

REV. COMB., AC3, 18.5KW/ 400V AC24V,  
50/60HZ, 3-POLE,  
SZ S0 SPRING-LOADED TERMINAL ELECTR. AND MECH.  
INTERLOCK 2NO INTEGR.

#### General technical data:

<b>product brand name</b>		SIRIUS
<b>Product designation</b>		star-delta (wye-delta) contactor assembly 3RA24
<b>Product function</b>		reversing contactor
<b>Size of the contactor</b>		S0
<b>Protection class IP / on the front</b>		IP20
<b>Degree of pollution</b>		3
<b>Insulation voltage / with degree of pollution 3 / rated value</b>	V	690
<b>Installation altitude / at a height over sea level / maximum</b>	m	2,000
<b>Ambient temperature</b>		
• during transport	°C	-55 ... +80
• during storage	°C	-55 ... +80
• during operating	°C	-25 ... +60
<b>Resistance against shock</b>		12.5g / 5 ms and 7.8g / 10 ms
<b>Impulse voltage resistance / rated value</b>	kV	6
<b>Active power loss / per conductor / typical</b>	W	1.6
<b>Manufacturer article number</b>		
• 1 / of the contactor included in the scope of supply		<a href="#">3RT2028-2AC20</a>
• 2 / of the contactor included in the scope of supply		<a href="#">3RT2028-2AC20</a>
• of the RS applied assembly kit		<a href="#">3RA2923-2AA2</a>

<b>Mechanical operating cycles as operating time</b>		
• of the main contacts / typical		10,000,000
• of the auxiliary contacts / typical		10,000,000
• of the contactor / typical		10,000,000
• of the contactor with added auxiliary switch block / typical		10,000,000

### Communication:

<b>Product function</b>		
• bus-communication		No
• control circuit interface with IO link		No
<b>Protocol / is supported / AS interface protocol</b>		No

### Main circuit:

<b>Number of poles / for main current circuit</b>		3
<b>Number of NC contacts / for main contacts</b>		0
<b>Number of NO contacts / for main contacts</b>		3
<b>Operating voltage / at AC-3 / rated value / maximum</b>	V	690
<b>Operating current</b>		
• at AC-1 / at 400 V		
• at 40 °C ambient temperature / rated value	A	50
• at 60 °C ambient temperature / rated value	A	45
• at AC-2 / at 400 V / rated value	A	38
• at AC-3 / at 400 V / rated value	A	38
• at AC-4 / at 400 V / rated value	A	18.5
• with 1 current path / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	4.5
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	A	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
<b>Service power</b>		
• at AC-2 / at 400 V / rated value	kW	18.5
• at AC-3		
• at 400 V / rated value	kW	18.5
• at 500 V / rated value	kW	22
• at 690 V / rated value	kW	18.5
• at AC-4 / at 400 V / rated value	kW	9.5
<b>Off-load operating frequency</b>	1/h	1,500
<b>Frequency of operation</b>		
• 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:

<b>Design of activation</b>		conventional
<b>Voltage type / of control feed voltage</b>		AC
<b>Control supply voltage frequency</b>		
• 1 / rated value	Hz	50
• 2 / rated value	Hz	60
<b>Control supply voltage / 1</b>		
• for AC / at 50 Hz / rated value	V	24
• for AC / at 60 Hz / rated value	V	24
<b>Operating range factor control supply voltage rated value / of the magnet coil</b>		
• at 50 Hz / for AC		0.8 ... 1.1
• at 60 Hz / for AC		0.8 ... 1.1
<b>Apparent pull-in power / of the solenoid / for AC</b>	V·A	77
<b>Apparent holding power / of the solenoid / for AC</b>	V·A	9.8
<b>Inductive power factor</b>		
• with the pull-in power of the coil		0.82
• with the pull-in power of the coil		0.27

#### Auxiliary circuit:

<b>Product extension / auxiliary switch</b>		Yes
<b>Contact reliability / of the auxiliary contacts</b>		< 1 error per 100 million operating cycles
<b>Number of NC contacts / for auxiliary contacts</b>		
• per direction of rotation		0
• instantaneous switching		0

• lagging switching		0
<b>Number of NO contacts / for auxiliary contacts</b>		
• per direction of rotation		0
• instantaneous switching		0
• leading switching		0
<b>Operating current / of the auxiliary contacts</b>		
• 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: 100 A

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

fuse gL/gG: 10 A

#### Installation/mounting/dimensions:

<b>mounting position</b>		+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
<b>Mounting type</b>		screw and snap-on mounting onto 35 mm standard mounting rail
<b>Width</b>	mm	90
<b>Height</b>	mm	114
<b>Depth</b>	mm	97
<b>Distance, to be maintained, to the ranks assembly</b>		
• forwards	mm	6

• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	mm	6
<b>Distance, to be maintained, to earthed part</b>		
• forwards	mm	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	mm	6
<b>Distance, to be maintained, conductive elements</b>		
• forwards	mm	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	mm	6

#### Connections:

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

#### Certificates/approvals:

<b>Verification of suitability</b>	CE / UL / CSA / CCC
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**General Product Approval**



**Declaration of Conformity**

[Special Test Certificate](#)

**Shipping Approval**



**Shipping Approval**

**other**



[other](#)

[Environmental Confirmations](#)

**UL/CSA ratings**

**yielded mechanical performance [hp]**

- for single-phase squirrel cage motors
  - at 110/120 V / rated value
  - at 230 V / rated value
- for three-phase squirrel cage motors
  - at 220/230 V / rated value
  - at 460/480 V / rated value
  - at 575/600 V / rated value

hp	3
hp	5
hp	10
hp	25
hp	25

**Full-load current (FLA) / for 3-phase motor**

- at 480 V / rated value
- at 600 V / rated value

A	34
A	27

**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

**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

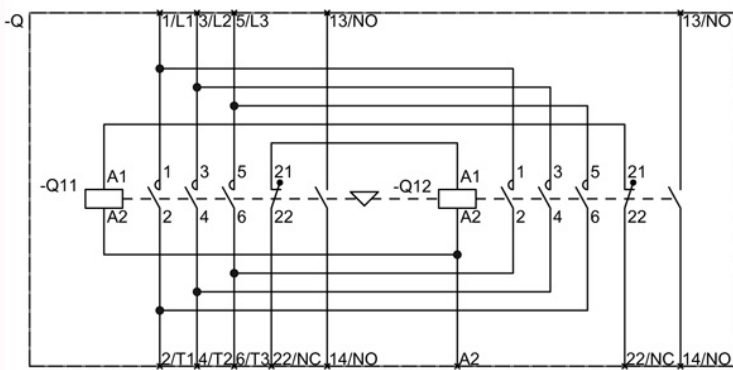
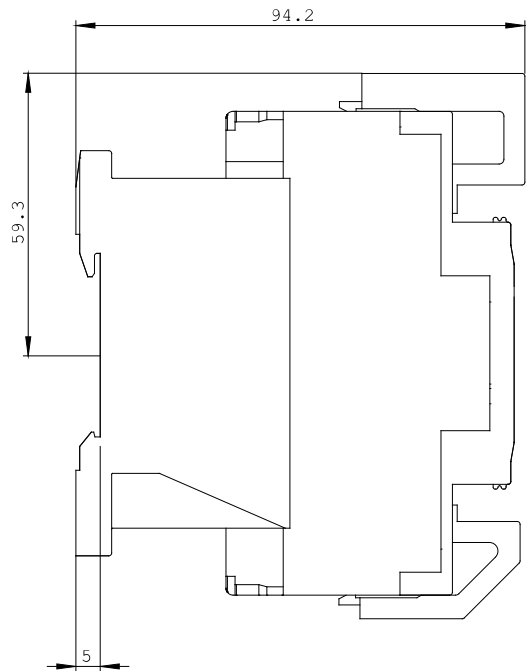
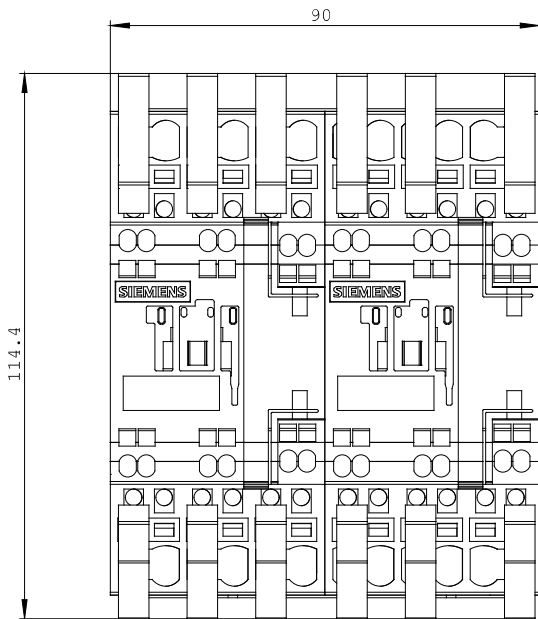
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RA2328-8XB30-2AC2/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RA2328-8XB30-2AC2](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2328-8XB30-2AC2)



last change:

Aug 4, 2014