> </ul> </li> <li>Connections/ Terminals</li> <li>Type of electrical connection for main current circuit</li> <li>Type of electrical connection for auxiliary and control current circuit</li> </ul> <li>Screw-type terminals</li> <li>Screw-type terminals</li> <li>Screw-type terminals</li> <li>Screw-type terminals</li> <ul> <li>connectable conductor cross-sections</li> <li>for main contacts</li> <li>solid</li> <li>2x (1 35 mm<sup>2</sup>), 1x (1 50 mm<sup>2</sup>)</li> <li>single or multi-stranded</li> <li>2x (1 35 mm<sup>2</sup>), 1x (1 50 mm<sup>2</sup>)</li> <li>for auxiliary contacts</li> <li>a AWG conductor for cross-sections</li> <li>for auxiliary contacts</li> <li>a single or multi-stranded</li> <li>2x (0, 5 1, 5 mm<sup>2</sup>), 2x (0, 75 2, 5 mm<sup>2</sup>)</li> <li>for auxiliary contacts</li> <li>a single or multi-stranded</li> <li>2x (20 10), 2x (18 14)</li> </ul> <li>Safety related data</li> <li>B10 value         <ul> <li>with high demand rate acc. to SN 31920</li> <li>for with low demand rate acc. to SN 31920</li> <li>with how demand rate acc. to SN 31920</li> <li>with how demand rate acc. to SN 31920</li> <li>for FIT</li> <li>vitaus for proof test interval or service life acc. to 20 y</li> </ul> </li>	— at the side	10 mm
forwards       10 mm         Backwards       0 mm         upwards       10 mm         downwards       10 mm         at the side       10 mm         Connections/ Terminals       screw-type terminals         • Type of electrical connection for main current circuit       screw-type terminals         • Type of electrical connection for auxiliary and control current circuit       screw-type terminals         • Type of connectable conductor cross-sections       • for main contacts         solid       2x (1 35 mm <sup>2</sup> ), 1x (1 50 mm <sup>2</sup> )         single or multi-stranded       2x (1 35 mm <sup>2</sup> ), 1x (1 50 mm <sup>2</sup> )         finely stranded with core end processing       2x (1 35 mm <sup>2</sup> ), 1x (1 50 mm <sup>2</sup> )         single or multi-stranded       2x (0,5 1,5 mm <sup>2</sup> ), 2x (0,75 2,5 mm <sup>2</sup> )         single or multi-stranded       2x (0,5 1,5 mm <sup>2</sup> ), 2x (0,75 2,5 mm <sup>2</sup> )         single or multi-stranded       2x (20 16), 2x (18 1)         Type of connectable with core end processing       2x (0,5 1,5 mm <sup>2</sup> ), 2x (0,75 2,5 mm <sup>2</sup> )         single or multi-stranded       2x (20 16), 2x (18 14)         Safety related data	— downwards	10 mm
Backwards       0 mm	• for live parts	
- upwards       10 mm         - downwards       10 mm         - at the side       10 mm         Connections/ Terminals       screw-type terminals         • Type of electrical connection for main current circuit       screw-type terminals         • Type of electrical connection for auxiliary and control current circuit       screw-type terminals         • Type of connectable conductor cross-sections       • for main contacts         - solid       2x (1 35 mm²), 1x (1 50 mm²)         - single or multi-stranded       2x (1 35 mm²), 1x (1 50 mm²)         - single or multi-stranded       2x (1 35 mm²), 1x (1 50 mm²)         - single or multi-stranded       2x (1 25 mm²), 1x (1 50 mm²)         • at AWG conductors for main contacts       2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)         • for auxiliary contacts       2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)         • single or multi-stranded       2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)         • at AWG conductors for auxiliary contacts       2x (20 16), 2x (18 14)         Safety related data       1000 000         Proportion of dangerous failures       40 %         • with high demand rate acc. to SN 31920       100 FIT         • with high demand rate acc. to SN 31920       73 %         Failure rate [FIT]       with low deman	— forwards	10 mm
- downwards     10 mm       - at the side     10 mm       Connections/ Terminals     screw-type terminals       • Type of electrical connection for main current circuit     screw-type terminals       • Type of electrical connection for auxiliary and control current circuit     screw-type terminals       • Type of connectable conductor cross-sections     screw-type terminals       • for main contacts     2x (1 35 mm <sup>3</sup> ), 1x (1 50 mm <sup>2</sup> )       - solid     2x (1 35 mm <sup>3</sup> ), 1x (1 50 mm <sup>2</sup> )       - finely stranded with core end processing     2x (1 25 mm <sup>3</sup> ), 1x (1 50 mm <sup>2</sup> )       • at AWG conductors for main contacts     2x (1 25 mm <sup>3</sup> ), 2x (0.75 2,5 mm <sup>3</sup> )       • at AWG conductors for auxiliary contacts     2x (0,5 1,5 mm <sup>3</sup> ), 2x (0,75 2,5 mm <sup>3</sup> )       • for auxiliary contacts     2x (20 16), 2x (18 14)       Safety related data     2x (20 16), 2x (18 14)       Safety related data     1000 000       Proportion of dangerous failures     40 %       • with low demand rate acc. to SN 31920     100 FIT       • with low demand rate acc. to SN 31920     100 FIT       • with low demand rate acc. to SN 31920     100 FIT       • with low demand rate acc. to SN 31920     100 FIT       • with low demand rate acc. to SN 31920     100 FIT       • With low demand rate acc. to SN 31920     100 FIT       • With low dema	— Backwards	0 mm
- at the side       10 mm         Connections/ Terminals       screw-type terminals         • Type of electrical connection for main current circuit       screw-type terminals         • Type of electrical connection for auxiliary and control current circuit       screw-type terminals         • Type of onnectable conductor cross-sections       screw-type terminals         • for main contacts       2x (1 35 mm <sup>2</sup> ), 1x (1 50 mm <sup>2</sup> )         - single or multi-stranded       2x (1 35 mm <sup>2</sup> ), 1x (1 50 mm <sup>2</sup> )         - single or multi-stranded       2x (1 35 mm <sup>2</sup> ), 1x (1 50 mm <sup>2</sup> )         • at AWG conductors for main contacts       2x (1 35 mm <sup>2</sup> ), 1x (1 50 mm <sup>2</sup> )         • at AWG conductors for main contacts       2x (1 35 mm <sup>2</sup> ), 1x (1 50 mm <sup>2</sup> )         • at AWG conductors for main contacts       2x (0.5 1,5 mm <sup>2</sup> ), 2x (0.75 2,5 mm <sup>2</sup> )         • at AWG conductors for auxiliary contacts       2x (0.5 1,5 mm <sup>2</sup> ), 2x (0.75 2,5 mm <sup>2</sup> )         • at AWG conductors for auxiliary contacts       2x (20 16), 2x (18 14)         Safety related data       210 value         • with high demand rate acc. to SN 31920       1 000 000         Proportion of dangerous failures       40 %         • with high demand rate acc. to SN 31920       73 %         Failure rate [FIT]       100 FIT         • with low demand rate acc. to	— upwards	10 mm
Connections/ Terminals         • Type of electrical connection for main current circuit       screw-type terminals         • Type of electrical connection for auxiliary and control current circuit       screw-type terminals         Type of electrical connection for auxiliary and control current circuit         Type of connectable conductor cross-sections         • for main contacts       2x (1 35 mm <sup>2</sup> ), 1x (1 50 mm <sup>2</sup> )         - single or multi-stranded       2x (1 35 mm <sup>2</sup> ), 1x (1 50 mm <sup>2</sup> )         - finely stranded with core end processing       2x (1 25 mm <sup>2</sup> ), 1x (1 35 mm <sup>2</sup> )         • at AWG conductors for main contacts       2x (0,5 1,5 mm <sup>2</sup> ), 2x (0,75 2,5 mm <sup>2</sup> )         • finely stranded with core end processing       2x (0,5 1,5 mm <sup>2</sup> ), 2x (0,75 2,5 mm <sup>2</sup> )         • finely stranded with core end processing       2x (0,5 1,5 mm <sup>2</sup> ), 2x (0,75 2,5 mm <sup>2</sup> )         • at AWG conductors for auxiliary contacts       2x (0,5 1,5 mm <sup>2</sup> ), 2x (0,75 2,5 mm <sup>2</sup> )         • at 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       40 %         • with high demand rate acc. to SN 31920       73 %         Failure rate	— downwards	10 mm
<ul> <li>Type of electrical connection for main current circuit</li> <li>Type of electrical connection for auxiliary and control current circuit</li> <li>Type of electrical connection for auxiliary and control current circuit</li> <li>Type of connectable conductor cross-sections</li> <li>for main contacts         <ul> <li>– solid</li> <li>– solid</li> <li>– single or multi-stranded</li> <li>(135 mm<sup>2</sup>), 1x (150 mm<sup>2</sup>)</li> <li>2x (135 mm<sup>2</sup>), 1x (150 mm<sup>2</sup>)</li> <li>2x (135 mm<sup>2</sup>), 1x (150 mm<sup>2</sup>)</li> <li>2x (135 mm<sup>2</sup>), 1x (150 mm<sup>2</sup>)</li> <li>2x (125 mm<sup>2</sup>), 1x (150 mm<sup>2</sup>)</li> <li>2x (0.5 1.5 mm<sup>2</sup>), 2x (0.75 2.5 mm<sup>2</sup>)</li> <li>2x (2016), 2x (1814)</li> </ul> </li> <li>Safety related data</li> <li>B10 value         <ul> <li>with high demand rate acc. to SN 31920</li> <li>1000 000</li> </ul> </li> <li>Proportion of dangerous failures         <ul> <li>with low demand rate acc. to SN 31920</li> <li>73 %</li> </ul> </li> <li>Failure rate [FIT]         <ul> <li>with low demand rate acc. to SN 31920</li> <li>100 FIT</li> <li>11 value for proof test interval or service life acc. to IE consol</li> </ul> </li></ul>	— at the side	10 mm
<ul> <li>Type of electrical connection for main current circuit</li> <li>Type of electrical connection for auxiliary and control current circuit</li> <li>Type of electrical connection for auxiliary and control current circuit</li> <li>Type of connectable conductor cross-sections</li> <li>for main contacts         <ul> <li>– solid</li> <li>– solid</li> <li>– single or multi-stranded</li> <li>(135 mm<sup>2</sup>), 1x (150 mm<sup>2</sup>)</li> <li>2x (135 mm<sup>2</sup>), 1x (150 mm<sup>2</sup>)</li> <li>2x (135 mm<sup>2</sup>), 1x (150 mm<sup>2</sup>)</li> <li>2x (135 mm<sup>2</sup>), 1x (150 mm<sup>2</sup>)</li> <li>2x (125 mm<sup>2</sup>), 1x (150 mm<sup>2</sup>)</li> <li>2x (0.5 1.5 mm<sup>2</sup>), 2x (0.75 2.5 mm<sup>2</sup>)</li> <li>2x (2016), 2x (1814)</li> </ul> </li> <li>Safety related data</li> <li>B10 value         <ul> <li>with high demand rate acc. to SN 31920</li> <li>1000 000</li> </ul> </li> <li>Proportion of dangerous failures         <ul> <li>with low demand rate acc. to SN 31920</li> <li>73 %</li> </ul> </li> <li>Failure rate [FIT]         <ul> <li>with low demand rate acc. to SN 31920</li> <li>100 FIT</li> <li>11 value for proof test interval or service life acc. to IE consol</li> </ul> </li></ul>	Connections/ Terminals	
circuit       • Type of electrical connection for auxiliary and control current circuit       screw-type terminals         Type of connectable conductor cross-sections       • for main contacts       2x (1 35 mm²), 1x (1 50 mm²)         - solid       2x (1 35 mm²), 1x (1 50 mm²)       - single or multi-stranded         - single or multi-stranded       2x (1 35 mm²), 1x (1 50 mm²)         - finely stranded with core end processing       2x (1 25 mm²), 1x (1 50 mm²)         • at AWG conductors for main contacts       2x (1 25 mm²), 1x (1 35 mm²)         • at AWG conductors for main contacts       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)         • finely stranded with core end processing       2x (20 16), 2x (18 14)         Safety related data       2x (20 16), 2x (18 14)         Safety related data       1000 000         Proportion of dangerous failures       40 %         • with high demand rate acc. to SN 31920       40 %         • with high demand rate acc. to SN 31920       73 %         Failure rate [FIT]       100 FIT         • with low demand rate acc. to SN 31920       100 FIT         • with low demand rate acc. to SN 31920       100 FIT         • Nalue for proof test interval or service life acc. to life acc.		screw-type terminals
control current circuit         Type of connectable conductor cross-sections         • for main contacts         - solid       2x (1 35 mm²), 1x (1 50 mm²)         - single or multi-stranded       2x (1 35 mm²), 1x (1 50 mm²)         - finely stranded with core end processing       2x (1 35 mm²), 1x (1 50 mm²)         - finely stranded with core end processing       2x (1 25 mm²), 1x (1 35 mm²)         • at AWG conductors for main contacts       2x (18 2), 1x (18 1)         Type of connectable conductor cross-sections       • for auxiliary contacts         - single or multi-stranded       2x (0,5 1,5 mm³), 2x (0,75 2,5 mm²)         - finely stranded with core end processing       2x (20 16), 2x (18 14)         Safety related data       2x (20 16), 2x (18 14)         Safety related data       2x (20 16), 2x (18 14)         Safety related data       40 %         • with high demand rate acc. to SN 31920       1000 000         Proportion of dangerous failures       40 %         • with high demand rate acc. to SN 31920       73 %         Failure rate [FIT]       • with high demand rate acc. to SN 31920       100 FIT         • with low demand rate acc. to SN 31920       100 FIT         • uitle for proof test interval or service life acc. to       20 y <th></th> <th></th>		
Type of connectable conductor cross-sections         • for main contacts         solid       2x (1 35 mm²), 1x (1 50 mm²)         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)         finely stranded with core end processing       2x (1 25 mm²), 1x (1 35 mm²)         finely stranded with core end processing       2x (1 25 mm²), 1x (1 35 mm²)         finely stranded conductor cross-sections       • 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 (20 16), 2x (0.75 2,5 mm²)         finely stranded with core end processing       2x (20 16), 2x (18 14)         Safety related data       2x (20 16), 2x (18 14)         Safety related data       2x (20 16), 2x (18 14)         Safety related data       40 %         • with high demand rate acc. to SN 31920       40 %         • with high demand rate acc. to SN 31920       73 %         Failure rate [FIT]       • with low demand rate acc. to SN 31920       100 FIT         • with low demand rate acc. to SN 31920       100 FIT         • traile for proof test interval or service life acc. to       20 y <th><ul> <li>Type of electrical connection for auxiliary and</li> </ul></th> <th>screw-type terminals</th>	<ul> <li>Type of electrical connection for auxiliary and</li> </ul>	screw-type terminals
<ul> <li>for main contacts         <ul> <li>solid</li> <li>2x (1 35 mm²), 1x (1 50 mm²)</li> <li>single or multi-stranded</li> <li>2x (1 35 mm²), 1x (1 50 mm²)</li> <li>finely stranded with core end processing</li> <li>2x (1 25 mm²), 1x (1 35 mm²)</li> <li>at AWG conductors for main contacts</li> <li>2x (1 8 2), 1x (18 1)</li> </ul> </li> <li>Type of connectable conductor cross-sections         <ul> <li>for auxiliary contacts</li> <li>single or multi-stranded</li> <li>2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)</li> <li>finely stranded with core end processing</li> <li>2x (20 16), 2x (18 14)</li> </ul> </li> <li>Safety related data</li> <li>B10 value         <ul> <li>with high demand rate acc. to SN 31920</li> <li>1000 000</li> </ul> </li> <li>Proportion of dangerous failures         <ul> <li>with low demand rate acc. to SN 31920</li> <li>73 %</li> </ul> </li> <li>Failure rate [FIT]         <ul> <li>with low demand rate acc. to SN 31920</li> <li>100 FIT</li> <li>11 value for proof test interval or service life acc. to Z0 y</li> </ul> </li></ul>	control current circuit	
solid2x (1 35 mm²), 1x (1 50 mm²) single or multi-stranded2x (1 35 mm²), 1x (1 50 mm²) finely stranded with core end processing2x (1 25 mm²), 1x (1 35 mm²)• at AWG conductors for main contacts2x (1 25 mm²), 1x (1 35 mm²)Type of connectable conductor cross-sections2x (1 25 mm²), 1x (1 35 mm²)• for auxiliary contacts2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)- single or multi-stranded2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)- finely stranded with core end processing2x (20 16), 2x (18 14)Safety related dataEl10 value• with high demand rate acc. to SN 319201 000 000Proportion of dangerous failures40 %• with high demand rate acc. to SN 3192073 %Failure rate [FIT]100 FIT• with low demand rate acc. to SN 31920100 FITT1 value for proof test interval or service life acc. to EC 6150820 y	Type of connectable conductor cross-sections	
single or multi-stranded2x (1 35 mm²), 1x (1 50 mm²) finely stranded with core end processing2x (1 25 mm²), 1x (1 35 mm²)• at AWG conductors for main contacts2x (1 25 mm²), 1x (1 35 mm²)Type of connectable conductor cross-sections2x (1 8 2), 1x (18 1)• for auxiliary contacts2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)- single or multi-stranded2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)- finely stranded with core end processing2x (20 16), 2x (18 14)Safety related dataB10 value• with high demand rate acc. to SN 319201 000 000Proportion of dangerous failures• with low demand rate acc. to SN 3192040 %• with high demand rate acc. to SN 3192073 %Failure rate [FIT]• with low demand rate acc. to SN 31920100 FIT11 value for proof test interval or service life acc. to20 y	<ul> <li>for main contacts</li> </ul>	
finely stranded with core end processing $2x (1 \dots 25 \text{ mm}^2), 1x (1 \dots 35 \text{ mm}^2)$ • at AWG conductors for main contacts $2x (1 \dots 25 \text{ mm}^2), 1x (1 \dots 35 \text{ mm}^2)$ Type of connectable conductor cross-sections $2x (1 \dots 25 \text{ mm}^2), 1x (18 \dots 1)$ • for auxiliary contacts $2x (0, 5 \dots 1, 5 \text{ mm}^2), 2x (0, 75 \dots 2, 5 \text{ mm}^2)$ - single or multi-stranded $2x (0, 5 \dots 1, 5 \text{ mm}^2), 2x (0, 75 \dots 2, 5 \text{ mm}^2)$ - finely stranded with core end processing $2x (20 \dots 16), 2x (18 \dots 14)$ • at AWG conductors for auxiliary contacts $2x (20 \dots 16), 2x (18 \dots 14)$ Safety related dataB10 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 $73 \%$ Failure rate [FIT]• with low demand rate acc. to SN 31920 $100 \text{ FIT}$ T1 value for proof test interval or service life acc. to IEC 61508 $20 \text{ y}$	— solid	2x (1 35 mm²), 1x (1 50 mm²)
• at AWG conductors for main contacts       2x (18 2), 1x (18 1)         Type of connectable conductor cross-sections       • for auxiliary contacts         • for auxiliary contacts       2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)         - finely stranded with core end processing       2x (20 1,5 mm²), 2x (0,75 2,5 mm²)         • at AWG conductors for auxiliary contacts       2x (20 16), 2x (18 14)         Safety related data       2100 000         Proportion of dangerous failures       40 %         • with high demand rate acc. to SN 31920       1 000 000         Proportion of dangerous failures       40 %         • with low demand rate acc. to SN 31920       73 %         Failure rate [FIT]       • with low demand rate acc. to SN 31920       100 FIT         11 value for proof test interval or service life acc. to       20 y	— single or multi-stranded	2x (1 35 mm²), 1x (1 50 mm²)
Type of connectable conductor cross-sections• for auxiliary contacts- single or multi-stranded2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)- finely stranded with core end processing2x (0.5 1.5 mm²), 2x (0.75 2,5 mm²)• at AWG conductors for auxiliary contacts2x (20 16), 2x (18 14)Safety related dataB10 value1000 000• with high demand rate acc. to SN 319201 000 000Proportion of dangerous failures40 %• with low demand rate acc. to SN 3192073 %Failure rate [FIT]100 FIT• with low demand rate acc. to SN 31920100 FIT1 value for proof test interval or service life acc. to IEC 6150820 y	<ul> <li>— finely stranded with core end processing</li> </ul>	2x (1 25 mm²), 1x (1 35 mm²)
<ul> <li>for auxiliary contacts         <ul> <li>single or multi-stranded</li> <li>single or multi-stranded</li> <li>finely stranded with core end processing</li> <li>at AWG conductors for auxiliary contacts</li> </ul> </li> <li>at AWG conductors for auxiliary contacts</li> <li>2x (20 15 mm<sup>2</sup>), 2x (0.75 2.5 mm<sup>2</sup>)</li> <li>2x (20 16), 2x (18 14)</li> <li>Safety related data</li> <li>B10 value         <ul> <li>with high demand rate acc. to SN 31920</li> <li>1 000 000</li> </ul> </li> <li>Proportion of dangerous failures         <ul> <li>with high demand rate acc. to SN 31920</li> <li>40 %</li> <li>with high demand rate acc. to SN 31920</li> <li>73 %</li> </ul> </li> <li>Failure rate [FIT]         <ul> <li>with low demand rate acc. to SN 31920</li> <li>100 FIT</li> </ul> </li> <li>T1 value for proof test interval or service life acc. to IEC 61508</li> </ul>	<ul> <li>at AWG conductors for main contacts</li> </ul>	2x (18 2), 1x (18 1)
single or multi-stranded2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²) finely stranded with core end processing2x (0.5 1.5 mm²), 2x (0.75 2,5 mm²)- at AWG conductors for auxiliary contacts2x (20 16), 2x (18 14)Safety related dataB10 value1000 000• with high demand rate acc. to SN 319201 000 000Proportion of dangerous failures40 %• with high demand rate acc. to SN 3192073 %Failure rate [FIT]1000 FIT• with low demand rate acc. to SN 31920100 FITT1 value for proof test interval or service life acc. to IEC 6150820 y	Type of connectable conductor cross-sections	
finely stranded with core end processing • at AWG conductors for auxiliary contacts2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14)Safety related dataB10 value • with high demand rate acc. to SN 319201 000 000Proportion of dangerous failures • with low demand rate acc. to SN 3192040 % 73 %Failure rate [FIT] • with low demand rate acc. to SN 31920100 FITT1 value for proof test interval or service life acc. to IEC 6150820 y	<ul> <li>for auxiliary contacts</li> </ul>	
<ul> <li>at AWG conductors for auxiliary contacts</li> <li>2x (20 16), 2x (18 14)</li> <li>Safety related data</li> <li>B10 value         <ul> <li>with high demand rate acc. to SN 31920</li> <li>1 000 000</li> </ul> </li> <li>Proportion of dangerous failures         <ul> <li>with low demand rate acc. to SN 31920</li> <li>40 %</li> <li>with high demand rate acc. to SN 31920</li> <li>73 %</li> </ul> </li> <li>Failure rate [FIT]         <ul> <li>with low demand rate acc. to SN 31920</li> <li>100 FIT</li> <li>T1 value for proof test interval or service life acc. to 20 y</li> <li>IEC 61508</li> </ul> </li> </ul>	— single or multi-stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)
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       73 %         Failure rate [FIT]       • with low demand rate acc. to SN 31920         • with low demand rate acc. to SN 31920       100 FIT         T1 value for proof test interval or service life acc. to	<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
B10 value• with high demand rate acc. to SN 319201 000 000Proportion of dangerous failures• with low demand rate acc. to SN 3192040 %• with high demand rate acc. to SN 3192073 %Failure rate [FIT]100 FIT• with low demand rate acc. to SN 31920100 FITT1 value for proof test interval or service life acc. to IEC 6150820 y	<ul> <li>at AWG conductors for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14)
<ul> <li>with high demand rate acc. to SN 31920</li> <li>Proportion of dangerous failures         <ul> <li>with low demand rate acc. to SN 31920</li> <li>With high demand rate acc. to SN 31920</li> <li>With high demand rate acc. to SN 31920</li> </ul> </li> <li>Failure rate [FIT]         <ul> <li>with low demand rate acc. to SN 31920</li> <li>T1 value for proof test interval or service life acc. to IEC 61508</li> <li>ID0 FIT</li> </ul> </li> </ul>	Safety related data	
Proportion of dangerous failures       40 %         • with low demand rate acc. to SN 31920       40 %         • with high demand rate acc. to SN 31920       73 %         Failure rate [FIT]       100 FIT         • with low demand rate acc. to SN 31920       100 FIT         T1 value for proof test interval or service life acc. to IEC 61508       20 y	B10 value	
<ul> <li>with low demand rate acc. to SN 31920</li> <li>with high demand rate acc. to SN 31920</li> <li>Failure rate [FIT]</li> <li>with low demand rate acc. to SN 31920</li> <li>T1 value for proof test interval or service life acc. to IEC 61508</li> </ul>	<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	1 000 000
<ul> <li>with high demand rate acc. to SN 31920</li> <li>Failure rate [FIT]</li> <li>with low demand rate acc. to SN 31920</li> <li>T1 value for proof test interval or service life acc. to IEC 61508</li> </ul>	Proportion of dangerous failures	
Failure rate [FIT]       • with low demand rate acc. to SN 31920       100 FIT         T1 value for proof test interval or service life acc. to       20 y         IEC 61508       IEC 61508	<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	40 %
with low demand rate acc. to SN 31920     100 FIT     T1 value for proof test interval or service life acc. to     IEC 61508     20 y	<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	73 %
T1 value for proof test interval or service life acc. to IEC 61508	Failure rate [FIT]	
IEC 61508	• with low demand rate acc. to SN 31920	100 FIT
Communication/ Protocol	-	20 у
	Communication/ Protocol	

product function bus communication		Yes					
Protocol is suppo	orted						
<ul> <li>AS-Interfac</li> </ul>	e protocol		No	No			
Product function	Product function Control circuit interface with IO link		No				
Certificates/ app	rovals						
General Prod	luct Approval			Declaration of Conformity		Test Certific-	
						ates	
CSA		EAC		Miscellaner EG-Konf.	ous	Type Test Certific- ates/Test Report	

Marine / Ship	oping				
ALCAN BURY	BUREAU	Lloyd's Register			
ABS	VERITAS	LRS	PRS	RINA	RMRS

Marine / Ship-	other		
ping			
DNV-GL	<u>Confirmation</u>		

Further information	
Information- and Downloadcente https://www.siemens.com/ic10	er (Catalogs, Brochures,)
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Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2338-8XB30-1AC2

## Cax online generator

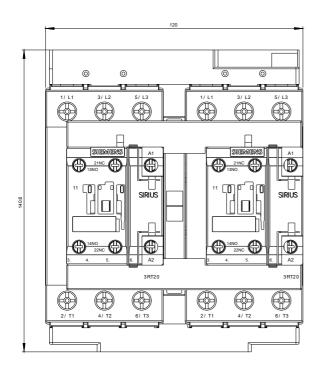
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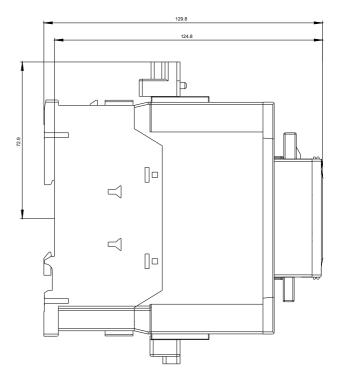
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RA2338-8XB30-1AC2

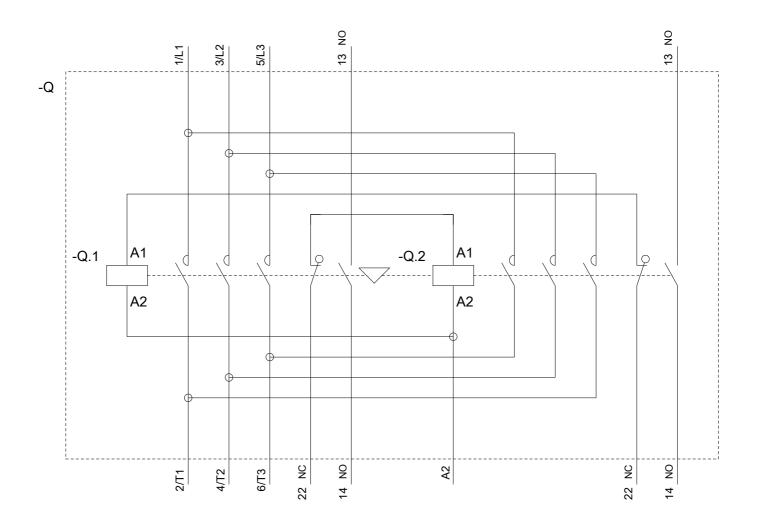
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA2338-8XB30-1AC2&lang=en

Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RA2338-8XB30-1AC2/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2338-8XB30-1AC2&objecttype=14&gridview=view1







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08/13/2020