## **SIEMENS**

## Data sheet

## 3VA1132-6GF46-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS H ICU=70KA @ 415 V 4-POLE, LINE PROTECTION TM240, ATAM, IN=32A OVERLOAD PROTECTION IR=22,4A ...32A 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       IP40         Protective function of the overcurrent release       LI         Switching capacity       Switching capacity class of the circuit breaker       H         Prospiration       Active power loss       H         • maximum       W       10.5         Electricity       Continuous current / Rated value / maximum       A       160         Continuous current / Rated value       A       32         Adjustable response value current       A       1         • of the current-dependent overload release / Full-scale value       A       5         • of the instantaneous short-circuit release / initial value       A       5         • of the current-dependent overload release / initial value       V       690         • of the instantaneous short-circuit release / initial value       A       5         value       V       690       690         • for DC / Rated value       A       32       432         • at 50 °C / Rated value       A       32       432         • at 50 °C / Rated value       A       31       432         • at 55 °C / Rated value       A       30       30         • at 55 °C / Rated value       A       30       30         <	Protection class IP	-	IP40					
Switching capacity       Switching capacity class of the circuit breaker     H       Dissipation     Active power loss       • maximum     W     10.6       Electricity     Operating voltage       Continuous current / Rated value / maximum     A     160       Continuous current / Rated value / maximum     A     160       Continuous current / Rated value / maximum     A     32       Adjustable response value current     •     A     32       Adjustable response value current     •     A     1       • of the current-dependent overload release / Full-scale value     •     1       • of the current-dependent overload release / initial value     •     5       • of the instantaneous short-circuit release / initial value     •     5       • of the full-scale value     V     690       • of the Operating voltage     •     690       • for DC / Rated value     V     690       • for DC / Rated value     A     32       • at 50 °C / Rated value     A     32       • at 65 °C / Rated value     A     30       • at 65 °C / Rated value     A     30       • at 65 °C / Rated value     A     30       • at 65 °C / Rated value     A     30       • at 65 °C / Rated value     B	Protection class IP / on the front		IP40					
Switching capacity class of the circuit breaker     H       Dissipation       Active power loss     Imaximum       • maximum     W     10.6       Electricity     Continuous current / Rated value / maximum     A     160       Continuous current / Rated value / maximum     A     32       Adjustable response value current     •     •     1       • of the current-dependent overload release / Full-scale value     A     1       • of the instantaneous short-circuit release / initial value     A     5       Main circuit     Operating voltage     •       • with AC / at 50/60 Hz / Rated value     V     690       • for DC / Rated value     V     6000       Operating voltage     •     •       • at 40 °C / Rated value     A     32       • at 50 °C / Rated value     A     32       • at 50 °C / Rated value     A     31       • at 50 °C / Rated value     A     30       • at 50 °C / Rated value     A     30       • at 50 °C / Rated value     A     30       • at 50 °C / Rated value     A     30       • at 50 °C / Rated value     A     30       • at 50 °C / Rated value     A     30       • at 50 °C / Rated value     A     30       <	Protective function of the overcurrent release	-	LI					
Switching capacity class of the circuit breaker     H       Dissipation       Active power loss     Imaximum       • maximum     W     10.6       Electricity     Continuous current / Rated value / maximum     A     160       Continuous current / Rated value / maximum     A     32       Adjustable response value current     •     •     1       • of the current-dependent overload release / Full-scale value     A     1       • of the instantaneous short-circuit release / initial value     A     5       Main circuit     Operating voltage     •       • with AC / at 50/60 Hz / Rated value     V     690       • for DC / Rated value     V     6000       Operating voltage     •     •       • at 40 °C / Rated value     A     32       • at 50 °C / Rated value     A     32       • at 50 °C / Rated value     A     31       • at 50 °C / Rated value     A     30       • at 50 °C / Rated value     A     30       • at 50 °C / Rated value     A     30       • at 50 °C / Rated value     A     30       • at 50 °C / Rated value     A     30       • at 50 °C / Rated value     A     30       • at 50 °C / Rated value     A     30       <								
Dissipation         Active power loss       v       10.6         Electricity       0       0         Continuous current / Rated value       A       160         Continuous current / Rated value       A       32         Adjustable response value current       A       1         • of the current-dependent overload release / Full-scale value       A       1         • of the instantaneous short-circuit release / initial value       A       5         Main circuit       V       690       600         Operating voltage       V       690       600         Operating current       4       32         • at 40 °C / Rated value       V       690       600         Operating current       32       32         • at 40 °C / Rated value       A       32         • at 40 °C / Rated value       A       32         • at 40 °C / Rated value       A       31.04         • at 60 °C / Rated value       A       30       30         • at 60 °C / Rated value       A       30       30         • at 60 °C / Rated value       A       30       30         • at 60 °C / Rated value       A       30       30		-	н					
Active power loss     W     10.6       Electricity     Continuous current / Rated value / maximum     A     160       Continuous current / Rated value     A     32       Adjustable response value current     A     32       Adjustable response value current / Full-scale value     A     1       • of the current-dependent overload release / Full-scale value     A     1       • of the instantaneous short-circuit release / initial value     A     5       Main circuit     Operating voltage     V     690       • of DC / Rated value     V     600       Operating current     a     32       • at 40 °C / Rated value     A     32       • at 55 °C / Rated value     A     31       • at 65 °C / Rated value     A     30       • at 65 °C / Rated value     A     30       • at 65 °C / Rated value     A     30       • at 65 °C / Rated value     A     30       • at 65 °C / Rated value     A     30       • at 65 °C / Rated value     A     30       • at 65 °C / Rated value     A     30       • at 70 °C / Rated value     A     30       • at 70 °C / Rated value     A     30       Suitability     System protection       Suitability for use								
• maximumW10.6ElectricityContinuous current / Rated value / maximumA160Continuous current / Rated valueA32Adjustable response value currentA1• of the current-dependent overload release / Full-scale valueA1• of the instantaneous short-circuit release / initialA5Main circuitA5Operating voltageV690• for DC / Rated valueV690• for DC / Rated valueV690• for DC / Rated valueA32• at 40 °C / Rated valueA32• at 50 °C / Rated valueA31• at 60 °C / Rated valueA31• at 60 °C / Rated valueA31• at 60 °C / Rated valueA30• at 70 °C / Rated valueA10• at 70 °C / Rated valueA100								
Electricity         Continuous current / Rated value / maximum       A       160         Continuous current / Rated value       A       32         Adjustable response value current       A       1         • of the current-dependent overload release / Full-scale value       A       1         • of the instantaneous short-circuit release / initial       A       5         value       Operating voltage       Full-scale value       V         • with AC / at 50/60 Hz / Rated value       V       600         Operating voltage       V       600         • for DC / Rated value       A       32         • at 40 °C / Rated value       A       32         • at 50 °C / Rated value       A       32         • at 40 °C / Rated value       A       32         • at 60 °C / Rated value       A       31         • at 60 °C / Rated value       A       30         • at 65 °C / Rated value       A       30         • at 65 °C / Rated value       A       30         • at 65 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A	·							
Continuous current / Rated value / maximum       A       160         Continuous current / Rated value       A       32         Adjustable response value current       • of the current-dependent overload release / Full-scale value       A       1         • of the instantaneous short-circuit release / initial value       A       5         Main circuit       Operating voltage       •       690         • of the instantaneous short-circuit release / initial value       V       690         • of the Z / at 50/60 Hz / Rated value       V       690         • of DC / Rated value       V       690         • of C / Rated value       A       32         • at 40 °C / Rated value       A       32         • at 55 °C / Rated value       A       32         • at 55 °C / Rated value       A       31         • at 65 °C / Rated value       A       31         • at 65 °C / Rated value       A       30         • at 65 °C / Rated value       A       30         • at 67 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       10         • of I-trip /	● maximum	W	10.6					
Continuous current / Rated value       A       32         Adjustable response value current <ul> <li>of the current-dependent overload release / Full-scale value</li> <li>of the instantaneous short-circuit release / initial value             <li>A             <li>1</li> </li></li></ul> Main circuit       A       5         Operating voltage       Image: Continuous Current               • with AC / at 50/60 Hz / Rated value             V               • of C / Rated value             V               • at 40 °C / Rated value             V               • at 50 °C / Rated value             A               • at 50 °C / Rated value             A               • at 50 °C / Rated value             A             32               • at 50 °C / Rated value             A             31.04               • at 65 °C / Rated value             A             30               • at 65 °C / Rated value             A             30               • at 70 °C / Rated value             A             30               • at 70 °C / Rated value             A             30               Suitability             Suitability             Suitability               Suitability             Suitability             <	Electricity							
Adjustable response value current       A       1         • of the current-dependent overload release / Full-scale value       A       1         • of the instantaneous short-circuit release / initial value       A       5         Main circuit       A       5         Operating voltage       •       600         • of DC / Rated value       V       600         Operating current       •       600         • at 40 °C / Rated value       A       32         • at 55 °C / Rated value       A       32         • at 55 °C / Rated value       A       31.04         • at 65 °C / Rated value       A       30         • at 65 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       0       System protection         Auxiliary circuit       V       System protection         Auxiliary contacts / for auxiliary contacts       0       0         Suitability       System protection       A         • of I-trip / Full-scale value       A       10         • of I-trip / Full-scale value       A       100         • of I-trip / Full-scale value       A       100	Continuous current / Rated value / maximum	А	160					
• of the current-dependent overload release /       A       1         Full-scale value       • of the instantaneous short-circuit release / initial value       A       5         Main circuit       A       5         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       32         • at 50 °C / Rated value       A       31.04         • at 60 °C / Rated value       A       30         • at 60 °C / Rated value       A       30         • at 65 °C / Rated value       A       30         • at 60 °C / Rated value       A       30         • at 60 °C / Rated value       A       30         • at 65 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         Suitability       system protection       A <t< td=""><td>Continuous current / Rated value</td><td>А</td><td>32</td></t<>	Continuous current / Rated value	А	32					
Full-scale value       A       5         of the instantaneous short-circuit release / initial value       A       5         Main circuit       Operating voltage       690         • with AC / at 50/60 Hz / Rated value       V       690         • for DC / Rated value       V       600         Operating current	Adjustable response value current							
value       Main circuit         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       32         • at 50 °C / Rated value       A       32         • at 50 °C / Rated value       A       31.04         • at 60 °C / Rated value       A       31         • at 60 °C / Rated value       A       30         • at 65 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         Auxiliary circuit       0       Suitability for use         Suitability for use       system protection         Adjustable parameters       A       10         • of I-trip / Full-scale value       A       100         • for N-conductor protection / initial value       A       100	·	A	1					
Operating voltage       V       690         • with AC / at 50/60 Hz / Rated value       V       690         • for DC / Rated value       V       600         Operating current		A	5					
• with AC / at 50/60 Hz / Rated valueV690• for DC / Rated valueV600Operating current-• at 40 °C / Rated valueA32• at 50 °C / Rated valueA32• at 55 °C / Rated valueA31.04• at 60 °C / Rated valueA31• at 65 °C / Rated valueA30• at 70 °C / Rated valueA30• at 70 °C / Rated valueA30• at 70 °C / Rated valueA10Adjustable parametersA100Adjustable response value currentA100• for N-conductor protection / Full-scale valueA100	Main circuit							
• for DC / Rated value       V       600         Operating current       -         • at 40 °C / Rated value       A       32         • at 50 °C / Rated value       A       32         • at 55 °C / Rated value       A       31.04         • at 60 °C / Rated value       A       31.04         • at 60 °C / Rated value       A       31         • at 65 °C / Rated value       A       30         • at 65 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         Auxiliary circuit       0       0         Suitability       Suitability for use       system protection         Adjustable parameters       Adjustable response value current       A         • of 1-trip / Full-scale value       A       10         • for N-conductor protection / initial value       A       100         • for N-conductor protection / Full-scale value       A       100	Operating voltage							
Operating current       A       32         • at 40 °C / Rated value       A       32         • at 50 °C / Rated value       A       32         • at 55 °C / Rated value       A       31.04         • at 60 °C / Rated value       A       31         • at 65 °C / Rated value       A       30         • at 65 °C / Rated value       A       30         • at 65 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         Auxiliary circuit       0       0         Suitability       Suitability for use       9         Suitability for use       a       10         Adjustable parameters       A       100         • of I-trip / Full-scale value       A       100         • for N-conductor protection / initial value       A       100	<ul> <li>with AC / at 50/60 Hz / Rated value</li> </ul>	V	690					
• at 40 °C / Rated valueA32• at 50 °C / Rated valueA32• at 55 °C / Rated valueA31.04• at 60 °C / Rated valueA31• at 65 °C / Rated valueA30• at 65 °C / Rated valueA30• at 70 °C / Rated valueA10• at 70 °C / Rated valueA100• at 70 °C / Rated valueA100• of I-trip / Full-scale valueA100• for N-conductor protection / initial valueA100	<ul> <li>for DC / Rated value</li> </ul>	V	600					
at to o'n factor factor       A       12         • at 50 °C / Rated value       A       32         • at 55 °C / Rated value       A       31.04         • at 60 °C / Rated value       A       31         • at 65 °C / Rated value       A       30         • at 65 °C / Rated value       A       30         • at 65 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         Auxiliary circuit       A       30         Number of CO contacts / for auxiliary contacts       0         Suitability       Suitability for use       system protection         Adjustable parameters       A       10         • of I-trip / Full-scale value       A       100         • for N-conductor protection / initial value       A       100	Operating current	-						
eat 55 °C / Rated value       A       31.04         eat 60 °C / Rated value       A       31         eat 65 °C / Rated value       A       30         eat 65 °C / Rated value       A       30         eat 70 °C / Rated value       A       30         Auxiliary circuit       A       30         Number of CO contacts / for auxiliary contacts       0         Suitability       0         Suitability for use       system protection         Adjustable parameters       4         Adjustable response value current       A         • of I-trip / Full-scale value       A         • for N-conductor protection / initial value       A         • for N-conductor protection / Full-scale value       A         • for N-conductor protection / Full-scale value       A	• at 40 °C / Rated value	А	32					
• at 60 °C / Rated value       A       31         • at 60 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         • at 70 °C / Rated value       A       30         Auxiliary circuit       A       30         Number of CO contacts / for auxiliary contacts       0         Suitability       0         Suitability for use       system protection         Adjustable parameters       4         Adjustable response value current       A         • of I-trip / Full-scale value       A         • for N-conductor protection / initial value       A         • for N-conductor protection / Full-scale value       A	• at 50 °C / Rated value	А	32					
• at 65 °C / Rated value         A         30           • at 70 °C / Rated value         A         30           • at 70 °C / Rated value         A         30           Auxiliary circuit         A         30           Number of CO contacts / for auxiliary contacts         0           Suitability         Suitability           Adjustable parameters         system protection           Adjustable response value current         A           • of I-trip / Full-scale value         A           • for N-conductor protection / initial value         A           • for N-conductor protection / Full-scale value         A	• at 55 °C / Rated value	А	31.04					
<ul> <li>at 70 °C / Rated value</li> <li>A 30</li> <li>Auxiliary circuit</li> <li>Number of CO contacts / for auxiliary contacts</li> <li>0</li> <li>Suitability</li> <li>Suitability for use</li> <li>system protection</li> <li>Adjustable parameters</li> <li>Adjustable response value current         <ul> <li>of I-trip / Full-scale value</li> <li>A 10</li> <li>for N-conductor protection / initial value</li> <li>A 100</li> <li>for N-conductor protection / Full-scale value</li> </ul> </li> </ul>	• at 60 °C / Rated value	А	31					
Auxiliary circuit       0         Number of CO contacts / for auxiliary contacts       0         Suitability       system protection         Suitability for use       system protection         Adjustable parameters       10         Adjustable response value current       A         • of I-trip / Full-scale value       A         • for N-conductor protection / initial value       A         • for N-conductor protection / Full-scale value       A	• at 65 °C / Rated value	А	30					
Number of CO contacts / for auxiliary contacts       0         Suitability       system protection         Suitability for use       system protection         Adjustable parameters       a         Adjustable response value current       A         • of I-trip / Full-scale value       A         • for N-conductor protection / initial value       A         • for N-conductor protection / Full-scale value       A	• at 70 °C / Rated value	А	30					
Number of CO contacts / for auxiliary contacts       0         Suitability       Suitability for use         Suitability for use       system protection         Adjustable parameters       Adjustable response value current         • of I-trip / Full-scale value       A         • for N-conductor protection / initial value       A         • for N-conductor protection / Full-scale value       A	Auxiliary circuit							
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			0					
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	Suitability							
Adjustable response value current     A       • 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			system protection					
Adjustable response value current     A       • 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 parameters							
• of I-trip / Full-scale valueA10• for N-conductor protection / initial valueA100• for N-conductor protection / Full-scale valueA100								
<ul> <li>for N-conductor protection / initial value</li> <li>for N-conductor protection / Full-scale value</li> <li>A 100</li> <li>A 100</li> </ul>		А	10					
for N-conductor protection / Full-scale value     A     100		А	100					
		А	100					
		А						
dependent overload release / initial value								
Product details								
Product component	Product component							

Trip indicator		No
• display		No
Voltage trigger		No
<ul> <li>undervoltage release</li> </ul>		No
undervoltage release with leading contact		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
<ul> <li>communication function</li> </ul>		No
<ul> <li>Phase failure detection</li> </ul>		No
<ul> <li>other measurement function</li> </ul>		No
Accessories		
Manufacturer article number / of the supplied basic		3VA1132-6GF46-0AA0
switch		
Short circuit		
Operational short-circuit current breaking capacity (Ics)		
• at 240 V / Rated value	kA	100
• at 415 V / Rated value	kA	70
• at 440 V / Rated value	kA	36
• 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	100
• at 415 V / Rated value	kA	70
• at 440 V / Rated value	kA	36
• at 500 V / Rated value	kA	20
• at 690 V / Rated value	kA	10
Short-circuit current making capacity (Icm)		
• at 240 V / Rated value	kA	220
• at 415 V / Rated value	kA	154
• at 690 V / Rated value	kA	17
Connections		
Arrangement of electrical connectors / for main		Front terminal
current circuit		
<b>— ( ( ) )</b>		

Type of connectable conductor cross-section

• of the round co	onductor terminal / str	randed		1 x (1.5 - 70 mm²)			
Type of electrical co	nnection / for main cu	urrent circuit		Box terminal			
Mechanical Design							
Height			mm	130			
Width			mm	101.6			
Depth			mm	70			
Mounting type				fixed mounting			
Environmental conc	litions						
Ambient temperature	e						
<ul> <li>during operation</li> </ul>	on / minimum		°C	-25			
<ul> <li>during operation</li> </ul>	on / maximum		°C	70			
<ul> <li>during storage</li> </ul>	/ minimum		°C	-40			
<ul> <li>during storage</li> </ul>	/ maximum		°C	80			
Certificates							
Equipment marking							
<ul> <li>acc. to DIN EN</li> </ul>	l 61346-2			Q			
<ul> <li>acc. to DIN EN</li> </ul>	V 81346-2			Q			
General Product Approval	EMC	Declaration Conformity		pping Approval	other		
EHC	other	EG-Konf.			other		

## Further information

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/lowvoltage/catalogs

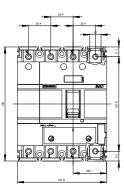
Industry Mall (Online ordering system) https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA11326GF460AA0

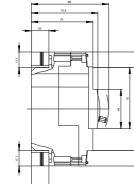
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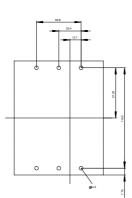
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA11326GF460AA0

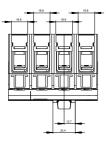
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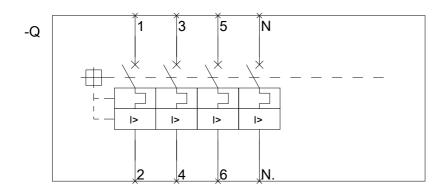
**Tender specifications** http://ausschreibungstexte.siemens.com/tiplv











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