# SIEMENS

## Data sheet

# 3RA2220-1DB23-0AP6



Fuseless motor starter Reversing operation 600VAC Size S0 2.2-3.2A 220/240VAC 50/60HZ screw connection For 35 mm rail-mounting 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				
<ul> <li>of the supplied contactor</li> </ul>	<u>3RT2023-1AP60</u>			
<ul> <li>of the supplied circuit-breakers</li> </ul>	<u>3RV2011-1DA10</u>			
<ul> <li>of the supplied RH assembly kit</li> </ul>	<u>3RA2923-1BB1</u>			
• of the supplied busbar adapter	<u>3RA2922-1AA00</u>			
<ul> <li>of the supplied link module</li> </ul>	<u>3RA2921-1AA00</u>			
<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	SO			
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			
Substance Prohibitance (Date)	03/01/2017			
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	2.2 3.2 A			
operating voltage				
<ul> <li>rated value</li> </ul>	690 V			
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V			
operating frequency rated value	50 60 Hz			
operational current at AC-3 at 400 V rated value	2.7 A			
operating power at AC-3				
• at 400 V rated value	1 100 W			
• at 500 V rated value	1 500 W			
Control circuit/ Control				

control supply voltage at AC	
• at 50 Hz rated value	220 V
• at 50 Hz rated value	176 242 V
• at 60 Hz rated value	240 V
at 60 Hz rated value	192 264 V
apparent holding power of magnet coil at AC	7.2 VA
inductive power factor with the holding power of the coil	0.28
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	41.6 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	2.8 A
• at 600 V rated value	3.16 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	0.1 hp
— at 230 V rated value	0.25 hp
• for 3-phase AC motor	
— at 200/208 V rated value	0.5 hp
— at 220/230 V rated value	0.75 hp
— at 460/480 V rated value	1.5 hp
— at 575/600 V rated value	2 hp
Short-circuit protection	·
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
conditional short-circuit current (lq)	
	153 000 A
• at 400 V according to IEC 60947-4-1 rated value	153 000 A
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions	
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position	vertical
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method	vertical snap-on fastening on 35 mm DIN rail
t 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height	vertical snap-on fastening on 35 mm DIN rail 265 mm
t 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width	vertical snap-on fastening on 35 mm DIN rail 265 mm 90 mm
tat 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method height width depth	vertical snap-on fastening on 35 mm DIN rail 265 mm
tat 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method height width depth required spacing	vertical snap-on fastening on 35 mm DIN rail 265 mm 90 mm
the at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method height width depth required spacing     for grounded parts	vertical snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm
the at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method height width depth required spacing     for grounded parts         — forwards	vertical snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm
the at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method height width depth required spacing     for grounded parts         — forwards         — backwards	vertical snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm
term 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method height width depth required spacing      for grounded parts         — forwards         — backwards         — upwards	vertical snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm
tat 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method height width depth required spacing      for grounded parts         — forwards         — backwards         — upwards         — at the side	vertical snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm
the side <ul> <li>at 400 V according to IEC 60947-4-1 rated value</li> </ul> <li>Installation/ mounting/ dimensions         <ul> <li>mounting position</li> <li>fastening method</li> <li>height</li> <li>width</li> <li>depth</li> </ul> </li> <li>required spacing         <ul> <li>for grounded parts</li> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>at the side</li> <li>downwards</li> </ul> </li>	vertical snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm
tat 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method height width depth required spacing     for grounded parts         — forwards         — backwards         — upwards         — at the side         — downwards         • for live parts	vertical snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 30 mm 9 mm 10 mm
the side <ul> <li>at 400 V according to IEC 60947-4-1 rated value</li> </ul> <li>Installation/ mounting/ dimensions         <ul> <li>mounting position</li> <li>fastening method</li> <li>height</li> <li>width</li> <li>depth</li> </ul> </li> <li>required spacing         <ul> <li>for grounded parts</li> <li>forwards</li> <li>backwards</li> <li>at the side</li> <li>downwards</li> <li>for live parts</li> <li>for live parts</li> <li>forwards</li> </ul> </li>	vertical snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm
tat 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method height width depth required spacing      for grounded parts         — forwards         — backwards         — at the side         — downwards          for live parts         — forwards         — forwards         — forwards         — forwards         — forwards         — forwards         — downwards         — forwards         — forwards         — backwards         — backwards         — forwards         — backwards         — backwards         — backwards         — backwards         — backwards	vertical snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm
tat 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method height width depth required spacing     for grounded parts         — forwards         — backwards         — upwards         — downwards         • for live parts         — forwards         — forwards         — backwards         — downwards         • for live parts         — forwards         — backwards         — upwards	vertical         snap-on fastening on 35 mm DIN rail         265 mm         90 mm         120 mm         120 mm         0 mm         30 mm         9 mm         10 mm         0 mm         30 mm         9 mm         10 mm         0 mm         30 mm         9 mm         10 mm         0 mm         30 mm
tat 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method height width depth required spacing     for grounded parts         — forwards         — backwards         — upwards         — at the side         — downwards         — forwards         — forwards         — downwards         — forwards         — downwards         — upwards         — downwards         — downwards         — upwards         — downwards         — downwards         — backwards         — downwards         — downwards         — downwards         — upwards         — downwards         — downwards	vertical         snap-on fastening on 35 mm DIN rail         265 mm         90 mm         120 mm         10 mm         0 mm         30 mm         9 mm         10 mm         0 mm         30 mm         9 mm         10 mm         10 mm         10 mm         0 mm         10 mm
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at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method height width depth required spacing     ofor grounded parts         - forwards         - backwards         - upwards         - at the side         - downwards         ofor live parts         - forwards         - backwards         - backwards         - upwards         - at the side         - downwards         - backwards         - at the side         - downwards         - forwards         - backwards         - at the side         - downwards         - backwards         - backwards         - backwards         - connectable conductor cross-sections for main contacts finely stranded with core end processing	vertical snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 10 mm 9 mm 10 mm 9 mm 10 mm 9 mm 10 mm 9 mm 10 mm 9 mm 10 mm 9 mm
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at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position fastening method height width depth required spacing     ofor grounded parts         - forwards         - backwards         - upwards         - at the side         - downwards         ofor live parts         - forwards         - backwards         - backwards         - upwards         - at the side         - downwards         - backwards         - at the side         - downwards         - forwards         - backwards         - at the side         - downwards         - backwards         - backwards         - backwards         - connectable conductor cross-sections for main contacts finely stranded with core end processing	vertical snap-on fastening on 35 mm DIN rail 265 mm 90 mm 120 mm 120 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 10 mm 0 mm 30 mm 10 mm 2 mm 10 mm 10 mm 2 mm 10 mm 2

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 haza ous locations	Declaration of Contormity		mity	other	
<u>Confirmation</u>	EAC	(Ex)		CE EG-Konf.	UK CA	<u>Confirmation</u>	

#### 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=3RA2220-1DB23-0AP6

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2220-1DB23-0AP6

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1DB23-0AP6

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

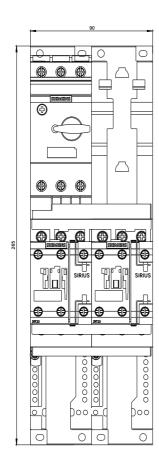
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA2220-1DB23-0AP6&lang=en

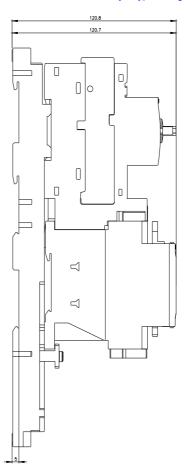
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

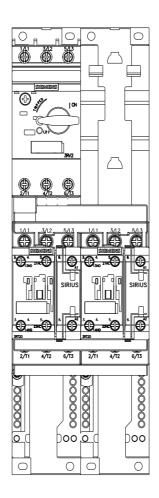
https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1DB23-0AP6/char

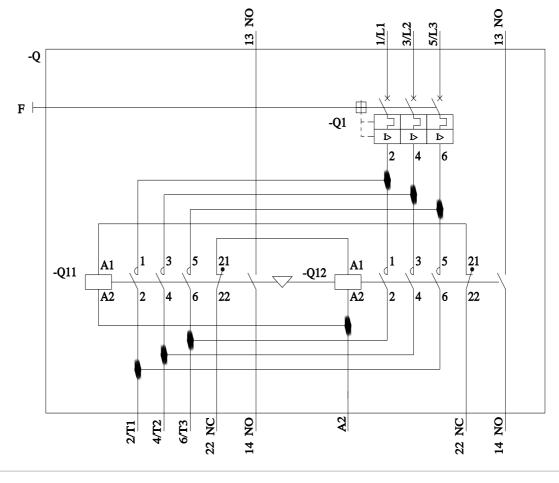
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2220-1DB23-0AP6&objecttype=14&oridview=view1









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