## **SIEMENS**

## **Data sheet**

## 3RA2220-1AB23-0BB4



Combination Starter Reversing FLA Range 1.1-1.6A 3 Pole 24VDC Coil S0 Open Type 1NO <(>&<)> 1NC Aux

product brand name	SIRIUS
product designation	non-fused motor starter 3RA2
design of the product	reversing starter
manufacturer's article number	
<ul> <li>of the supplied contactor</li> </ul>	3RT2023-1BB40
<ul> <li>of the supplied circuit-breakers</li> </ul>	3RV2011-1AA10
<ul> <li>of the supplied RH assembly kit</li> </ul>	3RA2923-1BB1
<ul> <li>of the supplied busbar adapter</li> </ul>	3RA2922-1AA00
<ul> <li>of the supplied link module</li> </ul>	3RA2921-1BA00
<ul> <li>of the supplied standard mounting rail adapter</li> </ul>	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 acc. 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	
<ul> <li>ambient temperature during operation</li> </ul>	-20 +60 °C
<ul> <li>ambient temperature during storage</li> </ul>	-50 +80 °C
<ul> <li>ambient temperature during transport</li> </ul>	-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	1.1 1.6 A
operating voltage rated value	690 V
operating voltage 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	1.5 A
operating power at AC-3	
• at 400 V rated value	550 W
• at 500 V rated value	550 W

• at 690 V rated value	1 100 W
	1 100 W
Control circuit/ Control	
control supply voltage at DC	
• rated value	24 V
holding power of magnet coil at DC	5.9 W
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	20.8 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
<ul> <li>at 480 V rated value</li> </ul>	1.6 A
at 600 V rated value	1.3 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 230 V rated value	0.1 hp
• for 3-phase AC motor	
<ul> <li>— at 460/480 V rated value</li> </ul>	0.75 hp
— at 575/600 V rated value	0.75 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
conditional short-circuit current (Iq)	
<ul> <li>at 400 V acc. to IEC 60947-4-1 rated value</li> </ul>	153 000 A
Installation/ mounting/ dimensions	
mounting position	vertical
mounting position fastening method	vertical snap-on fastening on 35 mm standard rail
fastening method	snap-on fastening on 35 mm standard rail
fastening method height	snap-on fastening on 35 mm standard rail 265 mm
fastening method height width	snap-on fastening on 35 mm standard rail 265 mm 90 mm
fastening method height width depth	snap-on fastening on 35 mm standard rail 265 mm
fastening method height width depth required spacing	snap-on fastening on 35 mm standard rail 265 mm 90 mm
fastening method height width depth	snap-on fastening on 35 mm standard rail 265 mm 90 mm
fastening method height width depth required spacing • for grounded parts	snap-on fastening on 35 mm standard rail 265 mm 90 mm 130 mm
fastening method height width depth required spacing  • for grounded parts — forwards	snap-on fastening on 35 mm standard rail 265 mm 90 mm 130 mm
fastening method height width depth required spacing  • for grounded parts — forwards — backwards	snap-on fastening on 35 mm standard rail 265 mm 90 mm 130 mm 10 mm 0 mm
fastening method height width depth required spacing  • for grounded parts — forwards — backwards — upwards	snap-on fastening on 35 mm standard rail 265 mm 90 mm 130 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 standard rail 265 mm 90 mm 130 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 standard rail 265 mm 90 mm 130 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 standard rail 265 mm 90 mm 130 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	snap-on fastening on 35 mm standard rail 265 mm 90 mm 130 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 standard rail 265 mm 90 mm 130 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 — upwards — upwards	snap-on fastening on 35 mm standard rail 265 mm 90 mm 130 mm 10 mm 0 mm 30 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 — downwards  • for live parts — forwards — backwards — backwards — upwards — upwards — downwards	snap-on fastening on 35 mm standard rail 265 mm 90 mm 130 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 — at the side — downwards — torwards — backwards — backwards — at the side — downwards — at the side Connections/ Terminals	snap-on fastening on 35 mm standard rail 265 mm 90 mm 130 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
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	snap-on fastening on 35 mm standard rail 265 mm 90 mm 130 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 — at the side — downwards — torwards — backwards — backwards — at the side — downwards — at the side Connections/ Terminals	snap-on fastening on 35 mm standard rail 265 mm 90 mm 130 mm  10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 9 mm somm 10 mm 0 mm somm somm somm somm somm somm somm s
fastening method height width depth required spacing  • for grounded parts — forwards — backwards — upwards — at the side — downwards  • for live parts — forwards — backwards — upwards — to rewards — obackwards — 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	snap-on fastening on 35 mm standard rail 265 mm 90 mm 130 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 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 — a 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	snap-on fastening on 35 mm standard rail 265 mm 90 mm 130 mm  10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 9 mm 10 mm 20 mm 30 mm 30 mm 10 mm 20 mm 30 mm 30 mm 30 mm 10 mm 20 mm 30 mm 30 mm 30 mm 10 mm 20 mm 30 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 — upwards — torwards — 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	snap-on fastening on 35 mm standard rail 265 mm 90 mm 130 mm  10 mm 0 mm 30 mm 9 mm 10 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 — 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 contacts finely stranded with core end processing  Safety related data	snap-on fastening on 35 mm standard rail 265 mm 90 mm 130 mm  10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 9 mm 10 mm 20 mm 30 mm 30 mm 10 mm 20 mm 30 mm 30 mm 30 mm 10 mm 20 mm 30 mm 30 mm 30 mm 10 mm 20 mm 30 mm
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protection class IP on the front acc. to IEC 60529

IP20

touch protection on the front acc. 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

EAC





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=3RA2220-1AB23-0BB4

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2220-1AB23-0BB4

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1AB23-0BB4

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

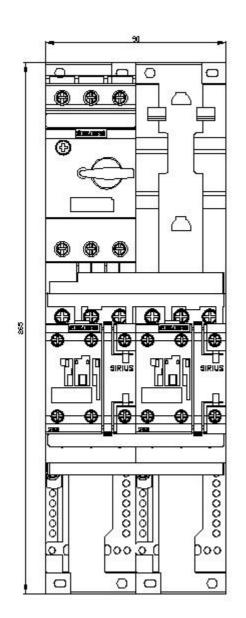
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA2220-1AB23-0BB4&lang=en

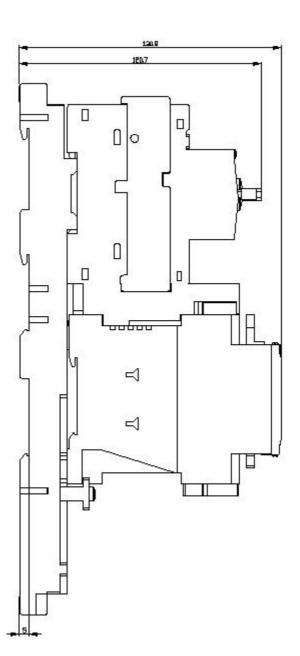
Characteristic: Tripping characteristics, I2t, Let-through current

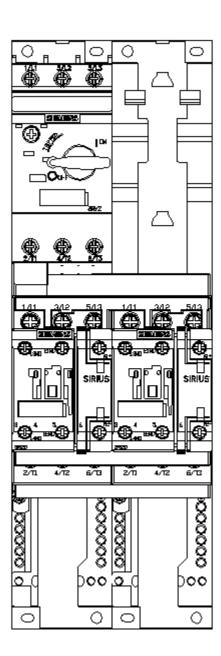
https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1AB23-0BB4/char

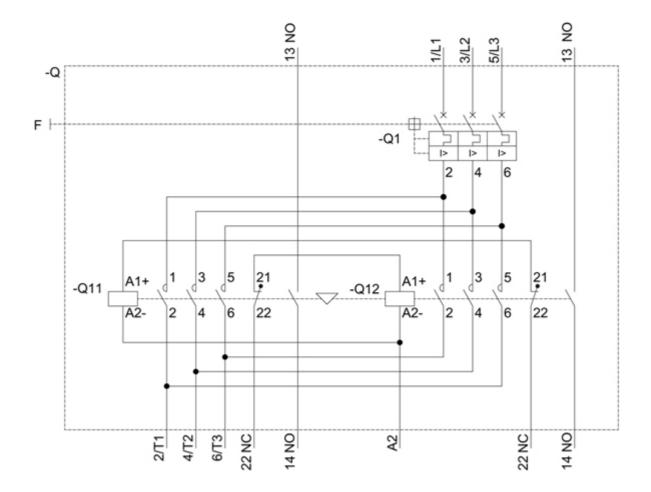
Further characteristics (e.g. electrical endurance, switching frequency)

 $\underline{http://www.automation.siemens.com/bilddb/index.aspx?view=Search\&mlfb=3RA2220-1AB23-0BB4\&objecttype=14\&gridview=view1}$ 









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