# **SIEMENS**

Product data sheet 3RA2120-1JA24-0AP0



LOAD FEEDER FUSELESS DIRECT START, AC 400V, SZ. S0, 7. . . 10A, AC 230V SCREW CONNECTION FOR RAIL MOUNTING, TYPE OF COORD. 2,IQ = 150KA (ALSO ACHIEVES 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	3.5
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		3RV2011-1JA10
of the contactor included in the scope of supply		3RT2024-1AP00
• of the link module included in the scope of supply		3RA2921-1AA00
Design of the switching contact		mechanical
Type of the motor protection		bimetal
Adjustable response current		
of the current-dependent overload release	А	7 10
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	10
• at AC-2 / at 400 V / rated value	Α	8.5
• at AC-3 / at 400 V / rated value	Α	8.5
• at AC-4 / at 400 V / rated value	Α	8.5
Service power		
• at AC-2 / at 400 V / rated value	W	4,000
• at AC-3		
• at 400 V / rated value	W	4,000
• at 500 V / rated value	W	5,500
• at 690 V / rated value	W	7,500
• at AC-4 / at 400 V / rated value	W	4,000
Off-load operating frequency	1/h	10,000

Frequency of operation

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

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

1/h

1/h

1,000

1,000

• at AC-3 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-4 / according to IEC 60947-6-2 / maximum	1/h	300
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	8.5
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		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	42,000
• at 690 V / rated value	Α	4,000
Installation/mounting/dimensions:		
Built in orientation		vertical
Built in orientation  Type of mounting		vertical screw and snap-on mounting onto 35 mm standard mounting rail
	mm	screw and snap-on mounting onto 35 mm standard
Type of mounting Width	mm	screw and snap-on mounting onto 35 mm standard mounting rail
Type of mounting Width		screw and snap-on mounting onto 35 mm standard mounting rail 45
Type of mounting  Width  Height  Depth	mm	screw and snap-on mounting onto 35 mm standard mounting rail 45 193.1
Type of mounting  Width  Height  Depth	mm	screw and snap-on mounting onto 35 mm standard mounting rail 45 193.1
Type of mounting  Width  Height  Depth  Distance, to be maintained, to the ranks assembly	mm	screw and snap-on mounting onto 35 mm standard mounting rail 45 193.1 97.1
Type of mounting  Width  Height  Depth  Distance, to be maintained, to the ranks assembly  • forwards	mm mm	screw and snap-on mounting onto 35 mm standard mounting rail 45 193.1 97.1

• sidewards	mm	0
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	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 (1 2.5 mm2), 2x (2.5 10 mm2)	
• stranded	2x (1.0 2.5 mm2), 2x (2.5 10 mm2)	
• finely stranded		
<ul> <li>with conductor end processing</li> </ul>	2x (1 2.5 mm2), 2x (2.5 6 mm2), 1x 10 mm2	
• for AWG conductors / for main contacts	2 x (16 14), 2x (14 8)	
for auxiliary contacts		
• solid	2x (0.5 1.5 mm2), 2x (0.75 2.5 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 14)	

Certificates/approvals:		
Verification of suitability	CE / UL / CSA / C	CC
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)		
• for single-phase squirrel cage motors		
• at 110/120 V / rated value	hp	0.5
• for three-phase squirrel cage motors		
• at 220/230 V / rated value	hp	3
• at 460/480 V / rated value	hp	5
• at 575/600 V / rated value	hp	7.5
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	Α	10
• at 600 V / rated value	Α	10
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		
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**

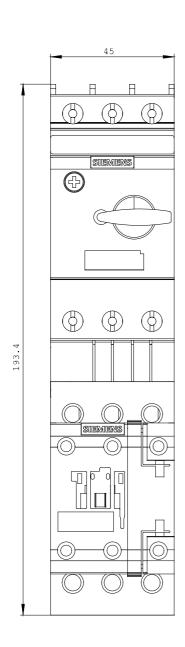
http://www.siemens.com/cax

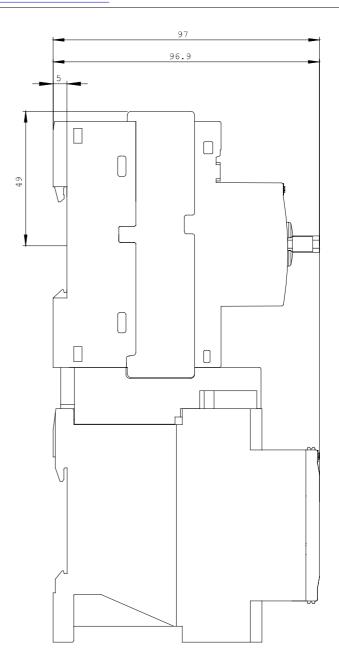
### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

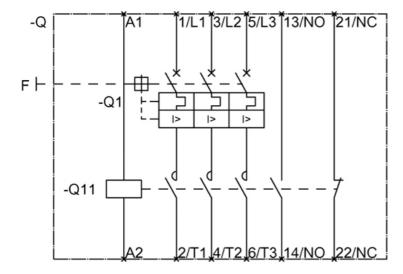
http://support.automation.siemens.com/WW/view/en/3RA2120-1JA24-0AP0/all

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RA2120-1JA24-0AP0







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