

Reversing contactor assembly AC-3, 30 kW/400 V 110 V AC 50 Hz/120 V 60 Hz, 3-pole Size S2, 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 2 of the supplied contactor - of the supplied RS assembly kit

[3RT2037-1AK60](#)
[3RT2037-1AK60](#)
[3RA2933-2AA1](#)

General technical data	
Size of contactor	S2
Product extension	Auxiliary switch
Insulation voltage	with degree of pollution 3 rated value
Degree of pollution	3
Surge voltage resistance rated value	6 kV
Protection class IP	on the front
Shock resistance at rectangular impulse	at AC

Shock resistance with sine pulse	
• at AC	18.5g / 5 ms, 11.6g / 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
• 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-1 at 400 V	
— at ambient temperature 40 °C rated value	80 A
— at ambient temperature 60 °C rated value	70 A
• at AC-2 at 400 V rated value	65 A
• at AC-3	
— at 400 V rated value	65 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 — at 110 V rated value • with 3 current paths in series at DC-3 at DC-5 — at 24 V rated value — at 110 V rated value	55 A 25 A 55 A 55 A
Operating power • at AC-2 at 400 V rated value • at AC-3 — at 400 V rated value — at 690 V rated value • at AC-4 at 400 V rated value	30 kW 30 kW 37 kW 30 kW
No-load switching frequency	1 500 1/h
Operating frequency • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum	800 1/h 400 1/h 700 1/h 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 • at 60 Hz rated value	110 V 120 V
Operating range factor control supply voltage rated value of magnet coil at AC • at 50 Hz • at 60 Hz	0.8 ... 1.1 0.8 ... 1.1
Apparent pick-up power of magnet coil at AC • at 50 Hz • at 60 Hz	212 V·A 188 V·A
Inductive power factor with closing power of the coil • at 50 Hz • at 60 Hz	0.67 0.65
Apparent holding power of magnet coil at AC • at 50 Hz • at 60 Hz	18.5 V·A 16.5 V·A
Inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz	0.36 0.39
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
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	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	10 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	50 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: 125 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 • for auxiliary and control current circuit	screw-type terminals 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 • with high demand rate acc. to SN 31920	40 % 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	No
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



Marine / Ship-	other
ping	



[Confirmation](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2337-8XB30-1AK6>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2337-8XB30-1AK6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2337-8XB30-1AK6>

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

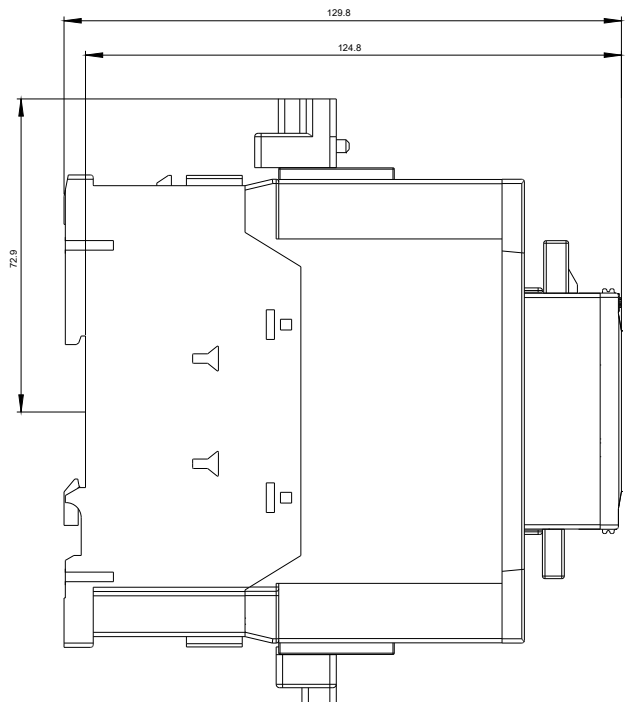
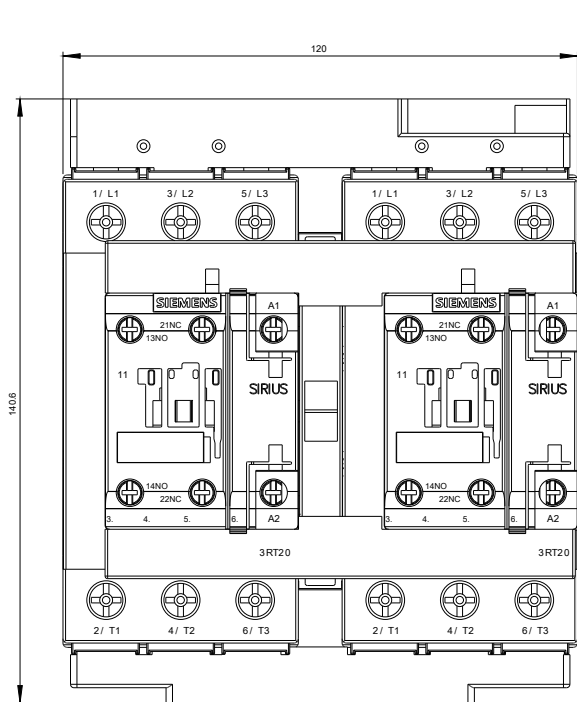
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2337-8XB30-1AK6&lang=en

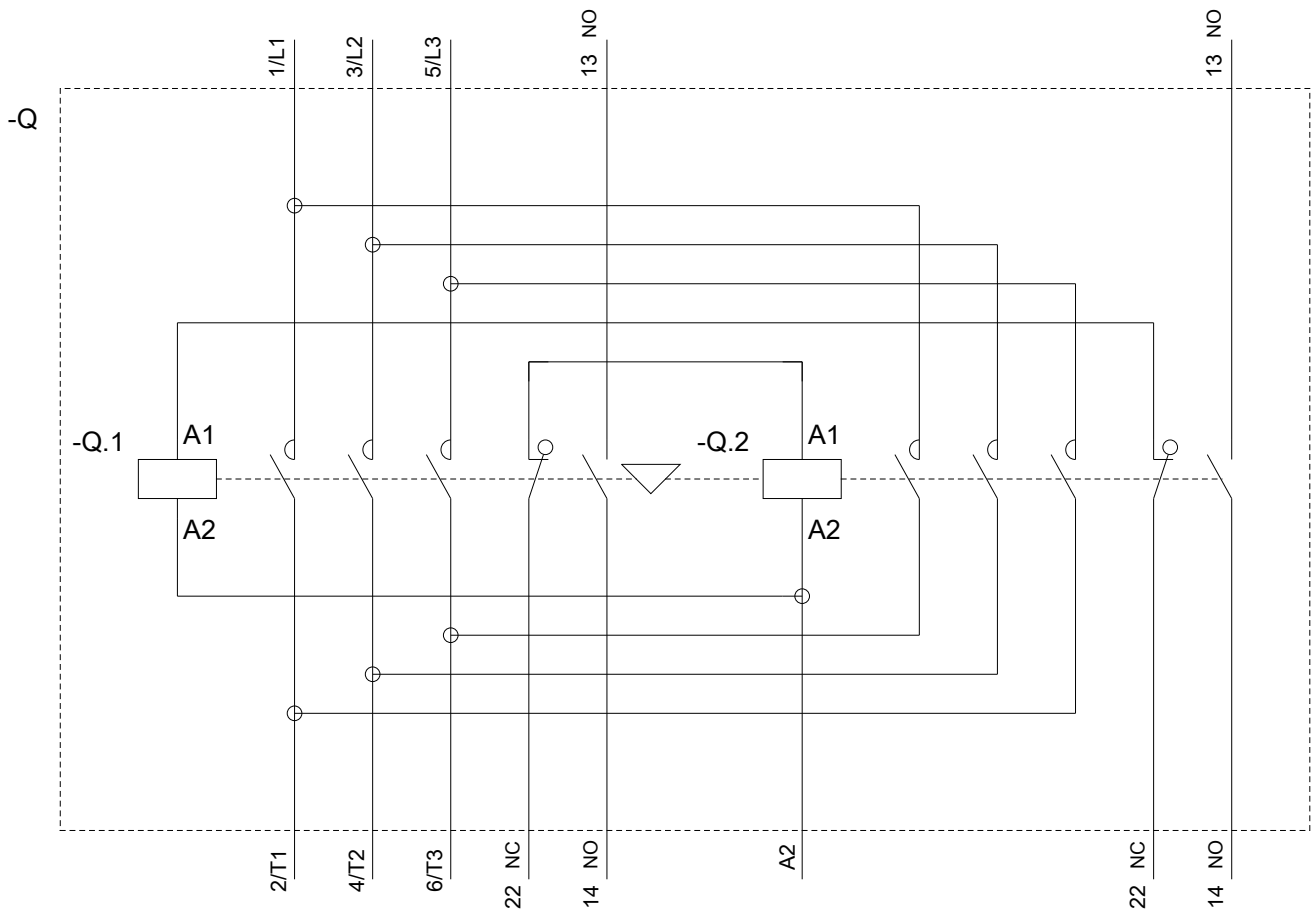
Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2337-8XB30-1AK6/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2337-8XB30-1AK6&objecttype=14&gridview=view1>





last modified:

09/24/2019