## SIEMENS

## Data sheet

## 3VA1125-3GE42-0AA0



circuit breaker 3VA1 IEC Frame 160 breaking capacity class N Icu=25 kA @ 415 V 4-pole, line protection TM220, ATFM, In=25 A overload protection Ir=18 A...25 A short-circuit protection Ii=12.8 x In neutral 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
General 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	8.5 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	1.251 kg
Current	
operational current	
• at 40 °C	25 A
● at 45 °C	25 A
● at 50 °C	25 A
● at 55 °C	24 A
● at 60 °C	24 A
● at 65 °C	23 A
● at 70 °C	23 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	Ν
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	36 kA
• at 415 V	25 kA
• at 440 V	16 kA
● at 500 V	7 kA
• at 690 V	7 kA
operating short-circuit current breaking capacity (lcs)	

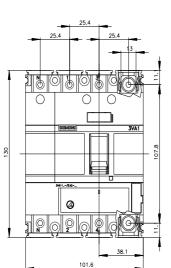
• at 240 V	36 kA
• at 415 V	25 kA
• at 440 V	16 kA
● at 500 V	5 kA
• at 690 V	5 kA
short-circuit current making capacity (Icm)	
• at 240 V	75.6 kA
● at 415 V	52.5 kA
• at 440 V	32 kA
● at 500 V	11.9 kA
• at 690 V	11.9 kA
design of short-circuit protection	For switching power values in DC networks, see 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	18 A
• maximum	25 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum	1s
• 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	25 A
maximum	25 A
design of the N-conductor protection	100% No
product function / grounding protection	NU
Machanical Design	
Mechanical Design	
product component	No
product component <ul> <li>undervoltage release</li> </ul>	No
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 <ul> <li>undervoltage release</li> <li>voltage trigger</li> <li>trip indicator</li> </ul> <li>height [in] <ul> <li>height</li> <li>width [in]</li> <li>width</li> </ul></li>	No No 5.12 in 130 mm 4 in 101.6 mm
product component • undervoltage release • voltage trigger • trip indicator height [in] height width [in] width depth [in]	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 No 5.12 in 130 mm 4 in 101.6 mm
product component • undervoltage release • voltage trigger • trip indicator height [in] height width [in] width depth [in] depth Connections	No 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         Front terminal
product component	No No 5.12 in 130 mm 4 in 101.6 mm 2.76 in 70 mm Front terminal nut keeper kit on both ends
product component	No           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
product component	No         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 [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)	No         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         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         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         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         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         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         product extension / optional / motor drive         Environmental conditions	No         S.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	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 [in]         width         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         Environmental conditions         protection class IP / on the front         ambient temperature	No         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         Ves         IP40
product component	No         S.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

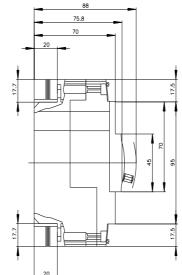
<ul> <li>during storage / r</li> </ul>	ninimum		-40 °C				
<ul> <li>during storage / r</li> </ul>	maximum		80 °C				
Environmental footprint	1						
Environmental Product	Environmental Product Declaration(EPD)		Yes				
Global Warming Potent	Global Warming Potential [CO2 eq] / total		190 kg				
Global 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	I				
reference code / according to IEC 81346-2		Q					
Approvals / Certificates							
General Product App	roval						
CE EG-Konf.	UK CA	<u>Confirmatio</u>	<u>n</u>			<u>Miscellaneous</u>	
General Product Approval	EMV	Test Certificate	es			Marine / Shipping	
EHC	RCM	<u>Type Test Cer</u> ates/Test Rep	<u>tific-</u> port	<u>Miscellaneous</u>	<u>Special Test Certific-</u> <u>ate</u>	ABS	
Marine / Shipping						other	
BUREAU VERITAS		Lloyds Register urs		RMRS RMRS	<u>CCS (China Classifica-</u> tion Society)	Confirmation	
other		Environment					
<u>Miscellaneous</u>	<u>Miscellaneous</u>	EPD		EPD	Environmental Con- firmations	Environmental Con- firmations	

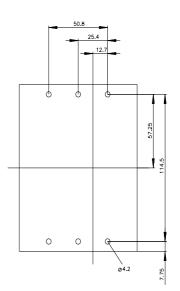
## Further information

- 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=3VA1125-3GE42-0AA0

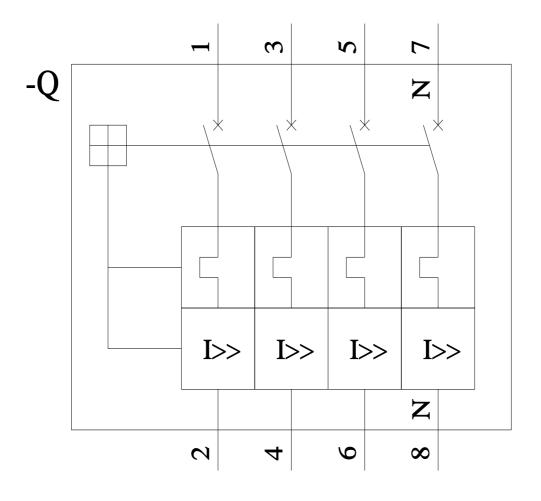
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3VA1125-3GE42-0AA0 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
- http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA1125-3GE42-0AA0
- CAx-Online-Generator
- http://www.siemens.com/cax
- **Tender specifications**
- http://www.siemens.com/specifications







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