SIEMENS

Data sheet

3VA1196-4GF46-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS S ICU=36KA @ 415 V 4-POLE, LINE PROTECTION TM240, ATAM, IN=16A OVERLOAD PROTECTION IR=11,2A ...16A 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

Protective function of the overcurrent release LI Switching capacity Switching capacity class of the circuit breaker Sibissipation Active power loss • maximum W 10.6 Electricity Continuous current / Rated value / maximum A 180 Continuous current / Rated value / A 16 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 7 C / Rated value • of to DC / Rated value • at 40 °C / Rated value • at 40 °C / Rated value • at 65 °	Protection class IP		IP40
Switching capacity Switching capacity class of the circuit breaker Dissination Active power loss • maximum W 10.6 Electricity Continuous current / Rated value / maximum A 160 Continuous current / Rated value / maximum • of the current-dependent overload release / A 1 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 t-rip / Rated value • of t-rip / Rated value • of t-rip / Full-scale value • of t-rip / Full-scale value • of r N-conductor protection / Full-scale value • of r N-conductor protection / initial value • of r N-conductor protection / initial value • of r N-conductor protection / Full-scale value Adjustable response value current / of the current- • of t-rip / Full-scale value • of r N-conductor protection / Full-scale value Adjustable response value current / of the current- • of t-rip / Full-scale value Adjustable response value current / of the current- • of N-conductor protection / Full-scale value Adjustable response value current / of the current-	Protection class IP / on the front		IP40
Switching capacity class of the circuit breaker Dissipation	Protective function of the overcurrent release		Ц
Switching capacity class of the circuit breaker Dissipation	Switching capacity		
Active power loss • maximum Electricity Continuous current / Rated value / maximum A 160 Continuous current / Rated 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 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 65 °C /			S
Active power loss • maximum M	Dissipation		
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 • 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 • for DC / Rated value • of the 2 / Rated value • at 40 °C / Rated value • at 40 °C / Rated value • at 65 °C / Rated value • at 70			
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 or DC / Rated value of or C / Rated v	• maximum	W	10.6
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 c	Electricity		
Adjustable response value current of the current-dependent overload release / Full-scale value of the instantaneous short-circuit release / initial value of the initial value of the instantaneous short-circuit release / initial value of the current-of	Continuous current / Rated value / maximum	Α	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 of or DC / Rated value verified value Operating current at 40 °C / Rated value A 16 at 55 °C / Rated value A 16 at 55 °C / Rated value A 16 at 60 °C / Rated value A 15 at 65 °C / Rated value A 15 at 70 °C / Rated value A 15 Auxiliary circuit Number of CO contacts / for auxiliary contacts Adjustable parameters Adjustable response value current of I-trip / Full-scale value of or N-conductor protection / Full-scale value Adjustable response value current / of the current- Adjustable response value current / of the current-	Continuous current / Rated value	Α	16
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 16 • at 50 °C / Rated value A 16 • at 50 °C / Rated value A 16 • at 60 °C / Rated value A 15 • at 60 °C / Rated value A 15 • at 70 °C / Rated value A 15 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitabile parameters Adjustable parameters Adjustable response value current • of I-trip / Full-scale value A 10 • for N-conductor protection / Full-scale value A 100 Adjustable response value current / of the current- Adjustable response value current / of the current-	Adjustable response value current		
Main circuit		Α	1
Operating voltage		Α	5
with AC / at 50/60 Hz / Rated value for DC / Rated value v 600 Operating current at 40 °C / Rated value A 16 at 50 °C / Rated value A 16 at 55 °C / Rated value A 16 at 60 °C / Rated value A 15 at 60 °C / Rated value A 15 at 65 °C / Rated value A 15 at 60 °C / Rated value A 15 at 70 °C / Rated value A 15 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- Adjustable response value current / of the current- Adjustable response value current / of the current-	Main circuit		
for DC / Rated value Operating current at 40 °C / Rated value at 50 °C / Rated value at 55 °C / Rated value at 60 °C / Rated value at 65 °C / Rated value A 15 at 70 °C / Rated value A 15 Auxiliary circuit Number of CO contacts / for auxiliary contacts O 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 of or N-conductor protection / Full-scale value Adjustable response value current / of the current- Adjustable response value current / of the current- Adjustable response value current / of the current- A 0.7	Operating voltage		
Operating current • at 40 °C / Rated value A 16 • at 50 °C / Rated value A 16 • at 55 °C / Rated value A 15 • at 60 °C / Rated value A 15 • at 65 °C / Rated value A 15 • at 70 °C / Rated value A 15 • at 70 °C / Rated value A 15 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- Adjustable response value current / of the current- A 0.7	• with AC / at 50/60 Hz / Rated value	V	690
 at 40 °C / Rated value at 50 °C / Rated value at 55 °C / Rated value at 60 °C / Rated value at 65 °C / Rated value at 65 °C / Rated value at 70 °C / Rated value at 70 °C / Rated value A 15 at 70 °C / Rated value A 15 Auxiliary circuit Number of CO contacts / for auxiliary contacts 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 Adjustable response value current / of the current- Adjustable response value current / of the current- 	• for DC / Rated value	V	600
at 50 °C / Rated value at 55 °C / Rated value A 16 at 65 °C / Rated value A 15 at 65 °C / Rated value A 15 at 65 °C / Rated value A 15 at 70 °C / Rated value A 15 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 or N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable response value current of or N-conductor protection / Full-scale value Adjustable response value current / of the current- Adjustable response value current / of the current- Adjustable response value current / of the current-	Operating current		
at 55 °C / Rated value at 55 °C / Rated value At 15 at 60 °C / Rated value At 15 at 65 °C / Rated value At 15 at 70 °C / Rated value At 15 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 for N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable response value current / of the current- Adjustable response value current / of the current- Adjustable response value current / of the current- A 0.7	• at 40 °C / Rated value	Α	16
at 60 °C / Rated value at 65 °C / Rated value A 15 at 70 °C / Rated value A 15 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 for N-conductor protection / Full-scale value Adjustable response value current for N-conductor protection / Full-scale value Adjustable response value current / of the current- Adjustable response value current / of the current- A 0.7	• at 50 °C / Rated value	Α	16
at 65 °C / Rated value at 70 °C / Rated value A 15 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- A 0.7	• at 55 °C / Rated value	Α	16
at 70 °C / Rated value A 15 Auxiliary circuit Number of CO contacts / for auxiliary contacts 0 Suitability Suitability for use 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-	• at 60 °C / Rated value	Α	15
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-	• at 65 °C / Rated value	Α	15
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- Adjustable response value current / of the current-	• at 70 °C / Rated value	Α	15
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- Adjustable response value current / of the current-	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 Adjustable response value current / of the current- Adjustable response value current / of the current-			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 Adjustable response value current / of the current- Adjustable response value current / of the current-	Suitability		
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- A 0.7	· · · · · · · · · · · · · · · · · · ·		system protection
 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- A 0.7 	Adjustable parameters		
 for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current- A 0.7 	Adjustable response value current		
 ◆ for N-conductor protection / Full-scale value Adjustable response value current / of the current- A 0.7 	• of I-trip / Full-scale value	Α	10
Adjustable response value current / of the current- A 0.7	• for N-conductor protection / initial value	Α	100
	• for N-conductor protection / Full-scale value	Α	100
	•	Α	0.7
Product details			
Product component			

		N
Trip indicator		No
• display		No
Voltage trigger		No
undervoltage release		No
 undervoltage release with leading contact 		No
Product property		
 for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proof 		No
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		3VA1196-4GF46-0AA0
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
	KA	
Connections	KA	
Arrangement of electrical connectors / for main	KA	Front terminal
	KA	

• of the round conductor terminal / stra	anded			1 x (1.5 - 70 mm²)	
Type of electrical connection / for main cu	rrent 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 / minimum		°C		-25	
during operation / maximum		°C		70	
during storage / minimum		°C		-40	
during storage / maximum		°C		80	
Certificates					
Equipment marking					
• acc. to DIN EN 61346-2				Q	
• acc. to DIN EN 81346-2				Q	
General EMC	Declaration	n of	Shipp	ping Approval	other

Further information

Product

Approval

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

other

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

Industry Mall (Online ordering system)
https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA11964GF460AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA11964GF460AA0/all

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

Conformity

EG-Konf.

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA11964GF460AA0

CAx-Online-Generator

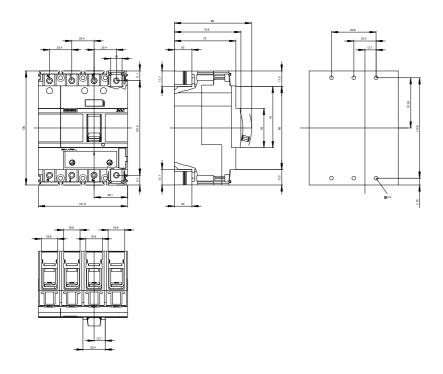
http://www.siemens.com/cax

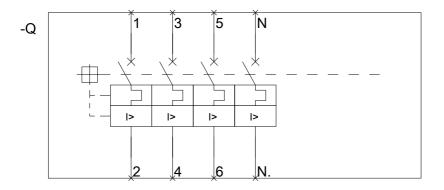
Tender specifications

http://ausschreibungstexte.siemens.com/tiplv

other

GL





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