SIEMENS

Data sheet

3RA2120-1FE24-0BB4



Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 3.50...5.00 A 24 V DC Spring-type 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 brand name	SIRIUS
product designation	Direct (on-line) starter
design of the product	for DIN-rail or screw mounting
product type designation	3RA21
manufacturer's article number	
 of the supplied contactor 	3RT2024-2BB40
 of the supplied circuit-breakers 	3RV2021-1FA20
 of the supplied link module 	3RA2921-2AA00
General technical data	
size of the circuit-breaker	S0
size of load feeder	S0
power loss [W] for rated value of the current	
 at AC in hot operating state per pole 	2.7 W
without load current share typical	5.9 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
reference code according to IEC 81346-2:2019	Q
Substance Prohibitance (Date)	03/01/2017
SVHC substance name	Lead - 7439-92-1
Weight	1.143 kg
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	
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	3.5 5 A
operating voltage	
• rated value	690 V
 at AC-3 rated value maximum 	690 V
 at AC-3e rated value maximum 	690 V

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operating frequency rated value	50 60 Hz
operational current	
 at AC-3 at 400 V rated value 	5 A
at AC-3e at 400 V rated value	5 A
operating power	
• at AC-3	
— at 400 V rated value	1 500 W
• at AC-3e	
— at 400 V rated value	1 500 W
Control circuit/ Control	
type of voltage of the control supply voltage	DC
control supply voltage at DC rated value	24 V
holding power of magnet coil at DC	5.9 W
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	65 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	5 A
at 600 V rated value at 600 V rated value	5 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
	0.25 hp
— at 110/120 V rated value	0.25 hp
— at 230 V rated value	0.5 hp
• for 3-phase AC motor	451
— at 200/208 V rated value	1.5 hp
— at 220/230 V rated value	1.5 hp
— at 460/480 V rated value	3 hp
— at 575/600 V rated value	5 hp
Short-circuit protection	5 np
Short-circuit protection product function short circuit protection	Yes
Short-circuit protection	
Short-circuit protection product function short circuit protection	Yes
Short-circuit protection product function short circuit protection design of the short-circuit trip	Yes
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq)	Yes magnetic
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value	Yes magnetic
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions	Yes magnetic 150 000 A
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position	Yes magnetic 150 000 A vertical
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm 107 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts — forwards	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm 107 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm 107 mm 20 mm 0 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm 107 mm 20 mm 0 mm 50 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm 107 mm 20 mm 0 mm 50 mm 20 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm 107 mm 20 mm 0 mm 50 mm 20 mm 10 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm 107 mm 20 mm 0 mm 50 mm 20 mm 10 mm 10 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — backwards — backwards	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm 107 mm 20 mm 0 mm 50 mm 10 mm 10 mm 0 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — backwards — backwards — upwards • for live parts — forwards — backwards — backwards — upwards	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm 107 mm 20 mm 0 mm 50 mm 10 mm 10 mm 20 mm 0 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — backwards — upwards — to parts — forwards — backwards — upwards — downwards — backwards — upwards — backwards — upwards — downwards	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm 107 mm 20 mm 0 mm 50 mm 10 mm 10 mm 50 mm 10 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — backwards — upwards — obackwards — to rive parts — forwards — backwards — backwards — backwards — backwards — backwards — at the side — downwards — hackwards — at the side — downwards — at the side	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm 107 mm 20 mm 0 mm 50 mm 10 mm 10 mm 20 mm 0 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — backwards — upwards — downwards — to downwards — at the side — downwards — at the side — downwards — at the side — downwards — at the side Connections/ Terminals	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm 107 mm 20 mm 0 mm 50 mm 10 mm 10 mm 50 mm 10 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — at the side — downwards — at the side Connections/ Terminals type of electrical connection	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm 107 mm 20 mm 0 mm 50 mm 10 mm 10 mm 50 mm 10 mm 20 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — a the side — downwards — to rewards — backwards — upwards — backwards — upwards — to rewards — backwards — at the side Connections/ Terminals type of electrical connection • for main current circuit	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm 107 mm 20 mm 0 mm 50 mm 10 mm 10 mm 50 mm 10 mm 50 mm 20 mm 50 mm 50 mm 50 mm 50 mm
Short-circuit protection product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — at the side — downwards — at the side — downwards — at the side — downwards — at the side Connections/ Terminals type of electrical connection	Yes magnetic 150 000 A vertical screw and snap-on mounting onto 35 mm DIN rail 243 mm 45 mm 107 mm 20 mm 0 mm 50 mm 10 mm 10 mm 10 mm 20 mm 0 mm 50 mm

Safety related data	
product function suitable for safety function	Yes
Electrical Safety	
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Communication/ Protocol	
protocol is supported	
 PROFINET IO protocol 	No
PROFIsafe protocol	No
protocol is supported AS-Interface protocol	No
Approvals Certificates	

General Product Approval

For use in hazardous locations





Confirmation







Test Certificates

Marine / Shipping

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

Type Test Certificates/Test Report









Marine / Shipping

other

Railway

Dangerous goods







Confirmation

Special Test Certific-

Transport Information

Environment

Environmental Confirmations

Further information

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=3RA2120-1FE24-0BB4

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1FE24-0BB4

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1FE24-0B

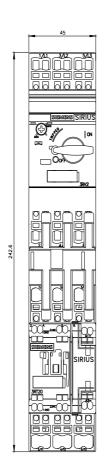
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

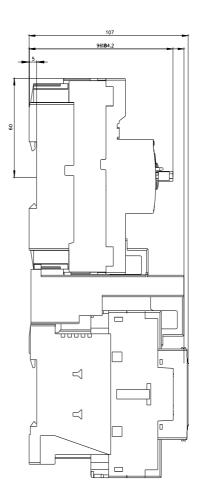
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1FE24-0BB4&lang=en

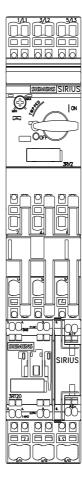
Characteristic: Tripping characteristics, I²t, Let-through current

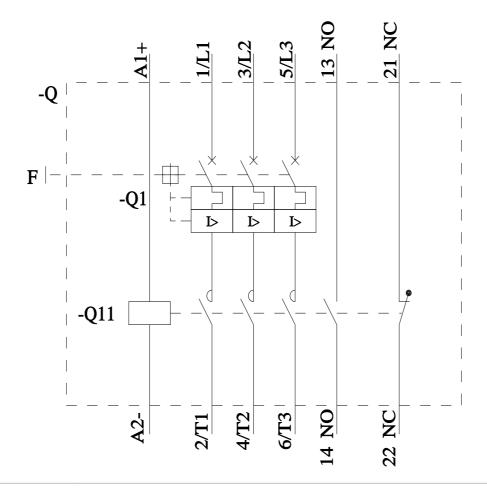
https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1FE24-0BB4/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-1FE24-0BB4&objecttype=14&gridview=view1









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