3VA1220-6EE32-0AA0

# **Data sheet**



circuit breaker 3VA1 IEC Frame 250 breaking capacity class H Icu=70 kA @ 415 V 3-pole, line protection TM220, ATFM, In=200 A overload protection Ir=140 A...200 A short-circuit protection Ii=10 x In nut keeper kit

Model	
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	Ш
number of poles	3
General 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	42 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	14 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	8 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	5 400
product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof	No
ground-fault monitoring version	Without
product function	
<ul> <li>communication function</li> </ul>	No
<ul> <li>other measurement function</li> </ul>	No
Net Weight	1.591 kg
Current	
operational current	
• at 40 °C	200 A
● at 45 °C	200 A
• at 50 °C	200 A
• at 55 °C	194 A
• at 60 °C	188 A
• at 65 °C	182 A
• at 70 °C	176 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	н
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	100 kA
• at 415 V	70 kA
• at 440 V	36 kA
• at 500 V	15 kA
• at 690 V	10 kA

operating short-circuit current breaking capacity (lcs)	
• at 240 V	100 kA
• at 415 V	70 kA
• at 440 V	36 kA
● at 500 V	10 kA
• at 690 V	5 kA
short-circuit current making capacity (lcm)	
• at 240 V	220 kA
• at 415 V	154 kA
• at 440 V	75.6 kA
• at 500 V	30 kA
• at 690 V	17 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	S. Capto.
product feature / for L-tripping / can be switched on/off	No
adjustable response value setting current (Ir) / of the L-trip / with	
12t characteristic	
• minimum	140 A
maximum	200 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum	1s
maximum	1s
adjustable response value setting current (li) / for I-tripping	
• minimum	2 000 A
maximum	2 000 A
adjustable setting current (InN) / for N-tripping	
• minimum	0 A
maximum	0 A
product function / grounding protection	No
Mechanical Design	
product component	
<ul> <li>undervoltage release</li> </ul>	No
voltage trigger	No
trip indicator	No
height [in]	6.22 in
height	
	158 mm
width [in]	4.13 in
<del>-</del>	
width [in]	4.13 in
width [in] width	4.13 in 105 mm
width [in] width depth [in]	4.13 in 105 mm 2.76 in
width [in] width depth [in] depth Connections	4.13 in 105 mm 2.76 in
width [in] width depth [in] depth  Connections arrangement of electrical connectors / for main current circuit	4.13 in 105 mm 2.76 in 70 mm
width [in] width depth [in] depth Connections	4.13 in 105 mm 2.76 in 70 mm
width [in] width depth [in] 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	4.13 in 105 mm 2.76 in 70 mm  Front terminal nut keeper kit on both ends
width [in] width depth [in] 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	4.13 in 105 mm 2.76 in 70 mm  Front terminal nut keeper kit on both ends 13 x 1 mm
width [in] width depth [in] 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)	4.13 in 105 mm 2.76 in 70 mm  Front terminal nut keeper kit on both ends 13 x 1 mm  25 x 8 mm
width [in] width depth [in] 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	4.13 in 105 mm 2.76 in 70 mm  Front terminal nut keeper kit on both ends 13 x 1 mm 25 x 8 mm  Silver
width [in] width depth [in] 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)	4.13 in 105 mm 2.76 in 70 mm  Front terminal nut keeper kit on both ends 13 x 1 mm 25 x 8 mm  Silver
width [in] width depth [in] 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	4.13 in 105 mm 2.76 in 70 mm  Front terminal nut keeper kit on both ends 13 x 1 mm 25 x 8 mm  Silver  Silver
width [in] width depth [in] 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	4.13 in 105 mm 2.76 in 70 mm  Front terminal nut keeper kit on both ends 13 x 1 mm 25 x 8 mm  Silver  Silver
width [in] width depth [in] 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	4.13 in 105 mm 2.76 in 70 mm  Front terminal nut keeper kit on both ends 13 x 1 mm 25 x 8 mm  Silver  Silver
width [in] width depth [in] 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	4.13 in 105 mm 2.76 in 70 mm  Front terminal nut keeper kit on both ends 13 x 1 mm 25 x 8 mm  Silver  Silver
width [in] width depth [in] 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	4.13 in 105 mm 2.76 in 70 mm  Front terminal nut keeper kit on both ends 13 x 1 mm 25 x 8 mm  Silver  Silver
width [in] width depth [in] 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	4.13 in 105 mm 2.76 in 70 mm  Front terminal nut keeper kit on both ends 13 x 1 mm 25 x 8 mm  Silver  Silver
width [in] width depth [in] 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	4.13 in 105 mm 2.76 in 70 mm  Front terminal nut keeper kit on both ends 13 x 1 mm 25 x 8 mm  Silver  Silver

during storage / minimum	-40 °C
<ul> <li>during storage / maximum</li> </ul>	80 °C
Environmental footprint	
Global Warming Potential [CO2 eq] / total	285.47 kg
Global Warming Potential [CO2 eq] / during manufacturing	6.87 kg
Global Warming Potential [CO2 eq] / during operation	279 kg
Global Warming Potential [CO2 eq] / after end of life	-0.78 kg
reference code / according to IEC 81346-2	Q
Approvals / Certificates	

#### Approvais / Certificates

### **General Product Approval**



Confirmation







**Miscellaneous** 

General	Product A	p-
proval		

EMV

**Test Certificates** 

Marine / Shipping





Confirmation

Miscellaneous

Type Test Certificates/Test Report

**Miscellaneous** 

Special Test Certificate



Marine / Shipping

other

Miscellaneous



**Environment** 

Environmental Confirmations

## Environment

Environmental Confirmations

#### Further information

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)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA1220-6EE32-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA1220-6EE32-0AA0

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

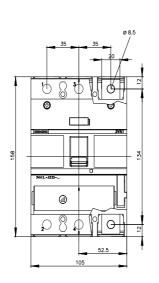
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA1220-6EE32-0AA0

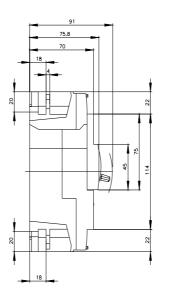
**CAx-Online-Generator** 

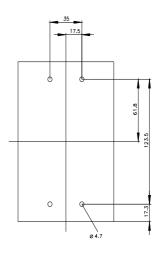
http://www.siemens.com/cax

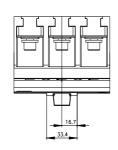
**Tender specifications** 

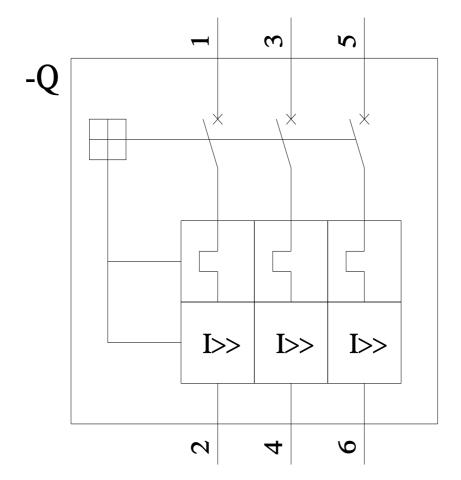
http://www.siemens.com/specifications











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