

STAR-DELTA COMB. AC3,
5,5KW/400V AC110V 50HZ/120V 60HZ,
3-POLE SZ S00,
SCREW TERMINAL ELECTR. AND MECH. INTERLOCK
3NO INTEGR.



General technical data:		
product brand name		SIRIUS
Product designation		star-delta (wye-delta) contactor assembly 3RA24
Product function		wye-delta motor start-up
Size of the contactor		S00
Protection class IP / on the front		IP20
Degree of pollution		3
Insulation voltage / with degree of pollution 3 / rated value	V	690
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during transport	°C	-55 ... +80
• during storage	°C	-55 ... +80
• during operating	°C	-25 ... +60
Resistance against shock		9.8g / 5 ms and 5.9g / 10 ms
Impulse voltage resistance / rated value	kV	6
Active power loss / per conductor / typical	W	0.7
Manufacturer article number		
• of the function module for for wye-delta circuits included in the scope of supply		3RA2816-0EW20
• 1 / of the contactor included in the scope of supply		3RT2017-1AP01

• 2 / of the contactor included in the scope of supply • 3 / of the contactor included in the scope of supply • of the RS applied assembly kit		3RT2017-1AP01 3RT2015-1AP01 3RA2913-2BB1
Mechanical operating cycles as operating time • of the main contacts / typical • of the auxiliary contacts / typical • of the contactor / typical • of the contactor with added auxiliary switch block / typical		10,000,000 10,000,000 10,000,000 10,000,000
Communication:		
Product function • bus-communication • control circuit interface with IO link		No No
Protocol / is supported / AS interface protocol		No
Main circuit:		
Number of poles / for main current circuit		3
Number of NC contacts / for main contacts		0
Number of NO contacts / for main contacts		3
Operating voltage / at AC-3 / rated value / maximum	V	690
Operating current • at AC-1 / at 400 V • at 40 °C ambient temperature / rated value • at 60 °C ambient temperature / rated value • at AC-2 / at 400 V / rated value • at AC-3 / at 400 V / rated value	A A A A	22 20 16 16
Service power • at AC-2 / at 400 V / rated value • at AC-3 • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value	kW kW kW kW	7.5 7.5 10.3 9.2
Off-load operating frequency	1/h	1,500
Frequency of operation • with AC-1 / maximum • with AC-2 / maximum • with AC-3 / maximum • with AC-4 / maximum	1/h 1/h 1/h 1/h	1,000 1,000 1,000 300
Control circuit:		
Design of activation		conventional

Voltage type / of control feed voltage		AC
Control supply voltage frequency		
• 1 / rated value	Hz	50
• 2 / rated value	Hz	60
Control supply voltage / 1		
• for AC / at 50 Hz / rated value	V	110
• for AC / at 60 Hz / rated value	V	120
Operating range factor control supply voltage rated value / of the magnet coil		
• at 50 Hz / for AC		0.8 ... 1.1
• at 60 Hz / for AC		0.85 ... 1.1
Apparent pull-in power / of the solenoid / for AC	V·A	27
Apparent holding power / of the solenoid / for AC	V·A	4.2
Inductive power factor		
• with the pull-in power of the coil		0.8
• with the pull-in power of the coil		0.25

Auxiliary circuit:

Product extension / auxiliary switch		No
Contact reliability / of the auxiliary contacts		< 1 error per 100 million operating cycles
Number of NC contacts / for auxiliary contacts		
• instantaneous switching		3
• lagging switching		0
Number of NO contacts / for auxiliary contacts		
• instantaneous switching		3
• leading switching		0
Operating current / of the auxiliary contacts		
• at AC-12 / maximum	A	10
• at AC-15		
• at 230 V	A	6
• at 400 V	A	3
• at DC-12		
• at 48 V	A	6
• at 60 V	A	6
• at 110 V	A	3
• at 220 V	A	1
• at DC-13		
• at 24 V	A	10
• at 48 V	A	2
• at 60 V	A	2

- at 110 V
- at 220 V

A	1
A	0.3

Short-circuit:

Design of the fuse link

- for short-circuit protection of the main circuit
- with type of assignment 1 / required
- at type of coordination 2 / required
- for short-circuit protection of the auxiliary switch / required

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A
gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A
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

Width

mm 135

Height

mm 68

Depth

mm 145

Distance, to be maintained, to the ranks assembly

- forwards
- backwards
- upwards
- downwards
- sideways

mm 6
mm 0
mm 6
mm 6
mm 6

Distance, to be maintained, to earthed part

- forwards
- backwards
- upwards
- downwards
- sideways

mm 6
mm 0
mm 6
mm 6
mm 6

Distance, to be maintained, conductive elements

- forwards
- backwards
- upwards
- downwards
- sideways

mm 6
mm 0
mm 6
mm 6
mm 6

Connections:

Design of the electrical connection

- for main current circuit

screw-type terminals

• for auxiliary and control current circuit		screw-type terminals
Type of the connectable conductor cross-section		
• for main contacts		
• finely stranded		
• with conductor end processing		2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• for AWG conductors / for main contacts		2x (20 ... 16), 2x (18 ... 14)
• for auxiliary contacts		
• finely stranded		
• with conductor end processing		2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• for AWG conductors / for auxiliary contacts		2x (20 ... 16), 2x (18 ... 14)

Certificates/approvals:

Verification of suitability

CE / UL / CSA / CCC

General Product Approval

Declaration of Conformity

Test Certificates



[Special Test Certificate](#)

Shipping Approval



ABS



BUREAU
VERITAS



DNV



GL



LRS



PRS

Shipping Approval

other



RINA



RMRS

[other](#)

[Environmental Confirmations](#)

UL/CSA ratings

Contact rating designation / for auxiliary contacts / according to UL

A600 / Q600

Safety:

B10 value / with high demand rate

- according to SN 31920

1,000,000

Failure rate [FIT] / with low demand rate

- according to SN 31920

FIT

100

Proportion of dangerous failures

- with low demand rate / according to SN 31920
- with high demand rate / according to SN 31920

%

40

%

75

T1 value / for proof test interval or service life

- according to IEC 61508

a

20

Further information:

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

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<http://www.siemens.com/industrial-controls/mall>

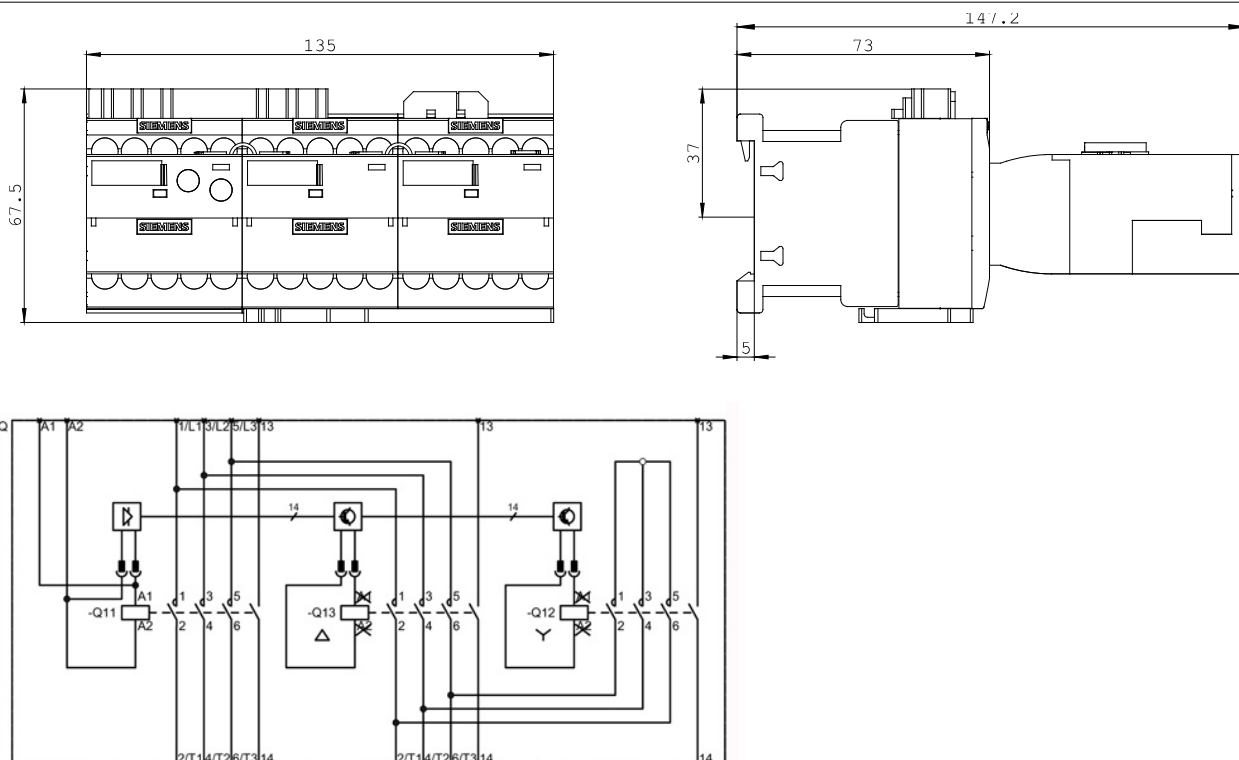
CAx-Online-Generator

<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RA2416-8XF31-1AK6/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2416-8XF31-1AK6

last change:

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