

Fuseless motor starter Direct start 600VAC Size NEMA 1 17-22A 110/120VAC 50/60Hz screw connection For snapping onto 60 mm busbar systems Type of coordination 2 IQ = 50 KA Also full fills type Of coordination 1 1NO+1NC (contactor)

product brand name	SIRIUS
product designation	non-fused motor starter 3RA2
design of the product	direct starter
manufacturer's article number	
• of the supplied contactor	3RT2027-1AK60-0UA0
• of the supplied circuit-breakers	3RV2021-4CA10
• of the supplied busbar adapter	8US1251-5NT10
• of the supplied link module	3RA2921-1AA00
General technical data	
size of the circuit-breaker	S0
size of load feeder	NEMA 1
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
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	17 ... 22 A
operating voltage	
• rated value	600 V
• at AC-3 rated value maximum	600 V
operating frequency rated value	50 ... 60 Hz
operational current at AC-3 at 400 V rated value	22 A
operating power at AC-3	
• at 400 V rated value	11 000 W
• at 500 V rated value	11 000 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	9.4 VA
inductive power factor with the holding power of the coil	0.28
Auxiliary circuit	
number of NC contacts for auxiliary contacts	1
number of NO contacts for auxiliary contacts	1
Protective and monitoring functions	
trip class	CLASS 10
design of the overload release	thermal (bimetallic)

response value current of instantaneous short-circuit trip unit		286 A
UL/CSA ratings		
full-load current (FLA) for 3-phase AC motor		
• at 480 V rated value		15.2 A
• at 600 V rated value		17.8 A
yielded mechanical performance [hp]		
• for single-phase AC motor		
— at 110/120 V rated value		2 hp
— at 230 V rated value		3 hp
• for 3-phase AC motor		
— at 200/208 V rated value		7.5 hp
— at 220/230 V rated value		7.5 hp
— at 460/480 V rated value		10 hp
— at 575/600 V rated value		15 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
• at 500 V according to IEC 60947-4-1 rated value		100 000 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=3RA2120-4CQ27-0AK6>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-4CQ27-0AK6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4CQ27-0AK6>

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

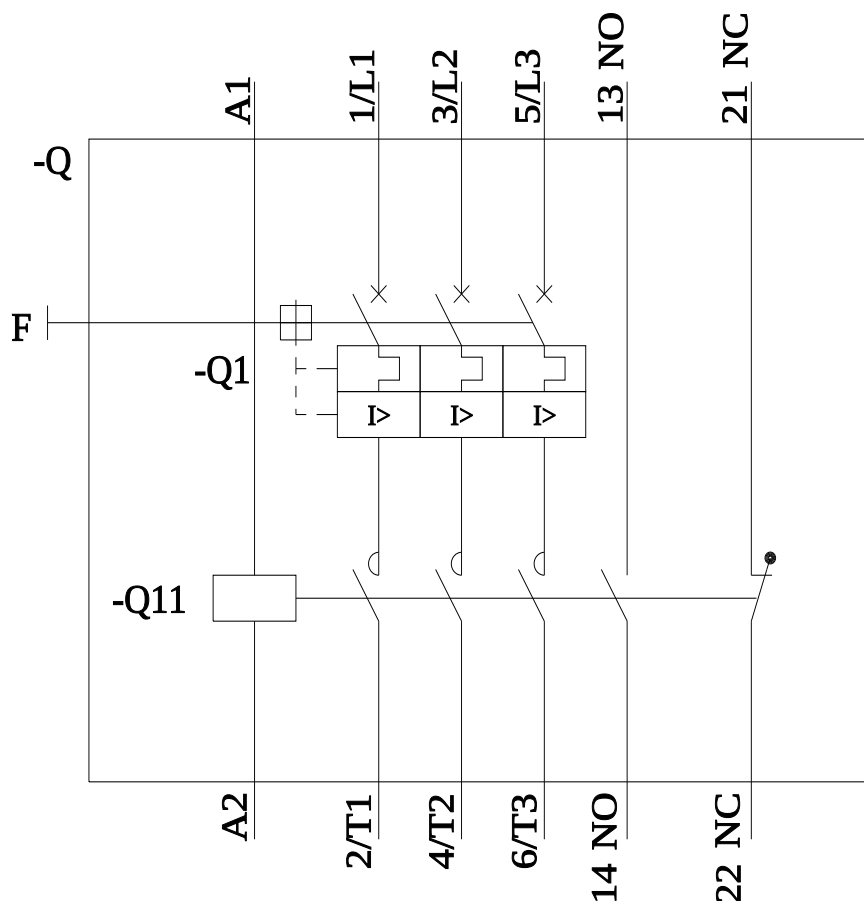
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-4CQ27-0AK6&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4CQ27-0AK6/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-4CQ27-0AK6&objecttype=14&gridview=view1>



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