

STAR-DELTA COMB. AC3, 22KW/400V DC24V,
3-POLE SZ S0,
SCREW TERMINAL ELECTR. AND MECH. INTERLOCK
3NO+3NC 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		S0
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	1.6
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 		3RT2027-1BB40
<ul style="list-style-type: none"> • 2 / of the contactor included in the scope of supply 		3RT2027-1BB40
<ul style="list-style-type: none"> • 3 / of the contactor included in the scope of supply 		3RT2026-1BB40
<ul style="list-style-type: none"> • of the RS applied assembly kit 		3RA2923-2BB1
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
Operational 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 	A	40
<ul style="list-style-type: none"> • at AC-2 / at 400 V / rated value 	A	40
<ul style="list-style-type: none"> • at AC-3 / at 400 V / rated value 	A	17
<ul style="list-style-type: none"> • with 1 current path / at DC-1 <ul style="list-style-type: none"> • at 24 V / rated value • at 110 V / rated value 	A	35
<ul style="list-style-type: none"> • with 2 current paths in series / at DC-1 <ul style="list-style-type: none"> • at 24 V / rated value • at 110 V / rated value 	A	35
<ul style="list-style-type: none"> • with 3 current paths in series / at DC-1 <ul style="list-style-type: none"> • at 24 V / rated value • at 110 V / rated value 	A	35
<ul style="list-style-type: none"> • with 1 current path / at DC-3 / at DC-5 <ul style="list-style-type: none"> • at 24 V / rated value 	A	20

<ul style="list-style-type: none"> • at 110 V / rated value 	A	2.5
<ul style="list-style-type: none"> • with 2 current paths in series / at DC-3 / at DC-5 		
<ul style="list-style-type: none"> • at 24 V / rated value 	A	35
<ul style="list-style-type: none"> • at 110 V / rated value 	A	15
<ul style="list-style-type: none"> • with 3 current paths in series / at DC-3 / at DC-5 		
<ul style="list-style-type: none"> • at 24 V / rated value 	A	35
<ul style="list-style-type: none"> • at 110 V / rated value 	A	35
Service power		
<ul style="list-style-type: none"> • at AC-2 / at 400 V / rated value 	kW	18.5
<ul style="list-style-type: none"> • at AC-3 		
<ul style="list-style-type: none"> • at 400 V / rated value 	kW	22
<ul style="list-style-type: none"> • at 500 V / rated value 	kW	18.5
<ul style="list-style-type: none"> • at 690 V / rated value 	kW	22
<ul style="list-style-type: none"> • at AC-4 / at 400 V / rated value 	kW	4.4
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 	1/h	1,000
<ul style="list-style-type: none"> • at AC-2 / according to IEC 60947-6-2 / maximum 	1/h	1,000
<ul style="list-style-type: none"> • at AC-3 / according to IEC 60947-6-2 / maximum 	1/h	1,000
<ul style="list-style-type: none"> • 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		
<ul style="list-style-type: none"> • 1 / rated value 	Hz	50
<ul style="list-style-type: none"> • 2 / rated value 	Hz	60
Control supply voltage / 1		
<ul style="list-style-type: none"> • for DC / rated value 	V	24
Operating range factor control supply voltage rated value / of the magnet coil		
<ul style="list-style-type: none"> • for DC 		0.8 ... 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		
<ul style="list-style-type: none"> • typical 	W	5.9

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		

<ul style="list-style-type: none"> instantaneous switching lagging switching 		3	
		0	
Number of NO contacts / for auxiliary contacts			
<ul style="list-style-type: none"> instantaneous switching leading switching 		3	
		0	
Operating current / of the auxiliary contacts			
<ul style="list-style-type: none"> at AC-12 / maximum 	A	10	
<ul style="list-style-type: none"> at AC-15 			
<ul style="list-style-type: none"> at 230 V 	A	6	
<ul style="list-style-type: none"> at 400 V 	A	3	
<ul style="list-style-type: none"> at DC-12 			
<ul style="list-style-type: none"> at 48 V 	A	6	
<ul style="list-style-type: none"> at 60 V 	A	6	
<ul style="list-style-type: none"> at 110 V 	A	3	
<ul style="list-style-type: none"> at 220 V 	A	1	
<ul style="list-style-type: none"> at DC-13 			
<ul style="list-style-type: none"> at 24 V 	A	10	
<ul style="list-style-type: none"> at 48 V 	A	2	
<ul style="list-style-type: none"> at 60 V 	A	2	
<ul style="list-style-type: none"> at 110 V 	A	1	
<ul style="list-style-type: none"> at 220 V 	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: 100 A

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

fuse gL/gG: 10 A

Installation/mounting/dimensions:

mounting position		any
Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail
Width	mm	135
Height	mm	101
Depth	mm	181
Distance, to be maintained, to the ranks assembly		
<ul style="list-style-type: none"> forwards 	mm	6
<ul style="list-style-type: none"> backwards 	mm	0
<ul style="list-style-type: none"> upwards 	mm	6

• downwards	mm	6
• sideways	mm	6
Distance, to be maintained, to earthed part		
• forwards	mm	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	mm	6
Distance, to be maintained, conductive elements		
• forwards	mm	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	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		
• solid		2x (1 ... 2.5 mm ²), 2x (2.5 ... 10 mm ²)
• stranded		2x (1 ... 2.5 mm ²), 2x (2.5 ... 10 mm ²)
• finely stranded		
• with conductor end processing		2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ²
• for AWG conductors / for main contacts		2x (16 ... 12), 2x (14 ... 8)
• for auxiliary contacts		
• solid		2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• 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
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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		
• according to SN 31920		1,000,000
Failure rate (FIT value) / with low demand rate		
• according to SN 31920	FIT	100
Proportion of dangerous failures		
• with low demand rate / according to SN 31920	%	40
• with high demand rate / according to SN 31920	%	75
T1 value / for proof test interval or service life		
• according to IEC 61508	a	20
Protection against electrical shock		finger-safe

Further information:

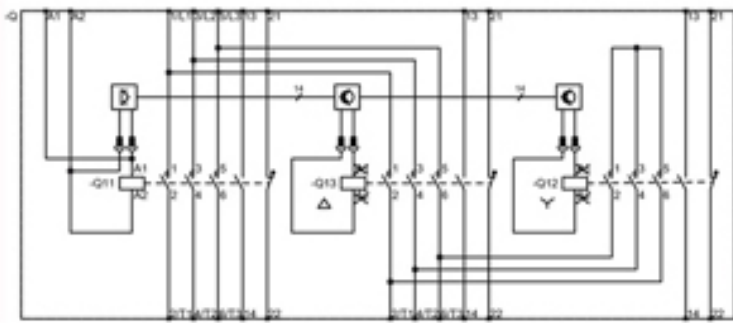
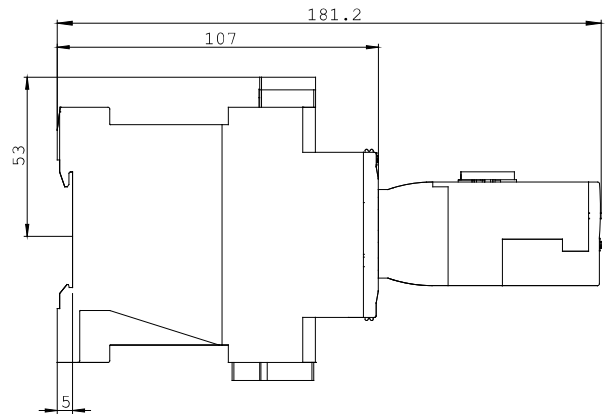
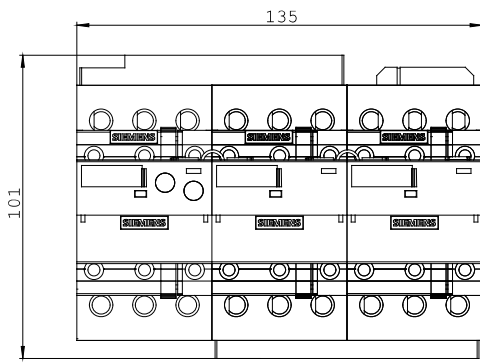
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<http://www.siemens.com/cax>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<http://support.automation.siemens.com/WW/view/en/3RA2426-8XF32-1BB4-ZX95/all>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2426-8XF32-1BB4-ZX95



last change:

Feb 4, 2013