## 3RA2220-1DB23-0AP6

**Data sheet** 

product brand name



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 design of the product     reversing starter       manufacturer's article number     3RT2023-1AP60       • of the supplied contactor     3RV2011-1DA10       • of the supplied circuit-breakers     3RV2011-1DA10       • of the supplied busbar adapter     3RA2923-1BB1       • of the supplied link module     3RA2922-1AA00       • of the supplied standard mounting rail adapter     3RA2922-1AA00       General technical data     3RA2922-1AA00       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
manufacturer's article number  of the supplied contactor of the supplied circuit-breakers of the supplied RH assembly kit of the supplied busbar adapter of the supplied busbar adapter of the supplied link module of the supplied standard mounting rail adapter of the supplied standard mounting rail adapter  size of the circuit-breaker size of load feeder product extension auxiliary switch insulation voltage with degree of pollution 3 at AC rated value  degree of pollution surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (switching cycles) of contactor typical
of the supplied contactor     of the supplied circuit-breakers     of the supplied RH assembly kit     of the supplied RH assembly kit     of the supplied busbar adapter     of the supplied link module     of the supplied standard mounting rail adapter     of the supplied standard mounting rail adapter      General technical data     size of the circuit-breaker     size of load feeder     product extension auxiliary switch     insulation voltage with degree of pollution 3 at AC rated value  degree of pollution     surge voltage resistance rated value     shock resistance according to IEC 60068-2-27     mechanical service life (switching cycles) of contactor typical      of the supplied circuit-breaker     3RA2922-1AA00     3RA2922-1AA00     SOO     size of the circuit-breaker     SOO     size of load feeder     size of load feeder     soo     si
of the supplied circuit-breakers     of the supplied RH assembly kit     of the supplied busbar adapter     of the supplied busbar adapter     of the supplied link module     of the supplied link module     of the supplied standard mounting rail adapter      of the supplied standard mounting rail adapter      General technical data  size of the circuit-breaker     supplied standard mounting rail adapter      supplied
of the supplied RH assembly kit     of the supplied busbar adapter     of the supplied busbar adapter     of the supplied link module     of the supplied standard mounting rail adapter      of the supplied standard mounting rail adapter      General technical data      size of the circuit-breaker     size of load feeder     product extension auxiliary switch     insulation voltage with degree of pollution 3 at AC rated value  degree of pollution     surge voltage resistance rated value  shock resistance according to IEC 60068-2-27  mechanical service life (switching cycles) of contactor typical  srange voltage resistance rated value)  mechanical service life (switching cycles) of contactor typical
of the supplied busbar adapter     of the supplied link module     of the supplied standard mounting rail adapter     of the supplied link module     of t
<ul> <li>of the supplied link module</li> <li>of the supplied standard mounting rail adapter</li> <li>General technical data</li> <li>size of the circuit-breaker</li> <li>size of load feeder</li> <li>product extension auxiliary switch</li> <li>insulation voltage with degree of pollution 3 at AC rated value</li> <li>degree of pollution</li> <li>surge voltage resistance rated value</li> <li>shock resistance according to IEC 60068-2-27</li> <li>fightham</li> <li>fightham</li> <li>fightham</li> <li>fightham</li> <li>gRA2921-1AA00</li> <li>300</li> <li>Wes</li> <li>690 V</li> <li>fightham</li> <li>fight</li></ul>
● of the supplied standard mounting rail adapter  General technical data  size of the circuit-breaker  Size of load feeder  product extension auxiliary switch insulation voltage with degree of pollution 3 at AC rated value  degree of pollution  surge voltage resistance rated value shock resistance according to IEC 60068-2-27  mechanical service life (switching cycles) of contactor typical  size of the circuit-breaker  S00  Yes  690 V  697 11 ms  10 000 000
Size of the circuit-breaker Size of load feeder Size of load feede
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
size of load feeder  product extension auxiliary switch insulation voltage with degree of pollution 3 at AC rated value  degree of pollution  surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (switching cycles) of contactor typical  S0  Yes  690 V  697 V  697 11 ms  10 000 000
product extension auxiliary switch insulation voltage with degree of pollution 3 at AC rated value  degree of pollution  surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (switching cycles) of contactor typical  Yes  690 V  6 kV  6 kV  10 000 000
insulation voltage with degree of pollution 3 at AC rated value  degree of pollution  surge voltage resistance rated value  shock resistance according to IEC 60068-2-27  mechanical service life (switching cycles) of contactor typical  690 V  6 kV  6 kV  10 000 000
value       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
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
shock resistance according to IEC 60068-2-27 6g / 11 ms mechanical service life (switching cycles) of contactor typical 10 000 000
mechanical service life (switching cycles) of contactor typical 10 000 000
typical
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
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 2.7 A
operating power at AC-3
• at 400 V rated value 1 100 W

SIRIUS

at 500 V rated value	1 500 W		
Control circuit/ Control	1 000 11		
control supply voltage at AC  • at 50 Hz rated value	220 V		
at 50 Hz rated value     at 50 Hz rated value	176 242 V		
at 60 Hz rated value      at 60 Hz rated value	240 V		
at 60 Hz rated value      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	0.28		
coil			
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	41.6 A		
unit			
UL/CSA ratings			
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value	2.8 A		
at 480 V rated value     at 600 V rated value	3.16 A		
yielded mechanical performance [hp]	0.10 A		
• 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			
Short-circuit protection product function short circuit protection	Yes		
	Yes magnetic		
product function short circuit protection			
product function short circuit protection design of the short-circuit trip			
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq)	magnetic		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value	magnetic		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions	magnetic 153 000 A		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height	magnetic  153 000 A  vertical snap-on fastening on 35 mm standard rail 265 mm		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width	magnetic  153 000 A  vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth	magnetic  153 000 A  vertical snap-on fastening on 35 mm standard rail 265 mm		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing	magnetic  153 000 A  vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq)  • 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	magnetic  153 000 A  vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq)  • 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	magnetic  153 000 A  vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq) • 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	magnetic  153 000 A  vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq)  • 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	magnetic  153 000 A  vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm  10 mm 0 mm 30 mm		
product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • 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	magnetic  153 000 A  vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm  10 mm 0 mm 30 mm 9 mm		
product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • 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	magnetic  153 000 A  vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm  10 mm 0 mm 30 mm		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq)  • 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	magnetic  153 000 A  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		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq)  • 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  — forwards	magnetic  153 000 A  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		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq)  • 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 — backwards — backwards — backwards — backwards	magnetic  153 000 A  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		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq)  • 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 — at the side — downwards  • for live parts — forwards — backwards — backwards — upwards — torwards — torwards — torwards — backwards — backwards — upwards — backwards — backwards — backwards — backwards — backwards — backwards — upwards	magnetic  153 000 A  vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm  10 mm 0 mm 30 mm 10 mm 10 mm 10 mm		
product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • 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  — backwards  — upwards  — towards  — towards  — downwards  • for live parts  — forwards  — backwards  — backwards  — upwards  — downwards  — downwards	magnetic  153 000 A  vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm  10 mm 0 mm 30 mm 10 mm 10 mm 10 mm 10 mm 10 mm		
product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • 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  — towards  — downwards  — towards  — downwards  — backwards  — backwards  — downwards  — towards  — backwards  — backwards  — upwards  — downwards  — at the side	magnetic  153 000 A  vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm  10 mm 0 mm 30 mm 10 mm 10 mm 10 mm		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq)  • 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  — downwards  • at the side  — downwards  — at the side  Connections/ Terminals	magnetic  153 000 A  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 10 mm 10 mm 9 mm 10 mm 9 mm 10 mm		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq)  • 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 ackwards — upwards — backwards — at the side — downwards — to ackwards — upwards — at the side  Connections/ Terminals type of electrical connection for main current circuit	magnetic  153 000 A  vertical snap-on fastening on 35 mm standard rail 265 mm 90 mm 120 mm  10 mm 0 mm 30 mm 10 mm 10 mm 10 mm 10 mm		
product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • 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  — at the side  — downwards  — 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	magnetic  153 000 A  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 30 mm 9 mm 10 mm screw-type terminals		
product function short circuit protection design of the short-circuit trip conditional short-circuit current (Iq)  • 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 ackwards — upwards — backwards — at the side — downwards — to ackwards — upwards — at the side  Connections/ Terminals type of electrical connection for main current circuit	magnetic  153 000 A  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 10 mm 10 mm 9 mm 10 mm 9 mm 10 mm		

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 hazard- ous 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=3RA2220-1DB23-0AP6

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, ...)

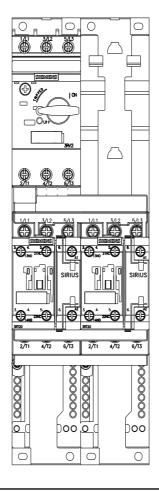
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA2220-1DB23-0AP6&lang=en

Characteristic: Tripping characteristics, I2t, 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&gridview=view1



last modified: 12/15/2020 ☑