

STAR-DELTA COMB. AC3, 7.5KW/400V DC24V,
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
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		K
• according to DIN EN 61346-2		Q

Manufacturer article number		
<ul style="list-style-type: none"> • of the function module for for wye-delta circuits included in the scope of supply 		3RA2816-0EW20
<ul style="list-style-type: none"> • 1 / of the contactor included in the scope of supply 		3RT2017-1BB41
<ul style="list-style-type: none"> • 2 / of the contactor included in the scope of supply 		3RT2017-1BB41
<ul style="list-style-type: none"> • 3 / of the contactor included in the scope of supply 		3RT2015-1BB41
<ul style="list-style-type: none"> • of the RS applied assembly kit 		3RA2913-2BB1
Mechanical operating cycles as operating time		
<ul style="list-style-type: none"> • of the main contacts / typical 		10,000,000
<ul style="list-style-type: none"> • of the auxiliary contacts / typical 		10,000,000
<ul style="list-style-type: none"> • of the contactor / typical 		10,000,000
<ul style="list-style-type: none"> • of the contactor with added auxiliary switch block / typical 		10,000,000

Communication:

Product function		
<ul style="list-style-type: none"> • bus-communication 		No
<ul style="list-style-type: none"> • control circuit interface with IO link 		No
Protocol / will be 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		
<ul style="list-style-type: none"> • at AC-1 / at 400 V <ul style="list-style-type: none"> • 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	18
	A	16
	A	17
	A	17
Service power		
<ul style="list-style-type: none"> • at AC-2 / at 400 V / rated value 	kW	7.5
<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 	kW	7.5
	kW	10.3
	kW	9.2
Off-load operating frequency	1/h	15
Frequency of operation		
<ul style="list-style-type: none"> • at AC-1 / according to IEC 60947-6-2 / maximum • at AC-2 / according to IEC 60947-6-2 / maximum • at AC-3 / according to IEC 60947-6-2 / maximum 	1/h	1,000
	1/h	1,000
	1/h	1,000

• at AC-4 / according to IEC 60947-6-2 / maximum

1/h 300

Control circuit:

Design of activation		conventional
Type of voltage / of the controlled supply voltage		DC
Control supply voltage frequency		
• 1 / rated value	Hz	50
• 2 / rated value	Hz	60
Control supply voltage / 1		
• for DC / rated value	V	24
Operating range factor control supply voltage rated value / of the magnet coil		
• for DC		0.85 ... 1.1
Pull-in power / of the solenoid / for DC	W	5.9
Holding power / of the solenoid / for DC	W	5.9
Resistive loss / of the magnet coil / for DC		
• typical	W	4

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:

Built in orientation

any

Type of mounting

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
- for auxiliary and control current circuit

screw-type terminals
 screw-type terminals

Type of the connectable conductor cross-section	
<ul style="list-style-type: none"> for main contacts <ul style="list-style-type: none"> solid stranded finely stranded <ul style="list-style-type: none"> with conductor end processing for AWG conductors / for main contacts for auxiliary contacts <ul style="list-style-type: none"> solid finely stranded <ul style="list-style-type: none"> with conductor end processing for AWG conductors / for auxiliary contacts 	<p>2 x (0.5 ... 1.5 mm²), 2 x (0.75 ... 2.5 mm²), 2 x (0.5 ... 4 mm²)</p> <p>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x (0.5 ... 4 mm²)</p> <p>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)</p> <p>2x (20 ... 16), 2x (18 ... 14)</p> <p>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)</p> <p>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)</p> <p>2x (20 ... 16), 2x (18 ... 14)</p>

Certificates/approvals:

Verification of suitability	CE / UL / CSA / CCC
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General Product Approval	Declaration of Conformity	Test Certificates
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[Special Test Certificate](#)

Shipping Approval



Shipping Approval	other
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[other](#)

UL/CSA ratings

Contact rating designation / for auxiliary contacts / according to UL	A600 / Q600
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Safety:

B10 value / with high demand rate <ul style="list-style-type: none"> according to SN 31920 		1,000,000
Failure rate (FIT value) / with low demand rate <ul style="list-style-type: none"> according to SN 31920 	FIT	100
Proportion of dangerous failures <ul style="list-style-type: none"> 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

Protection against electrical shock

finger-safe

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

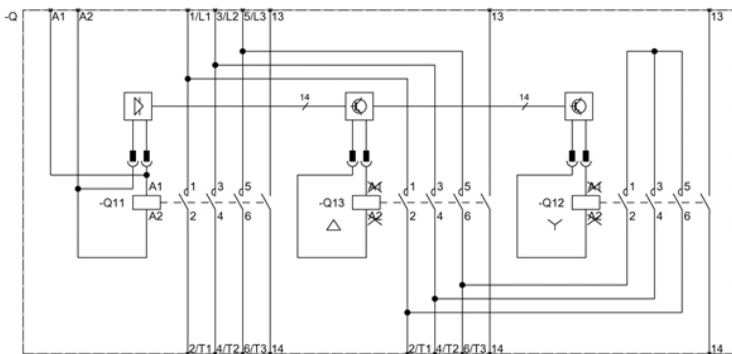
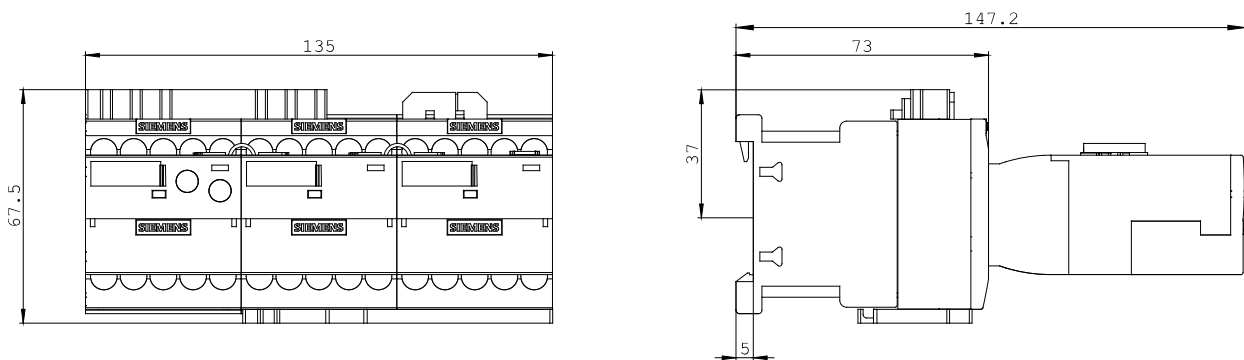
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RA2416-8XF31-1BB4/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2416-8XF31-1BB4



last change:

Apr 13, 2012