3RA2220-1BB23-0AP6

Data sheet



Fuseless motor starter Reversing operation 600VAC Size S0 1.4-2A 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	
 of the supplied contactor 	3RT2023-1AP60
 of the supplied circuit-breakers 	3RV2011-1BA10
 of the supplied RH assembly kit 	3RA2923-1BB1
 of the supplied busbar adapter 	3RA2922-1AA00
 of the supplied link module 	3RA2921-1AA00
 of the supplied standard mounting rail adapter 	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 according to IEC 60068-2-27	6g / 11 ms
mechanical service life (switching 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	1.4 2 A
operating voltage	
• rated value	690 V
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	1.9 A
operating power at AC-3	
• at 400 V rated value	750 W

	750 \\
at 500 V rated value	750 W
at 690 V rated value	1 100 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	26 A
unit	
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	1.63 A
at 600 V rated value	1.72 A
yielded mechanical performance [hp]	
 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	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
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conditional short-circuit current (Iq)	
conditional short-circuit current (Iq) • 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	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 standard rail
at 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 standard rail 265 mm
at 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 standard rail 265 mm 90 mm
at 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 standard rail 265 mm
at 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 standard rail 265 mm 90 mm
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 standard rail 265 mm 90 mm 120 mm
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 standard rail 265 mm 90 mm
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 standard rail 265 mm 90 mm 120 mm
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 — upwards	vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm
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 — upwards — at the side	vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing at for grounded parts — forwards — backwards — upwards — at the side — downwards	vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing at for grounded parts — forwards — backwards — upwards — at the side — downwards for live parts	vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing at for grounded parts — forwards — backwards — upwards — at the side — downwards for live parts — forwards — forwards	vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing at for grounded parts backwards upwards at the side downwards for live parts forwards backwards backwards backwards backwards backwards backwards backwards backwards	vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm
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 — upwards — at the side — downwards • for live parts — forwards — backwards — upwards - upwards - upwards - upwards - upwards - upwards - upwards	vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing at for grounded parts forwards backwards upwards at the side downwards for live parts forwards backwards upwards downwards for live parts downwards upwards downwards	vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing at for grounded parts - forwards - backwards - upwards - at the side - downwards - forwards - forwards - at the side - downwards - backwards - upwards - torwards - torwards - torwards - downwards - backwards - upwards - backwards - upwards - downwards - downwards - at the side	vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 10 mm
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 — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — at the side — downwards — backwards — backwards — backwards — backwards — at the side Connections/ Terminals	vertical snap-on fastening on 35 mm standard 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 9 mm 10 mm 9 mm 9 mm 9 mm
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 — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — at the side — downwards — torwards — backwards — upwards — backwards — upwards — torwards — at the side Connections/ Terminals type of electrical connection for main current circuit	vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 10 mm
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 — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — at the side	vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm somm 9 mm somm somm somm somm somm somm somm s
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 — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — at the side — downwards — torwards — backwards — upwards — backwards — upwards — torwards — torwards	vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 0 mm 10 mm 0 mm sorew-type terminals 1 10 mm², 2x (2.5 6 mm²)
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 — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — at the side — downwards • to rewards — to rewards — at the side — downwards — 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 • at AWG cables for main contacts	vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm screw-type terminals 1 10 mm², 2x (2.5 6 mm²) 2x (16 12), 2x (14 8)
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 — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — at the side — downwards — torwards — backwards — upwards — backwards — upwards — torwards — torwards	vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm somm 10 mm

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**

other

Confirmation







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=3RA2220-1BB23-0AP6

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2220-1BB23-0AP6

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

 $\underline{https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1BB23-0AP6}$

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

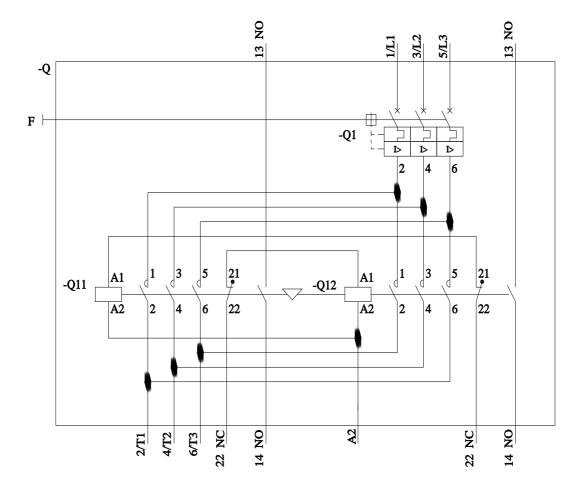
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2220-1BB23-0AP6&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1BB23-0AP6/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2220-1BB23-0AP6&objecttype=14&gridview=view1



last modified:

12/15/2020 🖸