3RA2220-1DD23-0AP6

Data sheet



Fuseless motor starter Reversing operation 600VAC Size S0 2.2-3.2A 220/240VAC 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 (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 	3RV2011-1DA10		
 of the supplied RS assembly kit 	3RA2923-1DB1		
 of the supplied busbar adapter 	<u>8US1251-5NT10</u>		
 of the supplied link module 	3RA2921-1AA00		
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	2.2 3.2 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	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	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 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			
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 conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value			
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 153 000 A vertical		
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 for snapping onto 60 mm busbar systems 260 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 for snapping onto 60 mm busbar systems 260 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 for snapping onto 60 mm busbar systems 260 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 for snapping onto 60 mm busbar systems 260 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 for snapping onto 60 mm busbar systems 260 mm 90 mm 155 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 for snapping onto 60 mm busbar systems 260 mm 90 mm 155 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 for snapping onto 60 mm busbar systems 260 mm 90 mm 155 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 for snapping onto 60 mm busbar systems 260 mm 90 mm 155 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 for snapping onto 60 mm busbar systems 260 mm 90 mm 155 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 for snapping onto 60 mm busbar systems 260 mm 90 mm 155 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 for snapping onto 60 mm busbar systems 260 mm 90 mm 155 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	magnetic 153 000 A vertical for snapping onto 60 mm busbar systems 260 mm 90 mm 155 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	magnetic 153 000 A vertical for snapping onto 60 mm busbar systems 260 mm 90 mm 155 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 — upwards • for live parts — backwards — backwards — backwards — upwards	magnetic 153 000 A vertical for snapping onto 60 mm busbar systems 260 mm 90 mm 155 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 — torwards — torwards — backwards — upwards — downwards — backwards — upwards — backwards — upwards — downwards	magnetic 153 000 A vertical for snapping onto 60 mm busbar systems 260 mm 90 mm 155 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 — backwards — upwards — towards — backwards — at the side — downwards — at the side	magnetic 153 000 A vertical for snapping onto 60 mm busbar systems 260 mm 90 mm 155 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 — backwards — upwards — downwards — torwards — backwards — at the side — downwards — at the side — downwards — at the side Connections/ Terminals	magnetic 153 000 A vertical for snapping onto 60 mm busbar systems 260 mm 90 mm 155 mm 10 mm 0 mm 30 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 9 mm 10 mm 9 mm 10 mm 9 mm 10 mm 9 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 — to downwards • for live parts — forwards — backwards — at the side Connections/ Terminals type of electrical connection for main current circuit	magnetic 153 000 A vertical for snapping onto 60 mm busbar systems 260 mm 90 mm 155 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 Connections/ Terminals type of electrical connection for main current circuit type of connectable conductor cross-sections	magnetic 153 000 A vertical for snapping onto 60 mm busbar systems 260 mm 90 mm 155 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 9 mm 10 mm 0 mm 30 mm 9 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 — forwards — 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	magnetic 153 000 A vertical for snapping onto 60 mm busbar systems 260 mm 90 mm 155 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 9 mm 10 mm 50 mm 30 mm 10 mm 50 mm 50 mm 50 mm 50 mm 50 mm 70 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 Connections/ Terminals type of electrical connection for main current circuit type of connectable conductor cross-sections	magnetic 153 000 A vertical for snapping onto 60 mm busbar systems 260 mm 90 mm 155 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 9 mm 10 mm 0 mm 30 mm 9 mm 10 mm 0 mm 30 mm		

finely stranded with core end processing					
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 ha		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=3RA2220-1DD23-0AP6

Cax online generator

 $\underline{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RA2220-1DD23-0AP6}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1DD23-0AP6

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

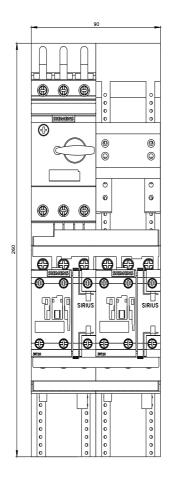
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2220-1DD23-0AP6&lang=en

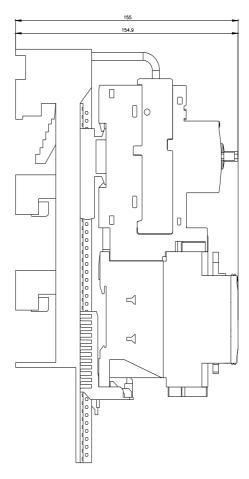
Characteristic: Tripping characteristics, I2t, Let-through current

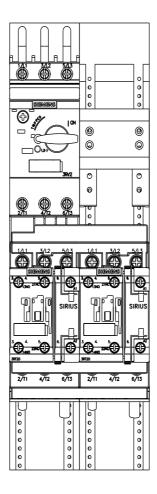
https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1DD23-0AP6/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2220-1DD23-0AP6&objecttype=14&gridview=view1







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