

LOAD FEEDER FUSELESS DIRECT START,
AC 400V, SZ S0, 11...16A,
DC 24V SPRING-LOADED CONNECTION FOR RAILMOUNTING,
TYPE OF COORDINATION 2,
IQ = 150KA (ALSO FULFILLS TYPE OF COORDINATION 1)
1NO+1NC (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		S0
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	4.3
Item designation		
 according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 		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		3RV2021-4AA20
• of the contactor included in the scope of supply		<u>3RT2026-2BB40</u>
• of the link module included in the scope of supply		3RA2921-2AA00
Design of the switching contact		mechanical
Type of the motor protection		bimetal
Adjustable response current		
of the current-dependent overload release	А	11 16
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	16
• at AC-2 / at 400 V / rated value	Α	15.5
• at AC-3 / at 400 V / rated value	Α	15.5
• at AC-4 / at 400 V / rated value	Α	15.5
Service power		
• at AC-2 / at 400 V / rated value	W	7,500
• at AC-3		

• at 400 V / rated value

• 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

W

1/h

1/h

1/h

7,500

7,500

11,000

7,500

1,500

1,000

1,000

- at AC-3 / according to IEC 60947-6-2 / maximum - at AC-4 / according to IEC 60947-6-2 / maximum Type of voltage / of the controlled supply voltage Control supply voltage frequency - 1 / rated value - 2 / 2 Auxiliary circuit: Product extension / auxiliary switch Number of NC contacts / for auxiliary contacts - 1 Number of NC contacts / for auxiliary contacts - 1 Number of NC contacts / for auxiliary contacts - 1 Number of Oftic ontacts / for auxiliary contacts - 2 / 2 Inputs/ Outputs: Number of digital inputs - 0 Short-circuit: Product function / short circuit protection - 3 / 2 Easign of the short-circuit protection - 4 / 400 / rated value - 4 / 500 / rated value - 5 / 500 / rated value - 6 / 500 / rated value - 7 / 500 / rated value - 6 / 500 / rated value - 7 / 500 / rated value - 7 / 500 / rated value - 8 / 500 / rated value - 9 / 500 / rated value - 1 / 500 / rated value - 1 / 500 / rated value - 2 / 500 / rated value - 3 / 500 / rated value - 4 / 500 / rated value - 5 / 500 / rated value - 6 / 500 / rated value - 7 / 500 / rated value - 7 / 500 / rated value - 8 / 500 / rated value - 9 / 500 / rated value - 1 / 500 / rated value - 1 / 500 / rated value - 1 / 500 / rated value - 2 / 500 / rated value - 3 / 500 / rated value - 4 / 500 / rated value - 5 / 500 / rated value - 6 / 500 / rated value - 7 / 500 / rated value - 8 / 500 / rated value - 9 / 500 / rated value - 1 / 500 / rated value - 2 / 500 / rated value - 3 / 500 / rated value - 4 / 500 / ra			
Control circuit: Type of voltage / of the controlled supply voltage Control supply voltage frequency - 1 / rated value	• at AC-3 / according to IEC 60947-6-2 / maximum	1/h	1,000
Type of voltage / of the controlled supply voltage Control supply voltage frequency - 1 / rated value - 1 / rated value - 1 / rated value - 1 / rot DC / rated value - 1 / rot DC / rated value - 1 / rot DC / rated value - 2 / voltage / rot the solenoid / for DC - 2 / voltage / rot the solenoid / rot DC - 2 / voltage / rot the solenoid / rot DC - 2 / voltage / rot the solenoid / rot DC - 2 / voltage / rot volt	• at AC-4 / according to IEC 60947-6-2 / maximum	1/h	300
Type of voltage / of the controlled supply voltage Control supply voltage frequency - 1 / rated value - 1 / rated value - 1 / rated value - 1 / rot DC / rated value - 1 / rot DC / rated value - 1 / rot DC / rated value - 2 / voltage / rot the solenoid / for DC - 2 / voltage / rot the solenoid / rot DC - 2 / voltage / rot the solenoid / rot DC - 2 / voltage / rot the solenoid / rot DC - 2 / voltage / rot volt	One (and nimeral)		
Control supply voltage frequency			
1			DC
Control supply voltage / 1 • for DC / rated value			
+ 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 1 Number of NC contacts / for auxiliary contacts 1 1 Number of change-over switches / for auxiliary contacts 0 0 Inputs/ Outputs: Number of digital inputs 0 0 Short-circuit: Product function / short circuit protection V 9es Design of the short-circuit protection V 1 25,000 - at 400 V / rated value A 5,000 - at 690 V / rated value A 5,000 - at 690 V / rated value A 5,000 Installation/mounting/dimensions: Built in orientation V 9ertical Screw and snap-on mounting onto 35 mm standard mounting rail Width mm 45 Height mm 45 Depth mm 106.9 Distance, to be maintained, to the ranks assembly 1 10 10 10 10 10 10 10 10 10 10 10 10 1	• 1 / rated value	Hz —	0
Mariang power / of the solenoid / for DC	Control supply voltage / 1		
Auxiliary circuit: Product extension / auxiliary switch Number of NC contacts / for auxiliary contacts Number of NC contacts / for auxiliary contacts Number of NC contacts / for auxiliary contacts Number of change-over switches / for auxiliary contacts Inputs/ Outputs: Number of digital inputs O Short-circuit: Product function / short circuit protection Design of the short-circuit protection Breaking capacity limit short-circuit current (lcu) - at 400 V / rated value - at 690 V / rate	• for DC / rated value	V	24
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 Inputts/ Outputs: Vos 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) A 25,000 • at 400 V / rated value A 5,000 • at 690 V / rated value A 2,000 Installation/mounting/dimensions: Strew and snap-on mounting onto 35 mm standard mounting rail Width mm 45 Height mm 242.6 Depth mm 106.9 Distance, to be maintained, to the ranks assembly mm 10 • backwards mm 30 • downwards mm 30 • clowards mm 30 • clowards mm 30	Holding power / of the solenoid / for DC	W	5.9
Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts Number of change-over switches / for auxiliary contacts Inputs / Outputs: Number of digital inputs Short-circuit: Product function / short circuit protection Design of the short-circuit protection Breaking capacity limit short-circuit current (Icu) - at 400 V / rated value - at 690 V / rated value - at 690 V / rated value Number of digital inputs Installation/mounting/dimensions: Built in orientation Type of mounting Width Height Depth Distance, to be maintained, to the ranks assembly - forwards - upwards - upwards - downwards - downwards - downwards - sidewards - mm 30 - mm 30 - mill of the sidewards - mm 30 -	Auxiliary circuit:		
Number of NO contacts / for auxiliary contacts Number of change-over switches / for auxiliary contacts Number of change-over switches / for auxiliary contacts	Product extension / auxiliary switch		Yes
Number of change-over switches / for auxiliary contacts Inputs / Outputs:	Number of NC contacts / for auxiliary contacts		1
Inputs/ Outputs: Number of digital inputs Product function / short circuit protection Yes	Number of NO contacts / for auxiliary contacts		1
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)	Number of change-over switches / for auxiliary contacts	_	0
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)	Inputs/ Outputs:		
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 at 500 V / rated value at 690 V / rated value A 2,000 Installation/mounting/dimensions: Vertical Built in orientation vertical Type of mounting screw and snap-on mounting onto 35 mm standard mounting rail Width mm Height mm Distance, to be maintained, to the ranks assembly • forwards mm • backwards mm 0 • upwards mm 30 • downwards mm 30 • sidewards mm 0 • sidewards mm 0 • sidewards mm 0			0
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 at 500 V / rated value at 690 V / rated value A 2,000 Installation/mounting/dimensions: vertical Built in orientation vertical Type of mounting screw and snap-on mounting onto 35 mm standard mounting rail Width mm Height mm 242.6 Depth mm 106.9 Distance, to be maintained, to the ranks assembly mm 0	Short-circuit:		
Breaking capacity limit short-circuit current (Icu) • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value Built in orientation Type of mounting Width Height Depth Distance, to be maintained, to the ranks assembly • backwards • upwards • downwards • didwards • didwards • didwards • sidewards • didwards • didwards • didwards • didwards • didwards • didwards • at 400 V / rated value A 25,000 A 25,000 A 2,000 Vertical Vertical Screw and snap-on mounting onto 35 mm standard mounting rail Midth mm 45 Forwards mm 106.9 The company of the ranks assembly mm 30	Product function / short circuit protection		Yes
 at 400 V / rated value at 500 V / rated value at 690 V / rated value at 690 V / rated value A 2,000 Installation/mounting/dimensions: Built in orientation vertical Type of mounting screw and snap-on mounting onto 35 mm standard mounting rail Width mm 45 Height mm 242.6 Depth mm 106.9 Distance, to be maintained, to the ranks assembly • forwards mm 10 • backwards mm 0 • upwards mm 30 • downwards mm 30 • sidewards mm 0	Design of the short-circuit protection	_	circuit-breakers
at 500 V / rated value A 2,000 Installation/mounting/dimensions: Built in orientation Type of mounting Width Mm 45 Height Depth Distance, to be maintained, to the ranks assembly • forwards • backwards • downwards • downwards • sidewards • sidewards • at 500 V / rated value A 2,000 Vertical vertical screw and snap-on mounting onto 35 mm standard mounting rail vertical pertical vertical pertical vertical pertical pertical vertical pertical pertica	Breaking capacity limit short-circuit current (Icu)		
Installation/mounting/dimensions: Built in orientation vertical screw and snap-on mounting onto 35 mm standard mounting rail Width mm 45 Height mm 242.6 Depth mm 106.9 Distance, to be maintained, to the ranks assembly • forwards • backwards • upwards • downwards • downwards • sidewards • sidewards • sidewards • sidewards • mm 30	• at 400 V / rated value	Α	25,000
Installation/mounting/dimensions: Built in orientation vertical screw and snap-on mounting onto 35 mm standard mounting rail Width mm 45 Height mm 242.6 Depth mm 106.9 Distance, to be maintained, to the ranks assembly • forwards • backwards • upwards • downwards • downwards • sidewards • sidewards • sidewards • sidewards • mm 30	• at 500 V / rated value	Α	5,000
Built in orientationverticalType of mountingscrew and snap-on mounting onto 35 mm standard mounting railWidthmm45Heightmm242.6Depthmm106.9Distance, to be maintained, to the ranks assemblymm10• forwardsmm0• backwardsmm30• upwardsmm30• downwardsmm30• sidewardsmm0	• at 690 V / rated value	Α	
Built in orientationverticalType of mountingscrew and snap-on mounting onto 35 mm standard mounting railWidthmm45Heightmm242.6Depthmm106.9Distance, to be maintained, to the ranks assemblymm10• forwardsmm0• backwardsmm30• upwardsmm30• downwardsmm30• sidewardsmm0	Installation/mounting/dimensions:		
Type of mounting Width mm 45 Height mm 242.6 Depth Distance, to be maintained, to the ranks assembly • forwards • backwards • upwards • downwards • sidewards • sidewards • sidewards • sidewards • sidewards • sidewards mm 0 screw and snap-on mounting onto 35 mm standard mounting rail ### 45 ### 45 ### 45 ### 106.9 ### 10 ### 10 ### 30 ### 30 ### 30 ### 30 ### 30 ### 30 ### 30 ### 30 ### 30			vertical
Height mm 242.6 Depth mm 106.9 Distance, to be maintained, to the ranks assembly • forwards • backwards • upwards • downwards • sidewards • sidewards • mm 30 mm 30 mm 30 mm 30	Type of mounting		
Depth mm 106.9 Distance, to be maintained, to the ranks assembly • forwards • backwards • upwards • downwards • sidewards • sidewards • mm 0 mm 30 mm 0	Width	mm	45
Distance, to be maintained, to the ranks assembly • forwards • backwards • upwards • downwards • sidewards • mm 30 mm 30 mm 0	Height	mm	242.6
• forwards mm 10 • backwards mm 0 • upwards mm 30 • downwards mm 30 • sidewards mm 0	Depth	mm	106.9
 backwards upwards downwards sidewards mm 30 mm 30 mm 0 	Distance, to be maintained, to the ranks assembly		
• upwards mm 30 • downwards mm 30 • sidewards mm 0	• forwards	mm	10
• downwards mm 30 • sidewards mm 0	backwards	mm	0
• downwards mm 30 • sidewards mm 0	• upwards	mm	30
• sidewards mm 0		mm	
	Distance, to be maintained, to earthed part	,,,,,	

• forwards	mm	10
• backwards	mm	0
• upwards	mm	30
• downwards	mm	10
• sidewards	mm	9
Distance, to be maintained, conductive elements		
• forwards	mm	10
• backwards	mm	0
• upwards	mm	30
• downwards	mm	10
• sidewards	mm	9

Connections:	
Design of the electrical connection	
for main current circuit	spring-loaded terminals
for auxiliary and control current circuit	spring-loaded terminals
Type of the connectable conductor cross-section	
for main contacts	
• solid	2x (1 10 mm²)
• stranded	2x (1.0 10 mm2)
• finely stranded	
 with conductor end processing 	2x (1 6 mm²)
 without conductor final cutting 	2x (1 6 mm²)
• for AWG conductors / for main contacts	2x (18 8)
for auxiliary contacts	
• solid	2x (0.5 2.5 mm²)
• finely stranded	
 with conductor end processing 	2x (0.5 1.5 mm²)
 without conductor final cutting 	2x (0.5 1.5 mm²)
• for AWG conductors / for auxiliary contacts	2x (20 14)

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

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
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

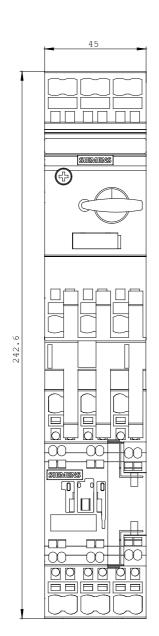
http://www.siemens.com/cax

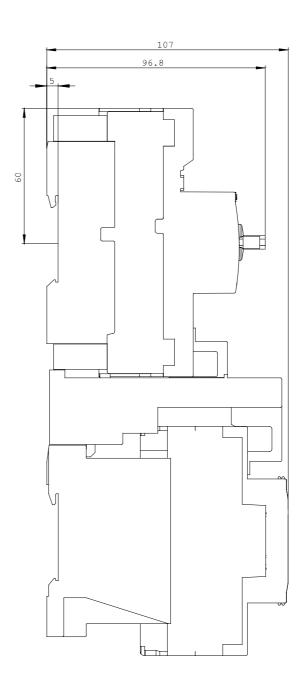
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

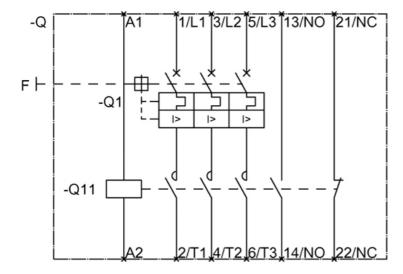
http://support.automation.siemens.com/WW/view/en/3RA2120-4AE26-0BB4/all

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2120-4AE26-0BB4







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