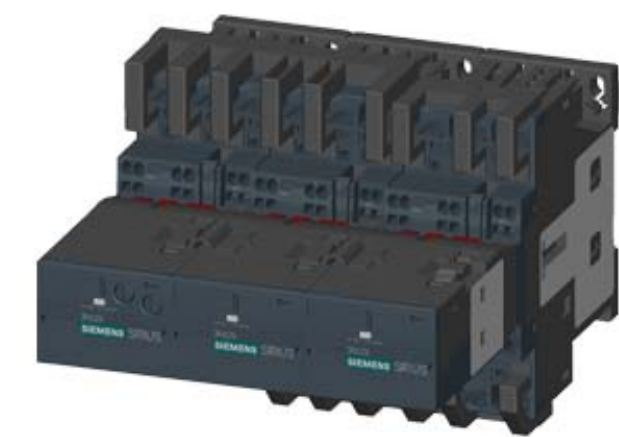


STAR-DELTA COMB. AC3, 11KW/400V AC230V,
50/60HZ, 3-POLE SZ S0,
SPRING-LOADED TERMINAL ELECTR. AND MECH.
INTERLOCK 3NO+3NC INTEGR.



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		12.5g / 5 ms and 7.8g / 10 ms
Impulse voltage resistance / rated value	kV	6
Active power loss / per conductor / typical	W	0.4
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		3RT2024-2AL20

• 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		3RT2024-2AL20 3RT2024-2AL20 3RA2923-2BB2
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 • with 1 current path / at DC-1 • at 24 V / rated value • at 110 V / rated value • with 2 current paths in series / at DC-1 • at 24 V / rated value • at 110 V / rated value • with 3 current paths in series / at DC-1 • at 24 V / rated value • at 110 V / rated value • with 1 current path / at DC-3 / at DC-5 • at 24 V / rated value • at 110 V / rated value • with 2 current paths in series / at DC-3 / at DC-5 • at 24 V / rated value	A A A A A A A A A A A A A A A	40 35 25 25 35 4.5 35 35 35 35 20 2.5 35

• at 110 V / rated value	A	15
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35
Service power		
• at AC-2 / at 400 V / rated value	kW	11
• at AC-3		
• at 400 V / rated value	kW	11
• at 500 V / rated value	kW	15.6
• at 690 V / rated value	kW	19
• at AC-4 / at 400 V / rated value	kW	2
Off-load operating frequency	1/h	1,500
Frequency of operation		
• with AC-1 / maximum	1/h	1,000
• with AC-2 / maximum	1/h	1,000
• with AC-3 / maximum	1/h	1,000
• with AC-4 / maximum	1/h	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	230
• for AC / at 60 Hz / rated value	V	230
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		0.8 ... 1.1
Apparent pull-in power / of the solenoid / for AC	V·A	65
Apparent holding power / of the solenoid / for AC	V·A	8.5
Inductive power factor		
• with the pull-in power of the coil		0.82
• 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	A	1
• 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: 63 A

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25 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	114
Depth	mm	171
Distance, to be maintained, to the ranks assembly		
• forwards	mm	6

• backwards	mm	0
• 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

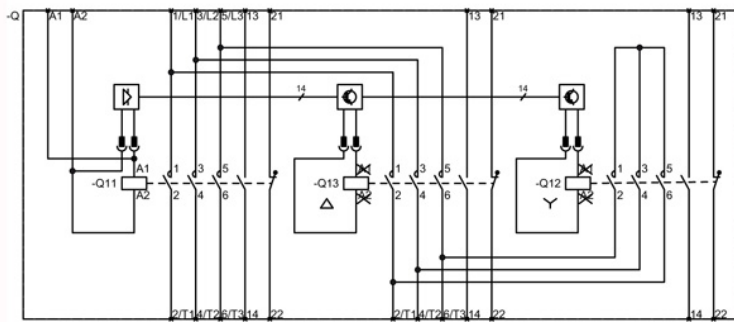
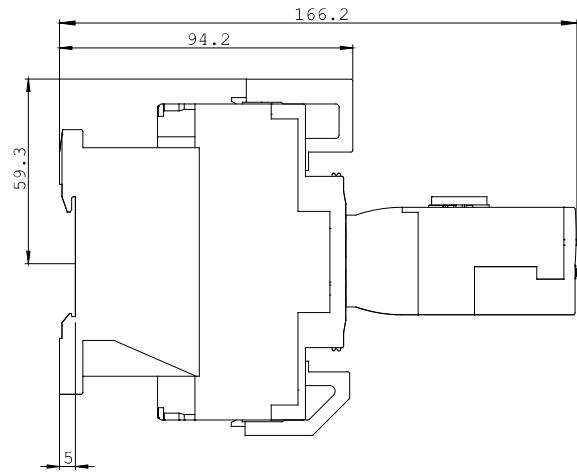
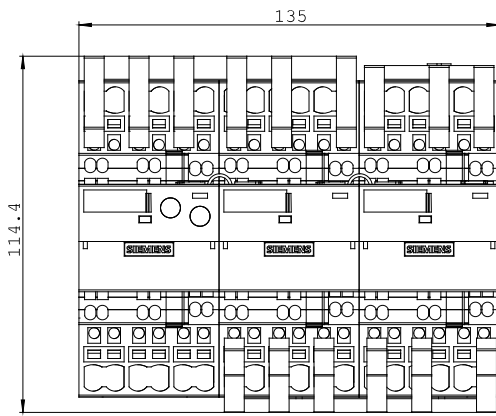
Connections:

Design of the electrical connection		
• for main current circuit		spring-loaded terminals
• for auxiliary and control current circuit		spring-loaded terminals
Type of the connectable conductor cross-section		
• for main contacts		
• finely stranded		
• with conductor end processing		2x (1 ... 6 mm ²)
• without conductor final cutting		2x (1 ... 6 mm ²)
• for AWG conductors / for main contacts		1x (18 ... 8)
• for auxiliary contacts		
• finely stranded		
• with conductor end processing		2x (0.5 ... 1.5 mm ²)
• without conductor final cutting		2x (0.5 ... 1.5 mm ²)
• for AWG conductors / for auxiliary contacts		2x (20 ... 14)

Certificates/approvals:

Verification of suitability	CE / UL / CSA / CCC
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General Product Approval		Declaration of Conformity		Test Certificates	
		 EG-Konf.		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				% 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:					
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/3RA2423-8XF32-2AL2/all					
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2423-8XF32-2AL2					



last change:

Aug 4, 2014