SIEMENS

Data sheet

3VA1112-5GF42-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS M ICU=55KA @ 415 V 4-POLE, LINE PROTECTION TM240, ATAM, IN=125A OVERLOAD PROTECTION IR=87,5A ...125A 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 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 class of the circuit breaker M Dissipation Adive power loss • maximum W Zetectricity Electricity Continuous current / Rated value / maximum A 10 100 Continuous current / Rated value A 11 125 Adjustable response value current A 11 125 Adjustable response value current A 11 125 Adjustable response value current A 11 5 walue A • of the instantaneous short-circuit release / initial value A Degrating voltage • with AC / at 50/00 Hz / Rated value V 900 000 000 Operating current A 125 • at 80 °C / Rated value A 125 • at 50 °C / Rated value A 120 • at 50 °C / Rated value A 111 • at 70 °C / Rated value A	Protection class IP		IP40
Switching capacity class of the circuit breaker M Dissipation Xative power loss M Active power loss • maximum V 23.2 Electricity Continuous current / Rated value / maximum A 180 Continuous current / Rated value A 125 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 Operating voltage V 690 • with AC / at 50/60 Hz / Rated value V 690 • for DC / Rated value A 125 • at 50 °C / Rated value A 122 • at 50 °C / Rated value A 122 • at 50 °C / Rated value A 122 • at 50 °C / Rated value A 114 Auxilary circuit A 114 Number of CO contacts / for auxiliary contacts 0 Suitability Suitability for use system protection • f	Protection class IP / on the front		IP40
Switching capacity class of the circuit breaker M Dissipation A Active power loss	Protective function of the overcurrent release		LI
Switching capacity class of the circuit breaker M Dissipation A Active power loss			
Dissipation Active power loss w 23.2 Electricity Continuous current / Rated value / maximum A 160 Continuous current / Rated value / maximum A 125 Adjustable response value current A 1 • of the current-dependent overload release / Full-scale value A 1 • of the instantaneous short-circuit release / value A 5 Main circuit Operating voltage V 690 • of DC / Rated value A 125 • at 40 °C / Rated value A 125 • at 50 °C / Rated value A 122 • at 60 °C / Rated value A 122 • at 50 °C / Rated value A 114 Auxiliary circuit Xumber of CO contacts / for auxiliary contacts 0 Suitability for use system protection Adjustable response value current A 10 • of I-trip / Full-scale value A 10 <tr< td=""><td></td><td></td><td>M</td></tr<>			M
Active power loss W 23.2 Electricity Continuous current / Rated value / maximum A 160 Continuous current / Rated value A 125 Adjustable response value current - - • of the current-dependent overload release / Full-scale value A 1 • of the instantaneous short-circuit release / initial value A 1 Main circuit Coperating voltage - 690 • of DC / Rated value V 690 • for DC / Rated value V 690 • of DC / Rated value A 125 • at 40 °C / Rated value A 125 • at 50 °C / Rated value A 122 • at 60 °C / Rated value A 122 • at 65 °C / Rated value A 121 • at 65 °C / Rated value A 117 • at 65 °C / Rated value A 114 Auxiliary circuit A 114 Number of CO contacts / for auxiliary contacts 0 Suitability System protection Suitability for use system protection Adjustable parameters A 10 • of I-trip / Full-scale value A 100 • for N-conductor protection / intital value<	Switching capacity class of the circuit breaker		IVI
• maximum W 23.2 Electricity	•		
Electricity A 160 Continuous current / Rated value A 125 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 V 690 • with AC / at 50/60 Hz / Rated value V 690 • for DC / Rated value V 600 Operating current A 125 • at 40 °C / Rated value A 125 • at 60 °C / Rated value A 120 • at 60 °C / Rated value A 117 • at 60 °C / Rated value A 114 Auxiliary circuit A 114 Auxiliary circuit B 0 Number of CO contacts / for auxiliary contacts 0 Suitability System protection Adjustable response value current A 10 • of I-trip / Full-scale value A 10 • for N-conductor protection / initial value A <td< td=""><td>Active power loss</td><td></td><td></td></td<>	Active power loss		
Continuous current / Rated value / maximum A 160 Continuous current / Rated value A 125 Adjustable response value current • of the current-dependent overload release / Initial value A 1 • of the current-dependent overload release / Initial value A 5 Main circuit A 5 Operating voltage • of DC / Rated value V 690 • for DC / Rated value V 600 600 Operating current • at 40 °C / Rated value A 125 • at 40 °C / Rated value A 125 125 • at 50 °C / Rated value A 122 120 • at 60 °C / Rated value A 122 117 • at 60 °C / Rated value A 117 114 • at 65 °C / Rated value A 117 114 • at 65 °C / Rated value A 114 114 Auximper of CO contacts / for auxiliary contacts 0 0 Suitability Suitability system protection Adjustable response value current • of hrip / Full-scale value A 10 10	• maximum	W	23.2
Continuous current / Rated value A 125 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 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 125 • • at 50 °C / Rated value A 125 • • at 60 °C / Rated value A 120 • • • at 60 °C / Rated value A 120 • • • • at 60 °C / Rated value A 117 • • • • • • • at 60 °C / Rated value A 114 • </td <td>Electricity</td> <td></td> <td></td>	Electricity		
Adjustable response value current of the current-dependent overload release / Full-scale value of the instantaneous short-circuit release / initial value A 5 Main circuit Operating voltage with AC / at 50/60 Hz / Rated value V 600 Operating voltage if at 40 °C / Rated value V 600 Operating current at 40 °C / Rated value A 125 at 50 °C / Rated value A 125 at 60 °C / Rated value A 120 at 65 °C / Rated value A 120 at 65 °C / Rated value A 114 Auxiliary circuit Number of CO contacts / for auxiliary contacts 0 Suitability for use system protection Adjustable response value current of 1-trip / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value A 0.7 Contacts / of the current-dependent overload release / initial value A 0.7 Adjustable response value current / of the current-dependent overload release / initial value A A	Continuous current / Rated value / maximum	А	160
• 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 V 690 • with AC / at 50/60 Hz / Rated value V 690 • for DC / Rated value V 600 Operating current Image: Comparison of the current	Continuous current / Rated value	А	125
Full-scale 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 125 • at 50 °C / Rated value A 125 • at 50 °C / Rated value A 122 • at 60 °C / Rated value A 120 • at 65 °C / Rated value A 120 • at 65 °C / Rated value A 117 • at 67 °C / Rated value A 114 Auxiliary circuit Number of CO contacts / for auxiliary contacts 0 Suitability Suitability Suitability Adjustable response value current • of I-trip / Full-scale value A 10 • for N-conductor protection / initial value A 100 • dijustable response value current / of the current-dependent overload release / initial value A 100	Adjustable response value current		
value Main circuit Operating voltage 690 • with AC / at 50/60 Hz / Rated value V 690 • for DC / Rated value V 600 Operating current Image: Colspan="2">Image: Colspan="2" Image: Colspan=	-	A	1
Operating voltage v 690 • with AC / at 50/60 Hz / Rated value V 690 • for DC / Rated value V 600 Operating current		А	5
• with AC / at 50/60 Hz / Rated value V 690 • for DC / Rated value V 600 Operating current	Main circuit		
• for DC / Rated value V 600 Operating current - • at 40 °C / Rated value A 125 • at 50 °C / Rated value A 125 • at 50 °C / Rated value A 122 • at 50 °C / Rated value A 122 • at 60 °C / Rated value A 120 • at 60 °C / Rated value A 117 • at 65 °C / Rated value A 114 Auxiliary circuit A 114 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 • for N-conductor protection / Full-scale value A 100 • for N-conductor protection / Full-scale value A 0.7	Operating voltage		
Operating current A 125 • at 40 °C / Rated value A 125 • at 50 °C / Rated value A 122 • at 50 °C / Rated value A 122 • at 60 °C / Rated value A 120 • at 60 °C / Rated value A 120 • at 60 °C / Rated value A 112 • at 60 °C / Rated value A 117 • at 65 °C / Rated value A 114 Auxiliary circuit A 114 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 • for N-conductor protection / Full-scale value A 0.7 dependent overload release / initial value A 0.7	 with AC / at 50/60 Hz / Rated value 	V	690
• at 40 °C / Rated value A 125 • at 50 °C / Rated value A 125 • at 55 °C / Rated value A 122 • at 60 °C / Rated value A 120 • at 60 °C / Rated value A 120 • at 65 °C / Rated value A 117 • at 65 °C / Rated value A 114 Auxiliary circuit Number of CO contacts / for auxiliary contacts 0 Suitability Suitability for use Adjustable parameters Adjustable response value current A 10 • for N-conductor protection / initial value A 100 Adjustable response value current / of the current- A 0.7	 for DC / Rated value 	V	600
• at 50 °C / Rated value A 125 • at 55 °C / Rated value A 122 • at 60 °C / Rated value A 120 • at 65 °C / Rated value A 117 • at 65 °C / Rated value A 117 • at 70 °C / Rated value A 114 Auxiliary circuit Number of CO contacts / for auxiliary contacts 0 Suitability Suitability for use Adjustable parameters Adjustable response value current A 10 • for N-conductor protection / initial value A 100 Adjustable response value current / of the current- A 0.7	Operating current		
• at 55 °C / Rated value A 122 • at 60 °C / Rated value A 120 • at 65 °C / Rated value A 117 • at 70 °C / Rated value A 114 Auxiliary circuit A 114 Number of CO contacts / for auxiliary contacts 0 Suitability Suitability Suitability for use system protection Adjustable parameters A Adjustable response value current A • of I-trip / Full-scale value A 10 • for N-conductor protection / initial value A 100 Adjustable response value current / of the current- dependent overload release / initial value A 0.7	• at 40 °C / Rated value	А	125
• at 60 °C / Rated value A 120 • at 65 °C / Rated value A 117 • at 70 °C / Rated value A 114 Auxiliary circuit Number of CO contacts / for auxiliary contacts 0 Suitability Suitability Suitabile parameters 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 • Adjustable response value current / of the current- A • for N-conductor protection / Full-scale value A • Adjustable response value current / of the current- A • for N-conductor protection / Full-scale value A • Adjustable response value current / of the current- A • dependent overload release / initial value A	• at 50 °C / Rated value	А	125
• at 65 °C / Rated value A 117 • at 70 °C / Rated value A 114 Auxiliary circuit A 114 Auxiliary circuit 0 Suitability 0 Suitability 5 Adjustable parameters 0 Adjustable response value current system protection • 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	• at 55 °C / Rated value	А	122
• at 70 °C / Rated value A 114 Auxiliary circuit 0 Number of CO contacts / for auxiliary contacts 0 Suitability 0 Suitability system protection Adjustable parameters 4 Adjustable response value current 0 • of I-trip / Full-scale value A • for N-conductor protection / initial value A • for N-conductor protection / Full-scale value A Adjustable response value current / of the current- A • for N-conductor protection / initial value A Adjustable response value current / of the current- A • for N-conductor protection / Full-scale value A Adjustable response value current / of the current- A • for N-conductor protection / Full-scale value A	● at 60 °C / Rated value	А	120
Auxiliary circuit 0 Number of CO contacts / for auxiliary contacts 0 Suitability 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 • Adjustable response value current / of the current- A 0.7	● at 65 °C / Rated value	А	117
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 • for N-conductor protection / Full-scale value A • djustable response value current / of the current- A 0 0.7	• at 70 °C / Rated value	А	114
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 • for N-conductor protection / Full-scale value A • djustable response value current / of the current- A 0 0.7	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 • Adjustable response value current / of the current- dependent overload release / initial value A 0.7			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 • Adjustable response value current / of the current- dependent overload release / initial value A 0.7	Suitability		
Adjustable response value current A 10 • 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- dependent overload release / initial value A 0.7			system protection
Adjustable response value current A 10 • 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- dependent overload release / initial value A 0.7	Adjustable parameters		
• for N-conductor protection / Full-scale value A A 100 Adjustable response value current / of the current- dependent overload release / initial value	• of I-trip / Full-scale value	А	10
Adjustable response value current / of the current- A 0.7 dependent overload release / initial value A 0.7	 for N-conductor protection / initial value 	А	100
dependent overload release / initial value	• for N-conductor protection / Full-scale value	А	100
	Adjustable response value current / of the current-	А	0.7
Product details	dependent overload release / initial value		
	Product details		
Product component			

• 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		<u>3VA1112-5GF42-0AA0</u>
switch		
Short circuit		
Operational short-circuit current breaking capacity (Ics)		
• at 240 V / Rated value	kA	85
• at 415 V / Rated value	kA	55
• at 440 V / Rated value	kA	30
• 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	85
• at 415 V / Rated value	kA	55
• at 440 V / Rated value	kA	30
• 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	187
• at 415 V / Rated value	kA	121
• at 690 V / Rated value	kA	17
Connections		
Arrangement of electrical connectors / for main current circuit		Front terminal
Type of connectable conductor cross costion	-	

Type of connectable conductor cross-section

ccc • • • •		EG-H	Conf.	DNV GL
	other	C	E	Ĵå ⊡NV GL⊗
General Product Approval EM	C		laration of formity	Shipping Approval
• acc. to DIN EN 81346-2		_	Q	
• acc. to DIN EN 61346-2			Q	
quipment marking				
ertificates				
 during storage / maximum 	0	С	80	
 during storage / minimum 		С	-40	
 during operation / maximum 		С	70	
 during operation / minimum 		С	-25	
mbient temperature				
vironmental conditions				
lounting type			fixed mounti	ng
Depth	n	nm	70	
Vidth		nm	101.6	
leight	n	nm	130	
echanical Design				
ype of electrical connection / for main current of	circuit		Lug termina	
• for flat-bar terminal connection / maximum			17 x 6.5	

-urther	information	
ununun	mornation	

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/3VA11125GF420AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA11125GF420AA0/all

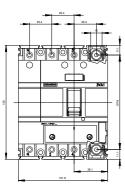
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA11125GF420AA0

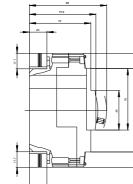
CAx-Online-Generator

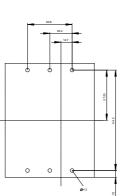
http://www.siemens.com/cax

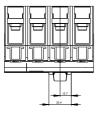
Tender specifications

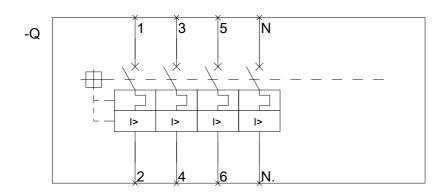
http://ausschreibungstexte.siemens.com/tiplv











last modified:

11.03.2015