SIEMENS

Data sheet

3VA1110-3GF46-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS N ICU=25KA @ 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% CABLE CONNECTION

Figure similar

Model	
product brand name	SENTRON
Product designation	Molded case circuit breaker
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 Switching capacity Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 25 Electricity Continuous current / Rated value / maximum • of the current-dependent overfoad release / • Full-scale value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the full-scale value • of the current-dependent overfoad release / • Full-scale value • of the instantaneous short-circuit release / initial value Operating voltage • with AC / at 50/60 Hz / Rated value • for DC / Rated value • at 40 °C / Rated value • at 80 °C /	Protection class IP		IP40				
Switching capacity Switching capacity class of the circuit breaker Dissipation	Protection class IP / on the front		IP40				
Switching capacity class of the circuit breaker N Dissipation Active power loss • maximum W 25 Electricity Continuous current / Rated value / maximum • of the current-dependent overload release / Full-scale value • of the current-dependent overload release / Full-scale value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value National countricuit Number of Co Contacts / for auxiliary contacts Outstability Sultability for use Adjustable parameters Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value Product details	Protective function of the overcurrent release		LI				
Switching capacity class of the circuit breaker N Dissipation Active power loss • maximum W 25 Electricity Continuous current / Rated value / maximum • of the current-dependent overload release / Full-scale value • of the current-dependent overload release / Full-scale value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value National countricuit Number of Co Contacts / for auxiliary contacts Outstability Sultability for use Adjustable parameters Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value Product details	Switching capacity	Switching canacity					
Active power loss			N				
Active power loss • maximum Maximum	Dissipation						
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 • of C / Rated value • at 40 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 70 °C / Rated value							
Continuous current / Rated value / maximum 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 of the instantaneous short-circuit release / initial value of the instantaneous short-circuit release / initial value of the instantaneous short-circuit release / initial value of the instantaneous short-circuit release / initial value of the instantaneous short-circuit release / initial value of the instantaneous short-circuit release / initial value of the current of the current-dependent overload release / initial value of the current-dependent value A 100 of the current-dependent value A 100 of the current-dependent overload release / initial value A 100 of the current-dependent overload release / initial value A 100 Adjustable response value current-dependent overload release / initial value Product details	• maximum	W	25				
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 of the current of the current of the current-dependent overload release / initial value A 1 5 5 0 6 7 6 7 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7	Electricity						
Adjustable response value current • of the current-dependent overload release / Full-scale value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the instantaneous short-circuit release / initial value • of the current-dependent overload release / initial value Product details	Continuous current / Rated value / maximum	А	160				
of the current-dependent overload release / Full-scale value of the instantaneous short-circuit release / initial A full-scale value of the instantaneous short-circuit release / initial A full-scale value of the instantaneous short-circuit release / initial A full-scale value of the instantaneous short-circuit release / initial value of the instantaneous s	Continuous current / Rated value	Α	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 • at 40 °C / Rated value • at 55 °C / Rated value • at 55 °C / Rated value • at 65 °C / Rated value • at 67 °C / Rated value • at 67 °C / Rated value • at 70 °C / Rated value	Adjustable response value current						
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 55 °C / Rated value • at 55 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value • at 70 °C / Rated value A 94 • at 70 °C / Rated value A 91 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitability Suitabile parameters Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Product details		Α	1				
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 • at 50 °C / Rated value A 100 • at 50 °C / Rated value A 98 • 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 O Suitability Suitability for use System protection Adjustable parameters Adjustable response value current • of I-trip / Full-scale value A 100 • for N-conductor protection / initial value • for N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Product details		Α	5				
with AC / at 50/60 Hz / Rated value for DC / Rated value v 600 Operating current at 40 °C / Rated value at 50 °C / Rated value at 50 °C / Rated value at 50 °C / Rated value at 60 °C / Rated value at 60 °C / Rated value at 60 °C / Rated value at 65 °C / Rated value at 65 °C / Rated value at 70 °C / Rated value at	Main circuit						
for DC / Rated value	Operating voltage						
Operating current • at 40 °C / Rated value • at 50 °C / Rated value • at 55 °C / Rated value • at 60 °C / Rated value • at 70 °C / Rated value • at 70 °C / Rated value A 94 • at 70 °C / Rated value A 91 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitability Suitability for use Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value Product details	• with AC / at 50/60 Hz / Rated value	V	690				
at 40 °C / Rated value at 50 °C / Rated value A 100 at 55 °C / Rated value A 98 at 60 °C / Rated value A 96 at 60 °C / Rated value A 96 at 60 °C / Rated value A 91 Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability for use Adjustable parameters Adjustable response value current of ror N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Product details	• for DC / Rated value	V	600				
at 50 °C / Rated value at 55 °C / Rated value A 98 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 Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value A 10 of ro N-conductor protection / initial value of for N-conductor protection / Full-scale value Adjustable response value current / Of the current-dependent overload release / initial value Product details	Operating current	_					
at 55 °C / Rated value at 60 °C / Rated value at 65 °C / Rated value at 70 °C / Rated value A 91 Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability or use Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Product details	• at 40 °C / Rated value	Α	100				
at 60 °C / Rated value at 65 °C / Rated value at 70 °C / Rated value A 91 Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current of N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Product details	• at 50 °C / Rated value	Α	100				
at 65 °C / Rated value at 65 °C / Rated value A 91 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Product details	• at 55 °C / Rated value	Α	98				
at 70 °C / Rated value Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value Adjustable response value current of ron-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Product details	• at 60 °C / Rated value	Α	96				
Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability for use Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value Adjustable response value current / of the current Adjustable response value current / of the current dependent overload release / initial value Product details	• at 65 °C / Rated value	Α	94				
Number of CO contacts / for auxiliary contacts Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value A 100 of or N-conductor protection / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value Product details	• at 70 °C / Rated value	Α	91				
Number of CO contacts / for auxiliary contacts Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value A 100 of or N-conductor protection / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value Product details	Auxiliary circuit						
Suitability for use system protection Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value A 100 • for N-conductor protection / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value Product details			0				
Suitability for use system protection Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value A 100 • for N-conductor protection / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value Product details	Suitability						
Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value A 100 for N-conductor protection / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value Product details	· · · · · · · · · · · · · · · · · · ·		system protection				
of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value for N-conductor protection / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value Product details	Adjustable parameters						
• for N-conductor protection / initial value • for N-conductor protection / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value Product details A 100 A 0.7	Adjustable response value current						
● for N-conductor protection / Full-scale value Adjustable response value current / of the current- dependent overload release / initial value Product details	• of I-trip / Full-scale value	Α	10				
Adjustable response value current / of the current- dependent overload release / initial value Product details	• for N-conductor protection / initial value	Α	100				
Product details	• for N-conductor protection / Full-scale value	Α	100				
	•	А	0.7				
	Product details						
Product component							

Trip indicator		No
		No
• display		No
Voltage trigger		No
undervoltage release		
undervoltage release with leading contact		No
Product property		No
 for neutral conductors / upgradeable/retrofittable / Short-circuit and 		INO
overload proof		
Product expansion / optional / motor drive		Yes
Product function		
Product function		
 Intrinsic device protection 		Yes
 communication function 		No
Phase failure detection		No
other measurement function		No
Accessories		
Manufacturer article number / of the supplied basic		3VA1110-3GF46-0AA0
switch		
Short circuit		
Operational short-circuit current breaking capacity		
(lcs)		
• at 240 V / Rated value	kA	36
• at 415 V / Rated value	kA	25
• at 440 V / Rated value	kA	16
• at 500 V / Rated value	kA	8
• at 690 V / Rated value	kA	5
Maximum short-circuit current breaking capacity (Icu)		
• at 240 V / Rated value	kA	36
● at 415 V / Rated value	kA	25
at 440 V / Rated value	kA	16
	N/A	10
• at 500 V / Rated value	kA	8
at 500 V / Rated valueat 690 V / Rated value		
	kA	8
• at 690 V / Rated value	kA	8
at 690 V / Rated value Short-circuit current making capacity (Icm)	kA kA	8 7
 at 690 V / Rated value Short-circuit current making capacity (Icm) at 240 V / Rated value 	kA kA kA	8 7 75.6
at 690 V / Rated value Short-circuit current making capacity (Icm) at 240 V / Rated value at 415 V / Rated value at 690 V / Rated value Connections	kA kA kA	8 7 75.6 52.5 7.5
at 690 V / Rated value Short-circuit current making capacity (Icm) at 240 V / Rated value at 415 V / Rated value at 690 V / Rated value Connections Arrangement of electrical connectors / for main	kA kA kA	8 7 75.6 52.5
at 690 V / Rated value Short-circuit current making capacity (Icm) at 240 V / Rated value at 415 V / Rated value at 690 V / Rated value Connections	kA kA kA	8 7 75.6 52.5 7.5

 of the round conductor ter 	minal / stranded			1 x (1.5 - 70 mm²)	
Type of electrical connection / for	or main current circuit			Box terminal	
Mechanical Design					
Height		mm		130	
Width		mm		101.6	
Depth		mm		70	
Mounting type				fixed mounting	
Environmental conditions					
Ambient temperature					
during operation / minimul	m	°C		-25	
during operation / maximum		°C		70	
• during storage / minimum		°C		-40	
during storage / maximum	1	°C		80	
Certificates					
Equipment marking					
• acc. to DIN EN 61346-2				Q	
• acc. to DIN EN 81346-2				Q	
General EMC	Declaration	on of	Ship	pping Approval	other

Product

Approval

other



Conformity





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/3VA11103GF460AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA11103GF460AA0/all

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

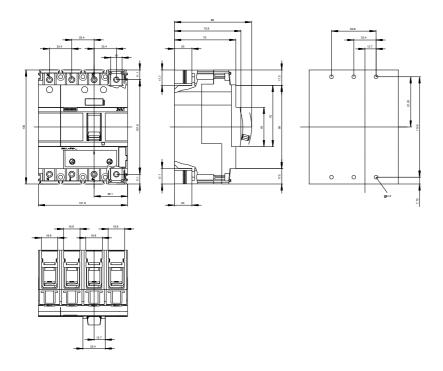
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA11103GF460AA0

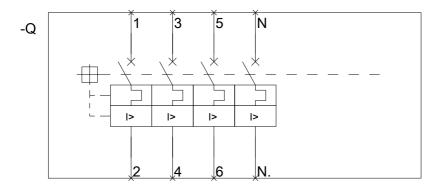
CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv





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