

Reversing contactor assembly, AC-3, 55 kW 400 V, 230 V AC/50/60 Hz 3-pole, Size S3 screw terminal electrical and mechanical interlock 2 NO integrated



Product brand name	SIRIUS
Product designation	Reversing contactor assembly
Product type designation	3RA23
Manufacturer's article number	
• 1 of the supplied contactor	3RT2047-1AL20
• 2 of the supplied contactor	3RT2047-1AL20
• of the supplied RS assembly kit	3RA2943-2AA1

General technical data	
Size of contactor	S3
Product extension	
• Auxiliary switch	Yes
Insulation voltage	
• with degree of pollution 3 at AC rated value	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
Protection class IP	
• on the front	IP20
Shock resistance at rectangular impulse	
• at AC	6.7 g / 5 ms, 4.0 g / 10 ms

Shock resistance with sine pulse	
• at AC	10.6 g / 5 ms, 6.3 g / 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	60 °C
• 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	1 000 V
Operating current	
• at AC-1 at 400 V	
— at ambient temperature 40 °C rated value	130 A
— at ambient temperature 60 °C rated value	110 A
• at AC-3	
— at 400 V rated value	110 A
Operating power	
• at AC-3	
— at 400 V rated value	55 kW
— at 690 V rated value	75 kW
Operating frequency	
• at AC-1 maximum	900 1/h
• at AC-2 maximum	350 1/h
• at AC-3 maximum	850 1/h
• at AC-4 maximum	200 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	230 V
• at 60 Hz rated value	230 V
Operating range factor control supply voltage rated value of magnet coil at AC	

• at 50 Hz • at 60 Hz	0.8 ... 1.1 0.85 ... 1.1
Apparent pick-up power of magnet coil at AC • at 50 Hz • at 60 Hz	348 V·A 296 V·A
Inductive power factor with closing power of the coil • at 50 Hz • at 60 Hz	0.62 0.55
Apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz	25 V·A 18 V·A
Inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz	0.35 0.41

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 • instantaneous contact	1 2
Operating current of auxiliary contacts at AC-12 maximum	10 A
Operating current of auxiliary contacts at AC-15 • at 230 V • at 400 V	6 A 3 A
Operating current of auxiliary contacts at DC-13 • at 24 V • at 60 V • at 110 V • at 220 V	10 A 2 A 1 A 0.3 A

UL/CSA ratings

Full-load current (FLA) for three-phase AC motor • at 480 V rated value • at 600 V rated value	96 A 99 A
Yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor — at 200/208 V rated value	10 hp 20 hp 30 hp

— at 220/230 V rated value	40 hp
— at 460/480 V rated value	75 hp
— at 575/600 V rated value	100 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 - with type of assignment 2 required - for short-circuit protection of the auxiliary switch required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 355 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 200 A 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	160 mm
Width	150 mm
Depth	152 mm
Required spacing	
- with side-by-side mounting - forwards - Backwards - upwards - downwards - at the side - for grounded parts - forwards - Backwards - upwards - at the side - downwards - for live parts - forwards - Backwards - upwards - downwards - at the side	10 mm 0 mm 10 mm 10 mm 10 mm 10 mm 0 mm 10 mm 10 mm 10 mm 10 mm 0 mm 10 mm 10 mm 10 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	
— single or multi-stranded	2x (2.5 ... 16 mm ²), 2x (10 ... 50 mm ²), 1x (10 ... 70 mm ²)
— finely stranded with core end processing	2x (2.5 ... 35 mm ²), 1x (2.5 ... 50 mm ²)
— finely stranded without core end processing	2x (10 ... 35 mm ²), 1x (10 ... 50 mm ²)
• at AWG conductors for main contacts	2x (10 ... 1/0), 1x (10 ... 2/0)
Type of connectable conductor cross-sections	
• for auxiliary contacts	
— single or multi-stranded	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²)
— finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• at AWG conductors for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14)

Safety related data

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	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	Marine / Shipping
 UL	 EAC	 EG-Konf.	Miscellaneous Type Test Certificates/Test Report  ABS
Marine / Shipping			other
 LRS	 PRS	 RINA	 DNV GL 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=3RA2347-8XB30-1AL2>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2347-8XB30-1AL2>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2347-8XB30-1AL2>

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

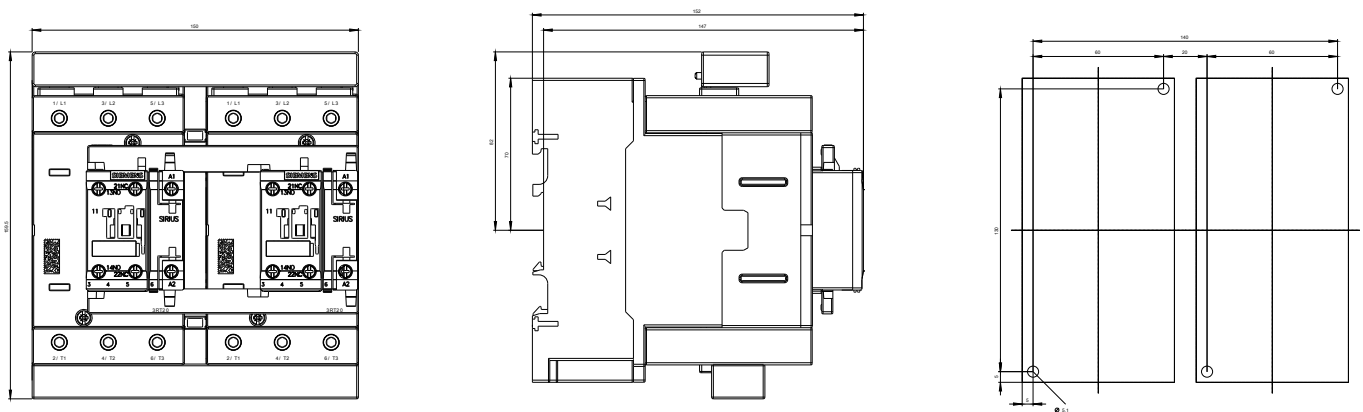
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2347-8XB30-1AL2&lang=en

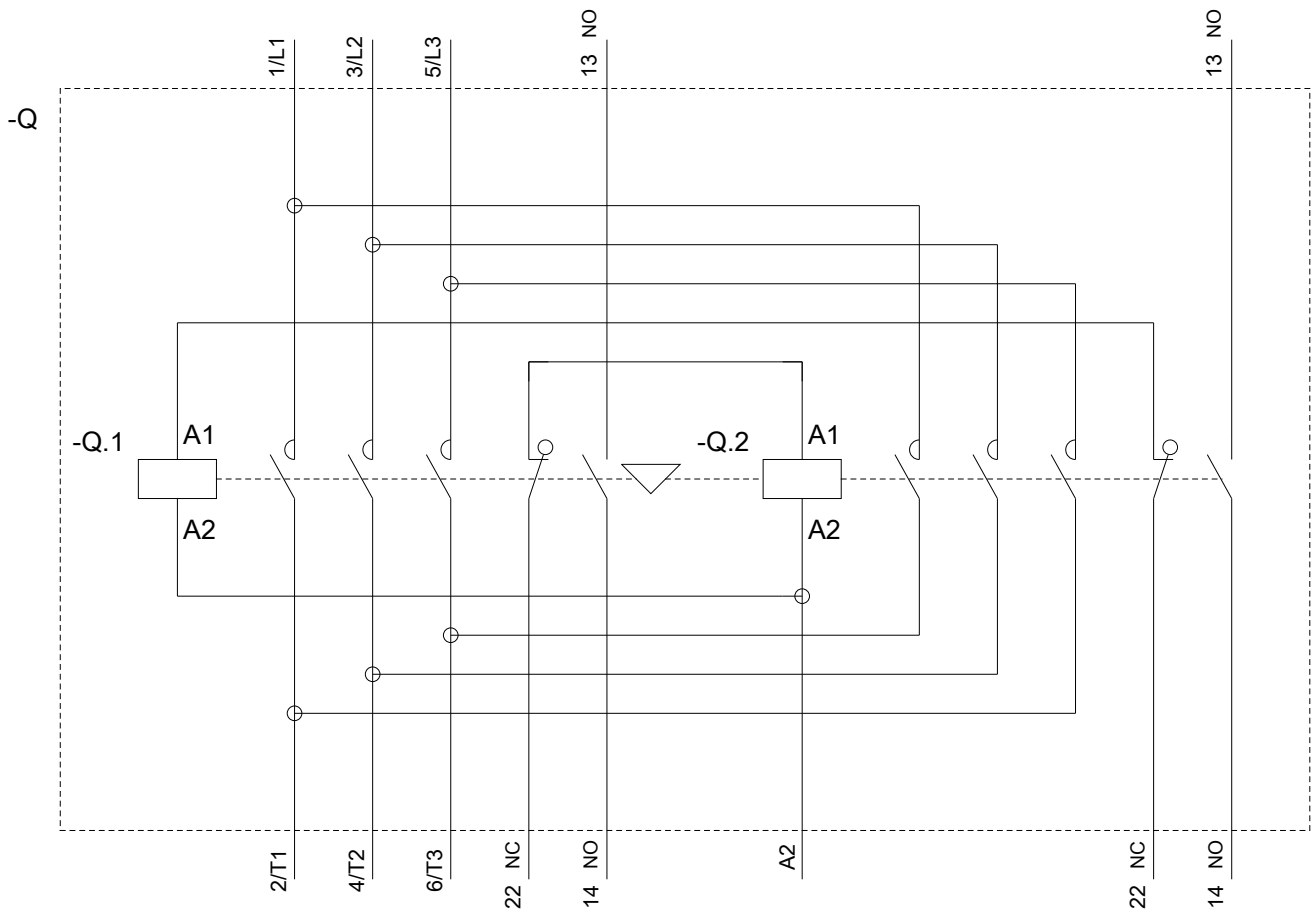
Characteristic: Tripping characteristics, I^2t , Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2347-8XB30-1AL2/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2347-8XB30-1AL2&objecttype=14&gridview=view1>





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