## **Product data sheet**



LOAD FEEDER FUSELESS REVERSING DUTY, AC 400V, SZ S00, 3.5. . .5A, AC 230V SCREW CONNECTION FOR RAIL-MOUNTING, TYPE OF COORDINATION 1, IQ = 150KA 1NC (CONTACTOR)

General technical data:		
Product brand name		SIRIUS
product designation		non-fused load feeders 3RA2
Design of the product		reversing starter
Size of the load feeder		S00
Protection class IP / on the front		IP20
Degree of pollution		3
Insulation voltage / rated value	V	690
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
during transport	°C	-55 80
during storage	°C	-55 80
during operating	°C	-20 60
Impulse voltage resistance / rated value	kV	6
Active power loss / per conductor / typical	W	2.3
Item designation		
<ul> <li>according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</li> </ul>		Q
according to DIN EN 61346-2		Q
Type of assignement		1

Mechanical operating cycles as operating time / of the contactor		
• typical		10,000,000
Manufacturer article number		
of the circuit-breakers included in the scope of supply		3RV2011-1FA10
of the contactor included in the scope of supply		3RT2015-1AP02
of the link module included in the scope of supply		3RA1921-1DA00
Design of the switching contact		mechanical
Type of the motor protection		bimetal
Adjustable response current		
of the current-dependent overload release	Α	3.5 5
Communication:		
Product function / bus-communication		No
Protocol / will be supported		
AS interface protocol		No
PROFIBUS DP protocol		No
PROFINET protocol		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	Α	5
• at AC-2 / at 400 V / rated value	Α	3.6
• at AC-3 / at 400 V / rated value	Α	3.6
• at AC-4 / at 400 V / rated value	Α	3.6
Service power		
• at AC-2 / at 400 V / rated value	W	1,500
• at AC-3		
• at 400 V / rated value	W	1,500

• at 500 V / rated value

• at 690 V / rated value

Off-load operating frequency

Frequency of operation

• at AC-4 / at 400 V / rated value

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

• at AC-2 / according to IEC 60947-6-2 / maximum

W

W

W

1/h

1/h

1/h

2,200

3,000

1,500

10,000

1,000

750

• at AC-3 / according to IEC 60947-6-2 / maximum	1/h	750
• at AC-4 / according to IEC 60947-6-2 / maximum	1/h	250
Control circuit:		
Type of voltage / of the controlled supply voltage		AC
Control supply voltage frequency	_	, ic
• 1 / rated value	Hz	50
Control supply voltage / 1	- 112	
• at 50 Hz / for AC / rated value	V	230
• at 60 Hz / for AC / rated value	V	230
Apparent holding power / of the solenoid / for AC		4.2
Inductive power factor / with the pull-in power of the coil		0.25
	_	
Auxiliary circuit:		
Product extension / auxiliary switch		Yes
Number of NC contacts / for auxiliary contacts		1
Number of NO contacts / for auxiliary contacts	_	0
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		
	Α	100,000
• at 500 V / rated value	A A	100,000 100,000
<ul><li>at 500 V / rated value</li><li>at 690 V / rated value</li></ul>		
	Α	100,000
• at 690 V / rated value Installation/mounting/dimensions:	Α	100,000
• at 690 V / rated value  Installation/mounting/dimensions:  Built in orientation	Α	100,000 4,000
• at 690 V / rated value  Installation/mounting/dimensions:  Built in orientation	Α	100,000 4,000  vertical screw and snap-on mounting onto 35 mm standard
• at 690 V / rated value  Installation/mounting/dimensions:  Built in orientation  Type of mounting  Width	A A	100,000 4,000  vertical screw and snap-on mounting onto 35 mm standard mounting rail
• at 690 V / rated value  Installation/mounting/dimensions:  Built in orientation  Type of mounting  Width  Height	A A	100,000 4,000  vertical screw and snap-on mounting onto 35 mm standard mounting rail 90
• at 690 V / rated value  Installation/mounting/dimensions:  Built in orientation  Type of mounting  Width  Height  Depth	A A	100,000 4,000  vertical screw and snap-on mounting onto 35 mm standard mounting rail 90 170
• at 690 V / rated value  Installation/mounting/dimensions:  Built in orientation  Type of mounting  Width  Height  Depth	A A	100,000 4,000  vertical screw and snap-on mounting onto 35 mm standard mounting rail 90 170
• at 690 V / rated value  Installation/mounting/dimensions:  Built in orientation  Type of mounting  Width  Height  Depth  Distance, to be maintained, to the ranks assembly	A A	vertical screw and snap-on mounting onto 35 mm standard mounting rail 90 170 97.1
at 690 V / rated value  Installation/mounting/dimensions:  Built in orientation  Type of mounting  Width  Height  Depth  Distance, to be maintained, to the ranks assembly  • forwards	MM mm mm	vertical screw and snap-on mounting onto 35 mm standard mounting rail 90 170 97.1

• sidewards	mm	0
Distance, to be maintained, to earthed part		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	20
• downwards	mm	10
• sidewards	mm	9
Distance, to be maintained, conductive elements		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	20
• downwards	mm	10
• sidewards	mm	9

Connections:	
Design of the electrical connection	
for main current circuit	screw-type terminals
<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals
Type of the connectable conductor cross-section	
• for main contacts	
• solid	2x (0.75 2.5 mm²), 2x 4 mm²
• stranded	2x (0.75 2.5 mm2), 2x 4 mm2
• finely stranded	
<ul> <li>with conductor end processing</li> </ul>	2x (0.75 2.5 mm²)
• for AWG conductors / for main contacts	2x (18 14), 2x 12
for auxiliary contacts	
• solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
• finely stranded	
<ul> <li>with conductor end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>for AWG conductors / for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14), 2x 12

Certificates/approvals:	
Verification of suitability	CE / UL / CSA / CCC
Varification of suitability / ATEX	No

# **General Product Approval**

For use in hazardous locations

**Test Certificates** 

**ROSTEST** 



 $\frac{\mathsf{DEKRA}\;\mathsf{EXAM,}}{\mathsf{DMT}}$ 

Manufacturer

## **Shipping Approval**

other



UL





Manufacturer

other

UL/CSA ratings		
yielded mechanical performance (hp)		
<ul> <li>for single-phase squirrel cage motors</li> </ul>		
• at 110/120 V / rated value	hp	0.167
• at 230 V / rated value	hp	0.5
<ul> <li>for three-phase squirrel cage motors</li> </ul>		
• at 200/208 V / rated value	hp	1
• at 220/230 V / rated value	hp	1
• at 460/480 V / rated value	hp	3
• at 575/600 V / rated value	hp	3
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	Α	4.8
• at 600 V / rated value	Α	5
Contact rating designation / for auxiliary contacts / according to		A600 / Q600

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	250
Proportion of dangerous failures		
<ul> <li>with low demand rate / according to SN 31920</li> </ul>	%	40
<ul> <li>with high demand rate / according to SN 31920</li> </ul>	%	75
T1 value / for proof test interval or service life		
according to IEC 61508	а	10
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**

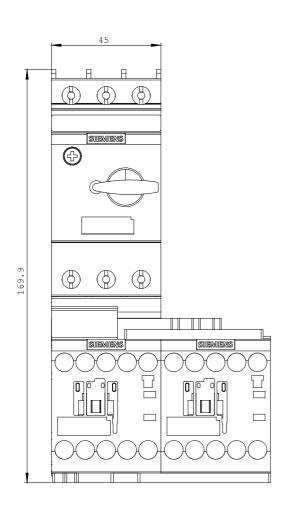
http://www.siemens.com/cax

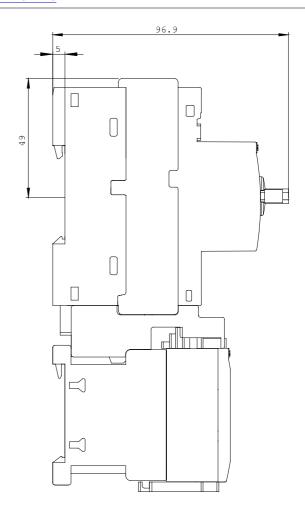
### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

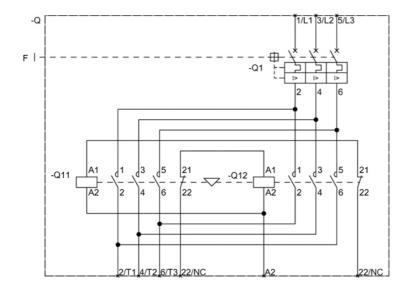
http://support.automation.siemens.com/WW/view/en/3RA2210-1FA15-2AP0/all

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RA2210-1FA15-2AP0







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