3RA2220-1CB23-0AK6

Data sheet



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

product brand name	SIRIUS
product designation	non-fused motor starter 3RA2
design of the product	reversing starter
manufacturer's article number	
 of the supplied contactor 	3RT2023-1AK60
 of the supplied circuit-breakers 	3RV2011-1CA10
 of the supplied RH assembly kit 	3RA2923-1BB1
 of the supplied busbar adapter 	3RA2922-1AA00
 of the supplied link module 	3RA2921-1AA00
 of the supplied standard mounting rail adapter 	3RA2922-1AA00
General technical data	
size of the circuit-breaker	S00
size of load feeder	S0
product extension auxiliary switch	Yes
insulation voltage with degree of pollution 3 at AC rated value	690 V
degree of pollution	3
surge voltage resistance rated value	6 kV
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
Substance Prohibitance (Date)	03/01/2017
Ambient conditions	
ambient temperature	
 during operation 	-20 +60 °C
during storage	-50 +80 °C
 during transport 	-55 +80 °C
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	1.8 2.5 A
operating voltage	
rated value	690 V
at AC-3 rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current at AC-3 at 400 V rated value	1.9 A
operating power at AC-3	
 at 400 V rated value 	750 W
• at 500 V rated value	1 100 W
Control circuit/ Control	

control supply voltage at AC	
at 50 Hz rated value	110 V
at 50 Hz rated value	88 121 V
 at 60 Hz rated value 	120 V
at 60 Hz rated value	96 132 V
apparent holding power of magnet coil at AC	7.2 VA
inductive power factor with the holding power of the coil	0.28
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2
number of NO contacts for auxiliary contacts	2
Protective and monitoring functions	
trip class	CLASS 10
design of the overload release	thermal (bimetallic)
response value current of instantaneous short-circuit trip unit	32.5 A
UL/CSA ratings	62.67.
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	2.15 A
at 400 V rated value at 600 V rated value	2.24 A
	4.47 A
yielded mechanical performance [hp]	
• for single-phase AC motor	0.47 hp
— at 230 V rated value	0.17 hp
• for 3-phase AC motor	0.5 h-
— at 200/208 V rated value	0.5 hp
— at 220/230 V rated value	0.5 hp
 — at 460/480 V rated value 	1 hp
— at 575/600 V rated value	1.5 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
conditional short-circuit current (Iq)	
at 400 V according to IEC 60947-4-1 rated value	153 000 A
Installation/ mounting/ dimensions	
mounting position	vertical
mounting position fastening method	vertical snap-on fastening on 35 mm DIN rail
fastening method	snap-on fastening on 35 mm DIN rail
fastening method height	snap-on fastening on 35 mm DIN rail 265 mm
fastening method height width	snap-on fastening on 35 mm DIN rail 265 mm 90 mm
fastening method height width depth	snap-on fastening on 35 mm DIN rail 265 mm 90 mm
fastening method height width depth required spacing	snap-on fastening on 35 mm DIN rail 265 mm 90 mm
fastening method height width depth required spacing • for grounded parts	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm
fastening method height width depth required spacing • for grounded parts — forwards	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — backwards	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — upwards	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — backwards	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — at we side — downwards • for live parts — forwards — backwards — backwards — upwards — downwards — at the side	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 10 mm
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 — forwards — forwards — backwards — backwards — upwards — at the side Connections/ Terminals	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 10 mm 9 mm 10 mm 9 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — at we side — downwards • for live parts — forwards — backwards — backwards — upwards — downwards — at the side	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 10 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — torwards — torwards — backwards — backwards — upwards — at the side Connections/ Terminals type of electrical connection for main current circuit	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 10 mm 0 mm 50 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — torwards — backwards — backwards — upwards — at the side Connections/ Terminals type of electrical connection for main current circuit type of connectable conductor cross-sections for main contacts stranded connectable conductor cross-section for main contacts finely stranded with core end processing	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 0 mm 30 mm 9 mm 1 mm 10 mm 0 mm 30 mm 10 mm 10 mm 10 mm 10 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — backwards — backwards — towards — backwards — upwards — at the side Connections/ Terminals type of electrical connection for main current circuit type of connectable conductor cross-sections for main contacts stranded connectable conductor cross-section for main contacts finely stranded with core end processing Safety related data	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 0 mm 30 mm 9 mm 1 mm 10 mm 0 mm 30 mm 10 mm 10 mm 10 mm 10 mm
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 — the side Connections/ Terminals type of electrical connection for main current circuit type of connectable conductor cross-sections for main contacts stranded connectable conductor cross-section for main contacts finely stranded with core end processing Safety related data B10 value with high demand rate according to SN 31920	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 9 mm 1 10 mm 9 mm 1 10 mm 9 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — backwards — backwards — towards — backwards — upwards — at the side Connections/ Terminals type of electrical connection for main current circuit type of connectable conductor cross-sections for main contacts stranded connectable conductor cross-section for main contacts finely stranded with core end processing Safety related data	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 9 mm 10 mm 1 mm 10 mm 1 mm 1 mm 1 mm 2 mm 3 mm 1 mm 3 mm 1 mm
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 — townwards — backwards — upwards — at the side Connections/ Terminals type of electrical connection for main current circuit type of connectable conductor cross-sections for main contacts stranded connectable conductor cross-section for main contacts finely stranded with core end processing Safety related data B10 value with high demand rate according to SN 31920 proportion of dangerous failures with high demand rate	snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 9 mm 10 mm 1 mm 10 mm 1 mm 1 mm 1 mm 2 mm 3 mm 1 mm 3 mm 1 mm

Certificates/ approvals

General Product Approval

For use in hazardous locations

Declaration of Conformity

other

Confirmation









Confirmation

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=3RA2220-1CB23-0AK6

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2220-1CB23-0AK6

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1CB23-0AK6

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

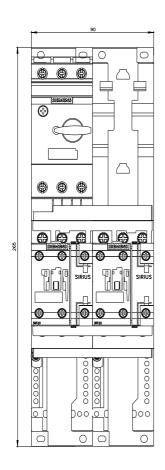
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2220-1CB23-0AK6&lang=en

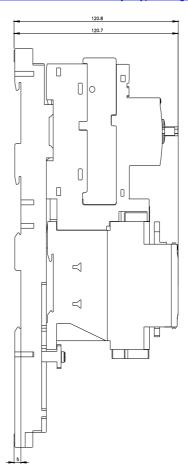
Characteristic: Tripping characteristics, I2t, Let-through current

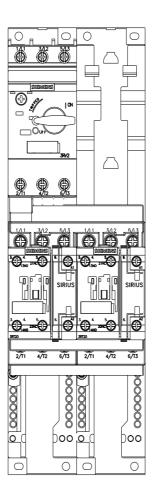
https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1CB23-0AK6/char

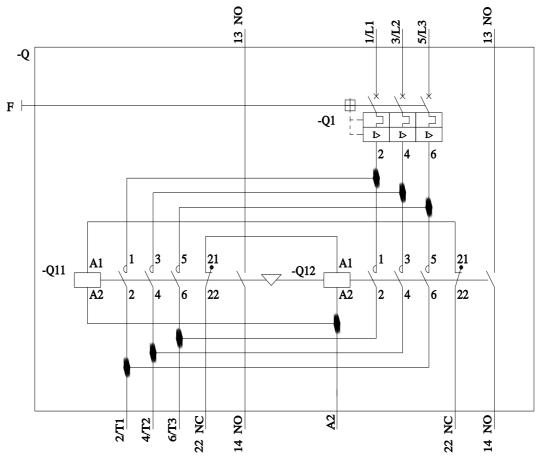
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2220-1CB23-0AK6&objecttype=14&gridview=view1









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