# **SIEMENS**

## Data sheet

# 3VA1163-3GF46-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS N ICU=25KA @ 415 V 4-POLE, LINE PROTECTION TM240, ATAM, IN=63A OVERLOAD PROTECTION IR=44,1A ...63A 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 brea	aker
Design of the product	Line protection	
Product variations	General Applications	
Ground fault monitoring version	Without	
Design of the auxiliary release	Without auxiliary release	е
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		
	tage	
Insulation voltage / Rated value V 800	sulation voltage / Rated value	V

#### Protection class

Protection class IP / on the front Protective function of the overcurrent release  Switching capacity Switching capacity class of the circuit breaker  N  Dissipation  Active power loss • maximum  Active power loss • maximum  Bloctricity  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  Main circuit  Operating voltage • with Act / at 50/60 Hz / Rated value • for DC / Rated value • at 40° C / Rated value • at 50° C / Rated value • at 63° C / Rated value • at 63° C / Rated value • at 65°	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 17.3  Electricity  Continuous current / Rated value / maximum A 160  Continuous current / Rated value A 63  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 Cr Rated value  • of the instantaneous short-circuit release / initial value  • of the current-dependent overload release / initial value  Product details	Protective function of the overcurrent release		Ц
Switching capacity class of the circuit breaker N  Dissipation  Active power loss  • maximum W 17.3  Electricity  Continuous current / Rated value / maximum A 160  Continuous current / Rated value A 63  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 Cr Rated value  • of the instantaneous short-circuit release / initial value  • of the current-dependent overload release / initial value  Product details	Switching capacity		
Active power loss  • maximum    Maximum   Maxi			N
Active power loss  • maximum    Maximum   Maxi	Dissipation		
Electricity  Continuous current / Rated value / maximum  Continuous current / Rated value  A 63  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  Main circuit  Operating voltage  with AC / at 50/60 Hz / Rated value  of to DC / Rated value  of DC / Rated value  of C / Rated value  at 50 °C / Rated value  at 50 °C / Rated value  at 60 °C / Rated value  at 70 °C / Ra	Active power loss		
Continuous current / Rated value / maximum Continuous current / Rated value A 63  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 current-circuit release / initial value • of the current-dependent overload release / initial value • of the current-circuit release / initial value • of or N-conductor protection / Full-scale value A 100 Adjustable response value current of the current-dependent overload release / initial value  Product details	• maximum	W	17.3
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 dependent overload release / initial value  A	Electricity		
Adjustable response value current  of the current-dependent overload release / Full-scale value  of the instantaneous short-circuit release / initial value  A 10  of the instantaneous short-circuit release / initial value  of the current of the c	Continuous current / Rated value / maximum	А	160
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     v 690     veriff voltage     with AC / at 50/60 Hz / Rated value     v 600  Operating current     at 40 °C / Rated value     A 63     at 55 °C / Rated value     A 63     at 55 °C / Rated value     A 62     at 60 °C / Rated value     A 61     at 65 °C / Rated value     A 60     at 70 °C / Rated value     A 58  Auxiliary circuit  Number of CO contacts / for auxiliary contacts  O  Suitability  Suitability for use  Adjustable parameters  Adjustable parameters  Adjustable response value current     of I-trip / Full-scale value     for N-conductor protection / Full-scale value     for N-conductor protection / Full-scale value     veriff value  A 10  Adjustable response value current / of the current-dependent overload release / initial value  Product details	Continuous current / Rated value	Α	63
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 65 °C / Rated value  • at 65 °C / Rated value  • at 60 °C / Rated value  • at 70 °C / Rated value  • at 70 °C / Rated value  A 58  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 / 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 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 60 °C / Rated value  • at 60 °C / Rated value  • at 65 °C / Rated value  • at 70 °C / Rated value  A 58  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  Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  A 63  • at 50 °C / Rated value  A 63  • at 55 °C / Rated value  A 62  • at 60 °C / Rated value  A 61  • at 60 °C / Rated value  A 60  • at 65 °C / Rated value  A 60  • at 70 °C / Rated value  A 58  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  • 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		Α	5
with AC / at 50/60 Hz / Rated value     for DC / Rated value     v 600  Operating current     at 40 °C / Rated value     A 63     at 50 °C / Rated value     A 63     at 50 °C / Rated value     A 62     at 60 °C / Rated value     A 61     at 65 °C / Rated value     A 60     at 65 °C / Rated value     A 60     at 70 °C / Rated value     A 58  Auxiliary circuit  Number of CO contacts / for auxiliary contacts  O  Suitability  Suitability  Suitable 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	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 60 °C / Rated value  • at 60 °C / Rated value  • at 65 °C / Rated value  • at 70 °C / Rated value  • at 70 °C / Rated value  A 58  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  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 63  at 55 °C / Rated value A 62  at 60 °C / Rated value A 61  at 60 °C / Rated value A 60  at 60 °C / Rated value A 60  at 70 °C / Rated value A 58   Auxiliary circuit  Number of CO contacts / for auxiliary contacts  Suitability  Suitability  Suitability for use  Adjustable parameters  Adjustable response value current  of I-trip / Full-scale value A 10  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	• for DC / Rated value	V	600
at 55 °C / Rated value at 55 °C / Rated value A 62  at 60 °C / Rated value A 61  at 65 °C / Rated value A 60  at 70 °C / Rated value A 58   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 of or 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 A 61  at 65 °C / Rated value A 60 at 70 °C / Rated value A 58  Auxiliary circuit  Number of CO contacts / for auxiliary contacts  Suitability  Suitability  Suitabile parameters  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 40 °C / Rated value	Α	63
at 60 °C / Rated value at 65 °C / Rated value A 60 at 70 °C / Rated value A 58  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  for 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	63
at 65 °C / Rated value  at 65 °C / Rated value  A 58  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  for 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	62
at 70 °C / Rated value  A 58  Auxiliary circuit  Number of CO contacts / for auxiliary contacts  0  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-dependent overload release / initial value  Product details	• at 60 °C / Rated value	Α	61
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-dependent overload release / initial value  Product details	• at 65 °C / Rated value	Α	60
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	58
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  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  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  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     • for N-conductor protection / Full-scale value     • A 100  Adjustable response value current / of the current-dependent overload release / initial value  Product details	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  A 100  A 0.7	• of I-trip / Full-scale value	Α	10
Adjustable response value current / of the current- dependent overload release / initial value  Product details  0.7	• for N-conductor protection / initial value	Α	100
Product details	• for N-conductor protection / Full-scale value	Α	100
	•	Α	0.7
	Product details		
i iouuoi oomponeni	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		
Intrinsic device protection		Yes
communication function		No
Phase failure detection		No
<ul> <li>other measurement function</li> </ul>		No
Accessories		
Manufacturer article number / of the supplied basic		3VA1163-3GF46-0AA0
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
● at 500 V / Rated value	kA	8
• at 690 V / Rated value	kA	7
Short-circuit current making capacity (lcm)		
• at 240 V / Rated value	kA	75.6
• at 415 V / Rated value	kA	52.5
• at 690 V / Rated value	kA	7.5
Connections		
Arrangement of electrical connectors / for main		Front terminal
		Front terminal

<ul> <li>of the round conductor terminal / stranded</li> </ul>		1 x (1.5 - 70 mm²)	
Type of electrical connection / for 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			
<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			
• acc. to DIN EN 61346-2		Q	

General

**Product** 

**Approval** 

other

**EMC** 



**Declaration of** 

Conformity



Q

**Shipping Approval** 



other

other

### Further information

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

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

Industry Mall (Online ordering system)

• acc. to DIN EN 81346-2

https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA11633GF460AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA11633GF460AA0/all

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

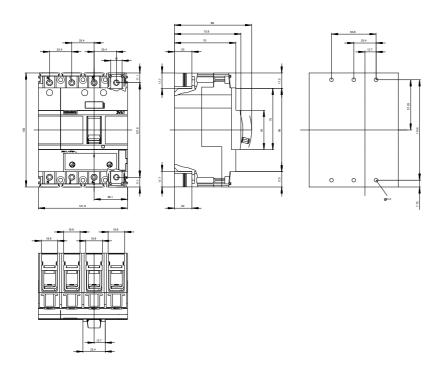
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA11633GF460AA0

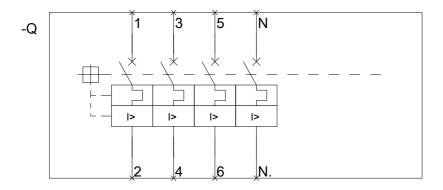
**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://ausschreibungstexte.siemens.com/tiplv





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