# **SIEMENS**

## Data sheet

## 3VA1112-4GF42-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS S ICU=36KA @ 415 V 4-POLE, LINE PROTECTION TM240, ATAM, IN=125A OVERLOAD PROTECTION IR=87,5A ...125A SHORT CIRCUIT PROTECTION II=5...10 X IN NEUTRAL PROTECTION 100% BUSBAR CONNECTION

Figure similar

Model				
product brand name	SENTRON			
Product designation	Molded case circuit brea	ker		
Design of the product	Line protection			
Product variations	General Applications			
Ground fault monitoring version	Without			
Design of the auxiliary release	Without auxiliary release	)		
Design of the auxiliary switch	Without			
Design of the operating mechanism	toggle handle			
Type of the driving mechanism / motor drive	No			
Design of the overcurrent release	TM240			

General technical data				
Number of poles		4		
Trip class / of the L-trip / with I2t characteristic / initial value		1		
Trip class / of the L-trip / with I2t characteristic / Full-scale value		1		
Electrical endurance (switching cycles)				
● at AC-1 / at 380/415 V / at 50/60 Hz		8 000		
circuit-breaker / Design		3VA		
Mechanical service life (switching cycles) / typical		15 000		

Voltage		
Insulation voltage / Rated value	V	800

#### Protection class

Protection class IP / on the front Protective function of the overcurrent release  LI  Switching capacity  Switching capacity  Switching capacity class of the circuit breaker  S  Dissipation  Active power loss  • maximum  W 23.2  Electricity  Continuous current / Rated value / maximum  A 160  Continuous current / Rated value = A 125  Adjustable response value current  • of the current-dependent overload release / Full-scale value  • of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  • for DC / Rated value  • at 40 °C / Rated value  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 55 °C / Rated value	
Switching capacity class of the circuit breaker  Dissipation Active power loss	
Switching capacity class of the circuit breaker  Dissipation  Active power loss  maximum  W 23.2  Electricity  Continuous current / Rated value / maximum A 160  Continuous current / Rated value Adjustable response value current  of the current-dependent overload release / Full-scale value  of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  with AC / at 50/60 Hz / Rated value  of the DC / Rated value  A 125  Operating current  at 40 °C / Rated value  A 125  A 125  A 15  A 1 5  A 1 5  A 1 5  A 1 5  A 1 5  A 1 5  A 1 5  A 1 5  A 1 5  A 1 5  A 1 5  A 1 5  A 1 5  A 1 5  A 1 5  A 1 5  A 1 1 1 5  A 1 1 5  A 1 1 5  A 1 1 5  A 1 1 5  A 1 1 5  A 1 1 5  A 1 1 1 5  A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Switching capacity class of the circuit breaker  Dissipation  Active power loss  maximum  W 23.2  Electricity  Continuous current / Rated value / maximum A 160  Continuous current / Rated value Adjustable response value current of the current-dependent overload release / Full-scale value of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage with AC / at 50/60 Hz / Rated value of the DC / Rated value A 125  Operating current at 40 °C / Rated value A 125  A 125  A 15  A 1 5	
Active power loss  • maximum  W 23.2  Electricity  Continuous current / Rated value / maximum  Continuous current / Rated value  A 125  Adjustable response value current  • of the current-dependent overload release / Full-scale value  • of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  • for DC / Rated value  Operating current  • at 40 °C / Rated value  A 125  A 125  A 125	
Active power loss  • maximum  W 23.2  Electricity  Continuous current / Rated value / maximum  Continuous current / Rated value  A 125  Adjustable response value current  • of the current-dependent overload release / Full-scale value  • of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  • for DC / Rated value  Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  A 125	
Electricity  Continuous current / Rated value / maximum  A 160  Continuous current / Rated value  A 125  Adjustable response value current  • of the current-dependent overload release / Full-scale value  • of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  • for DC / Rated value  Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  A 125	
Continuous current / Rated value / maximum  Continuous current / Rated value  A 125  Adjustable response value current  of the current-dependent overload release / Full-scale value  of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  with AC / at 50/60 Hz / Rated value  of the DC / Rated value  A 125  Operating current  at 40 °C / Rated value  A 125  A 125  A 125	
Continuous current / Rated value  Adjustable response value current  of the current-dependent overload release / Full-scale value  of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  with AC / at 50/60 Hz / Rated value  of the instantaneous short-circuit release / initial value  Volume  Main circuit  Operating voltage  of the instantaneous short-circuit release / initial value  Volume  Main circuit  Operating voltage  of the instantaneous short-circuit release / initial value  Volume  A 5  Operating voltage  of the instantaneous short-circuit release / initial value  Volume  A 5  Operating voltage  of the instantaneous short-circuit release / initial value  A 125  of the instantaneous short-circuit release / initial value  A 125  of the instantaneous short-circuit release / initial A 5  Table Salaria S	
Adjustable response value current  of the current-dependent overload release / Full-scale value  of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  with AC / at 50/60 Hz / Rated value  for DC / Rated value  Operating current  at 40 °C / Rated value  A 125  at 50 °C / Rated value  A 125	
of the current-dependent overload release / Full-scale value     of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage     with AC / at 50/60 Hz / Rated value     for DC / Rated value  Operating current     at 40 °C / Rated value     at 50 °C / Rated value  A 125 A 125	
Full-scale value  • of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  • for DC / Rated value  Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  A 125  • at 50 °C / Rated value	
Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  • for DC / Rated value  Operating current  • at 40 °C / Rated value  A 125  • at 50 °C / Rated value  A 125	
Operating voltage         • with AC / at 50/60 Hz / Rated value         V         690           • for DC / Rated value         V         600           Operating current         • at 40 °C / Rated value         A         125           • at 50 °C / Rated value         A         125	
<ul> <li>with AC / at 50/60 Hz / Rated value</li> <li>for DC / Rated value</li> <li>Operating current</li> <li>at 40 °C / Rated value</li> <li>at 50 °C / Rated value</li> <li>A 125</li> <li>A 125</li> </ul>	
<ul> <li>for DC / Rated value</li> <li>Operating current</li> <li>at 40 °C / Rated value</li> <li>at 50 °C / Rated value</li> <li>A 125</li> <li>A 125</li> </ul>	
Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  A 125  A 125	
<ul> <li>at 40 °C / Rated value</li> <li>at 50 °C / Rated value</li> <li>A 125</li> <li>A 125</li> </ul>	
• at 50 °C / Rated value A 125	
at 55 °C / Rated value     A 122	
at 60 °C / Rated value     A 120	
• at 65 °C / Rated value A 117	
at 70 °C / Rated value     A 114	
Auxiliary circuit	
Number of CO contacts / for auxiliary contacts 0	
Suitability	
Suitability for use system protection	
Adjustable parameters	
Adjustable response value current	
• of I-trip / Full-scale value A 10	
• for N-conductor protection / initial value A 100	
• for N-conductor protection / Full-scale value A 100	
Adjustable response value current / of the current- A 0.7 dependent overload release / initial value	
Product details	
Product component	

		NI-
Trip indicator		No
• display		No
Voltage trigger		No
undervoltage release		No
<ul> <li>undervoltage release with leading contact</li> </ul>		No
Product property		
<ul> <li>for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proof</li> </ul>		No
Product expansion / optional / motor drive		Yes
Product function		
Product function		
<ul> <li>Intrinsic device protection</li> </ul>		Yes
• communication function		No
Phase failure detection		No
<ul> <li>other measurement function</li> </ul>		No
Accessories		
Manufacturer article number / of the supplied basic		3VA1112-4GF42-0AA0
switch		
Short circuit		
Operational short-circuit current breaking capacity		
(lcs)		
• at 240 V / Rated value	kA	55
● at 415 V / Rated value	kA	36
• at 440 V / Rated value	kA	25
• at 500 V / Rated value	kA	15
at 690 V / Rated value	kA	5
Maximum short-circuit current breaking capacity (Icu)		
• at 240 V / Rated value	kA	55
• at 415 V / Rated value	kA	36
• at 440 V / Rated value	kA	25
● at 500 V / Rated value	kA	16
• at 690 V / Rated value	kA	7
Short-circuit current making capacity (Icm)		
• at 240 V / Rated value	kA	121
• at 415 V / Rated value	kA	75.6
• at 690 V / Rated value	kA	7.5
Connections		
Arrangement of electrical connectors / for main		
		Front terminal
current circuit  Type of connectable conductor cross-section		Front terminal

• for flat-bar terminal connection / minimum	12 x 0
• for flat-bar terminal connection / maximum	17 x 6.5
Type of electrical connection / for main current circuit	Lug terminal

Mechanical Design				
Height	mm	130		
Width	mm	101.6		
Depth	mm	70		
Mounting type		fixed mounting		

Environmental conditions				
Ambient temperature				
<ul><li>during operation / minimum</li></ul>	°C	-25		
<ul><li>during operation / maximum</li></ul>	°C	70		
• during storage / minimum	°C	-40		
during storage / maximum	°C	80		

Certificates	
Equipment	marking

Q • acc. to DIN EN 61346-2 Q • acc. to DIN EN 81346-2

General Product Approval	EMC	Declaration of	Shipping Approval
		Conformity	











 $\mathsf{GL}$ 

### other

other

## Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system)

https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA11124GF420AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA11124GF420AA0/all

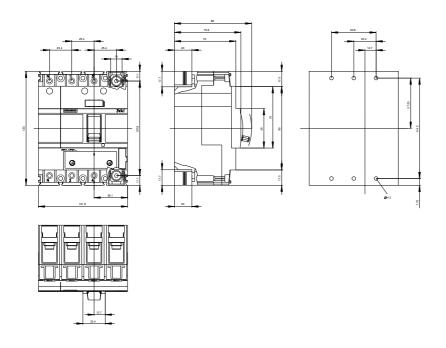
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA11124GF420AA0

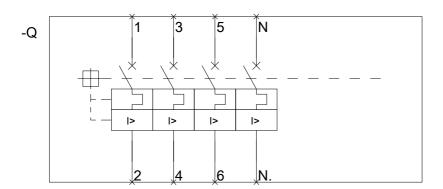
**CAx-Online-Generator** 

http://www.siemens.com/cax

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv





last modified: 11.03.2015