# **SIEMENS**

## Data sheet

## 3VA1110-4GF42-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS S ICU=36KA @ 415 V 4-POLE, LINE PROTECTION TM240, ATAM, IN=100A OVERLOAD PROTECTION IR=70A ...100A 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

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  25  Electricity  Continuous current / Rated value / maximum  Continuous current / Rated value  • 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  • 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  S  Dissipation  Active power loss  • maximum  W  25  Electricity  Continuous current / Rated value / maximum  A 160  Continuous current / Rated value  A 100  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 50 °C / Rated value  • at 50 °C / Rated value  • at 50 °C / Rated value  A 100	
Switching capacity class of the circuit breaker  Dissipation  Active power loss  maximum  W  25  Electricity  Continuous current / Rated value / maximum  A 160  Continuous current / Rated value  A 100  Adjustable response value current  of the current-dependent overload release / Full-scale value  of the instantaneous short-circuit release / initial A  value  Main circuit  Operating voltage  with AC / at 50/60 Hz / Rated value  of the Capacity Capacity  of the current  at 40 °C / Rated value  A 100  at 50 °C / Rated value  A 100	
Switching capacity class of the circuit breaker  Dissipation  Active power loss  maximum  W  25  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 DC / Rated value  Operating current  at 40 °C / Rated value  at 40 °C / Rated value  at 50 °C / Rated value  A 100  A 100	
Active power loss  • maximum    Main circuit	
Active power loss  • maximum    Main circuit   Operating voltage   • with AC / at 50/60 Hz / Rated value   • at 40 °C / Rated value   • maximum   A   160	
Electricity  Continuous current / Rated value / maximum  A 160  Continuous current / Rated value  A 100  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 100	
Continuous current / Rated value / maximum  Continuous current / Rated value  A 100  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  V 690  Operating current  at 40 °C / Rated value  A 100  A 100  A 100	
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  V 690  of the instantaneous short-circuit release / initial value  A 100  Operating voltage  at 40 °C / Rated value  at 40 °C / Rated value  at 50 °C / Rated value  A 100	
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 100  A 100	
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 100 A 100	
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 100  • 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 100  • at 50 °C / Rated value  A 100	
Operating voltage              • with AC / at 50/60 Hz / Rated value             • for DC / Rated value             • for DC / Rated value             • at 40 °C / Rated value             • at 50 °C / Rated value             • A 100              • A 100	
<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 100</li> <li>A 100</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 100</li> <li>A 100</li> </ul>	
Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  A 100  A 100	
<ul> <li>at 40 °C / Rated value</li> <li>at 50 °C / Rated value</li> <li>A</li> <li>100</li> <li>A</li> </ul>	
• at 50 °C / Rated value A 100	
e at 55 °C / Pated value	
▼ at 35 C / Nateu value	
• at 60 °C / Rated value A 96	
• at 65 °C / Rated value A 94	
• at 70 °C / Rated value A 91	
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	

		N
Trip indicator		No 
<ul><li>display</li></ul>		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		3VA1110-4GF42-0AA0
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 (lcm)		
• 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
		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		
<ul> <li>during storage / minimum</li> </ul>	°C	-40		
during storage / maximum	°C	80		

C	er	tifi	ca	tes	

**Equipment marking** 

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

General Product Approval	EMC	Declaration of	Shipping Approval
		Conformity	





other



Q





 $\mathsf{GL}$ 

### 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/3VA11104GF420AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA11104GF420AA0/all

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

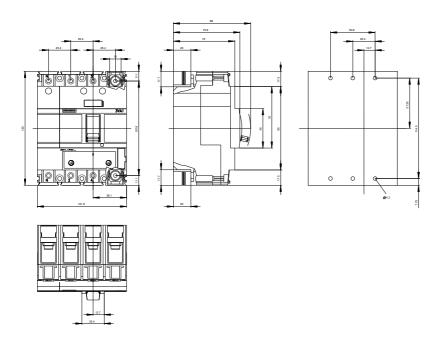
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA11104GF420AA0

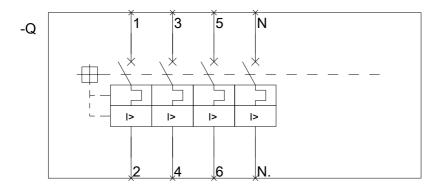
**CAx-Online-Generator** 

http://www.siemens.com/cax

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv





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