SIEMENS

Data sheet 3RA2316-8XB30-1BW4

Reversing contactor assembly AC-3, 4 kW/400 V, 48 V DC 3-pole, Size S00 screw terminal electrical and mechanical interlock

product brand name	SIRIUS
product designation	Reversing contactor assembly
product type designation	3RA23
• Manufacturer's article number 1 of the supplied contactor	3RT2016-1BW42
• Manufacturer's article number 2 of the supplied contactor	3RT2016-1BW42
• Manufacturer's article number of the supplied RH assembly kit	3RA2913-2AA1

General technical data	
Size of contactor	S00
• 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	6,7g / 5 ms, 4,2g / 10 ms

• at DC	6,7g / 5 ms, 4,2g / 10 ms
Shock resistance with sine pulse	
• at AC	10,5g / 5 ms, 6,6g / 10 ms
• at DC	10,5g / 5 ms, 6,6g / 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
• ambient temperature during storage	-55 ... +80 °C

Main 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 at AC-3 rated value maximum	690 V
• — operating current at AC-3 at 400 V rated value	9 A
Operating current	
• at 1 current path at DC-1	
— at 24 V rated value	20 A
— at 110 V rated value	2.1 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	20 A
— at 110 V rated value	12 A
• with 3 current paths in series at DC-1	
— at 24 V rated value	20 A
— at 110 V rated value	20 A
Operating current	
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	20 A
— at 110 V rated value	0.15 A
• with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	20 A
— at 110 V rated value	0.35 A
• with 3 current paths in series at DC-3 at DC-5	

— at 24 V rated value	20 A
— at 110 V rated value	20 A
• operating power at AC-3	
— at 400 V rated value	4 kW
— at 500 V rated value	4.5 kW
— at 690 V rated value	5.5 kW
• Operating power at AC-4 at 400 V rated value	4 kW
No-load switching frequency	1 500 1/h
operating frequency at AC-3 maximum	750 1/h

Control circuit/ Control

Type of voltage of the control supply voltage	DC
Control supply voltage 1	
• at DC rated value	48 V
Closing power of magnet coil at DC	4 W
Holding power of magnet coil at DC	4 W

Auxiliary circuit

Operating current of auxiliary contacts at AC-12 maximum	10 A
operating current of auxiliary contacts at AC-15	
• at 230 V	6 A
• at 400 V	3 A
operating current of auxiliary contacts at DC-13	
• at 24 V	10 A
• at 60 V	2 A
• at 110 V	1 A
• 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	7.6 A
• at 600 V rated value	9 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	0.33 hp
— at 230 V rated value	1 hp
• for three-phase AC motor	
— at 200/208 V rated value	2 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	5 hp
— at 575/600 V rated value	7.5 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: 35 A
• Design of the fuse link for short-circuit protection of the main circuit with type of assignment 2 required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A
• design of the fuse link 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	68 mm
width	90 mm
depth	73 mm
required spacing	
• with side-by-side mounting	
— forwards	6 mm
— backwards	0 mm
— upwards	6 mm
— downwards	6 mm
— at the side	6 mm
• for grounded parts	
— forwards	6 mm
— backwards	0 mm
— upwards	6 mm
— at the side	6 mm
— downwards	6 mm
• for live parts	
— forwards	6 mm
— backwards	0 mm
— upwards	6 mm
— downwards	6 mm
— at the side	6 mm

Connections/ Terminals	
type of electrical connection	
• for main current circuit	screw-type terminals
• for auxiliary and control current circuit	screw-type terminals
• type of connectable conductor cross-sections for main contacts solid	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm²

• type of connectable conductor cross-sections for main contacts single or multi-stranded	2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x (0,5 ... 4 mm²)
• type of connectable conductor cross-sections for main contacts finely stranded with core end processing	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
• type of connectable conductor cross-sections at AWG conductors for main contacts	2x (20 ... 16), 2x (18 ... 14)
• 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)
• type of connectable conductor cross-sections for auxiliary contacts finely stranded with core end processing	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
• type of connectable conductor cross-sections 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	75 %
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	Special Test Certificate

Test Certificates	Marine / Shipping				
Type Test Certificates/Test Report	ABS	BUREAU VERITAS	LRS	PRS	RINA

Marine / Shipping		other	Railway
RMRS	DNVGL.COM/AF	Confirmation	Vibration and Shock

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=3RA2316-8XB30-1BW4

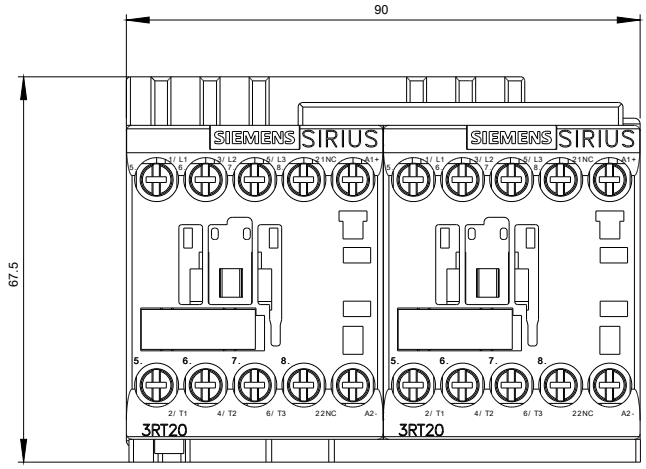
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2316-8XB30-1BW4

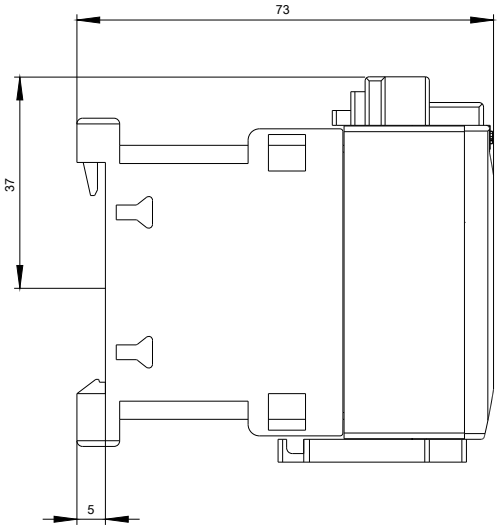
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RA2316-8XB30-1BW4

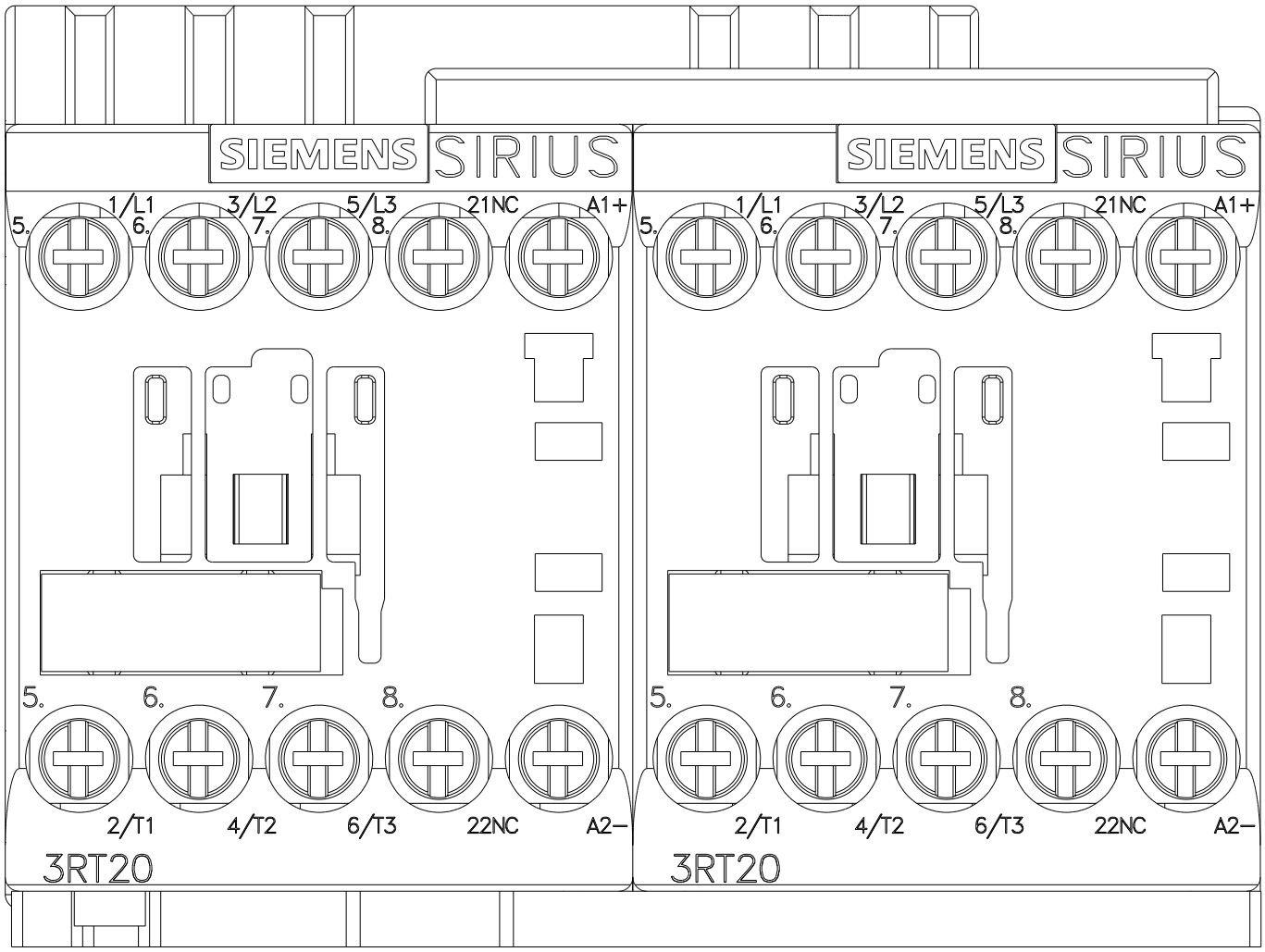
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2316-8XB30-1BW4&lang=en

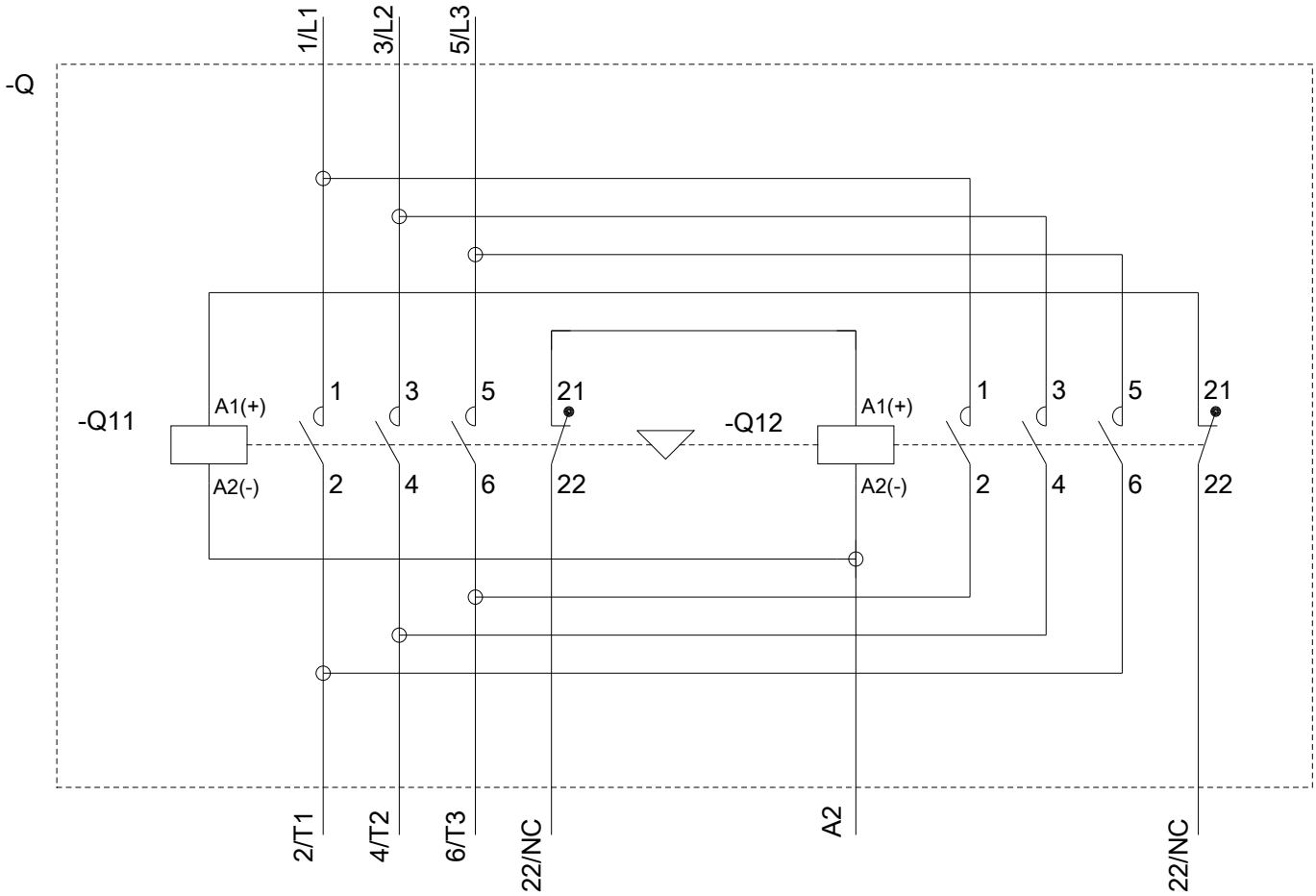
Characteristic: Tripping characteristics, I^2t, Let-through current
https://support.industry.siemens.com/cs/ww/en/ps/3RA2316-8XB30-1BW4/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2316-8XB30-1BW4&objecttype=14&gridview=view1









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