# SIEMENS

### Data sheet

## 3VA1112-5GE42-0AA0



circuit breaker 3VA1 IEC frame 160 breaking capacity class M Icu=55kA @ 415V 4-pole, line protection TM220, ATFM, In=125A overload protection Ir=88A...125A short-circuit protection Ii=10 x In N conductor protection 100% 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	4	
eneral technical data		
insulation voltage / rated value	800 V	
operating voltage / at DC / rated value	600 V	
operating voltage / at AC / rated value	690 V	
power loss [W] / maximum	28.1 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		
<ul> <li>communication function</li> </ul>	No	
<ul> <li>other measurement function</li> </ul>	No	
Net Weight	1.29 kg	
Current		
operational current		
• at 40 °C	125 A	
● at 45 °C	125 A	
• at 50 °C	125 A	
● at 55 °C	122 A	
• at 60 °C	120 A	
• at 65 °C	117 A	
• at 70 °C	114 A	
Switching capacity according to IEC 60947		
switching capacity class of the circuit breaker	Μ	
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	
operating short-circuit current breaking capacity (lcs)		

• 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	
I2t characteristic	
• minimum	88 A
• maximum	125 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	1 250 A
• maximum	1 250 A
adjustable setting current (InN) / for N-tripping	
• minimum	125 A
• maximum	125 A
design of the N-conductor protection	100%
product function / grounding protection	No
Mechanical Design	
Mechanical Design product component	
	No
product component	No No
product component <ul> <li>undervoltage release</li> </ul>	
product component <ul> <li>undervoltage release</li> <li>voltage trigger</li> </ul>	No
product component • undervoltage release • voltage trigger • trip indicator	No No
product component • undervoltage release • voltage trigger • trip indicator height [in]	No No 5.12 in
product component • undervoltage release • voltage trigger • trip indicator height [in] height	No No 5.12 in 130 mm
product component • undervoltage release • voltage trigger • trip indicator height [in] height width [in]	No No 5.12 in 130 mm 4 in
product component • undervoltage release • voltage trigger • trip indicator height [in] height width [in] width	No No 5.12 in 130 mm 4 in 101.6 mm
product component  • undervoltage release  • voltage trigger  • trip indicator  height [in]  width [in]  width depth [in]	No No 5.12 in 130 mm 4 in 101.6 mm 2.76 in
product component	No No 5.12 in 130 mm 4 in 101.6 mm 2.76 in
product component  • undervoltage release  • voltage trigger  • trip indicator  height [in]  height width [in] width depth [in] depth	No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm
product component	No No 5.12 in 130 mm 4 in 101.6 mm 2.76 in 70 mm
product component	No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm
product component	No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm
product component	No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm         Front terminal         nut keeper kit on both ends         12 x 1 mm         17 x 6,5 mm         Silver
product component	No         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm
product component         • undervoltage release         • voltage trigger         • trip indicator         height [in]         height         width         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         5.12 in         130 mm         4 in         101.6 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
product component         • undervoltage release         • voltage trigger         • trip indicator         height [in]         height         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         5.12 in         130 mm         4 in         101.6 mm         2.76 in         70 mm         Front terminal         nut keeper kit on both ends         12 x 1 mm         17 x 6,5 mm         Silver
product component         • undervoltage release         • voltage trigger         • trip indicator         height [in]         height         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         5.12 in         130 mm         4 in         101.6 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
product component         • undervoltage release         • voltage trigger         • trip indicator         height [in]         height         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         5.12 in         130 mm         4 in         101.6 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
product component         • undervoltage release         • voltage trigger         • trip indicator         height [in]         height         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         5.12 in         130 mm         4 in         101.6 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
product component	No         5.12 in         130 mm         4 in         101.6 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
product component         • undervoltage release         • voltage trigger         • trip indicator         height [in]         height         width         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	No         5.12 in         130 mm         4 in         101.6 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
product component         • undervoltage release         • voltage trigger         • trip indicator         height [in]         height         width         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         5.12 in         130 mm         4 in         101.6 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 /	minimum	-40	) °C		
<ul> <li>during storage / minimum</li> <li>during storage / maximum</li> </ul>			°C		
Environmental footprin					
	Environmental Product Declaration(EPD)		s		
Global Warming Potential [CO2 eq] / total		19	190 kg		
Global Warming Potential [CO2 eq] / during manufacturing			4.67 kg		
Global Warming Potential [CO2 eq] / during operation			186 kg		
global warming potential [CO2 eq] / after end of life			-0.826 kg		
reference code / according to IEC 81346-2		Q	-		
Approvals / Certificates					
General Product App	proval				
	<b>Confirmation</b>		<b>Miscellaneous</b>	KC	rnr
( <b>m</b> )		(D'E)			FAL
		VDE			LIIL
EMC	Declaration of Conform	ity	Test Certificates		
•			Creatiel Test Cartific	Turne Teat Cartific	Missellenseus
	()	UK	<u>Special Test Certific-</u> <u>ate</u>	<u>Type Test Certific-</u> ates/Test Report	Miscellaneous
<u></u>					
RCM	EG-Konf.	СH			
Marine / Shipping					
	10.70			-	CCS / China Classific-
1-11 12-2	a ya a	ĴÅ.	Lloyds		ation Society
		DNV	Kegister		
ABS	BUREAU	DNV	LRS	RMRS	
	VERITAS				
other			Environment		
Confirmation	Miscellaneous	Miscellaneous	Environmental Con-		
Commanon	<u>iviiscellaneous</u>	<u>wiscenarieous</u>	<u>firmations</u>		

#### 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=3VA1112-5GE42-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA1112-5GE42-0AA0

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

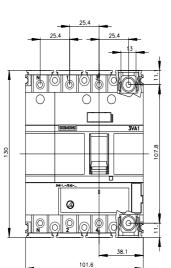
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA1112-5GE42-0AA0

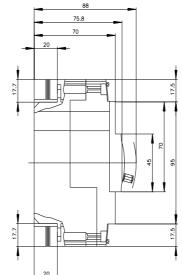
CAx-Online-Generator

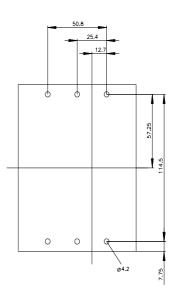
http://www.siemens.com/cax

Tender specifications

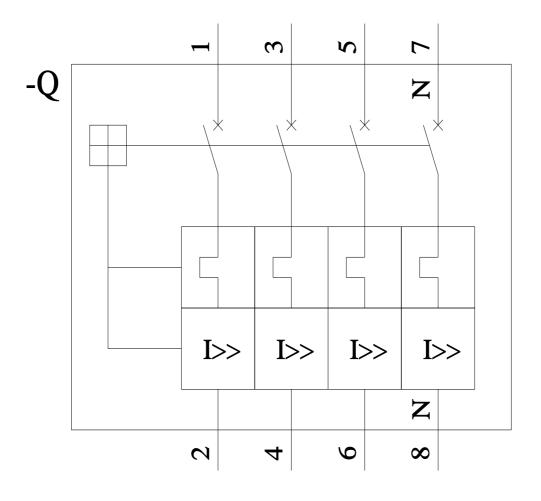
http://www.siemens.com/specifications







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