

Reversing contactor assembly AC-3,4 kW/400 V,AC110V,50/60 Hz 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	
<ul style="list-style-type: none"> • 1 of the supplied contactor • 2 of the supplied contactor • of the supplied RH assembly kit 	3RT2016-1AF02 3RT2016-1AF02 3RA2913-2AA1

General technical data

size of contactor	S00
product extension auxiliary switch	Yes
shock resistance at rectangular impulse	
<ul style="list-style-type: none"> • at AC • at DC 	6,7g / 5 ms, 4,2g / 10 ms 6,7g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
<ul style="list-style-type: none"> • at AC • at DC 	10,5g / 5 ms, 6,6g / 10 ms 10,5g / 5 ms, 6,6g / 10 ms
mechanical service life (operating cycles)	
<ul style="list-style-type: none"> • of contactor typical • of the contactor with added auxiliary switch block typical 	10 000 000 10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibittance (Date)	10/01/2009

Ambient conditions

installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage 	-25 ... +60 °C -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	
<ul style="list-style-type: none"> • at AC-3 rated value maximum • at AC-3e rated value maximum 	690 V 690 V
operational current	
<ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value — at 500 V rated value — at 690 V rated value • at AC-3e <ul style="list-style-type: none"> — at 400 V rated value — at 500 V rated value 	9 A 7.7 A 6.7 A 9 A 7.7 A

— at 690 V rated value	6.7 A
operating power	
• at AC-3	
— at 400 V rated value	4 kW
— at 500 V rated value	4 kW
— at 690 V rated value	5.5 kW
• at AC-3e	
— at 400 V rated value	4 kW
— at 690 V rated value	5.5 kW
• at AC-4 at 400 V rated value	4 kW
operating frequency	
• at AC-3 maximum	750 1/h
• at AC-3e maximum	750 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	110 V
• at 60 Hz rated value	110 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	27 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.8
apparent holding power of magnet coil at AC	
• at 50 Hz	4.2 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.25
Auxiliary circuit	
contact reliability of auxiliary contacts	< 1 error per 100 million operating cycles
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	7.6 A
• at 600 V rated value	9 A
yielded mechanical performance [hp] for 3-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
— with type of assignment 2 required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 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
fastening method	screw and snap-on mounting onto 35 mm DIN 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
- for auxiliary and control circuit
- at contactor for auxiliary contacts
- of magnet coil

screw-type terminals
screw-type terminals
Screw-type terminals
Screw-type terminals

type of connectable conductor cross-sections

- for main contacts
 - solid
 - solid or stranded
 - finely stranded with core end processing
- at AWG cables for main contacts

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm²
2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x (0.5 ... 4 mm²)
2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
2x (20 ... 16), 2x (18 ... 14)

type of connectable conductor cross-sections

- for auxiliary contacts
 - solid or stranded
 - finely stranded with core end processing
- at AWG cables for auxiliary contacts

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
2x (20 ... 16), 2x (18 ... 14)

Safety related data

B10 value with high demand rate according to SN 31920 1 000 000

proportion of dangerous failures

- with low demand rate according to SN 31920 40 %
- with high demand rate according to SN 31920 75 %

failure rate [FIT] with low demand rate according to SN 31920 100 FIT

T1 value for proof test interval or service life according to IEC 61508 20 y

protection class IP on the front according to IEC 60529 IP20

touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front

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



[Confirmation](#)



Test Certificates

Marine / Shipping

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)




[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=3RA2316-8XB30-1AF0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2316-8XB30-1AF0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2316-8XB30-1AF0>

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

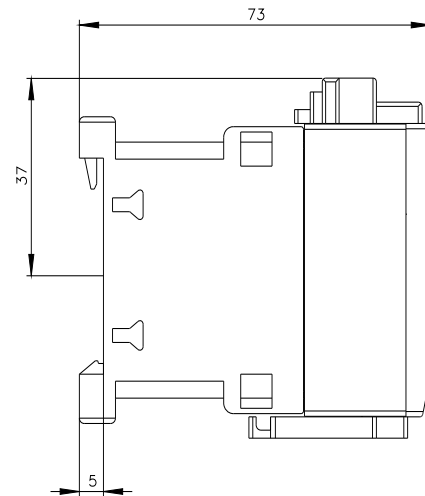
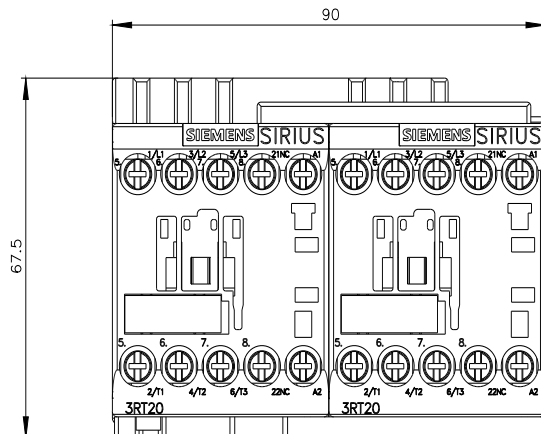
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2316-8XB30-1AF0&lang=en

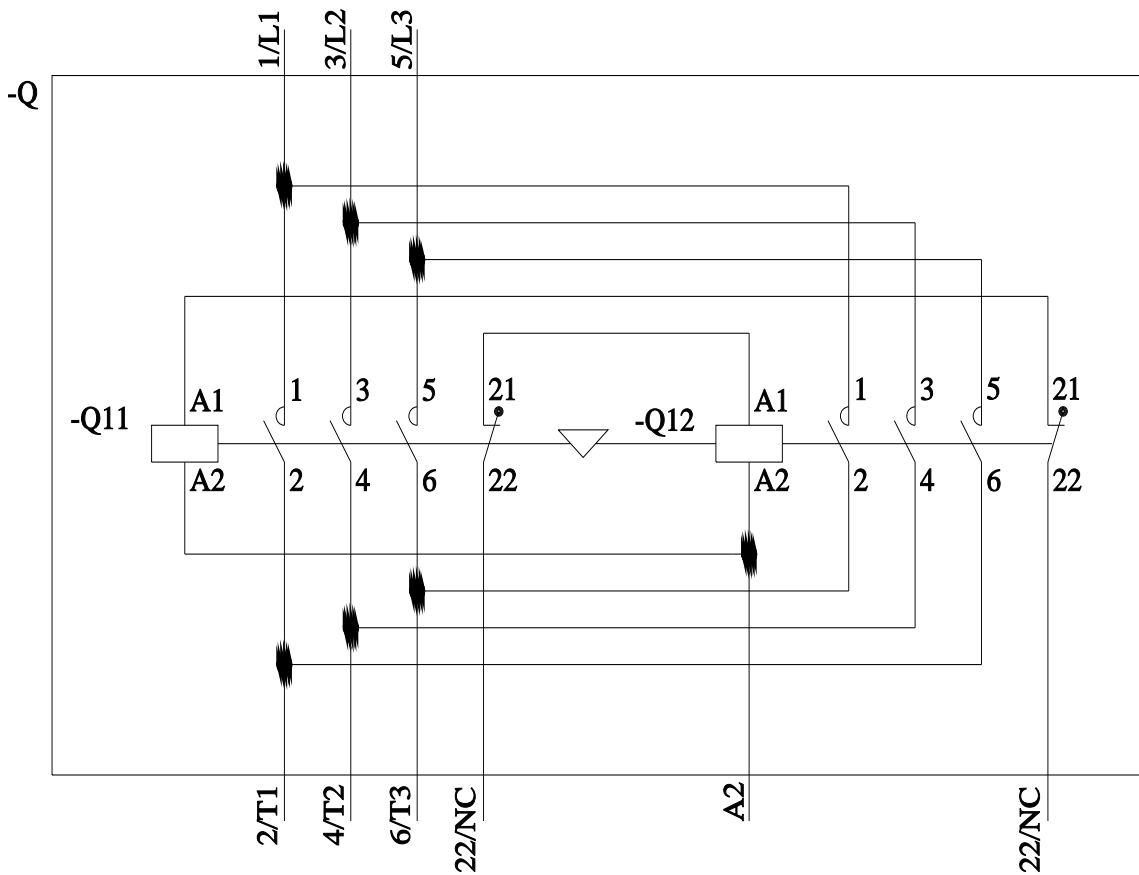
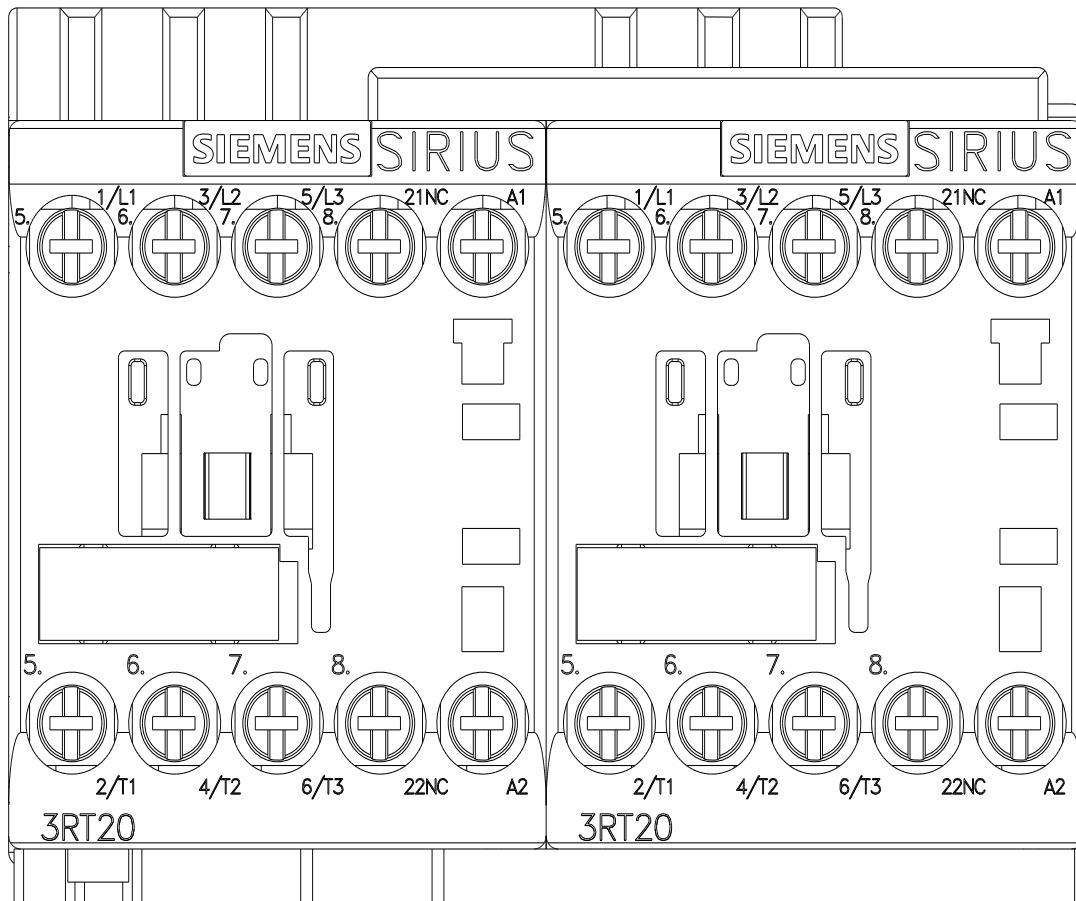
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2316-8XB30-1AF0/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2316-8XB30-1AF0&objecttype=14&gridview=view1>





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