






Fuseless motor starter Direct start 600VAC Size S0 1.4-2A 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 (contactor)

<b>product brand name</b>	SIRIUS
<b>product designation</b>	non-fused motor starter 3RA2
<b>design of the product</b>	direct starter
<b>manufacturer's article number</b>	
<ul style="list-style-type: none"> <li>• of the supplied contactor</li> <li>• of the supplied circuit-breakers</li> <li>• of the supplied busbar adapter</li> <li>• of the supplied link module</li> </ul>	<a href="#">3RT2023-1BB40</a> <a href="#">3RV2011-1BA10</a> <a href="#">8US1251-5NT10</a> <a href="#">3RA2921-1BA00</a>
<b>General technical data</b>	
<b>size of the circuit-breaker</b>	S00
<b>size of load feeder</b>	S0
product extension auxiliary switch	Yes
insulation voltage with degree of pollution 3 at AC rated value	690 V
<b>degree of pollution</b>	3
<b>surge voltage resistance rated value</b>	6 kV
shock resistance according to IEC 60068-2-27	6g / 11 ms
mechanical service life (switching cycles) of contactor typical	10 000 000
<b>type of assignment</b>	2
<b>Substance Prohibitance (Date)</b>	03/01/2017
<b>Ambient conditions</b>	
<b>ambient temperature</b>	
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>	-20 ... +60 °C -50 ... +80 °C -55 ... +80 °C
<b>Main circuit</b>	
<b>number of poles for main current circuit</b>	3
<b>design of the switching contact</b>	electromechanical
<b>adjustable current response value current of the current-dependent overload release</b>	1.4 ... 2 A
<b>operating voltage</b>	
<ul style="list-style-type: none"> <li>• rated value</li> <li>• at AC-3 rated value maximum</li> </ul>	690 V 690 V
<b>operating frequency rated value</b>	50 ... 60 Hz
operational current at AC-3 at 400 V rated value	1.9 A
operating power at AC-3	
<ul style="list-style-type: none"> <li>• at 400 V rated value</li> <li>• at 500 V rated value</li> <li>• at 690 V rated value</li> </ul>	750 W 750 W 1 100 W

Control circuit/ Control	
<b>control supply voltage at DC</b>	
• rated value	24 V
<b>holding power of magnet coil at DC</b>	5.9 W
Auxiliary circuit	
<b>number of NC contacts for auxiliary contacts</b>	1
<b>number of NO contacts for auxiliary contacts</b>	1
Protective and monitoring functions	
<b>trip class</b>	CLASS 10
<b>design of the overload release</b>	thermal (bimetallic)
response value current of instantaneous short-circuit trip unit	26 A
UL/CSA ratings	
<b>full-load current (FLA) for 3-phase AC motor</b>	
• at 480 V rated value	1.63 A
• at 600 V rated value	1.72 A
<b>yielded mechanical performance [hp]</b>	
• for single-phase AC motor	
— at 230 V rated value	0.13 hp
• for 3-phase AC motor	
— at 460/480 V rated value	0.75 hp
— at 575/600 V rated value	1 hp
Short-circuit protection	
<b>product function short circuit protection</b>	Yes
<b>design of the short-circuit trip</b>	magnetic
<b>conditional short-circuit current (I<sub>q</sub>)</b>	
• at 400 V according to IEC 60947-4-1 rated value	153 000 A
Installation/ mounting/ dimensions	
<b>mounting position</b>	vertical
<b>fastening method</b>	for snapping onto 60 mm busbar systems
<b>height</b>	260 mm
<b>width</b>	45 mm
<b>depth</b>	165 mm
<b>required spacing</b>	
• 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
<b>type of connectable conductor cross-sections</b>	
• for main contacts stranded	1 ... 10 mm <sup>2</sup> , 2x (2.5 ... 6 mm <sup>2</sup> )
• at AWG cables 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 <sup>2</sup>
Safety related data	
B10 value with high demand rate according to SN 31920	1 000 000
proportion of dangerous failures with high demand rate according to SN 31920	73 %
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front

## Certificates/ approvals

General Product Approval	For use in hazardous locations	Declaration of Conformity	other	Dangerous Good
<a href="#">Confirmation</a>		 ATEX	 EG-Konf.	<a href="#">Confirmation</a> <a href="#">Transport Information</a>

## 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=3RA2120-1BD23-0BB4>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1BD23-0BB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1BD23-0BB4>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2120-1BD23-0BB4&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1BD23-0BB4&lang=en)

Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1BD23-0BB4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-1BD23-0BB4&objecttype=14&gridview=view1>

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