

REVERSING COMB. F.3RA27, 22KW,  
20-33V AC/DC, 3-POLE,  
SIZE S2 SCREW TERMINAL ELECTR. AND MECH.  
INTERLOCK 2NO INTEGR.

### General technical data:

product brand name		SIRIUS
Product function		Reversing contactor assembly
Size of contactor		S2
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 height above sea level / maximum	m	2,000
Ambient temperature / during storage	°C	-55 ... +80
Ambient temperature / during operation	°C	-25 ... +60
Surge voltage resistance / Rated value	kV	6
Active power loss / per conductor / typical	W	4
Manufacturer article number <ul style="list-style-type: none"> <li>• 1 / of the supplied contactor</li> <li>• 2 / of the supplied contactor</li> <li>• of the supplied RS assembly kit</li> </ul>		<a href="#">3RT2036-1NB30-0CC0</a> <a href="#">3RT2036-1NB30</a> <a href="#">3RA2934-2BB1</a>
Mechanical service life (switching cycles) <ul style="list-style-type: none"> <li>• of the contactor / typical</li> <li>• of the contactor with added auxiliary switch block / typical</li> </ul>		10,000,000 10,000,000

### Communication/ Protocol:

Product function <ul style="list-style-type: none"> <li>• Bus communication</li> <li>• Control circuit interface with IO link</li> </ul>		Yes Yes
Protocol / is supported / AS-interface protocol		Yes

### 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		0
Operating voltage / at AC-3 / Rated value / maximum	V	690
Operating current		

<ul style="list-style-type: none"> <li>• at AC-1 / at 400 V <ul style="list-style-type: none"> <li>• at ambient temperature 40 °C / Rated value</li> <li>• at ambient temperature 60 °C / Rated value</li> </ul> </li> <li>• at AC-2 / at 400 V / Rated value</li> <li>• at AC-3 / at 400 V / Rated value</li> <li>• at AC-4 / at 400 V / Rated value</li> <li>• with 1 current path / at DC-1 <ul style="list-style-type: none"> <li>• at 24 V / Rated value</li> <li>• at 110 V / Rated value</li> </ul> </li> <li>• with 2 current paths in series / at DC-1 <ul style="list-style-type: none"> <li>• at 24 V / Rated value</li> <li>• at 110 V / Rated value</li> </ul> </li> <li>• with 3 current paths in series / at DC-1 <ul style="list-style-type: none"> <li>• at 24 V / Rated value</li> <li>• at 110 V / Rated value</li> </ul> </li> <li>• with 1 current path / at DC-3 / at DC-5 <ul style="list-style-type: none"> <li>• at 24 V / Rated value</li> <li>• at 110 V / Rated value</li> </ul> </li> <li>• with 2 current paths in series / at DC-3 / at DC-5 <ul style="list-style-type: none"> <li>• at 24 V / Rated value</li> <li>• at 110 V / Rated value</li> </ul> </li> <li>• with 3 current paths in series / at DC-3 / at DC-5 <ul style="list-style-type: none"> <li>• at 24 V / Rated value</li> <li>• at 110 V / Rated value</li> </ul> </li> </ul>	A	60
	A	55
	A	50
	A	50
	A	41
	A	55
	A	4.5
	A	55
	A	25
	A	55
	A	55
	A	35
	A	2.5
	A	55
	A	25
	A	55
	A	55
<b>Operating power</b>		
<ul style="list-style-type: none"> <li>• at AC-2 / at 400 V / Rated value</li> </ul>	kW	22
<ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>• at 400 V / Rated value</li> <li>• at 690 V / Rated value</li> </ul> </li> </ul>	kW	22
	kW	22
<ul style="list-style-type: none"> <li>• at AC-4 / at 400 V / Rated value</li> </ul>	kW	22
<b>No-load switching frequency</b>	1/h	1,500
<b>Operating frequency</b>		
<ul style="list-style-type: none"> <li>• at AC-1 / maximum</li> </ul>	1/h	1,000
<ul style="list-style-type: none"> <li>• at AC-2 / maximum</li> </ul>	1/h	600
<ul style="list-style-type: none"> <li>• at AC-3 / maximum</li> </ul>	1/h	800
<ul style="list-style-type: none"> <li>• at AC-4 / maximum</li> </ul>	1/h	250
<b>Control circuit/ Control:</b>		
<b>Type of voltage / of the control supply voltage</b>		AC/DC
<b>Control supply voltage / 1</b>		

• for DC	V	20 ... 33
• with AC		
• at 50 Hz	V	20 ... 33
• with AC		
• at 60 Hz	V	20 ... 33
<b>Operating range factor control supply voltage rated value / of the magnet coil</b>		
• with AC / at 50 Hz		0.8 ... 1.1
• with AC / at 60 Hz		0.8 ... 1.1
• for DC		0.8 ... 1.1
<b>Apparent pick-up power / of the magnet coil / with AC</b>		
• at 50 Hz	V·A	40
• at 60 Hz	V·A	40
<b>Inductive power factor / with closing power of the coil</b>		
• at 50 Hz		0.64
• at 60 Hz		0.5
<b>Apparent holding power / of the magnet coil / with AC</b>		
• at 50 Hz	V·A	2
• at 60 Hz	V·A	2
<b>Inductive power factor / with the holding power of the coil</b>		
• at 50 Hz		0.36
• at 60 Hz		0.39
<b>Closing power / of the magnet coil / for DC</b>	W	23
<b>Holding power / of the magnet coil / for DC</b>	W	1

#### Auxiliary circuit:

<b>Product expansion / 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 contact		0
• lagging switching		0
<b>Number of NO contacts / for auxiliary contacts</b>		
• per direction of rotation		0
• instantaneous contact		0
• leading contact		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
- at DC-12
  - at 48 V
  - at 60 V
  - at 110 V
  - at 220 V
- at DC-13
  - at 24 V
  - at 48 V
  - at 60 V
  - at 110 V
  - at 220 V

A	3
A	6
A	6
A	3
A	1
A	10
A	2
A	2
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
- for short-circuit protection of the auxiliary switch / required

gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 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 120

##### Height

mm 141

##### Depth

mm 130

#### Connections/ terminals:

##### Design of the electrical connection

- for main current circuit
- for auxiliary and control current circuit

screw-type terminals

screw-type terminals

##### Type of connectable conductor cross-section

- for main contacts
  - single or multi-stranded
  - finely stranded / with core end processing
- for AWG conductors / for main contacts

2x (1 ... 35 mm²), 1x (1 ... 50 mm²)

2x (1 ... 25 mm²), 1x (1 ... 35 mm²)

2x (18 ... 2), 1x (18 ... 1)

##### Type of connectable conductor cross-section

- for auxiliary contacts
  - single or multi-stranded
  - finely stranded / with core end processing

2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²)

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)

• for AWG conductors / for auxiliary contacts

2x (20 ... 16), 2x (18 ... 14)

## Certificates/ approvals:

### Declaration of Conformity



## UL/CSA ratings:

### yielded mechanical performance [hp]

- for single-phase AC motor
  - at 110/120 V / Rated value
  - at 230 V / Rated value
- for three-phase AC motor
  - at 220/230 V / Rated value
  - at 460/480 V / Rated value
  - at 575/600 V / Rated value

hp	3
hp	7.5
hp	15
hp	40
hp	50

### Full-load current (FLA) / for three-phase AC motor

- at 480 V / Rated value
- at 600 V / Rated value

A	52
A	52

### Contact rating / of the auxiliary contacts / acc. to UL

A600 / Q600

## Safety related data:

### B10 value / with high demand rate

- acc. to SN 31920

1,000,000

### Failure rate [FIT] / with low demand rate

- acc. to SN 31920

FIT	100
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### Proportion of dangerous failures

- with low demand rate / acc. to SN 31920
- with high demand rate / acc. to SN 31920

%	40
%	73

### T1 value / for proof test interval or service life

- acc. to IEC 61508

a	20
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## Further information:

### Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

### Industry Mall (Online ordering system)

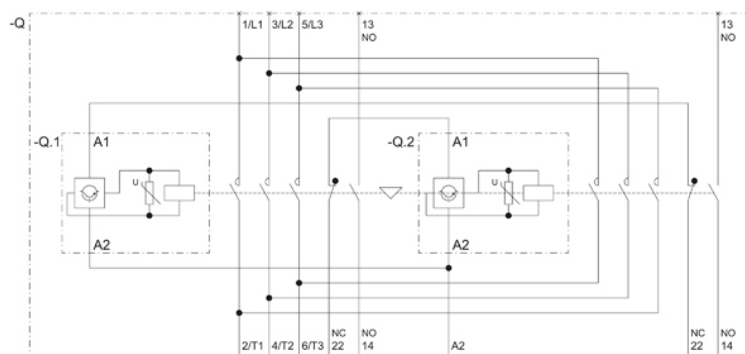
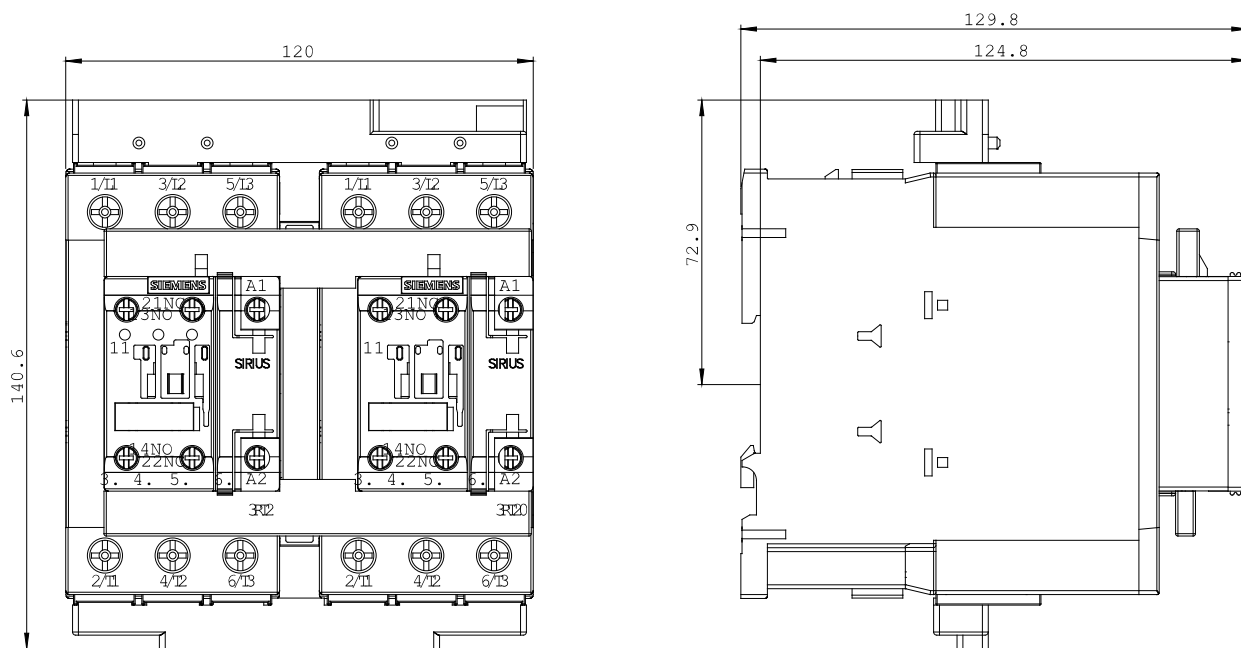
<http://www.siemens.com/industrymall>

### Cax online generator

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

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

<http://support.automation.siemens.com/WW/view/en/3RA2336-8XE30-1NB3/all>



last change:

Dec 17, 2014