

STAR-DELTA COMB. AC3,
15/18.5KW/400V AC110V, 50/60HZ,
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 - during storage - during operating	°C	-55 ... +80 -55 ... +80 -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	0.9
Item designation - according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 - according to DIN EN 61346-2		K Q

Manufacturer article number • of the function module for for wye-delta circuits included in the scope of supply • 1 / of the contactor included in the scope of supply • 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		3RA2816-0EW20 3RT2026-1AG20 3RT2026-1AG20 3RT2024-1AG20 3RA2923-2BB1
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 / 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 • 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	 A A A A A A A A A A A	 40 35 32 17 35 4.5 35 35 35 35 20

• at 110 V / rated value	A	2.5
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	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	15
• at AC-3		
• at 400 V / rated value	kW	18.5
• at 500 V / rated value	kW	15
• at 690 V / rated value	kW	19
• at AC-4 / at 400 V / rated value	kW	3.5
Off-load operating frequency	1/h	15
Frequency of operation		
• at AC-1 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-2 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-3 / according to IEC 60947-6-2 / maximum	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		AC
Control supply voltage frequency		
• 1 / rated value	Hz	50
• 2 / rated value	Hz	60
Control supply voltage / 1		
• at 50 Hz / for AC / rated value	V	110
• at 60 Hz / for AC / rated value	V	110
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		any
Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail
Width	mm	135
Height	mm	101
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

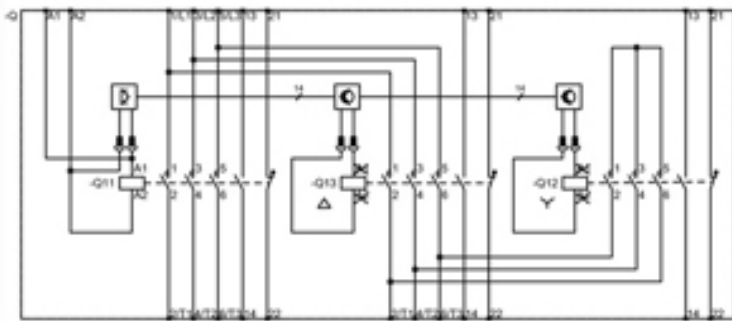
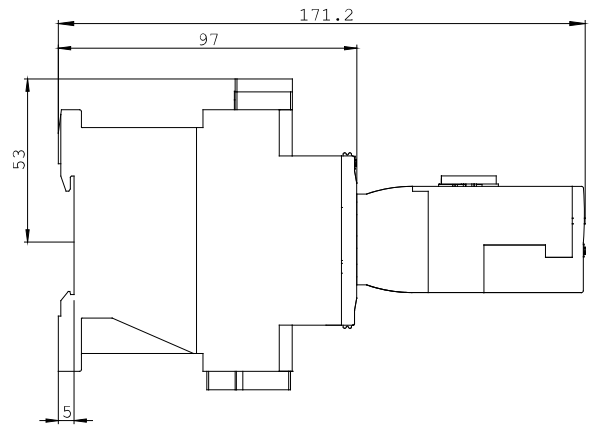
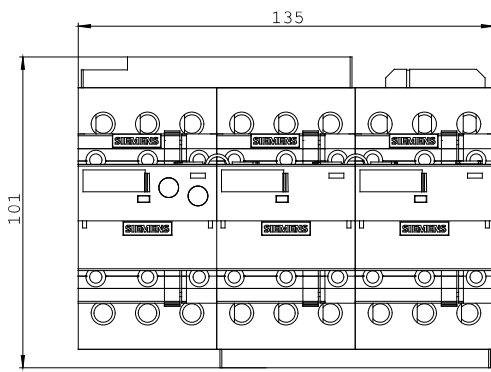
Connections:

Design of the electrical connection		
• for main current circuit		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			
 GOST	 EG-Konf.	Special Test Certificate			
Shipping Approval					
 ABS	 BUREAU VERITAS	 DNV	 GL	 LRS	 PRS
Shipping Approval		other			
 RINA	 RMRS	other			
UL/CSA ratings					
Contact rating designation / for auxiliary contacts / according to UL			A600 / Q600		
Safety:					
B10 value / with high demand rate			1,000,000		
• according to SN 31920					
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:					
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/3RA2425-8XF32-1AG2/all					
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)					
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2425-8XF32-1AG2					



last change:

Feb 4, 2013