SIEMENS

Data sheet

3VA1120-4EE32-0AA0



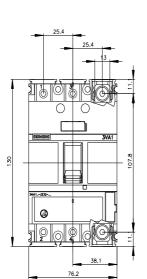
circuit breaker 3VA1 IEC frame 160 breaking capacity class S Icu=36kA @ 415V 3-pole, line protection TM220, ATFM, In=20A overload protection Ir=14A...20A short-circuit protection Ii=16 x In nut keeper kit

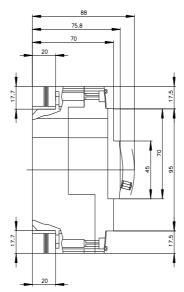
Model				
product brand name	SENTRON			
product designation	Molded case circuit breaker			
design of the product	Line protection			
design of the overcurrent release	TM220			
protection function of the overcurrent release	LI			
number of poles	3			
General technical data				
insulation voltage / rated value	800 V			
operating voltage / at DC / rated value	500 V			
operating voltage / at AC / rated value	690 V			
power loss [W] / maximum	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	970 g			
Current				
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			
Switching capacity according to IEC 60947				
switching capacity class of the circuit breaker	S			
maximum short-circuit current breaking capacity (Icu)				
• at 240 V	55 kA			
• at 415 V	36 kA			
• at 440 V	25 kA			
• at 500 V	7 kA			
• at 690 V	7 kA			
operating short-circuit current breaking capacity (lcs)				

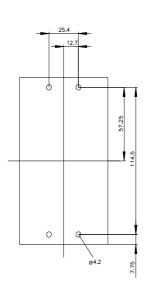
• at 240 V	55 kA
• at 415 V	36 kA
• at 440 V	25 kA
● at 500 V	5 kA
• at 690 V	5 kA
short-circuit current making capacity (Icm)	
• at 240 V	121 kA
• at 415 V	75.6 kA
• at 440 V	52.5 kA
• at 500 V	11.9 kA
• at 690 V	11.9 kA
design of short-circuit protection	For switching power values in DC networks, see 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
• maximum	20 A
 maximum adjustable response value delay time (tr) / for L-tripping / with l2t 	
characteristic	
• minimum	1 s
• maximum	1 s
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	
product component	
undervoltage release	No
undervoltage releasevoltage trigger	No
 undervoltage release voltage trigger trip indicator 	No No
 undervoltage release voltage trigger trip indicator height [in] 	No No 5.12 in
undervoltage release voltage trigger trip indicator height [in] height	No No 5.12 in 130 mm
undervoltage release voltage trigger trip indicator height [in] height width [in]	No No 5.12 in 130 mm 3 in
undervoltage release voltage trigger trip indicator height [in] height width [in] width	No No 5.12 in 130 mm 3 in 76.2 mm
undervoltage release voltage trigger trip indicator height [in] height width [in] width depth [in]	No No 5.12 in 130 mm 3 in 76.2 mm 2.76 in
undervoltage release voltage trigger trip indicator height [in] height width [in] width depth [in] depth	No No 5.12 in 130 mm 3 in 76.2 mm
undervoltage release voltage trigger trip indicator height [in] height width [in] width depth [in] depth Connections	No No 5.12 in 130 mm 3 in 76.2 mm 2.76 in 70 mm
undervoltage release voltage trigger trip indicator height [in] height width [in] width depth [in] depth Connections arrangement of electrical connectors / for main current circuit	No No 5.12 in 130 mm 3 in 76.2 mm 2.76 in 70 mm Front terminal
undervoltage release voltage trigger 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	No No 5.12 in 130 mm 3 in 76.2 mm 2.76 in 70 mm
undervoltage release voltage trigger trip indicator height [in] height width [in] width depth [in] depth Connections arrangement of electrical connectors / for main current circuit	No No 5.12 in 130 mm 3 in 76.2 mm 2.76 in 70 mm Front terminal nut keeper kit on both ends
undervoltage release voltage trigger trip indicator height [in] height [in] width [in] width [in] 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 / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	No No 5.12 in 130 mm 3 in 76.2 mm 2.76 in 70 mm
undervoltage release voltage trigger trip indicator height [in] height [in] width [in] width [in] 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)	No No 5.12 in 130 mm 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
 undervoltage release voltage trigger 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 No 5.12 in 130 mm 3 in 76.2 mm 2.76 in 70 mm
 undervoltage release voltage trigger trip indicator height [in] height [in] 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 / 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 No 5.12 in 130 mm 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
 undervoltage release voltage trigger 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 No 5.12 in 130 mm 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
 undervoltage release voltage trigger trip indicator height [in] height [in] 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 No 5.12 in 130 mm 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
 undervoltage release voltage trigger trip indicator height [in] height [in] 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 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 No 5.12 in 130 mm 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
 undervoltage release voltage trigger trip indicator height [in] height [in] 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 No 5.12 in 130 mm 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
 undervoltage release voltage trigger trip indicator height [in] height [in] 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 / 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 No 5.12 in 130 mm 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
undervoltage release voltage trigger trip indicator height [in] height [in] height [in] width [in] width [in] width [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 No 5.12 in 130 mm 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 Ves IP40
 undervoltage release voltage trigger trip indicator height [in] height width [in] width depth [in] depth Connections arrangement of electrical connectors / for main current circuit type 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 	No S.12 in 130 mm 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 Ves IP40 -25 °C
undervoltage release voltage trigger trip indicator height [in] height [in] height [in] width [in] width [in] width [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 No 5.12 in 130 mm 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 Ves IP40

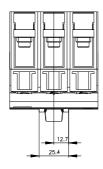
 during storage / r 	maximum	80 °C	>		
Certificates					
reference code / accord	ling to IEC 81346-2	Q			
General Product App	roval				
<u>Confirmation</u>			<u>Miscellaneous</u>	KC	EHC
EMC	Declaration of Confo	rmity	Test Certificates		
RCM	CE EG-Konf.	UK CA	Miscellaneous	<u>Type Test Certific-</u> ates/Test Report	Special Test Certific- ate
Marine / Shipping					other
ABS	BUREAU VERITAS		KMRS	<u>CCS / China Classific-</u> ation Society	<u>Confirmation</u>
other		Environment			
Miscellaneous	<u>Miscellaneous</u>	Environmental Con- firmations			

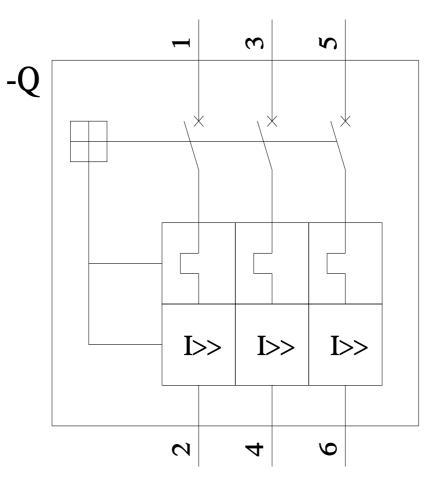
Further information
Siemens has decided to exit the Russian market (see here). https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business
Siemens is working on the renewal of the current EAC certificates. Please contact your local Siemens office on the status of validity of the 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) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA1120-4EE32-0AA0
Service&Support (Manuals, Certificates, Characteristics, FAQs,) https://support.industry.siemens.com/cs/ww/en/ps/3VA1120-4EE32-0AA0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams,) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1120-4EE32-0AA0
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