SIEMENS

Data sheet 3RA2338-8XE30-1NB3

Reversing contactor assembly AC-3, 37 kW/400 V, 20-33 V AC/DC 3-pole, Size S2 screw terminal electrical and mechanical Interlock 2 NO integrated with voltage tap

product brand name	SIRIUS
Product designation	Reversing contactor assembly
Product type designation	3RA23
Manufacturer's article number	
• 1 of the supplied contactor	3RT2038-1NB30-0CC0
• 2 of the supplied contactor	3RT2038-1NB30
• of the supplied RS assembly kit	3RA2933-2AA1

General technical data	
Size of contactor	S2
Product extension	
• Auxiliary switch	Yes
• Insulation voltage with degree of pollution 3 at AC rated value	690 V
Surge voltage resistance rated value	6 kV
• protection class IP on the front	IP20
Shock resistance at rectangular impulse	
• at AC	7.7g / 5 ms, 4.5g / 10 ms
• at DC	7.7g / 5 ms, 4.5g / 10 ms
Shock resistance with sine pulse	

• at AC	12g / 5 ms, 7g / 10 ms
• at DC	12g / 5 ms, 7g / 10 ms
Mechanical service life (switching cycles)	
• of contactor typical	10 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
Reference code acc. to DIN EN 81346-2	Q

Ambient conditions

Installation altitude at height above sea level	
• maximum	2 000 m
Ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-55 ... +80 °C

Main circuit

Number of poles for main current circuit	3
Number of NO contacts for main contacts	0
Number of NC contacts for main contacts	0
Operating voltage	
• at AC-3 rated value maximum	690 V
Operating current	
• at AC-3	
— at 400 V rated value	80 A
Operating current	
• at 1 current path at DC-1	
— at 24 V rated value	55 A
— at 110 V rated value	4.5 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	55 A
— at 110 V rated value	25 A
• with 3 current paths in series at DC-1	
— 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
• at AC-4 at 400 V rated value	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/DC
Control supply voltage 1 at AC	
• at 50 Hz	20 ... 33 V
• at 60 Hz	20 ... 33 V
Control supply voltage 1	
• at DC	20 ... 33 V
Operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 ... 1.1
• at 60 Hz	0.8 ... 1.1
Design of the surge suppressor	with varistor
Apparent pick-up power of magnet coil at AC	
• at 50 Hz	40 V·A
• at 60 Hz	40 V·A
Inductive power factor with closing power of the coil	
• at 50 Hz	0.64
• at 60 Hz	0.5
Apparent holding power of magnet coil at AC	
• at 50 Hz	2 V·A
• at 60 Hz	2 V·A
Inductive power factor with the holding power of the coil	
• at 50 Hz	0.36
• at 60 Hz	0.39
Closing power of magnet coil at DC	23 W
Holding power of magnet coil at DC	1 W

Auxiliary circuit

Number of NC contacts for auxiliary contacts	
• per direction of rotation	0
Number of NO contacts for auxiliary contacts	
• per direction of rotation	1
• instantaneous contact	2

Operating current of auxiliary contacts at AC-12 maximum	10 A
• Operating current of auxiliary contacts at AC-15 at 230 V	6 A
• operating current of auxiliary contacts at AC-15 at 400 V	3 A
• operating current of auxiliary contacts at DC-13 at 24 V	10 A
• Operating current of auxiliary contacts at DC-13 at 60 V	2 A
• Operating current of auxiliary contacts at DC-13 at 110 V	1 A
• Operating current of auxiliary contacts at DC-13 at 220 V	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]	
• for single-phase AC motor	
— at 110/120 V rated value	5 hp
— at 230 V rated value	15 hp
• for three-phase AC motor	
— 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
• for short-circuit protection of the auxiliary switch required	fuse 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
Height	141 mm
Width	120 mm

Depth	130 mm
Required spacing	
• with side-by-side mounting	
— forwards	10 mm
— Backwards	0 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm
• for grounded parts	
— forwards	10 mm
— Backwards	0 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
• for live parts	
— forwards	10 mm
— Backwards	0 mm
— upwards	10 mm
— downwards	10 mm
— at the side	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 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)
• 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 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)
• 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	
• 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 FIT
T1 value for proof test interval or service life acc. to IEC 61508	20 y

Communication/ Protocol

product function bus communication	Yes
Protocol is supported	
• AS-Interface protocol	No
Product function Control circuit interface with IO link	No

Certificates/ approvals

General Product Approval			Declaration of Conformity		Test Certificates
CSA	UL	EAC	EG-Konf.	Miscellaneous	Type Test Certificates/Test Report

Marine / Shipping

ABS | BUREAU VERITAS | LRS | RINA | RMRS | DNV·GL

other

Confirmation

Further information

Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/ic10

Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2338-8XE30-1NB3

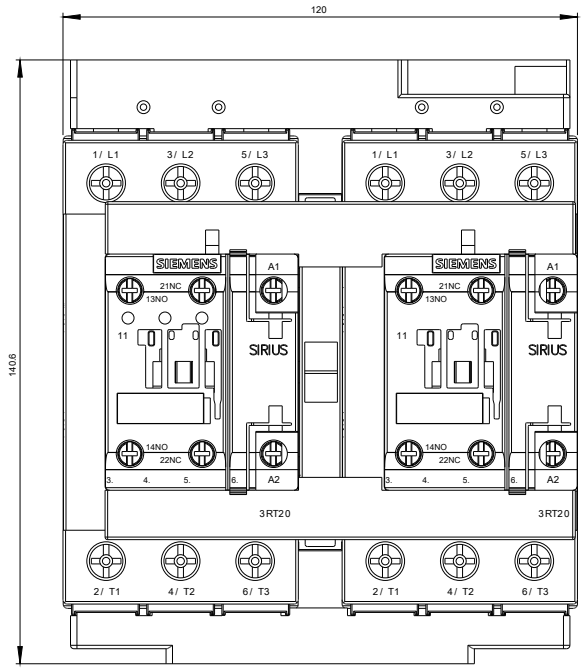
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2338-8XE30-1NB3

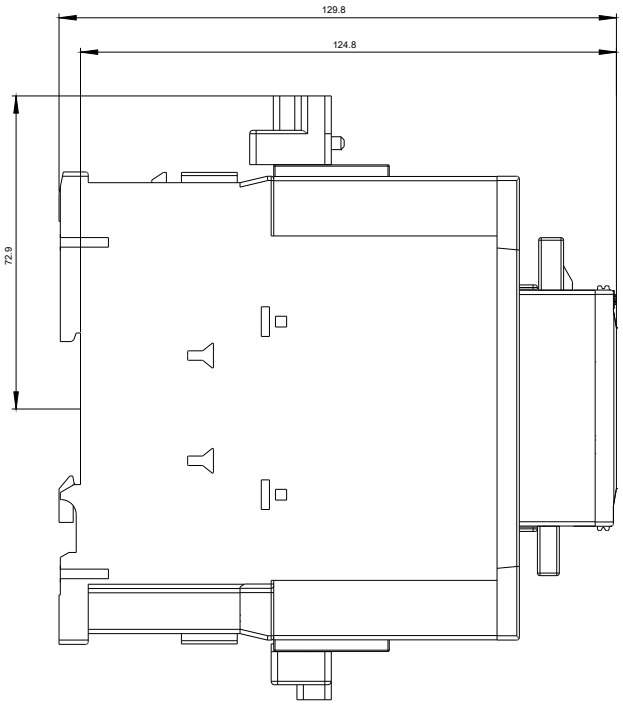
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RA2338-8XE30-1NB3

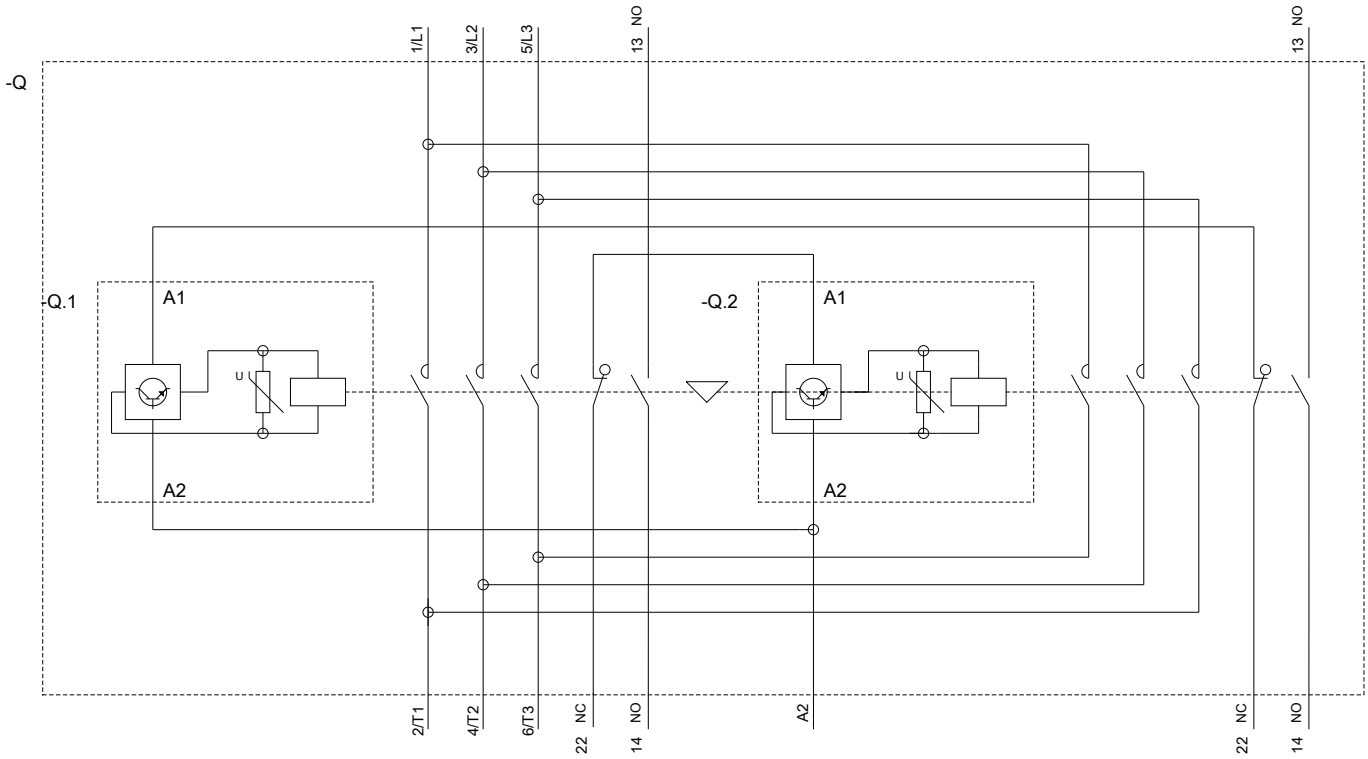
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2338-8XE30-1NB3&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current
https://support.industry.siemens.com/cs/ww/en/ps/3RA2338-8XE30-1NB3/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2338-8XE30-1NB3&objecttype=14&gridview=view1







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