SIEMENS

Data sheet

3RA2220-1ED23-0BB4



Fuseless motor starter Reversing operation 600VAC Size S0 2.8-4A 24V DC screw connection For snapping onto 60 mm busbar systems 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 	3RT2023-1BB40
 of the supplied circuit-breakers 	3RV2011-1EA10
 of the supplied RS assembly kit 	3RA2923-1DB1
 of the supplied busbar adapter 	<u>8US1251-5NT10</u>
 of the supplied link module 	3RA2921-1BA00
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 (switching cycles) of contactor typical	10 000 000
type of assignment	2
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	2.8 4 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	3.6 A
operating power at AC-3	
• at 400 V rated value	1 500 W
• at 500 V rated value	2 200 W
Control circuit/ Control	

Control supply voltage at DC		
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Auxiliary circuit number of NC contacts for auxiliary contacts 2 Protective and monitoring functions trip class Class 10 themal (binetallic) response value current of instantaneous short-circuit frip nint DUCSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 800 V rated value • at 800 V rated value • at 800 V rated value • of a sple-phase AC motor — at 1101/20 V rated value • of 3-phase AC motor — at 200/280 V rated value • of 3-phase AC motor — at 200/280 V rated value • of 3-phase AC motor — at 200/280 V rated value • of 3-phase AC motor — at 200/280 V rated value • of 3-phase AC motor — at 200/280 V rated value • of 3-phase AC motor — at 200/280 V rated value • of 3-phase AC motor — at 400-0480 V rated value • of 5-phase AC motor — at 40-0480 V rated value • of 5-phase AC motor — at 40-0480 V rated value • of 5-phase AC motor — at 40-0480 V rated value • of 5-phase AC motor — at 40-0480 V rated value • of 5-phase AC motor — at 40-0480 V rated value • of 5-phase AC motor — at 40-0480 V rated value • of 5-phase AC motor — at 40-0480 V rated value • of 5-phase AC motor — at 40-050 N rated value • of 6-phase AC motor In the 4-phase AC moto		
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design of the overload release thermal (bimetallic) Fig. A	Protective and monitoring functions	
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- at 220/230 V rated value 2 hp - at 460/480 V rated value 2 hp 3 hp Short-circuit protection	•	0.75 hp
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type of connectable conductor cross-sections	mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — at the side — downwards • for live parts — forwards — backwards — backwards — backwards — upwards — at the side	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 10 mm
 for main contacts stranded at AWG cables for main contacts 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 according to SN 31920 73 % 73 % 	mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — at the side — downwards — to such the side — downwards — backwards — backwards — backwards — upwards — at the side Connections/ Terminals	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm 10 mm 0 mm 30 mm 10 mm 10 mm 10 mm 10 mm 10 mm 9 mm 10 mm 9 mm 9 mm 9 mm 9 mm
 at AWG cables for main contacts 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 according to SN 31920 73 % 	mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — a the side — downwards • for live parts — forwards — backwards — upwards — at the side Connections/ Terminals type of electrical connection for main current circuit	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm 10 mm 0 mm 30 mm 10 mm 10 mm 10 mm 10 mm 10 mm 9 mm 10 mm 9 mm 9 mm 9 mm 9 mm
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 according to SN 31920 73 %	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 • for live parts — forwards — backwards — upwards — at the side Connections/ Terminals type of electrical connection for main current circuit type of connectable conductor cross-sections	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 9 mm 10 mm 0 mm 30 mm 9 mm
Safety related data B10 value with high demand rate according to SN 31920 proportion of dangerous failures with high demand rate according to SN 31920 73 %	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	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 50 mm 30 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm
B10 value with high demand rate according to SN 31920 proportion of dangerous failures with high demand rate according to SN 31920 73 %	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 Connections/ Terminals type of electrical connection for main current circuit type of connectable conductor cross-sections • for main contacts stranded • at AWG cables for main contacts	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 20 mm 30 mm 10 mm 20 mm 30 mm 20 mm 30 mm 20 mm 20 mm 30 mm 20 mm
proportion of dangerous failures with high demand rate according to SN 31920	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 Connections/ Terminals type of electrical connection for main current circuit type of connectable conductor cross-sections • for main contacts stranded • at AWG cables for main contacts connectable conductor cross-section for main contacts	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 20 mm 30 mm 10 mm 20 mm 30 mm 20 mm 30 mm 20 mm 20 mm 30 mm 20 mm
according to SN 31920	mounting position fastening method height width depth required spacing	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 20 mm 30 mm 10 mm 20 mm 30 mm 20 mm 30 mm 20 mm 20 mm 30 mm 20 mm
	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 a the side — downwards — 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 • at AWG cables for main contacts connectable conductor cross-section for main contacts finely stranded with core end processing Safety related data	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm 10 mm 0 mm 30 mm 9 mm 10 mm 0 mm 30 mm 9 mm 10 mm 5 mm 10 mm 5 mm 10 mm
protection class IP on the front according to IEC IP20	mounting position fastening method height width depth required spacing	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 9 mm 10 mm
	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 — the side Connections/ Terminals type of electrical connection for main current circuit type of connectable conductor cross-sections • for main contacts stranded • at AWG cables for main contacts connectable conductor cross-section for main current circuit stype of connectable conductor cross-sections • for main contacts stranded • at AWG cables for main contacts 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 according to SN 31920	for snapping onto 60 mm busbar systems 260 mm 90 mm 165 mm 10 mm 0 mm 30 mm 9 mm 10 mm 0 mm 30 mm 9 mm screw-type terminals 1 10 mm², 2x (2.5 6 mm²) 2x (16 12), 2x (14 8) 1 6 mm²

60529

touch protection on the front according to IEC 60529

finger-safe, for vertical contact from the front

Certificates/ approvals

General Product Approval

For use in hazardous locations **Declaration of Conformity**

other

Dangerous Good

Confirmation







Confirmation

<u>Transport Information</u>

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=3RA2220-1ED23-0BB4

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2220-1ED23-0BB4

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1ED23-0BB4

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

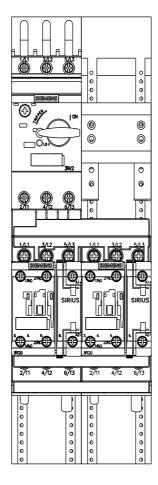
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2220-1ED23-0BB4&lang=en

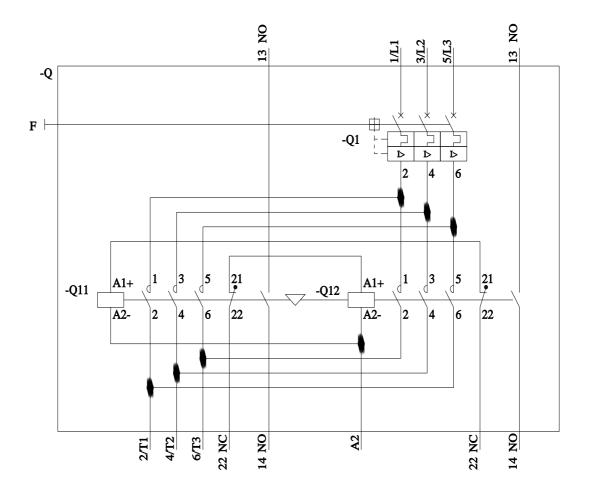
Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1ED23-0BB4/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2220-1ED23-0BB4&objecttype=14&gridview=view1





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