3VA1225-6EE32-0AA0

# **Data sheet**



circuit breaker 3VA1 IEC Frame 250 breaking capacity class H Icu=70 kA @ 415 V 3-pole, line protection TM220, ATFM, In=250 A overload protection Ir=175 A...250 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	LI
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	57 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	19 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	1.6 kg
Current	
operational current	
• at 40 °C	250 A
• at 45 °C	250 A
● at 50 °C	250 A
• at 55 °C	243 A
• at 60 °C	237 A
• at 65 °C	230 A
• at 70 °C	223 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 (Icm)	
• 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	
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	175 A
• maximum	250 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum	1 s
maximum	1 s
adjustable response value setting current (li) / for I-tripping	
• minimum	2 500 A
• maximum	2 500 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
voltage trigger	No
<ul><li>voltage trigger</li><li>trip indicator</li></ul>	No No
trip indicator  height [in]	No
trip indicator  height [in]  height	No 6.22 in
trip indicator  height [in]	No 6.22 in 158 mm
trip indicator height [in] height width [in] width	No 6.22 in 158 mm 4.13 in
trip indicator height [in] height width [in] width depth [in]	No 6.22 in 158 mm 4.13 in 105 mm
trip indicator height [in] height width [in] width depth [in] depth	No 6.22 in 158 mm 4.13 in 105 mm 2.76 in
trip indicator  height [in]  height  width [in]  width  depth [in]  depth  Connections	No 6.22 in 158 mm 4.13 in 105 mm 2.76 in 70 mm
trip indicator  height [in]  height  width [in]  width  depth [in]  depth  Connections  arrangement of electrical connectors / for main current circuit	No 6.22 in 158 mm 4.13 in 105 mm 2.76 in 70 mm
trip indicator     height [in]     height     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	No 6.22 in 158 mm 4.13 in 105 mm 2.76 in 70 mm
trip indicator     height [in]     height     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	No 6.22 in 158 mm 4.13 in 105 mm 2.76 in 70 mm  Front terminal nut keeper kit on both ends
trip indicator     height [in]     height     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	No 6.22 in 158 mm 4.13 in 105 mm 2.76 in 70 mm  Front terminal nut keeper kit on both ends 13 x 1 mm
trip indicator  height [in]  height  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	No 6.22 in 158 mm 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
trip indicator  height [in]  height  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)	No 6.22 in 158 mm 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
trip indicator     height [in]     height     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	No 6.22 in 158 mm 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
• trip indicator height [in] height 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	No 6.22 in 158 mm 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
• trip indicator height [in] height 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	No 6.22 in 158 mm 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
• trip indicator  height [in]  height  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	No 6.22 in 158 mm 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
• trip indicator height [in] height 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	No 6.22 in 158 mm 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
• trip indicator height [in] height 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	No 6.22 in 158 mm 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
• trip indicator height [in] height 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	No 6.22 in 158 mm 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
• trip indicator height [in] height 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	No 6.22 in 158 mm 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 Approval

EMV

**Test Certificates** 

Marine / Shipping





**Miscellaneous** 

Special Test Certificate

Miscellaneous

Type Test Certificates/Test Report



Marine / Shipping

other

Confirmation

**Miscellaneous** 



**Environment** 

Environmental Confirmations

## Environment

Environmental Confirmations

#### **Further informatior**

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=3VA1225-6EE32-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA1225-6EE32-0AA0

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

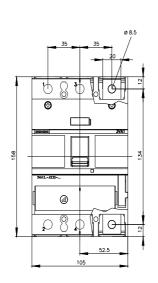
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA1225-6EE32-0AA0

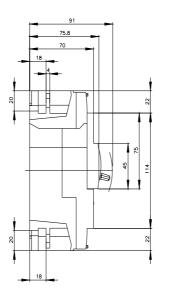
**CAx-Online-Generator** 

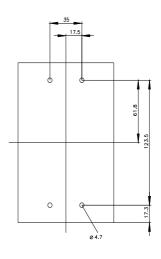
http://www.siemens.com/cax

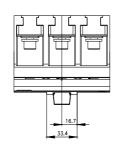
**Tender specifications** 

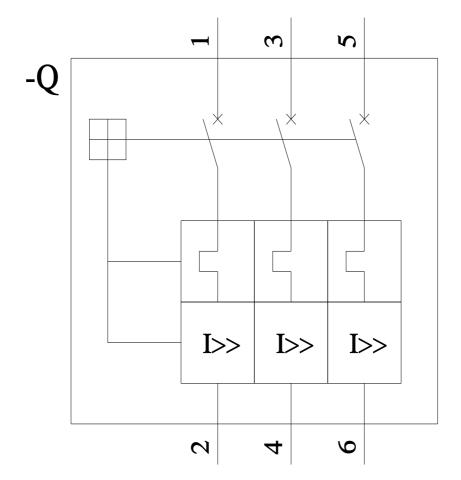
http://www.siemens.com/specifications











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