SIEMENS

Data sheet

3VA1125-6GD42-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS H ICU=70KA @ 415 V 4-POLE, LINE PROTECTION TM210, FTFM, IN=25A OVERLOAD PROTECTION IR=25A FIXED SHORT CIRCUIT PROTECTION II=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	TM210

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 Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 8.5 Electricity Continuous current / Rated value / maximum Active power loss • maximum A 160 Continuous current / Rated value A 25 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 V 690 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 50 °C / Rated value • at 60 °C / Rated value • at	Protection class IP		IP40
Switching capacity Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 8.5 Electricity 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 CP (Rated value • with AC / at 50/60 Hz / Rated value • to To DC / Rated value • at 40 °C / Rated value • at 50 °C / Rated value • at 50 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 67 °C / Rated value • at 70 °C / Rated v	Protection class IP / on the front		IP40
Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 8.5 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 Main circuit Operating voltage • with AC / at 50/80 Hz / Rated value • for DC / Rated value • of C / Rated value • at 40 °C / Rated value • at 55 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated	Protective function of the overcurrent release		u
Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 8.5 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 Main circuit Operating voltage • with AC / at 50/80 Hz / Rated value • for DC / Rated value • of C / Rated value • at 40 °C / Rated value • at 55 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated	Switching capacity		
Active power loss			Н
Active power loss • maximum Maximum Maxi	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 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 60 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 67 °C / Rated value • at 70 °C / Rated value •			
Continuous current / Rated value / maximum Continuous current / Rated value A 25 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 current-dependent overload release / initial value A 10 • of the current-dependent overload release / initial value I the current-dependent overload release / initial value A 10 • of r N-conductor protection / Full-scale value A 10 Adjustable response value current / of the current-dependent overload release / initial value	• maximum	W	8.5
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 Main circuit Operating voltage with AC / at 50/60 Hz / Rated value of or DC / Rated value of or DC / Rated value of or DC / Rated value at 40 °C / Rated value at 50 °C / Rated value at 60 °C / Rated value at 70 °C / Rated value A 23 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 A 100 Adjustable response value current / of the current-dependent overload release / initial value A 100	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-ci	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 of DC / Rated value value Operating current at 40 °C / Rated value of Cor Rated value A 25 at 55 °C / Rated value at 65 °C / Rated value at 65 °C / Rated value at 65 °C / Rated value A 24 at 65 °C / Rated value A 23 at 70 °C / Rated value A 23 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 10 Adjustable response value current / of the current-dependent overload release / initial value A 10 Adjustable response value current / of the current-dependent overload release / initial value A 1	Continuous current / Rated value	Α	25
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 A 25 • at 50 °C / Rated value A 25 • at 60 °C / Rated value A 24 • at 60 °C / Rated value A 24 • at 60 °C / Rated value A 23 • at 70 °C / Rated value A 23 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 Adjustable response value current / of the current-dependent overload release / initial value A 10 Adjustable response value current / of the current-dependent overload release / initial 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 50 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value A 23 • at 70 °C / Rated value A 23 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 / 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		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 25 • at 50 °C / Rated value A 25 • at 50 °C / Rated value A 24 • at 60 °C / Rated value A 24 • at 60 °C / Rated value A 24 • at 65 °C / Rated value A 23 • at 70 °C / Rated value A 23 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitability Suitable parameters 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		Α	10
with AC / at 50/60 Hz / Rated value for DC / Rated value V 600 Operating current at 40 °C / Rated value A 25 at 50 °C / Rated value A 25 at 50 °C / Rated value A 24 at 60 °C / Rated value A 24 at 60 °C / Rated value A 24 at 65 °C / Rated value A 23 at 70 °C / Rated value A 23 at 70 °C / Rated value A 23 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitability Suitability 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 Adjustable response value current / of the current-dependent overload release / initial value A 100 Adjustable response value current / of the current-dependent overload release / initial value	Main circuit		
for DC / Rated value	Operating voltage		
Operating current • at 40 °C / Rated value • at 50 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value A 23 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	• with AC / at 50/60 Hz / Rated value	V	690
at 40 °C / Rated value at 50 °C / Rated value A 25 at 55 °C / Rated value A 24 at 60 °C / Rated value A 24 at 60 °C / Rated value A 23 at 70 °C / Rated value A 23 Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability for use Suitabile parameters Adjustable parameters Adjustable response value current of I-trip / Full-scale value A 10 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 A 10 Adjustable response value current / of the current-dependent overload release / initial value	• for DC / Rated value	V	600
at 50 °C / Rated value at 55 °C / Rated value at 60 °C / Rated value at 60 °C / Rated value at 65 °C / Rated value at 65 °C / Rated value A 23 at 70 °C / Rated value A 23 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 for N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value A 10 Adjustable response value current / of the current-dependent overload release / initial value	Operating current		
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 A 23 at 70 °C / Rated value A 23 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-dependent overload release / initial value A 10 Adjustable response value current / of the current-dependent overload release / initial value	• at 40 °C / Rated value	Α	25
at 60 °C / Rated value at 65 °C / Rated value at 70 °C / Rated value A 23 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 of or N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / Initial value A 10 Adjustable response value current / of the current-dependent overload release / Initial value	• at 50 °C / Rated value	Α	25
at 65 °C / Rated value at 70 °C / Rated value A 23 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 Adjustable response value current / of the current- dependent overload release / initial value 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	• at 55 °C / Rated value	Α	24
at 70 °C / Rated value A 23 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-dependent overload release / initial value A 10 Adjustable response value current / of the current-dependent overload release / initial value	• at 60 °C / Rated value	Α	24
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	• at 65 °C / Rated value	Α	23
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 0 System protection A 10 A 100 A 100 Adjustable response value current / of the current-dependent overload release / initial value	• at 70 °C / Rated value	Α	23
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 O System protection A 10 A 100 A 100 Adjustable response value current / of the current-dependent overload release / initial value	Auxiliary circuit		
Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value of Intrip / Full-scale value A 100 of Intrip / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value			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 of Intrip / Full-scale value A 100 Adjustable response value current / of the current-dependent overload release / initial value	Cuitability		
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	· · · · · · · · · · · · · · · · · · ·		system protection
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	•		
 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 A 10 A 100 A 100 A 1			
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• for N-conductor protection / Full-scale value Adjustable response value current / of the current- dependent overload release / initial value A 100 A 1			
Adjustable response value current / of the current- dependent overload release / initial value			
dependent overload release / initial value	·		
	-	A	
Product details	Product details		
Product component	Product component		

Trip indicator		No
·		No
display Valtage trigger		No
Voltage triggerundervoltage release		No
•		No
undervoltage release with leading contact Product property		INO
Product property for neutral conductors /		No
upgradeable/retrofittable / Short-circuit and		140
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		3VA1125-6GD42-0AA0
switch		
Short circuit		
Operational short-circuit current breaking capacity		
(lcs)		
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 (lcm)		
• at 240 V / Rated value	kA	220
• at 415 V / Rated value	kA	154
at 690 V / Rated value	LεΛ	17
	kA	11
Connections	KA	
Connections Arrangement of electrical connectors / for main	KA	Front terminal
Connections	KA	

• for flat-bar terminal connection / minimum	12 x 0
• for flat-bar terminal connection / maximum	17 x 6.5
Type of electrical connection / for main current circuit	Lug 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 Product Approval	EMC	Declaration of	Shipping Approval
		Conformity	





other







 GL

other

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/3VA11256GD420AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA11256GD420AA0/all

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

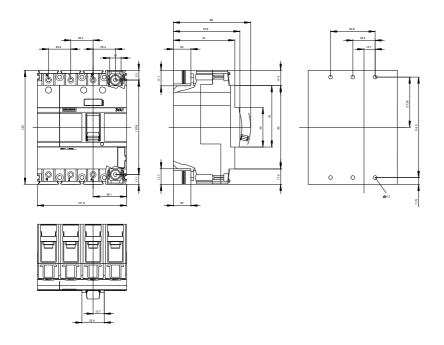
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA11256GD420AA0

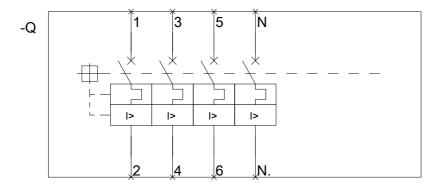
CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv





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