3VA1120-5EE32-0AA0

Data sheet



circuit breaker 3VA1 IEC frame 160 breaking capacity class M Icu=55kA @ 415V 3-pole, line protection TM220, ATFM, In=20A overload protection Ir=14A...20A short-circuit protection Ii=16 x In nut keeper kit

araduat brand nama	SENTRON
product brand name	
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	
nsulation 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
oroduct 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	969 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	M
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	85 kA
• at 415 V	55 kA
• at 440 V	36 kA
● at 500 V	10 kA
• at 690 V	10 kA

● at 240 V	85 kA
• at 415 V	55 kA
• at 440 V	36 kA
● at 500 V	5 kA
• at 690 V	5 kA
short-circuit current making capacity (Icm)	
● at 240 V	187 kA
● at 415 V	121 kA
● at 440 V	75.6 kA
● at 500 V	17 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	44.5
• minimum	14 A
• maximum	20 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	4.5
• minimum	1 s
maximum adjustable represent value setting current (ii) / for I tripping	1 s
adjustable response value setting current (li) / for l-tripping	220 A
• minimum	320 A
maximum adjustable setting current (IpN) / for NI tripping	320 A
adjustable setting current (InN) / for N-tripping	0.4
• minimum	0 A
maximum product function / grounding protection	0 A
product function / grounding protection Mechanical Design	No
product component	
undervoltage release	No
voltage trigger	No
trip indicator	No
height [in]	5.12 in
	VII
	130 mm
height	130 mm
height width [in]	3 in
height width [in] width	3 in 76.2 mm
height width [in] width depth [in]	3 in 76.2 mm 2.76 in
height width [in] width depth [in] depth	3 in 76.2 mm
height width [in] width depth [in] depth Connections	3 in 76.2 mm 2.76 in 70 mm
height width [in] width depth [in] depth Connections arrangement of electrical connectors / for main current circuit	3 in 76.2 mm 2.76 in 70 mm Front terminal
height width [in] width depth [in] depth Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit	3 in 76.2 mm 2.76 in 70 mm Front terminal nut keeper kit on both ends
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	3 in 76.2 mm 2.76 in 70 mm Front terminal nut keeper kit on both ends 12 x 1 mm
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	3 in 76.2 mm 2.76 in 70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm
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)	3 in 76.2 mm 2.76 in 70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver
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)	3 in 76.2 mm 2.76 in 70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm
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	3 in 76.2 mm 2.76 in 70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver Tin
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	3 in 76.2 mm 2.76 in 70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver
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	3 in 76.2 mm 2.76 in 70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver Tin
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	3 in 76.2 mm 2.76 in 70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver Tin
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	3 in 76.2 mm 2.76 in 70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver Tin
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	3 in 76.2 mm 2.76 in 70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver Tin
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	3 in 76.2 mm 2.76 in 70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver Tin 0 Yes
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 • during operation / minimum	3 in 76.2 mm 2.76 in 70 mm Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm Silver Tin 0 Yes
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	3 in 76.2 mm 2.76 in 70 mm 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

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General Product Approval

Confirmation





Miscellaneous

<u>KC</u>



EMC

Declaration of Conformity

Test Certificates







Special Test Certificate <u>Miscellaneous</u>

Type Test Certificates/Test Report

Marine / Shipping







CCS / China Classification Society

Confirmation

other

other

Environment

Miscellaneous

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)

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA1120-5EE32-0AA0

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

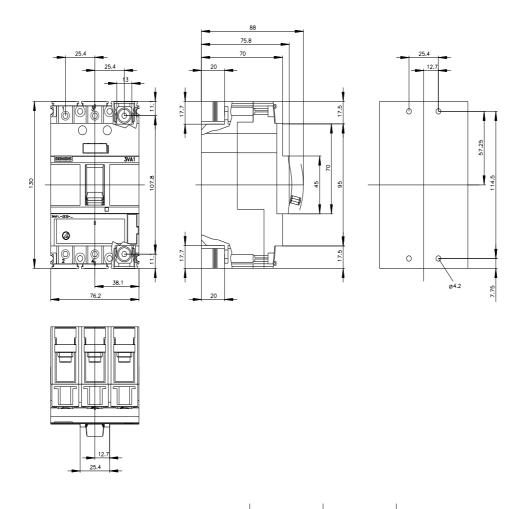
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1120-5EE32-0AA0

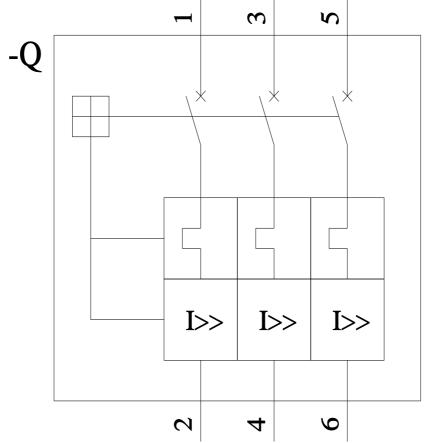
CAx-Online-Generator

http://www.siemens.com/cax

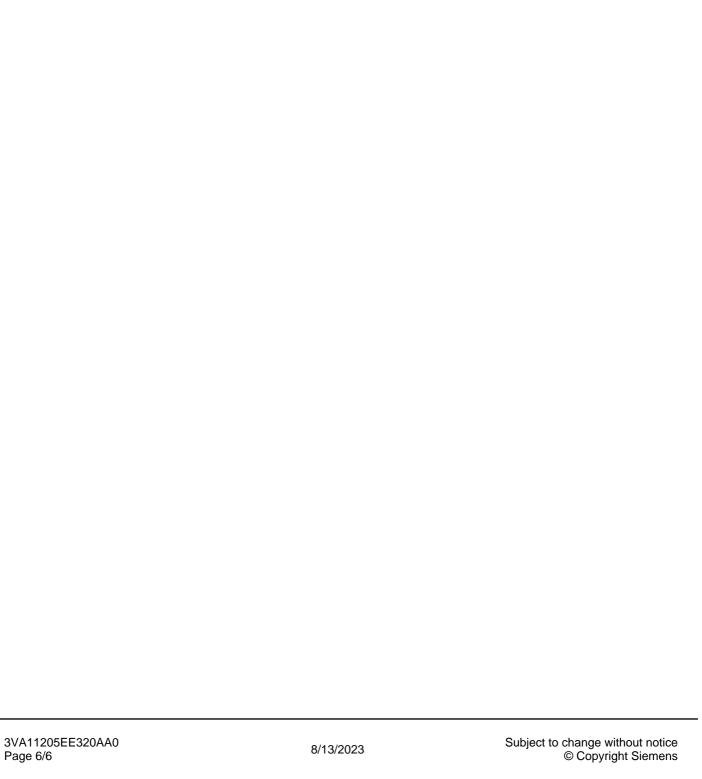
Tender specifications

http://www.siemens.com/specifications





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