

Fuseless motor starter Direct start 600VAC Size S0 1.8-2.5A
 110/120VAC 50/60HZ screw connection For screw mounting Or 35
 mm rail-mounting Type of coordination 2 IQ = 150 KA Also full fills
 type Of coordination 1 1NO+1NC (contactor)



Product brand name	SIRIUS
Product designation	non-fused motor starter 3RA2
Design of the product	direct starter
Manufacturer's article number	
<ul style="list-style-type: none"> • of the supplied contactor 	3RT2023-1AK60
<ul style="list-style-type: none"> • of the supplied circuit-breakers 	3RV2011-1CA10
<ul style="list-style-type: none"> • of the supplied link module 	3RA2921-1AA00

General technical data	
Size of the circuit-breaker	S00
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
<ul style="list-style-type: none"> • of the terminal 	IP00

Shock resistance	
<ul style="list-style-type: none"> • acc. to IEC 60068-2-27 	6g / 11 ms
Mechanical service life (switching cycles)	
<ul style="list-style-type: none"> • 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	1.8 ... 2.5 A
Operating voltage	
<ul style="list-style-type: none"> • rated value 	690 V
<ul style="list-style-type: none"> • at AC-3 rated value maximum 	690 V
Operating frequency rated value	50 ... 60 Hz
Operating current	
<ul style="list-style-type: none"> • at AC-3 — at 400 V rated value 	1.9 A
Operating power	
<ul style="list-style-type: none"> • at AC-3 — at 400 V rated value — at 500 V rated value 	750 W 1 100 W

Control circuit/ Control

Control supply voltage at AC	
<ul style="list-style-type: none"> • at 50 Hz rated value • at 50 Hz rated value • at 60 Hz rated value • at 60 Hz rated value 	110 V 88 ... 121 V 120 V 96 ... 132 V
Apparent holding power of magnet coil at AC	7.2 V·A
Inductive power factor with the holding power of the coil	0.28

Auxiliary circuit

Number of NC contacts for auxiliary contacts	1
Number of NO contacts for auxiliary contacts	1

Protective and monitoring functions

Trip class	CLASS 10
Design of the overload release	thermal (bimetallic)
Response value current	
<ul style="list-style-type: none"> • of instantaneous short-circuit trip unit 	32.5 A

UL/CSA ratings

Full-load current (FLA) for three-phase AC motor	
<ul style="list-style-type: none"> • at 480 V rated value 	2.15 A

<ul style="list-style-type: none"> • at 600 V rated value 	2.24 A
Yielded mechanical performance [hp]	
<ul style="list-style-type: none"> • for single-phase AC motor <ul style="list-style-type: none"> — at 230 V rated value 	0.17 hp
<ul style="list-style-type: none"> • for three-phase AC motor <ul style="list-style-type: none"> — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value 	0.5 hp 0.5 hp 1 hp 1.5 hp

Short-circuit protection

Product function Short circuit protection	Yes
Design of the short-circuit trip	magnetic
Conditional short-circuit current (I_q)	
<ul style="list-style-type: none"> • at 400 V acc. to IEC 60947-4-1 rated value 	153 000 A

Installation/ mounting/ dimensions

Mounting position	vertical
Mounting type	Snap-mounted to DIN rail or screw-mounted with additional push-in lug
Height	193.1 mm
Width	45 mm
Depth	97.1 mm
Required spacing	
<ul style="list-style-type: none"> • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side 	10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 10 mm 9 mm

Connections/ Terminals




Type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit 	screw-type terminals
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — stranded • at AWG conductors for main contacts 	1 ... 10 mm ² , 2x (2.5 ... 6 mm ²) 2x (16 ... 12), 2x (14 ... 8)

Connectable conductor cross-section for main contacts	
<ul style="list-style-type: none"> finely stranded with core end processing 	1 ... 6 mm ²

Safety related data

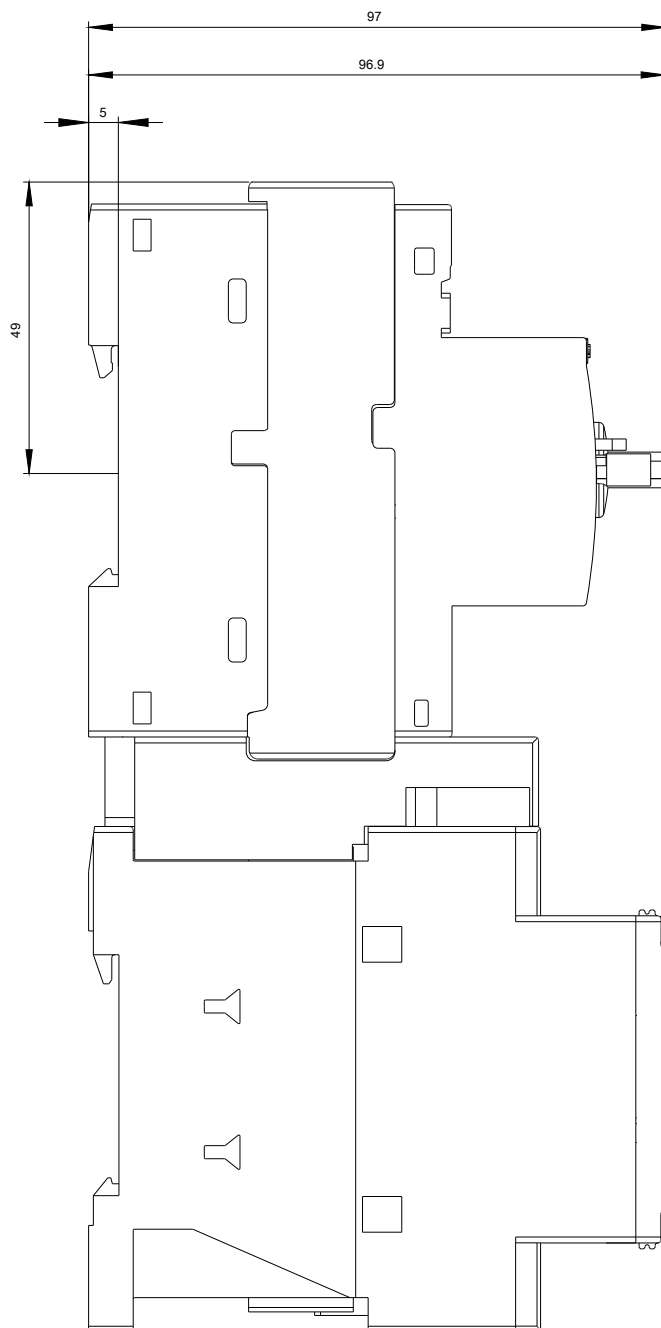
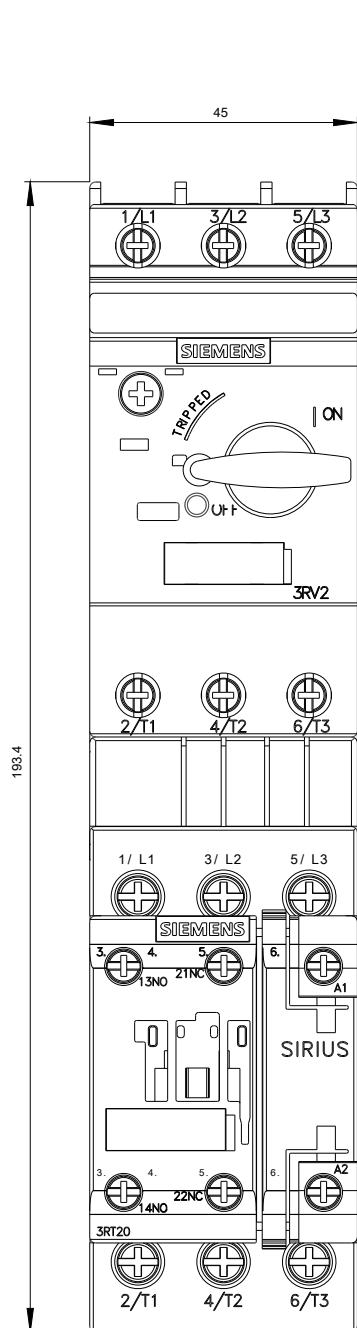
B10 value	
<ul style="list-style-type: none"> with high demand rate acc. to SN 31920 	1 000 000
Proportion of dangerous failures	
<ul style="list-style-type: none"> with high demand rate acc. to SN 31920 	73 %

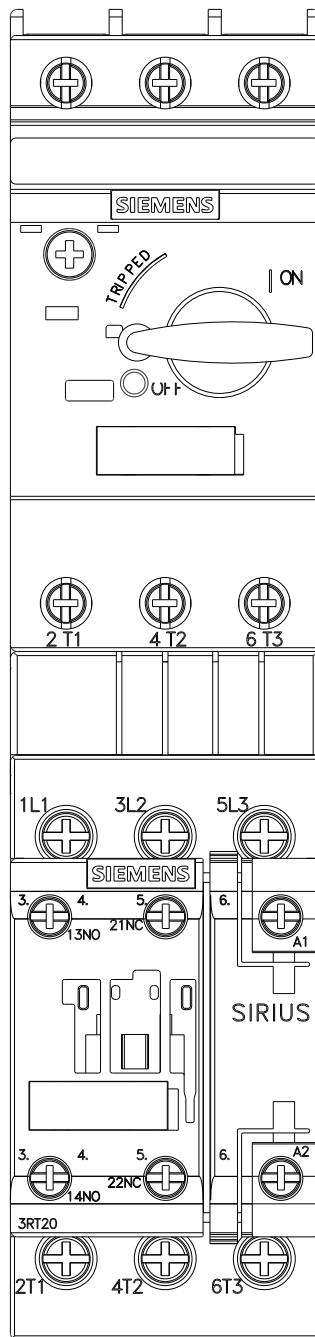
Certificates/ approvals

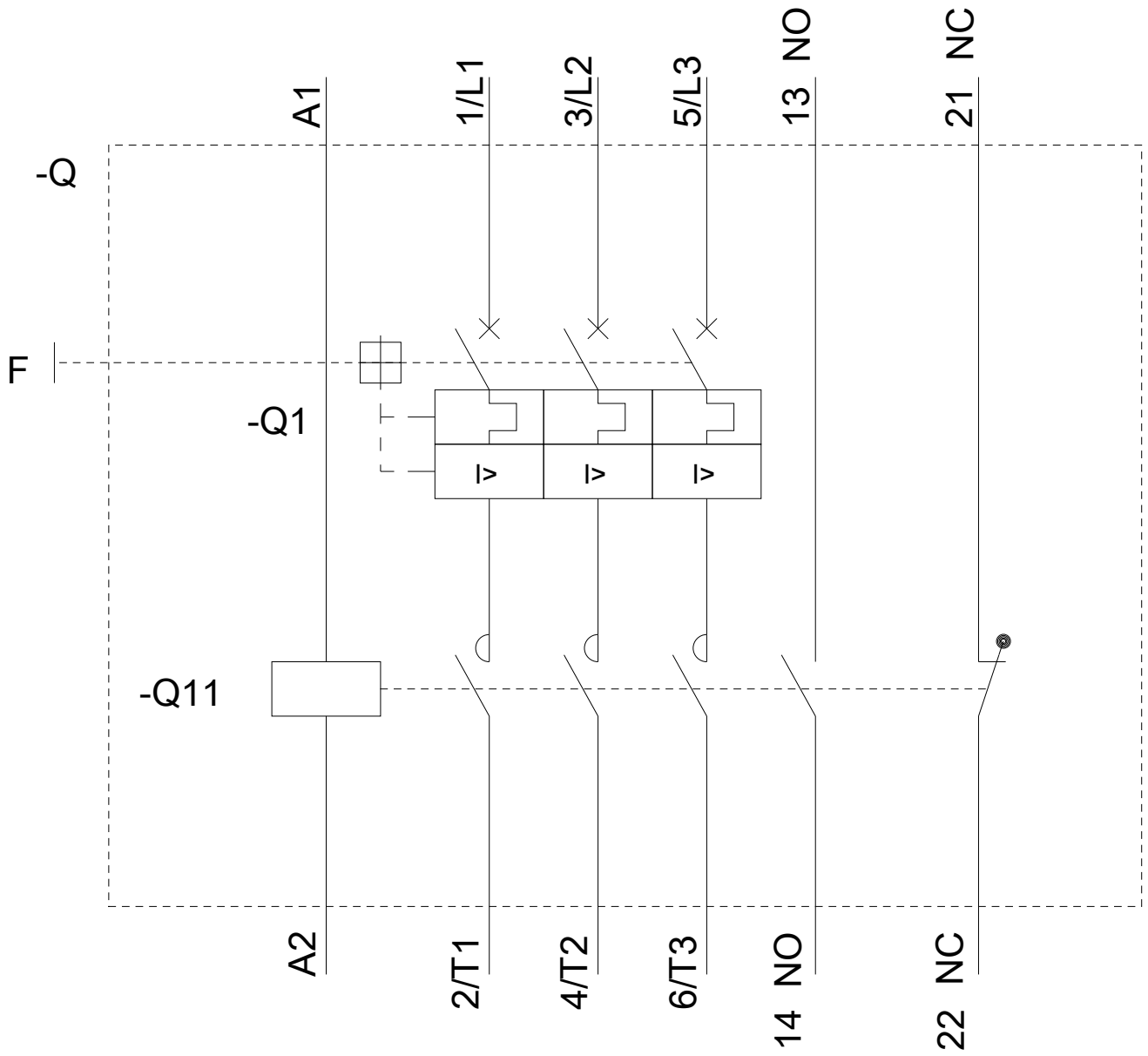
General Product Approval	For use in hazardous locations	Declaration of Conformity	other
			Confirmation

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=3RA2120-1CA23-0AK6>
- Cax online generator**
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1CA23-0AK6>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1CA23-0AK6>
- Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1CA23-0AK6&lang=en
- Characteristic: Tripping characteristics, I²t, Let-through current**
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1CA23-0AK6/char>
- Further characteristics (e.g. electrical endurance, switching frequency)**
<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-1CA23-0AK6&objecttype=14&gridview=view1>







last modified:

03/05/2020