## 3RA2120-4BA27-0AP0

**Data sheet** 



Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 13...20 A 230 V AC screw terminal for installation on standard mounting rail (also fulfills type of coordination 1) Type of coordination 2, Iq = 150 kA 1 NO+1 NC (contactor)

product designation design of the product for standard rail or screw mounting product type designation snarfacturer's article number of the supplied contactor after supplied contactor of the supplied link module srav2s1-IAA00 Sarv2021-IBA10 size of the circuit-breakers of the supplied link module srav2s21-IAA00 Sarv2s1-IAA00 Sarv2s21-IAA00 Sarv2s21-	product brand name	SIRIUS		
design of the product product type designation 3RA21  amunfacturer's article number  of the supplied contactor of the supplied circuit-breakers of the supplied incruit-breakers of the supplied ink module 3RA2921-1AA00  Control technical date size of the circuit-breaker size of the circuit-breaker size of load feeder size of load feeder so power loss [W] for rated value of the current of the circuit-breaker size of load feeder solution voltage with degree of pollution 3 at AC rated value of without load current share typical insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value of key degree of protection NEMA rating shock resistance according to IEC 60088-2-27 gp/11 ms mechanical service life (operating cycles) of contactor typical type of assignment type of assignment special solution in the structure solution in temperature ofference code according to IEC 81346-2:2019 Q Substance Prohibitance (Date) Ambient conditions  ambient temperature oduring storage of uting storage of uting storage of uting torage of uting terraporation of union storage of union of union storage of union	·	Direct (on-line) starter		
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of the supplied link module  General technical data  size of the circuit-breaker size of toad feeder so  power loss [W] for rated value of the current	of the supplied circuit-breakers	3RV2021-4BA10		
size of the circuit-breaker  size of load feeder  so power loss [W] for rated value of the current  at AC in hot operating state per pole without load current share typical surge voltage with degree of pollution 3 at AC rated value degree of protection NEMA rating shock resistance according to IEC 60068-2-27 gf /1 ms mechanical service life (operating cycles) of contactor typical type of assignment 2 type of protection according to ATEX directive 2014/34/EU perifficate of suitability according to ATEX directive 2014/34/EU perifficate of suitability according to ATEX directive 2014/34/EU perifficate of suitability according to ATEX directive 2014/34/EU preference code according to IEC 81346-2:2019 Substance Prohibitance (Date) Ambient conditions ambient temperature during operation during storage during storage during storage during transport temperature compensation relative humidity during operation 10 95 %  Main circuit  number of poles for main current circuit design of the switching contact adjustable current response value current of the current-dependent overload release operating voltage rated value at AC-3 rated value maximum essential  solution of the suitching contact electromechanical end AC-3 rated value maximum essential  solution of the suitching contact electromechanical end AC-3 rated value maximum essential end AC-3 rated value end AC-3 rated value maximum essential value essential value essential value end AC-3 rated value emaximum essential value essential value end AC-3 rated value emaximum essential value essen				
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power loss [W] for rated value of the current  • at AC in hot operating state per pole • without load current share typical insulation voltage with degree of pollution 3 at AC rated value  surge voltage resistance rated value degree of protection NEMA rating other shock resistance according to IEC 60068-2-27 ghours mechanical service life (operating cycles) of contactor typical type of assignment 2 type of assignment 2 type of protection according to ATEX directive 2014/34/EU EX II (2) GD certificate of suitability according to ATEX directive 2014/34/EU preference code according to IEC 81346-2:2019 Q Substance Prohibitance (Date) Ambient conditions ambient temperature • during operation • during storage • during transport  -50+80 °C temperature compensation -20+60 °C relative humidity during operation 1095 %  Main circuit  number of poles for main current circuit design of the switching contact adjustable current response value current of the current-dependent overload release operating voltage • at AC-3 rated value maximum  690 V  • at AC-3 rated value maximum  680 V	size of the circuit-breaker	S0		
at AC in hot operating state per pole  without load current share typical  without load current share typical  surge voltage resistance rated value  680 V  surge voltage resistance rated value  68kV  degree of protection NEMA rating  other  shock resistance according to IEC 60068-2-27  fig. 11 ms  mechanical service life (operating cycles) of contactor typical  type of assignment  2 type of protection according to ATEX directive 2014/34/EU  reference code according to ATEX directive 2014/34/EU  reference code according to IEC 81346-2:2019  Q Substance Prohibitance (Date)  Ambient conditions  ambient temperature  during operation  during storage  during transport  -50 +80 °C  temperature compensation  -20 +60 °C  relative humidity during operation  10 95 %  Main circuit  number of poles for main current circuit  design of the switching contact  adjustable current response value current of the current-dependent overload release  operating voltage  at AC-3 rated value maximum  580 V	size of load feeder	S0		
without load current share typical   9.8 W     insulation voltage with degree of pollution 3 at AC rated value   690 V     surge voltage resistance rated value   6 kV     degree of protection NEMA rating   other     shock resistance according to IEC 60068-2-27   6g / 11 ms     mechanical service life (operating cycles) of contactor typical   10 000 000     type of assignment   2     type of protection according to ATEX directive 2014/34/EU   Ex II (2) GD     certificate of suitability according to ATEX directive 2014/34/EU   DMT 02 ATEX F 001     reference code according to IEC 81346-2:2019   Q     Substance Prohibitance (Date)   10/01/2009     Ambient conditions     ambient temperature   during operation   -20 +60 °C     during storage   -50 +80 °C     during transport   -50 +80 °C     temperature compensation   -20 +60 °C     relative humidity during operation   10 95 %     Main circuit   3     design of the switching contact   electromechanical     adjustable current response value current of the current-dependent overload release   operating voltage   • rated value   690 V     • at AC-3 rated value maximum   690 V	power loss [W] for rated value of the current			
insulation voltage with degree of pollution 3 at AC rated value  surge voltage resistance rated value  degree of protection NEMA rating shock resistance according to IEC 60068-2-27  6g / 11 ms mechanical service life (operating cycles) of contactor typical type of assignment  2  type of protection according to ATEX directive 2014/34/EU Ex II (2) GD certificate of suitability according to ATEX directive 2014/34/EU DMT 02 ATEX F 001 reference code according to IEC 81346-2:2019 Q Substance Prohibitance (Date) 10/01/2009  Ambient conditions  ambient temperature  during operation during storage during transport -50 +80 °C -50 +80 °C -50 +80 °C -50 +80 °C  temperature compensation -20 +60 °C relative humidity during operation -20 +60 °C  temperature transport -50 +80 °C -50 +80 °	<ul> <li>at AC in hot operating state per pole</li> </ul>	5.8 W		
surge voltage resistance rated value degree of protection NEMA rating shock resistance according to IEC 60068-2-27 mechanical service life (operating cycles) of contactor typical 10 000 000 type of assignment 2 type of protection according to ATEX directive 2014/34/EU certificate of suitability according to IEC 81346-2:2019 Q Substance Prohibitance (Date) Ambient conditions  ambient temperature • during operation • during storage • during transport • during transport -50 +80 °C temperature compensation -20 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3 rated value maximum 690 V	<ul> <li>without load current share typical</li> </ul>	9.8 W		
degree of protection NEMA rating shock resistance according to IEC 60068-2-27 6g / 11 ms mechanical service life (operating cycles) of contactor typical type of assignment 2 type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU DMT 02 ATEX F 001 reference code according to IEC 81346-2:2019 Qu Substance Prohibitance (Date) Ambient conditions ambient temperature • during operation • during storage • during transport temperature compensation -20 +60 °C • during transport -50 +80 °C temperature compensation -20 +60 °C relative humidity during operation 10 95 %  Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3 rated value maximum 690 V	insulation voltage with degree of pollution 3 at AC rated value	690 V		
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Substance Prohibitance (Date)  Ambient conditions  ambient temperature  • during operation • during storage • during transport • during transport  temperature compensation -20 +80 °C  temperature compensation -20 +80 °C  relative humidity during operation  10 95 %  Main circuit  number of poles for main current circuit design of the switching contact adjustable current response value current of the current-dependent overload release  operating voltage • rated value • at AC-3 rated value maximum  10/01/2009  10/01/200	certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001		
Ambient conditions  ambient temperature  • during operation • during storage • during transport  • during transport  -50 +80 °C  temperature compensation -20 +60 °C  relative humidity during operation  10 95 %  Main circuit  number of poles for main current circuit design of the switching contact adjustable current response value current of the current-dependent overload release  operating voltage • rated value • at AC-3 rated value maximum  -20 +60 °C  -20 +80 °C  -50	reference code according to IEC 81346-2:2019	Q		
ambient temperature  • during operation  -20 +60 °C  • during storage  -50 +80 °C  • during transport  -50 +80 °C  temperature compensation  -20 +60 °C  relative humidity during operation  10 95 %  Main circuit  number of poles for main current circuit  design of the switching contact  adjustable current response value current of the current-dependent overload release  operating voltage  • rated value  • at AC-3 rated value maximum  -20 +60 °C  -50 +80 °C  -50 +80 °C  -50 +80 °C  -20 +60 °C  -20 .	Substance Prohibitance (Date)	10/01/2009		
<ul> <li>during operation</li> <li>during storage</li> <li>during transport</li> <li>50 +80 °C</li> <li>temperature compensation</li> <li>20 +60 °C</li> <li>temperature compensation</li> <li>20 +60 °C</li> <li>relative humidity during operation</li> <li>10 95 %</li> <li>Main circuit</li> <li>number of poles for main current circuit</li> <li>design of the switching contact</li> <li>adjustable current response value current of the current-dependent overload release</li> <li>operating voltage</li> <li>rated value</li> <li>at AC-3 rated value maximum</li> <li>contact</li> <li>de90 V</li> </ul>	Ambient conditions			
<ul> <li>during storage</li> <li>during transport</li> <li>50 +80 °C</li> <li>temperature compensation</li> <li>20 +60 °C</li> <li>relative humidity during operation</li> <li>10 95 %</li> <li>Main circuit</li> <li>number of poles for main current circuit</li> <li>design of the switching contact</li> <li>adjustable current response value current of the current-dependent overload release</li> <li>operating voltage</li> <li>rated value</li> <li>at AC-3 rated value maximum</li> <li>690 V</li> </ul>	ambient temperature			
■ during transport	<ul><li>during operation</li></ul>	-20 +60 °C		
temperature compensation  -20 +60 °C  relative humidity during operation  10 95 %  Main circuit  number of poles for main current circuit  3  design of the switching contact  adjustable current response value current of the current-dependent overload release  operating voltage  • rated value  • at AC-3 rated value maximum  -20 +60 °C  10 95 %  electromechanical  13 20 A  690 V	during storage	-50 +80 °C		
relative humidity during operation  10 95 %  Main circuit  number of poles for main current circuit  3  design of the switching contact electromechanical  adjustable current response value current of the current- dependent overload release  operating voltage  • rated value • at AC-3 rated value maximum  10 95 %  8  8  8  9  8  9  9  9  9  9  9  9  9	during transport	-50 +80 °C		
Main circuit  number of poles for main current circuit  design of the switching contact  adjustable current response value current of the current- dependent overload release  operating voltage  • rated value • at AC-3 rated value maximum  690 V	temperature compensation	-20 +60 °C		
number of poles for main current circuit  design of the switching contact  adjustable current response value current of the current- dependent overload release  operating voltage  • rated value  • at AC-3 rated value maximum  electromechanical  13 20 A  690 V	relative humidity during operation	10 95 %		
design of the switching contact  adjustable current response value current of the current- dependent overload release  operating voltage  • rated value • at AC-3 rated value maximum  electromechanical  13 20 A  690 V	Main circuit			
adjustable current response value current of the current- dependent overload release  operating voltage  • rated value • at AC-3 rated value maximum  690 V	number of poles for main current circuit	3		
dependent overload release  operating voltage  • rated value 690 V  • at AC-3 rated value maximum 690 V	design of the switching contact	electromechanical		
<ul> <li>rated value</li> <li>at AC-3 rated value maximum</li> <li>690 V</li> <li>690 V</li> </ul>		13 20 A		
• at AC-3 rated value maximum 690 V	operating voltage			
	rated value	690 V		
• at AC-3e rated value maximum 690 V	<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V		
	<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V		

	TO 2011
operating frequency rated value	50 60 Hz
operational current	
• at AC-3 at 400 V rated value	20 A
at AC-3e at 400 V rated value	20 A
operating power	
• at AC-3	
— at 400 V rated value	7 500 W
• at AC-3e	
— at 400 V rated value	7 500 kW
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
<ul> <li>at 50 Hz rated value</li> </ul>	230 V
at 50 Hz rated value	230 230 V
apparent holding power of magnet coil at AC	9.8 VA
● at 50 Hz	9.8 VA
inductive power factor with the holding power of the coil	0.25
• at 50 Hz	0.25
Auxiliary circuit	
product extension auxiliary switch	Yes
Protective and monitoring functions	
trip class	CLASS 10
design of the overload release	thermal (bimetallic)
response value current of instantaneous short-circuit trip unit	260 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	20. A
• at 480 V rated value	20 A
• at 600 V rated value	20 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	1.5 hp
— at 230 V rated value	3 hp
<ul> <li>for 3-phase AC motor</li> </ul>	
— at 200/208 V rated value	7.5 hp
— at 220/230 V rated value	7.5 hp
— at 460/480 V rated value	15 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
conditional short-circuit current (Iq)	
<ul> <li>at 400 V according to IEC 60947-4-1 rated value</li> </ul>	150 000 A
Installation/ mounting/ dimensions	
mounting position	vertical
fastening method	screw and snap-on mounting onto 35 mm DIN rail
height	193 mm
width	45 mm
depth	97 mm
required spacing	Vi illin
for grounded parts	
	20 mm
— forwards	20 mm
— backwards	0 mm
— upwards	50 mm
— at the side	20 mm
— downwards	10 mm
• for live parts	
— forwards	20 mm
— backwards	0 mm
— upwards	50 mm
— downwards	10 mm
— at the side	20 mm

Connections/ Terminals					
type of electrical connection					
for main current circuit	screw	screw-type terminals			
<ul> <li>for auxiliary and control circuit</li> </ul>	screw	v-type terminals			
Safety related data					
B10 value with high demand rate according to SN 31920	1 000	1 000 000			
proportion of dangerous failures					
with high demand rate according to SN 31920	73 %	73 %			
touch protection on the front according to IEC 60529	finger	finger-safe, for vertical contact from the front			
Communication/ Protocol					
protocol is supported					
<ul> <li>PROFINET IO protocol</li> </ul>	No	No			
PROFIsafe protocol	No	No			
protocol is supported AS-Interface protocol	No	No			
Certificates/ approvals					
General Product Approval		For use in hazard-	Declaration of Conformity		

Confirmation







ous locations





**Test Certificates** 

Marine / Shipping

Special Test Certific-<u>ate</u>

Type Test Certificates/Test Report









Marine / Shipping





Confirmation

other

Vibration and Shock

Railway

**Environmental Con**firmations

**Environment** 

## **Further information**

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens. com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2120-4BA27-0AP0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-4BA27-0AP0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4BA27-0AP0

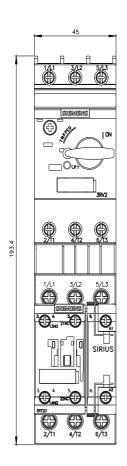
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

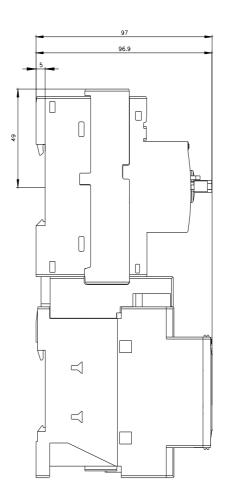
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA2120-4BA27-0AP0&lang=en

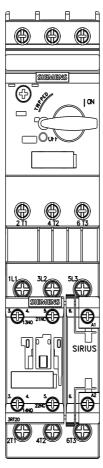
Characteristic: Tripping characteristics, I2t, Let-through current

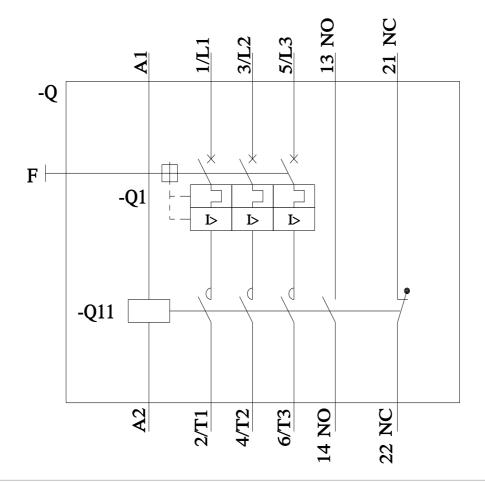
https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4BA27-0AP0/char

Further characteristics (e.g. electrical endurance, switching frequency) <a href="http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-4BA27-0AP0&objecttype=14&gridview=view1">http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-4BA27-0AP0&objecttype=14&gridview=view1</a>









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