# **SIEMENS**

## Data sheet

## 3VA1163-6GE42-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS H ICU=70KA @ 415 V 4-POLE, LINE PROTECTION TM220, ATFM, IN=63A OVERLOAD PROTECTION IR=44,1A ...63A 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	TM220	

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  LI  Switching capacity  Switching capacity class of the circuit breaker  H  Dissipation  Active power loss  • maximum  W  17.3  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  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  • for DC / Rated value  V  690  V  600	
Switching capacity Switching capacity class of the circuit breaker  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  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  V 690	
Switching capacity class of the circuit breaker  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  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  V 690	
Switching capacity class of the circuit breaker  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  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  V 690	
Active power loss  • maximum    Main circuit   Main circuit   Main Active power loss   Main Active power loss   Main Active power loss   Main Continuous current / Rated value / maximum	
Active power loss  • maximum    Main circuit   Main circuit   Main circuit   Main circuit   Active power loss   Main circuit   Material   Main circuit   Material   Main circuit   Material   Material	
Continuous current / Rated value / maximum	
Continuous current / Rated value / maximum A 160  Continuous current / Rated value A 63  Adjustable response value current  • of the current-dependent overload release / A 1  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	
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  A 1  In 1  A 10  Main circuit  Operating voltage  output  Which are the following the follo	
Adjustable response value current  • of the current-dependent overload release / A 1 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	
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  A 1 10 4 10 690	
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	
value  Main circuit  Operating voltage  ● with AC / at 50/60 Hz / Rated value  V 690	
Operating voltage  ● with AC / at 50/60 Hz / Rated value  V 690	
• with AC / at 50/60 Hz / Rated value V 690	
• for DC / Rated value V 600	
- IOI DO / INdied value	
Operating current	
• at 40 °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 65 °C / Rated value A 60	
• at 70 °C / Rated value A 58	
Auxiliary circuit	
Number of CO contacts / for auxiliary contacts 0	
Suitability	
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 dependent overload release / initial value	
Product details	
Product component	

Trip indicator display Voltage trigger undervoltage release undervoltage release with leading contact  Product property for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proof  Product function  Product function  Product function  Product function  Intrinsic device protection Communication function Phase failure detection Other measurement function  Accessories  Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity ((cs) at 240 V / Rated value at 450 V / Rated value at 690 V / Rated value at 640 V / Rated value at 640 V / Rated value at 640 V / Rated value at 690 V / Rated value at 690 V / Rated value at 640 V / Rated value at 640 V / Rated value at 690 V / Rated value at 690 V / Rated value at 690 V / Rated value at 640 V / Rated value	•		NO .
Voltage trigger  undervoltage release  undervoltage release  undervoltage release  undervoltage release with leading contact  Product property  for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proof  Product synamion / optional / motor drive  Product function  Product function  Product function  Intrinsic device protection  communication function  Phase failure detection  other measurement function  No  Accessories  Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity (Ics)  at 240 V / Rated value  at 415 V / Rated value  at 440 V / Rated value  at 430 V / Rated value  at 630 V / Rated value  at 630 V / Rated value  at 630 V / Rated value  at 640 V / Rated value  at 640 V / Rated value  at 640 V / Rated value  at 650 V / Rated value  at 640 V / Rated value			
• undervoltage release     • undervoltage release with leading contact  Product property     • for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proof  Product expansion / optional / motor drive  Product function  Product function  • Intrinsic device protection     • communication function     • Phase failure detection     • other measurement function  • other measurement function  Accessories  Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity (ics)  • at 240 V / Rated value     • at 440 V / Rated value     • at 4500 V / Rated value     • at 690 V / Rated value     • at 690 V / Rated value     • at 240 V / Rated value     • at 240 V / Rated value     • at 690 V / Rated value     • at 690 V / Rated value     • at 240 V / Rated value     • at 240 V / Rated value     • at 690 V / Rated value     • at 240 V / Rated value     • at 690 V / Rated value     • at 240 V / Rated value	• •		
undervoltage release with leading contact  Product property	<ul> <li>Voltage trigger</li> </ul>		
Product property  • for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proof  Product expansion / optional / motor drive  Product function  Product function  • Intrinsic device protection • communication function • Phase failure detection • other measurement function  Accessories  Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity ((cs)  • at 240 V / Rated value • at 415 V / Rated value • at 450 V / Rated value • at 690 V / Rated value • at 690 V / Rated value • at 690 V / Rated value • at 240 V / Rated value • at 240 V / Rated value • at 690 V / Rated value • at 690 V / Rated value • at 240 V / Rated value • at 240 V / Rated value • at 690 V / Rated value • at 240 V / Rated value • at 690 V / Rated value • at 240 V / Rated value • at 240 V / Rated value • at 240 V / Rated value • at 690 V / Rated value • at 240 V / Rated value	undervoltage release		No
for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proof  Product expansion / optional / motor drive  Product function  Product function  Intrinsic device protection  Communication function  Phase failure detection  Other measurement function  Accessories  Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity (lcs)  Intrinsic device protection  No  No  No  No  No  Accessories  Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity (lcs)  Intrinsic device protection  No  No  Accessories  Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity (lcs)  Intrinsic device protection  No  Accessories  Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity (lcs)  Intrinsic device protection  No  No  Accessories  Manufacturer article number / of the supplied basic switch  No  Accessories  Manufacturer article number / of the supplied basic switch  No  No  Accessories  Accessor	<ul> <li>undervoltage release with leading contact</li> </ul>		No
upgradeable/retrofittable / Short-circuit and overload proof  Product expansion / optional / motor drive  Product function  Product function  Intrinsic device protection Communication function Phase failure detection Other measurement function  Intrinsic device protection Other measurement function  Intrinsic device protection Intrinsic	Product property		
Product function  Product function  Product function  Intrinsic device protection Communication function Phase failure detection Other measurement function Other measurement function  Accessories  Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity (Ics)  At 415 V / Rated value At 440 V / Rated value At 450 V / Rated value	upgradeable/retrofittable / Short-circuit and		No
Product function  Product function  Intrinsic device protection  communication function  Phase failure detection  other measurement function  No  Accessories  Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity (Ics)  at 240 V / Rated value  at 415 V / Rated value  at 440 V / Rated value  at 440 V / Rated value  at 500 V / Rated value  at 690 V / Rated value  at 690 V / Rated value  at 240 V / Rated value  at 690 V / Rated value  at 240 V / Rated value  kA  5  Maximum short-circuit current breaking capacity (Icu)  at 240 V / Rated value  kA  100			Yes
Product function  Intrinsic device protection Communication function Phase failure detection Other measurement function  Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity (Ics) At 240 V / Rated value At 415 V / Rated value At 500 V / Rated value At 690 V / Rated value At 690 V / Rated value At 690 V / Rated value At 240 V / Rated value At 690 V / Rated value At 690 V / Rated value At 690 V / Rated value At 240 V / Rated value At 690 V / Rated value			
Intrinsic device protection  Incommunication function  Phase failure detection Other measurement function  Accessories  Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity (Ics)  Interval at 415 V / Rated value Interval at 440 V / Rated value Interval at 440 V / Rated value Interval at 4500 V / Rated value Interval at 690 V / Rated valu			
communication function     Phase failure detection     other measurement function      Manufacturer article number / of the supplied basic switch    Short circuit			
Phase failure detection of the measurement function  No  Accessories  Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity (Ics)  at 240 V / Rated value at 415 V / Rated value at 440 V / Rated value at 440 V / Rated value at 4500 V / Rated value at 690 V / Rated value at 690 V / Rated value at 240 V / Rated value kA  Maximum short-circuit current breaking capacity (Icu) at 240 V / Rated value kA  100	·		
other measurement function  Accessories  Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity (Ics)	communication function		No
Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity (Ics)  • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 500 V / Rated value • at 690 V / Rated value • at 690 V / Rated value • at 240 V / Rated value • at 690 V / Rated value • at 690 V / Rated value • at 240 V / Rated value  • at 240 V / Rated value  kA  5  Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value	Phase failure detection		No
Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity (Ics)  • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 440 V / Rated value • at 500 V / Rated value • at 500 V / Rated value • at 690 V / Rated value • at 690 V / Rated value • at 240 V / Rated value • at 240 V / Rated value  **A 5  Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value  **A 100	<ul><li>other measurement function</li></ul>		No
Manufacturer article number / of the supplied basic switch  Short circuit  Operational short-circuit current breaking capacity (Ics)  • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 440 V / Rated value • at 500 V / Rated value • at 500 V / Rated value • at 690 V / Rated value • at 690 V / Rated value • at 240 V / Rated value • at 240 V / Rated value  **A 5  Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value  **A 100	ccessories		
Short circuit  Operational short-circuit current breaking capacity (Ics)  • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 440 V / Rated value • at 500 V / Rated value • at 690 V / Rated value • at 690 V / Rated value • at 240 V / Rated value • at 240 V / Rated value  KA  5  Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value  KA  100			3VA1163-6GE42-0AA0
Operational short-circuit current breaking capacity (Ics)  • at 240 V / Rated value  • at 415 V / Rated value  • at 440 V / Rated value  • at 500 V / Rated value  • at 690 V / Rated value  • at 240 V / Rated value	switch		
Operational short-circuit current breaking capacity (Ics)  • at 240 V / Rated value  • at 415 V / Rated value  • at 440 V / Rated value  • at 500 V / Rated value  • at 690 V / Rated value  • at 240 V / Rated value	hort circuit		
<ul> <li>at 240 V / Rated value</li> <li>at 415 V / Rated value</li> <li>at 440 V / Rated value</li> <li>at 500 V / Rated value</li> <li>at 690 V / Rated value</li> <li>at 690 V / Rated value</li> <li>at 240 V / Rated value</li> <li>at 240 V / Rated value</li> <li>kA</li> <li>100</li> </ul>	Operational short-circuit current breaking capacity		
at 415 V / Rated value  at 440 V / Rated value  at 500 V / Rated value  kA  the street stree	(Ics)		
at 440 V / Rated value  at 500 V / Rated value  at 690 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 240 V / Rated value	kA	100
at 500 V / Rated value     at 690 V / Rated value  Maximum short-circuit current breaking capacity (Icu)     at 240 V / Rated value  kA  15  kA  5	• at 415 V / Rated value	kA	70
at 690 V / Rated value    KA   5	• at 440 V / Rated value	kA	36
Maximum short-circuit current breaking capacity (Icu)  ● at 240 V / Rated value kA 100	• at 500 V / Rated value	kA	15
• at 240 V / Rated value kA 100	• at 690 V / Rated value	kA	5
	Maximum short-circuit current breaking capacity (Icu)		
at 415 V / Rated value	• at 240 V / Rated value	kA	100
	• at 415 V / Rated value	kA	70
• at 440 V / Rated value kA 36	• at 440 V / Rated value	kA	36
at 500 V / Rated value	• at 500 V / Rated value	kA	20
• at 690 V / Rated value kA 10	• at 690 V / Rated value	kA	10
Short-circuit current making capacity (Icm)	Short-circuit current making capacity (Icm)		
at 240 V / Rated value	• at 240 V / Rated value	kA	220
at 415 V / Rated value	• at 415 V / Rated value	kA	154
• at 690 V / Rated value kA 17	• at 690 V / Rated value	kA	17
Connections	onnections		
Connections Arrangement of electrical connectors / for main Front terminal			Front terminal
current circuit	Type of connectable conductor cross-section		

• 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				
<ul><li>during operation / minimum</li></ul>	°C	-25		
<ul><li>during operation / maximum</li></ul>	°C	70		
<ul> <li>during storage / minimum</li> </ul>	°C	-40		
<ul><li>during storage / maximum</li></ul>	°C	80		

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**Equipment marking** 

acc. to DIN EN 61346-2
 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/3VA11636GE420AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3VA11636GE420AA0/all

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

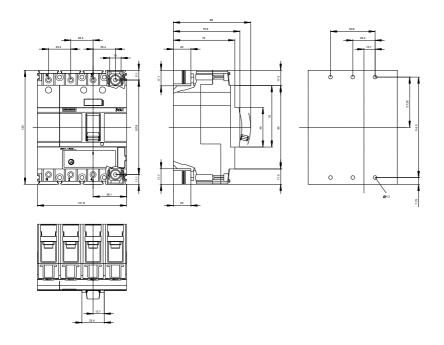
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA11636GE420AA0}}$ 

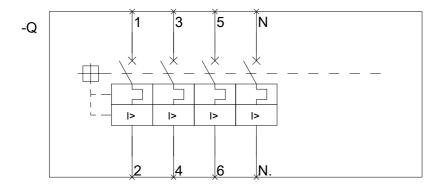
**CAx-Online-Generator** 

http://www.siemens.com/cax

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv





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