

STAR-DELTA COMB. AC3, 11KW/400V AC230V, 50/60HZ, 3-POLE
SZ S00, SCREW TERMINAL ELECTR. AND MECH. INTERLOCK
3NO INTEGR.



Product brand name	SIRIUS
Product designation	Contactor assembly for star-delta (wye-delta) start
Product type designation	3RA24
Manufacturer's article number	• 1 of the supplied contactor 3RT2018-1AP01 • 2 of the supplied contactor 3RT2018-1AP01 • 3 of the supplied contactor 3RT2016-1AP01 • of the supplied RS assembly kit 3RA2913-2BB1 • of the supplied function module for wye-delta circuits 3RA2816-0EW20

General technical data	
Size of contactor	S00
Product extension	No
• Auxiliary switch	
Insulation voltage	690 V
• with degree of pollution 3 rated value	
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	7,3g / 5 ms, 4,7g / 10 ms
• at DC	7.3g / 5 ms, 4.7g / 10 ms
Shock resistance with sine pulse	
• at AC	11,4g / 5 ms, 7,3g / 10 ms
• at DC	11,4g / 5 ms, 7,3g / 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
Equipment marking	
• acc. to DIN EN 81346-2	Q

Ambient conditions

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	22 A
— at ambient temperature 60 °C rated value	20 A
• at AC-2 at 400 V rated value	25 A
• at AC-3	
— at 400 V rated value	25 A
No-load switching frequency	1 500 1/h
Operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	1 000 1/h
• at AC-3 maximum	1 000 1/h
• at AC-4 maximum	300 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

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	37 V·A
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	5.7 V·A
Inductive power factor with the holding power of the coil	
• at 50 Hz	0.28

Auxiliary circuit

Number of NC contacts	
• for auxiliary contacts	
— instantaneous contact	0
Number of NO contacts	
• for auxiliary contacts	
— instantaneous contact	3
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

Contact rating of auxiliary contacts according to UL	A600 / Q600
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Short-circuit protection

Design of the fuse link	
• for short-circuit protection of the main circuit	
— with type of coordination 1 required	gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 50 A
— with type of assignment 2 required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 A
• for short-circuit protection of the auxiliary switch required	fuse gL/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	135 mm
Depth	145 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 current circuit	screw-type terminals 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 — single or multi-stranded 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x (0,5 ... 4 mm²) — finely stranded with core end processing 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) • 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) — 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	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	No
Protocol is supported	
• AS-interface protocol	No

Certificates/approvals

General Product Approval	Declaration of Conformity	Test Certificates	Marine / Shipping
	 EG-Konf.	Special Test Certificate	Type Test Certificates/Test Report
			 ABS
			 BUREAU VERITAS

Marine / Shipping



other

Railway

[Environmental Confirmations](#)

[Confirmation](#)

[Vibration and Shock](#)

Further information

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

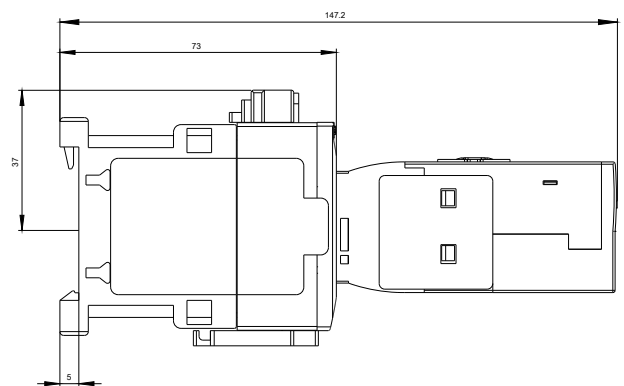
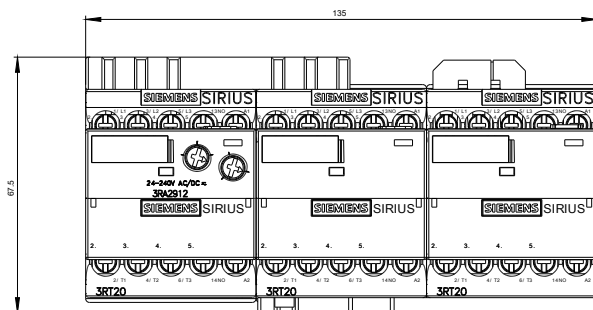
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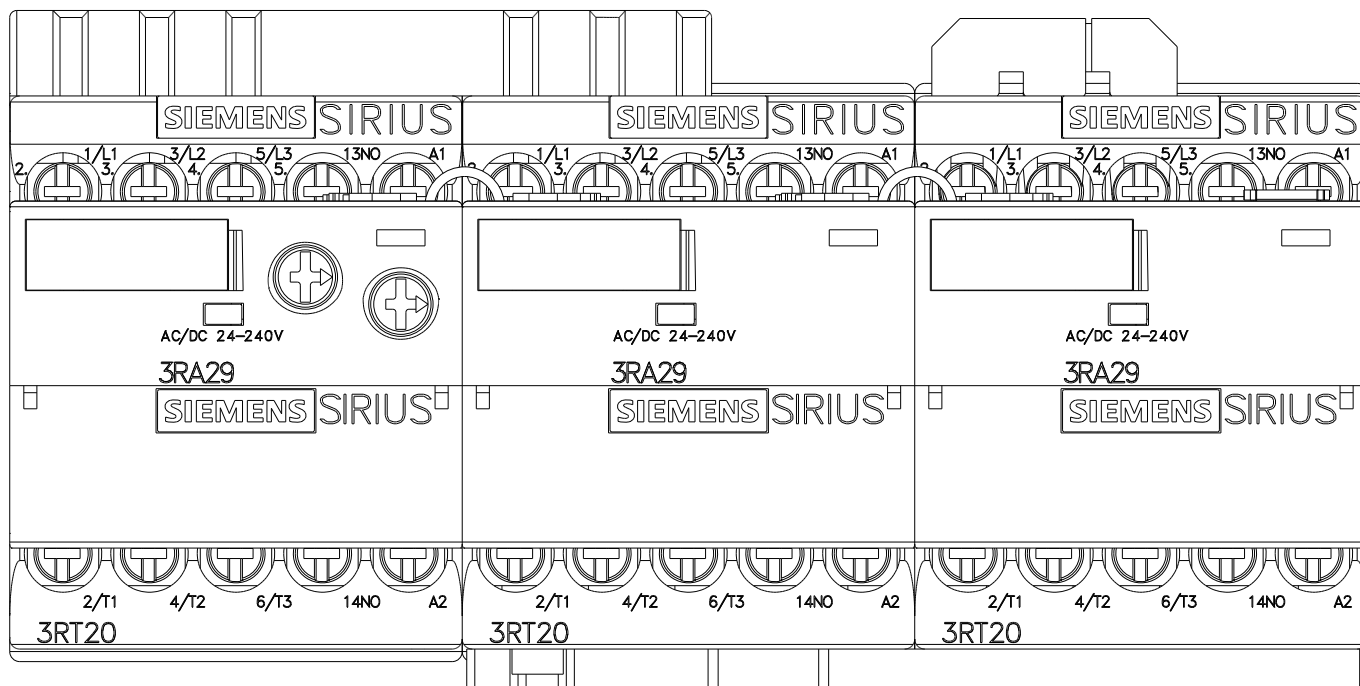
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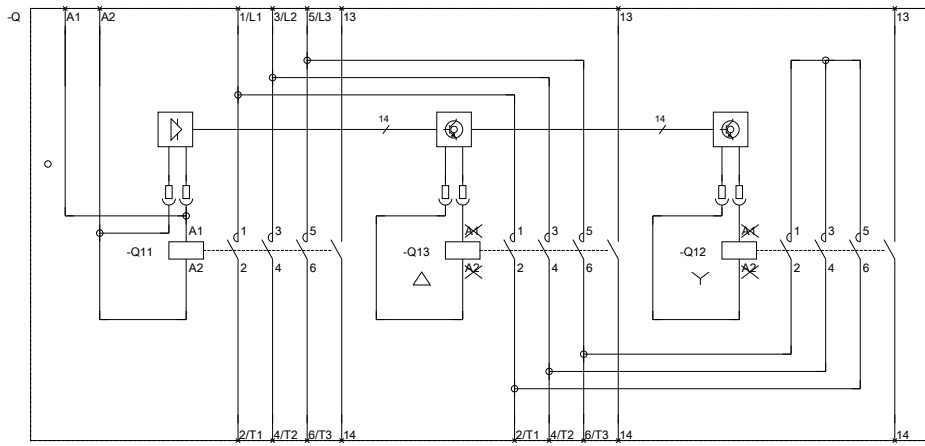
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last modified:

07/14/2017