

Fuseless motor starter Direct start 600VAC Size NEMA 1 7-10A 110/120VAC 50/60Hz 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>	
• of the supplied contactor	<a href="#">3RT2027-1AK60-0UA0</a>
• of the supplied circuit-breakers	<a href="#">3RV2021-1JA10</a>
• of the supplied busbar adapter	<a href="#">8US1251-5NT10</a>
• of the supplied link module	<a href="#">3RA2921-1AA00</a>
<b>General technical data</b>	
<b>size of the circuit-breaker</b>	S0
<b>size of load feeder</b>	NEMA 1
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
<b>shock resistance according to IEC 60068-2-27</b>	6g / 11 ms
mechanical service life (operating cycles) of contactor typical	10 000 000
<b>type of assignment</b>	2
<b>Ambient conditions</b>	
<b>ambient temperature</b>	
• during operation	-20 ... +60 °C
• during storage	-50 ... +80 °C
• during transport	-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>	7 ... 10 A
<b>operating voltage</b>	
• rated value	600 V
• at AC-3 rated value maximum	600 V
<b>operating frequency rated value</b>	50 ... 60 Hz
operational current at AC-3 at 400 V rated value	8.5 A
operating power at AC-3	
• at 400 V rated value	4 000 W
• at 500 V rated value	5 500 W
<b>Control circuit/ Control</b>	
<b>control supply voltage at AC</b>	
• 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
<b>apparent holding power of magnet coil at AC</b>	9.4 VA
<b>inductive power factor with the holding power of the coil</b>	0.28
<b>Auxiliary circuit</b>	
<b>number of NC contacts for auxiliary contacts</b>	1
<b>number of NO contacts for auxiliary contacts</b>	1
<b>Protective and monitoring functions</b>	
<b>trip class</b>	CLASS 10
<b>design of the overload release</b>	thermal (bimetallic)

response value current of instantaneous short-circuit trip unit	130 A	
UL/CSA ratings		
full-load current (FLA) for 3-phase AC motor		
• at 480 V rated value	7.92 A	
• at 600 V rated value	9.19 A	
yielded mechanical performance [hp]		
• for single-phase AC motor		
— at 110/120 V rated value	0.5 hp	
— at 230 V rated value	3 hp	
• for 3-phase AC motor		
— at 200/208 V rated value	2 hp	
— at 220/230 V rated value	3 hp	
— at 460/480 V rated value	5 hp	
— at 575/600 V rated value	7.5 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	
fastening method	for snapping onto 60 mm busbar systems	
height	260 mm	
width	45 mm	
depth	155 mm	
required spacing		
• 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	
type of connectable conductor cross-sections for main contacts stranded	1 ... 10 mm², 2x (2.5 ... 6 mm²)	
connectable conductor cross-section for main contacts finely stranded with core end processing	1 ... 6 mm²	
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 %	
protection class IP on the front according to IEC 60529	IP20	
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

[Confirmation](#)



other

#### 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=3RA2120-1JQ27-0AK6>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1JQ27-0AK6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1JQ27-0AK6>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2120-1JQ27-0AK6&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1JQ27-0AK6&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1JQ27-0AK6/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-1JQ27-0AK6&objecttype=14&gridview=view1>

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