

LOAD FEEDER FUSELESS DIRECT START,  
AC 400V, SZ S0, 4.5. . . 6.3A,  
DC 24V SCREW CONNECTION FOR BUSBAR SYSTEMS  
60MM TYPE OF COORDINATION 2,  
IQ = 150KA (ALSO FULFILLS TYPE OF COORDINATION 1)  
1NO+1NC (CONTACTOR)

### General technical data:

<b>Product brand name</b>		SIRIUS
<b>product designation</b>		non-fused load feeders 3RA2
<b>Design of the product</b>		direct starter
<b>Size of the load feeder</b>		S0
<b>Protection class IP / on the front</b>		IP20
<b>Degree of pollution</b>		3
<b>Insulation voltage / 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	-20 ... 60
<b>Impulse voltage resistance / rated value</b>	kV	6
<b>Active power loss / per conductor / typical</b>	W	2.3
<b>Item designation</b>		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		Q
• according to DIN EN 61346-2		Q
<b>Type of assignment</b>		2
<b>Mechanical operating cycles as operating time / of the contactor</b>		
• typical		10,000,000
<b>Manufacturer article number</b>		
• of the circuit-breakers included in the scope of supply		<a href="#">3RV2011-1GA10</a>
• of the contactor included in the scope of supply		<a href="#">3RT2024-1BB40</a>
• of the link module included in the scope of supply		<a href="#">3RA2921-1BA00</a>
• of the busbar adapter included in the scope of supply		<a href="#">8US1251-5NT10</a>
<b>Design of the switching contact</b>		mechanical
<b>Type of the motor protection</b>		bimetal
<b>Adjustable response current</b>		

- of the current-dependent overload release

A 4.5 ... 6.3

#### Communication:

##### Product function / bus-communication

No

##### Protocol / will be supported

- AS interface protocol
- PROFIBUS DP protocol
- PROFINET protocol

No

No

No

##### Product extension / function module for communication

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 / 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

A

6.3

A

4.9

A

4.9

A

4.9

##### Service power

- at AC-2 / at 400 V / rated value
- at AC-3
  - at 400 V / rated value
  - at 500 V / rated value
  - at 690 V / rated value
- at AC-4 / at 400 V / rated value

W

2,200

W

2,200

W

3,000

W

4,000

W

2,200

##### Off-load operating frequency

1/h

1,500

##### Frequency of operation

- at AC-1 / according to IEC 60947-6-2 / maximum
- at AC-2 / according to IEC 60947-6-2 / maximum
- at AC-3 / according to IEC 60947-6-2 / maximum
- at AC-4 / according to IEC 60947-6-2 / maximum

1/h

1,000

1/h

1,000

1/h

1,000

1/h

300

#### Control circuit:

##### Type of voltage / of the controlled supply voltage

DC

##### Control supply voltage frequency

- 1 / rated value

Hz

0

##### Control supply voltage / 1

- for DC / rated value

V

24

##### Holding power / of the solenoid / for DC

W

5.9

Auxiliary circuit:		
Product extension / auxiliary switch		Yes
Number of NC contacts / for auxiliary contacts		1
Number of NO contacts / for auxiliary contacts		1
Number of change-over switches / for auxiliary contacts		0
Inputs/ Outputs:		
Number of digital inputs		0
Short-circuit:		
Product function / short circuit protection		Yes
Design of the short-circuit protection		circuit-breakers
Breaking capacity limit short-circuit current (Icu)		
• at 400 V / rated value	A	100,000
• at 500 V / rated value	A	100,000
• at 690 V / rated value	A	4,000
Installation/mounting/dimensions:		
Built in orientation		vertical
Type of mounting		for snapping onto 60 mm busbar systems
Width	mm	45
Height	mm	260
Depth	mm	165
Center line spacing	mm	60
Distance, to be maintained, to the ranks assembly		
• forwards	mm	10
• backwards	mm	0
• upwards	mm	30
• downwards	mm	30
• sideways	mm	0
Distance, to be maintained, to earthed part		
• forwards	mm	10
• backwards	mm	0
• upwards	mm	30
• downwards	mm	10
• sideways	mm	9
Distance, to be maintained, conductive elements		
• forwards	mm	10
• backwards	mm	0
• upwards	mm	30

- downwards
- sideways

mm	10
mm	9

## Connections:

### Design of the electrical connection

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

screw-type terminals  
screw-type terminals

### Type of the connectable conductor cross-section

- for main contacts
  - solid
  - stranded
  - finely stranded
    - with conductor end processing
- for AWG conductors / for main contacts
- for auxiliary contacts
  - solid
  - finely stranded
    - with conductor end processing
- for AWG conductors / for auxiliary contacts

2x (1 ... 2.5 mm<sup>2</sup>), 2x (2.5 ... 10 mm<sup>2</sup>)  
2x (1.0 ... 2.5 mm<sup>2</sup>), 2x (2.5 ... 10 mm<sup>2</sup>)  
  
2x (1 ... 2.5 mm<sup>2</sup>), 2x (2.5 ... 6 mm<sup>2</sup>), 1x 10 mm<sup>2</sup>  
2 x (16 ... 14), 2x (14 ... 8)  
  
2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)  
  
2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)  
2x (20 ... 14)

## Certificates/approvals:

### Verification of suitability

CE / UL / CSA / CCC

### Verification of suitability / ATEX

No

### General Product Approval

### For use in hazardous locations

### Test Certificates

[ROSTEST](#)



UL

[DEKRA EXAM,](#)  
[DMT](#)

[Manufacturer](#)

### Shipping Approval

### other



ABS



PRS



RINA

[Manufacturer](#)

[other](#)

## Safety:

### B10 value / with high demand rate

- according to SN 31920

1,000,000

### Failure rate (FIT value) / with low demand rate

- according to SN 31920

FIT

150

### Proportion of dangerous failures

- with low demand rate / according to SN 31920

%

40

• with high demand rate / according to SN 31920	%	75
<b>T1 value / for proof test interval or service life</b> • according to IEC 61508	a	10
<b>Protection against electrical shock</b>		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/3RA2120-1GD24-0BB4/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RA2120-1GD24-0BB4](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2120-1GD24-0BB4)

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