

REV. COMB. F.3RA27, 18.5KW,
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	2.2
Manufacturer article number <ul style="list-style-type: none"> • 1 / of the supplied contactor • 2 / of the supplied contactor • of the supplied RS assembly kit 		3RT2035-1NB30-0CC0 3RT2035-1NB30 3RA2934-2BB1
Mechanical service life (switching cycles) <ul style="list-style-type: none"> • of the contactor / typical • of the contactor with added auxiliary switch block / typical 		10,000,000 10,000,000

Communication/ Protocol:

Product function <ul style="list-style-type: none"> • Bus communication • Control circuit interface with IO link 		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"> • at AC-1 / at 400 V <ul style="list-style-type: none"> • at ambient temperature 40 °C / Rated value • at ambient temperature 60 °C / Rated value • at AC-2 / at 400 V / Rated value • at AC-3 / at 400 V / Rated value • at AC-4 / at 400 V / Rated value • with 1 current path / at DC-1 <ul style="list-style-type: none"> • at 24 V / Rated value • at 110 V / Rated value • 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 • 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 • with 1 current path / at DC-3 / at DC-5 <ul style="list-style-type: none"> • at 24 V / Rated value • at 110 V / Rated value • with 2 current paths in series / at DC-3 / at DC-5 <ul style="list-style-type: none"> • at 24 V / Rated value • at 110 V / Rated value • with 3 current paths in series / at DC-3 / at DC-5 <ul style="list-style-type: none"> • at 24 V / Rated value • at 110 V / Rated value 	A	60
	A	55
	A	40
	A	40
	A	35
	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
Operating 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 • at 690 V / Rated value 	kW	18.5
	kW	18.5
<ul style="list-style-type: none"> • at AC-4 / at 400 V / Rated value 	kW	18.5
No-load switching frequency	1/h	1,500
Operating frequency		
<ul style="list-style-type: none"> • at AC-1 / maximum 	1/h	1,000
<ul style="list-style-type: none"> • at AC-2 / maximum 	1/h	750
<ul style="list-style-type: none"> • at AC-3 / maximum 	1/h	1,000
<ul style="list-style-type: none"> • at AC-4 / maximum 	1/h	300
Control circuit/ Control:		
Type of voltage / of the control supply voltage		AC/DC
Control supply voltage / 1		

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

Auxiliary circuit:

Product expansion / Auxiliary switch		Yes
Contact reliability / of the auxiliary contacts		< 1 error per 100 million operating cycles
Number of NC contacts / for auxiliary contacts		
• per direction of rotation		0
• instantaneous contact		0
• lagging switching		0
Number of NO contacts / for auxiliary contacts		
• per direction of rotation		0
• instantaneous contact		0
• leading contact		0
Operating current / of the auxiliary contacts		
• 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	30
hp	40

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

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

A	40
A	41

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)

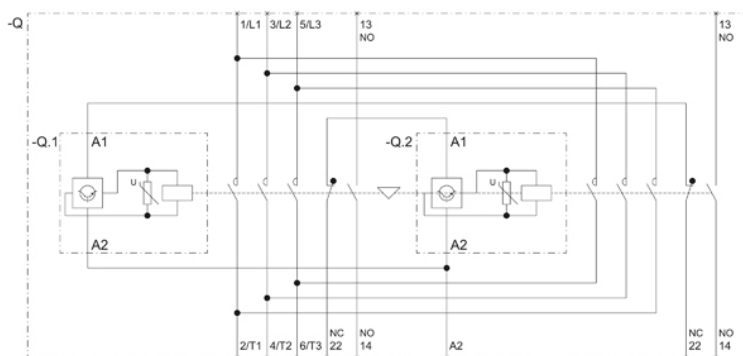
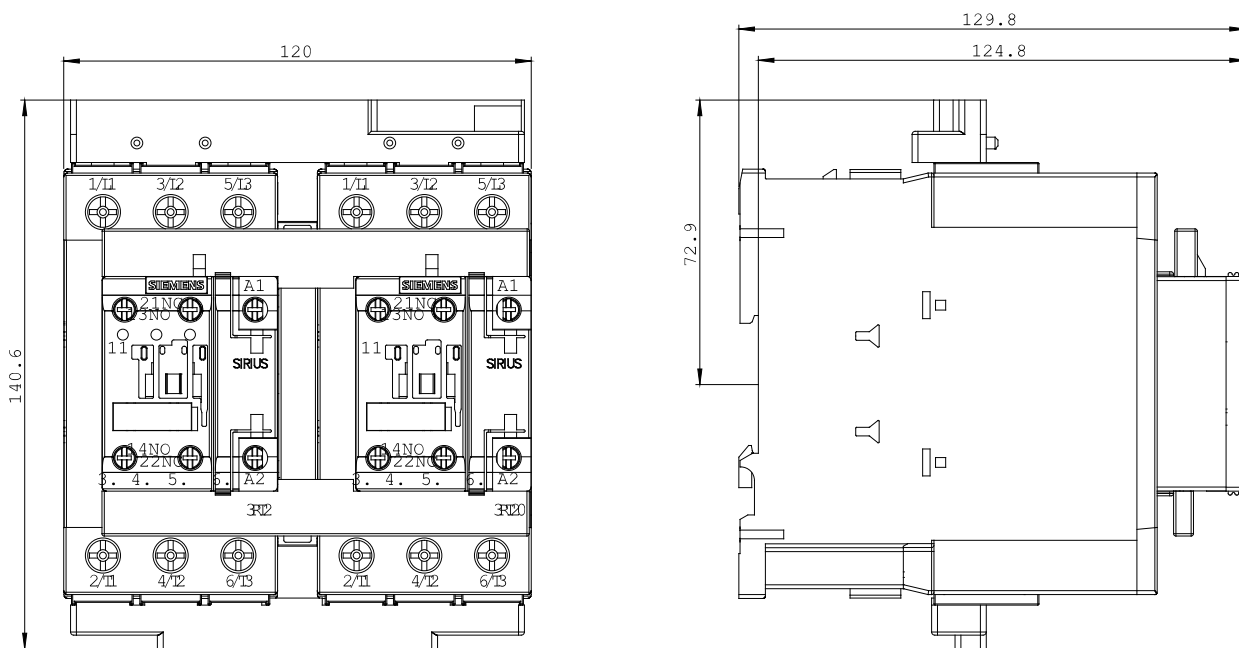
<http://www.siemens.com/industrymall>

Cax online generator

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

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

<http://support.automation.siemens.com/WW/view/en/3RA2335-8XE30-1NB3/all>



last change:

Dec 17, 2014