3VA1120-3EE32-0AA0

## **Data sheet**



circuit breaker 3VA1 IEC frame 160 breaking capacity class N Icu=25kA @ 415V 3-pole, line protection TM220, ATFM, In=20A overload protection Ir=14A...20A short-circuit protection Ii=16 x In nut keeper kit

product brand name	SENTRON
product designation	Molded case circuit breaker
design of the product	Line protection
design of the overcurrent release	TM220
protection function of the overcurrent release	LI
number of poles	3
eneral technical data	
insulation voltage / rated value	800 V
operating voltage / at DC / rated value	500 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	12 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	9 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	6 300
product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof	No
ground-fault monitoring version	Without
product function	
• communication function	No
other measurement function	No
Net Weight	967 g
urrent	
operational current	
• at 40 °C	20 A
• at 45 °C	20 A
• at 50 °C	20 A
• at 55 °C	20 A
• at 60 °C	19 A
• at 65 °C	19 A
• at 70 °C	19 A
witching capacity according to IEC 60947	
switching capacity class of the circuit breaker	N
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	36 kA
• at 415 V	25 kA
• at 440 V	16 kA
● at 500 V	7 kA
• at 690 V	7 kA

• at 240 V	36 kA
• at 415 V	25 kA
• at 440 V	16 kA
• at 500 V	5 kA
● at 690 V	5 kA
short-circuit current making capacity (Icm)	
• at 240 V	75.6 kA
• at 415 V	52.5 kA
• at 440 V	32 kA
• at 500 V	11.9 kA
● at 690 V	11.9 kA
design of short-circuit protection	For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter
Adjustable parameters	
product feature / for L-tripping / can be switched on/off	No
adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic	
minimum	14 A
minimum     maximum	20 A
adjustable response value delay time (tr) / for L-tripping / with I2t	2011
characteristic	
• minimum	1 s
maximum	1s
adjustable response value setting current (li) / for I-tripping	
• minimum	320 A
• maximum	320 A
adjustable setting current (InN) / for N-tripping	
• minimum	0 A
• maximum	0 A
product function / grounding protection	No
Mechanical Design	
product component	
undervoltage release	No No
voltage trigger	No No
• trip indicator	No 5.12 in
height [in]	5.12 in 130 mm
height width [in]	3 in
width	76.2 mm
	r V.E mill
	2.76 in
depth [in]	2.76 in 70 mm
depth	2.76 in 70 mm
depth Connections	70 mm
depth  Connections  arrangement of electrical connectors / for main current circuit	70 mm  Front terminal
depth Connections	70 mm
depth  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar	70 mm  Front terminal nut keeper kit on both ends
depth  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	Front terminal nut keeper kit on both ends 12 x 1 mm  17 x 6,5 mm  Silver
depth  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum  type of connectable conductor cross-sections / for flat-bar terminal connection / maximum  design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	Front terminal nut keeper kit on both ends 12 x 1 mm  17 x 6,5 mm
depth  Connections  arrangement of electrical connectors / for main current circuit  type of electrical connection / for main current circuit  type of connectable conductor cross-sections / for flat-bar terminal connection / minimum  type of connectable conductor cross-sections / for flat-bar terminal connection / maximum  design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit	Front terminal nut keeper kit on both ends 12 x 1 mm  17 x 6,5 mm  Silver Tin
depth  Connections  arrangement of electrical connectors / for main current circuit  type of electrical connection / for main current circuit  type of connectable conductor cross-sections / for flat-bar terminal connection / minimum  type of connectable conductor cross-sections / for flat-bar terminal connection / maximum  design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit  number of CO contacts / for auxiliary contacts	Front terminal nut keeper kit on both ends 12 x 1 mm  17 x 6,5 mm  Silver
depth  Connections  arrangement of electrical connectors / for main current circuit  type of electrical connection / for main current circuit  type of connectable conductor cross-sections / for flat-bar terminal connection / minimum  type of connectable conductor cross-sections / for flat-bar terminal connection / maximum  design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit  number of CO contacts / for auxiliary contacts  Accessories	Front terminal nut keeper kit on both ends 12 x 1 mm  17 x 6,5 mm  Silver  Tin
depth  Connections  arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum  type of connectable conductor cross-sections / for flat-bar terminal connection / maximum  design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit  number of CO contacts / for auxiliary contacts  Accessories product extension / optional / motor drive	Front terminal nut keeper kit on both ends 12 x 1 mm  17 x 6,5 mm  Silver Tin
depth  Connections  arrangement of electrical connectors / for main current circuit  type of electrical connection / for main current circuit  type of connectable conductor cross-sections / for flat-bar terminal connection / minimum  type of connectable conductor cross-sections / for flat-bar terminal connection / maximum  design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit  number of CO contacts / for auxiliary contacts  Accessories  product extension / optional / motor drive  Environmental conditions	Front terminal nut keeper kit on both ends 12 x 1 mm  17 x 6,5 mm  Silver  Tin
depth  Connections  arrangement of electrical connectors / for main current circuit  type of electrical connection / for main current circuit  type of connectable conductor cross-sections / for flat-bar terminal connection / minimum  type of connectable conductor cross-sections / for flat-bar terminal connection / maximum  design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit  number of CO contacts / for auxiliary contacts  Accessories  product extension / optional / motor drive  Environmental conditions  protection class IP / on the front	Front terminal nut keeper kit on both ends 12 x 1 mm  17 x 6,5 mm  Silver  Tin
depth  Connections  arrangement of electrical connectors / for main current circuit  type of electrical connection / for main current circuit  type of connectable conductor cross-sections / for flat-bar terminal connection / minimum  type of connectable conductor cross-sections / for flat-bar terminal connection / maximum  design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit  number of CO contacts / for auxiliary contacts  Accessories  product extension / optional / motor drive  Environmental conditions  protection class IP / on the front ambient temperature	Front terminal nut keeper kit on both ends 12 x 1 mm  17 x 6,5 mm  Silver  Tin  0  Yes
depth  Connections  arrangement of electrical connectors / for main current circuit  type of electrical connection / for main current circuit  type of connectable conductor cross-sections / for flat-bar terminal connection / minimum  type of connectable conductor cross-sections / for flat-bar terminal connection / maximum  design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit  number of CO contacts / for auxiliary contacts  Accessories  product extension / optional / motor drive  Environmental conditions  protection class IP / on the front ambient temperature  • during operation / minimum	Front terminal nut keeper kit on both ends 12 x 1 mm  17 x 6,5 mm  Silver  Tin  0  Yes  IP40  -25 °C
depth  Connections  arrangement of electrical connectors / for main current circuit  type of electrical connection / for main current circuit  type of connectable conductor cross-sections / for flat-bar terminal connection / minimum  type of connectable conductor cross-sections / for flat-bar terminal connection / maximum  design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)  design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)  Auxiliary circuit  number of CO contacts / for auxiliary contacts  Accessories  product extension / optional / motor drive  Environmental conditions  protection class IP / on the front ambient temperature	Front terminal nut keeper kit on both ends 12 x 1 mm  17 x 6,5 mm  Silver  Tin  0  Yes

• during storage / maximum

80 °C

Certificates

reference code / according to IEC 81346-2

Q

**General Product Approval** 

**EMC** 



Confirmation



Miscellaneous





**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping





Type Test Certificates/Test Report

**Miscellaneous** 

Special Test Certificate



Marine / Shipping





CCS / China Classification Society

Confirmation

other

**Miscellaneous** 

other

Environment

**Miscellaneous** 

Environmental Confirmations

## 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,...)

http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system)

 $\underline{https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA1120-3EE32-0AA0}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA1120-3EE32-0AA0

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

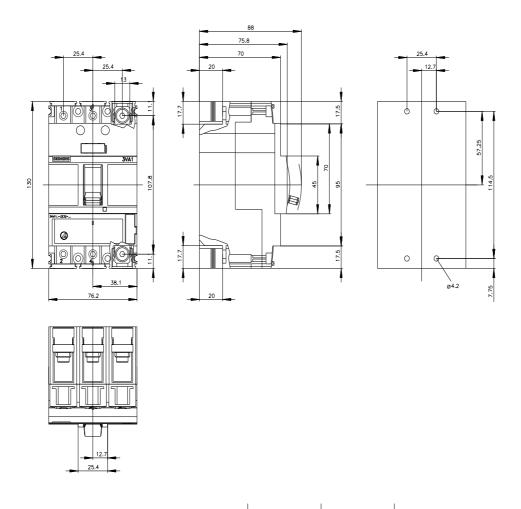
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA1120-3EE32-0AA0

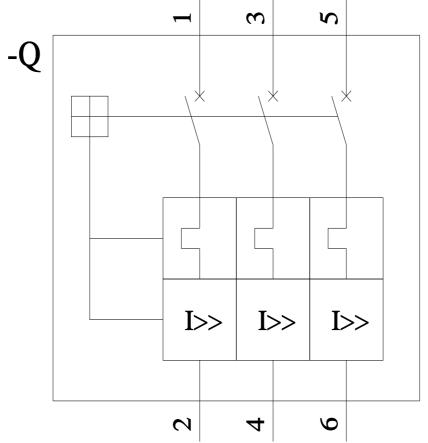
**CAx-Online-Generator** 

http://www.siemens.com/cax

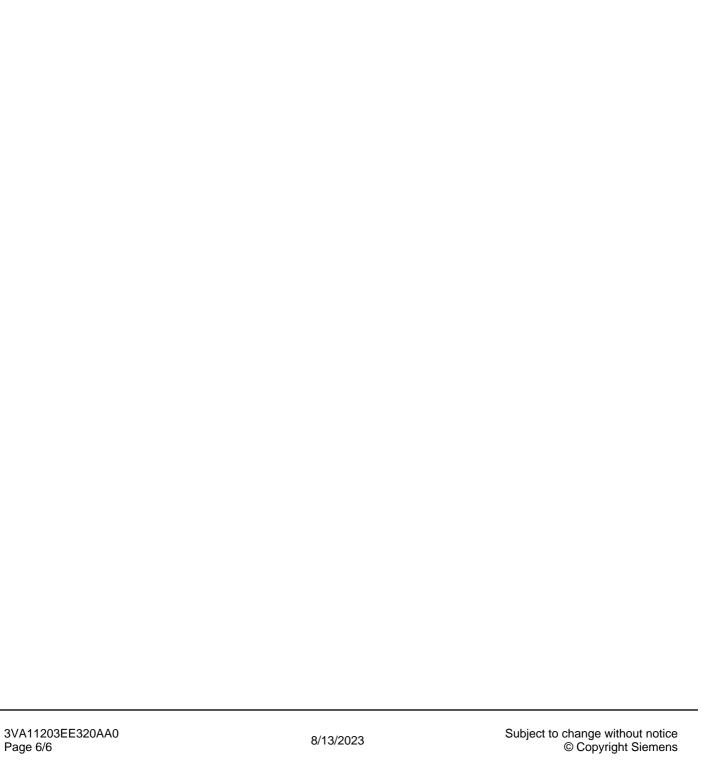
**Tender specifications** 

http://www.siemens.com/specifications





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**Authorized Distributor** 

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