

FUSELESS LOAD FEEDER DIRECT START, AC 400V, SZ. S0, 3.5.
 .5A, AC 110/120V 50/60HZ SCREW TERMINAL FOR BUSBAR
 SYSTEMS 60MM TYPE OF ASSIGNMENT 2,IQ = 150KA (ALSO
 FULFILLS TYPE OF ASSIGNMENT 1) 1NO+1NC (CONTACTOR)



Product brand name	SIRIUS
Product designation	non-fused load feeders 3RA2
Design of the product	direct starter
Manufacturer's article number	
<ul style="list-style-type: none"> • of the supplied contactor • of the supplied circuit-breakers • of the supplied busbar adapter • of the supplied link module 	3RT2024-1AK60 3RV2021-1FA10 8US1251-5NT10 3RA2921-1AA00

General technical data	
Size of the circuit-breaker	S0
Size of load feeder	S0
Product extension	
<ul style="list-style-type: none"> • Auxiliary switch 	Yes
Insulation voltage	
<ul style="list-style-type: none"> • with degree of pollution 3 at AC rated value 	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
Protection class IP	
<ul style="list-style-type: none"> • on the front 	IP20

• of the terminal	IP00
Shock resistance	
• acc. to IEC 60068-2-27	6g / 11 ms
Mechanical service life (switching cycles)	
• of contactor typical	10 000 000
Type of assignment	2

Main circuit

Number of poles for main current circuit	3
Design of the switching contact	electromechanical
Adjustable pick-up 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
Operating frequency rated value	50 ... 60 Hz
Operating current	
• at AC-3	
— at 400 V rated value	3.6 A
Operating power	
• at AC-3	
— at 400 V rated value	1 500 W
— at 500 V rated value	2 200 W
— at 690 V rated value	3 000 W

Control circuit/ Control

Control supply voltage at AC	
• at 50 Hz rated value	110 V
• at 60 Hz rated value	120 V
Apparent holding power of magnet coil at AC	8.5 V·A

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 three-phase AC motor	
• at 480 V rated value	4.8 A
• at 600 V rated value	4.55 A
Yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	0.17 hp
— at 230 V rated value	0.5 hp

• for three-phase AC motor	
— at 200/208 V rated value	1 hp
— at 220/230 V rated value	1 hp
— at 460/480 V rated value	3 hp
— at 575/600 V rated value	3 hp

Short-circuit protection

Product function Short circuit protection	Yes
Design of the short-circuit trip	magnetic
Conditional short-circuit current (I_q)	
• at 690 V acc. to IEC 60947-4-1 rated value	4 000 A
• at 400 V acc. to IEC 60947-4-1 rated value	153 000 A
• at 500 V acc. to IEC 60947-4-1 rated value	100 000 A

Installation/ mounting/ dimensions

Mounting position	vertical
Mounting type	for snapping onto 60 mm busbar systems
Height	260 mm
Width	45 mm
Depth	155 mm
Required spacing	
• for grounded parts	
— forwards	10 mm
— Backwards	0 mm
— upwards	30 mm
— at the side	9 mm
— downwards	10 mm
• for live parts	
— forwards	10 mm
— Backwards	0 mm
— upwards	30 mm
— downwards	10 mm
— at the side	9 mm






Connections/ Terminals

Type of electrical connection	
• for main current circuit	screw-type terminals
Type of connectable conductor cross-sections	
• for main contacts	
— stranded	1 ... 10 mm ² , 2x (2.5 ... 6 mm ²)
• at AWG conductors for main contacts	2x (16 ... 12), 2x (14 ... 8)
Connectable conductor cross-section for main contacts	
• finely stranded with core end processing	1 ... 6 mm ²



Safety related data

B10 value <ul style="list-style-type: none">with high demand rate acc. to SN 31920	1 000 000
Proportion of dangerous failures <ul style="list-style-type: none">with high demand rate acc. to SN 31920	73 %

Certificates/ approvals

General Product Approval	For use in hazardous locations	Declaration of Conformity			
 CSA	 UL	 EAC	 ATEX	 EG-Konf.	Miscellaneous

Test Certificates	Marine / Shipping			
Type Test Certificates/Test Report	Special Test Certificate			
	 ABS	 LRS	 PRS	 RINA

Marine / Shipping	other	Railway	
 RMRS	 DNV-GL DNVGL.COM/AF	Confirmation	Vibration and Shock

Further information

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=3RA2120-1FD24-0AK6>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1FD24-0AK6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1FD24-0AK6>

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

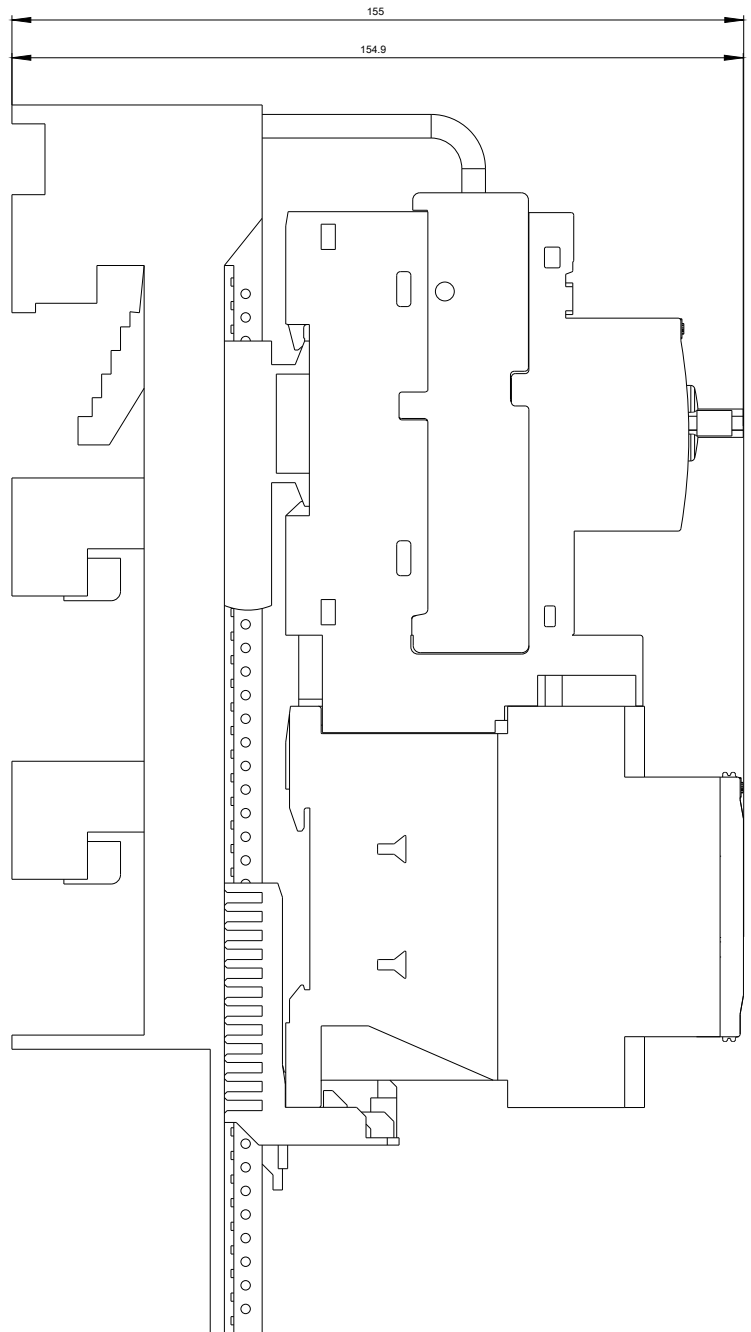
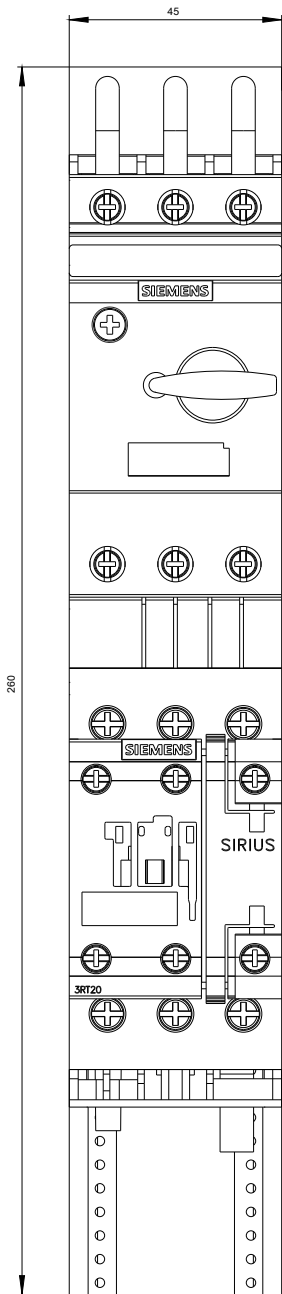
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1FD24-0AK6&lang=en

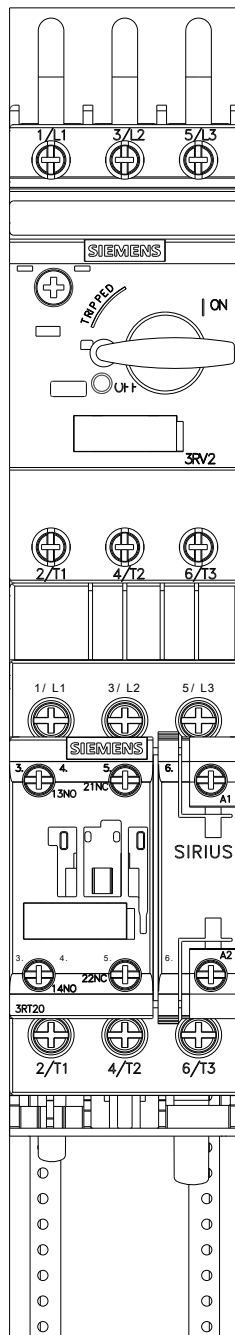
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1FD24-0AK6/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-1FD24-0AK6&objecttype=14&gridview=view1>







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