

LOAD FEEDER FUSELESS DIRECT START,
AC 400V, SZ S00 1.1...1.6A,
AC 230V SCREW CONNECTION FOR BUSBAR SYSTEMS
60MM TYPE OF COORDINATION 2,
IQ = 150KA (ALSO FULFILLS TYPE OF COORDINATION 1)
1NO (CONTACTOR)

General technical data:		
Product brand name		SIRIUS
product designation		non-fused load feeders 3RA2
Design of the product		direct 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		2

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		3RV2011-1AA10
of the contactor included in the scope of supply		3RT2015-1AP01
of the link module included in the scope of supply		3RA1921-1DA00
of the busbar adapter included in the scope of supply		8US1251-5DS10
Design of the switching contact		mechanical
Type of the motor protection		bimetal
Adjustable response current		
of the current-dependent overload release	Α	1.1 1.6

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	1.6
• at AC-2 / at 400 V / rated value	Α	1.5
• at AC-3 / at 400 V / rated value	Α	1.5
• at AC-4 / at 400 V / rated value	Α	1.5
Service power		
• at AC-2 / at 400 V / rated value	W	550
• at AC-3		
at 400 V / rated value	W	550
at 500 V / rated value	W	750
at 690 V / rated value	W	1,100
• at AC-4 / at 400 V / rated value	W	550
Off-load operating frequency	1/h	10,000
Frequency of operation		
• at AC-1 / according to IEC 60947-6-2 / maximum	1/h	1,000

• at AC-2 / according to IEC 60947-6-2 / maximum	1/h	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		
• 1 / rated value	Hz	50
Control supply voltage / 1		
• 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	V-A	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		0
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	Α	100,000
• at 500 V / rated value	Α	100,000
• at 690 V / rated value	А	100,000
Installation/mounting/dimensions:		
Built in orientation		vertical
Type of mounting		for snapping onto 60 mm busbar systems
Width	mm	45
Height	mm	200
Depth	mm	155.1
Center line spacing	mm	60
Distance, to be maintained, to the ranks assembly		
• forwards	mm	0
• backwards	mm	0

<ul> <li>sidewards</li> <li>Distance, to be maintained, to earthed part</li> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>sidewards</li> <li>forwards</li> <li>mm</li> <li>20</li> <li>downwards</li> <li>sidewards</li> <li>mm</li> <li>pistance, to be maintained, conductive elements</li> <li>forwards</li> <li>backwards</li> <li>mm</li> <li>upwards</li> <li>upwards</li> <li>upwards</li> <li>downwards</li> <li>mm</li> <li>20</li> <li>downwards</li> <li>downwards</li> <li>sidewards</li> <li>mm</li> <li></li></ul>	• downwards	mm	30
<ul> <li>• forwards</li> <li>• backwards</li> <li>• upwards</li> <li>• downwards</li> <li>• sidewards</li> <li>• mm</li> <li>• sidewards</li> <li>mm</li> <li>9</li> </ul> Distance, to be maintained, conductive elements <ul> <li>• forwards</li> <li>• backwards</li> <li>• backwards</li> <li>• upwards</li> <li>• downwards</li> <li>• downwards</li> <li>mm</li> <li>10</li> </ul>	• sidewards	mm	0
<ul> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>sidewards</li> <li>sidewards</li> <li>mm</li> <li>9</li> </ul> Distance, to be maintained, conductive elements <ul> <li>forwards</li> <li>backwards</li> <li>mm</li> <li>upwards</li> <li>downwards</li> <li>mm</li> <li>20</li> <li>downwards</li> <li>mm</li> <li>10</li> </ul>	Distance, to be maintained, to earthed part		
<ul> <li>upwards</li> <li>downwards</li> <li>sidewards</li> <li>mm</li> <li>sidewards</li> <li>mm</li> <li>9</li> </ul> Distance, to be maintained, conductive elements <ul> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>mm</li> <li>downwards</li> <li>mm</li> <li>10</li> </ul>	• forwards	mm	0
<ul> <li>downwards</li> <li>sidewards</li> <li>mm</li> <li>9</li> </ul> Distance, to be maintained, conductive elements <ul> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>mm</li> <li>10</li> </ul>	• backwards	mm	0
<ul> <li>sidewards</li> <li>mm</li> <li>Distance, to be maintained, conductive elements</li> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>mm</li> <li>20</li> <li>downwards</li> <li>mm</li> <li>10</li> </ul>	• upwards	mm	20
Distance, to be maintained, conductive elements  • forwards	• downwards	mm	10
<ul> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>mm</li> <li>0</li> <li>mm</li> <li>20</li> <li>downwards</li> <li>mm</li> <li>10</li> </ul>	• sidewards	mm	9
<ul> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>mm</li> <li>20</li> <li>mm</li> <li>10</li> </ul>	Distance, to be maintained, conductive elements		
<ul> <li>upwards</li> <li>downwards</li> <li>mm</li> <li>10</li> </ul>	• forwards	mm	0
• downwards mm 10	• backwards	mm	0
	• upwards	mm	20
• sidewards mm 9	• downwards	mm	10
	• sidewards	mm	9

Connections:	
Design of the electrical connection	
for main current circuit	screw-type terminals
for auxiliary and control current circuit	screw-type terminals
Type of the connectable conductor cross-section	
• for main contacts	
• solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x (1 4 mm²)
• stranded	2x (0.5 1.5 mm2), 2x (0.75 2.5 mm2), 2x (1 4 mm2)
• finely stranded	
<ul> <li>with conductor end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• for AWG conductors / for main contacts	2x (20 16), 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)
• for AWG conductors / for auxiliary contacts	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







Manufacturer

other

UL/CSA ratings		
yielded mechanical performance (hp)		
<ul> <li>for single-phase squirrel cage motors</li> </ul>		
• at 230 V / rated value	hp	0.1
• for three-phase squirrel cage motors		
• at 460/480 V / rated value	hp	0.75
• at 575/600 V / rated value	hp	0.75
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	Α	1.6
• at 600 V / rated value	Α	1.6
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 value) / with low demand rate		
according to SN 31920	FIT	150
Proportion of dangerous failures		
<ul> <li>with low demand rate / according to SN 31920</li> </ul>	%	40
with high demand rate / according to SN 31920	%	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)

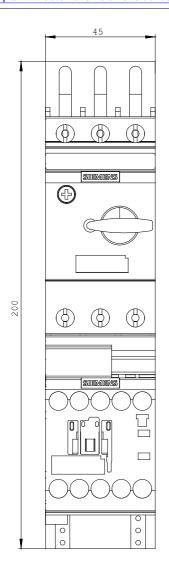
http://www.siemens.com/industrial-controls/mall

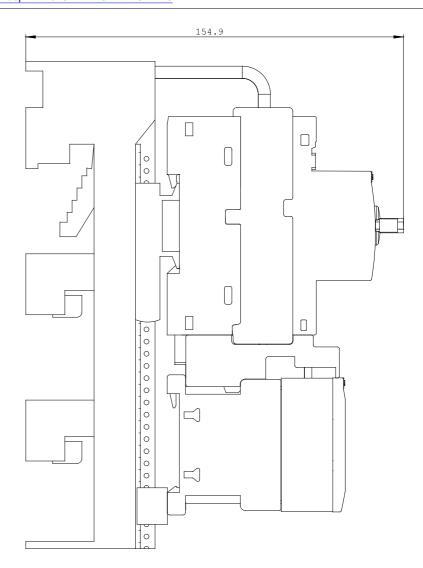
**CAx-Online-Generator** 

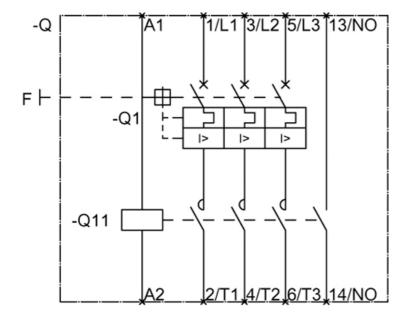
http://www.siemens.com/cax

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RA2110-1AD15-1AP0







last change: Oct 24, 2011