SIEMENS

Data sheet

3VA1120-6EF36-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS H ICU=70KA @ 415 V 3-POLE, LINE PROTECTION TM240, ATAM, IN=20A OVERLOAD PROTECTION IR=14A ...20A SHORT CIRCUIT PROTECTION II=5...10 X IN 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		3		
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 class of the circuit breaker Dissipation Active power loss • maximum V 12 Electricity Continuous current / Rated value / maximum A 160 Continuous current / Rated value / A 20 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 of C / Rated value • with AC / at 50/60 Hz / Rated value • of OC / Rated value • at 50 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 60 °C / Rated value • at 70 °C	Protection class IP	_	IP40			
Switching capacity Switching capacity class of the circuit breaker Dissipation	Protection class IP / on the front	-	IP40			
Switching capacity class of the circuit breaker Dissipation Active power loss • maximum M 12	Protective function of the overcurrent release	-	LI			
Switching capacity class of the circuit breaker Dissipation Active power loss • maximum M 12	Switching capacity					
Active power loss			н			
Active power loss	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 65 °C / Rated value • at 65 °C / Rated value • at 67 °C / Rated value • at 68 °C / Rated value • at 69 °C / Rated value • at 70 °C / Rated value •	Active power loss					
Continuous current / Rated value / maximum Continuous current / Rated value Adjustable response value current of the current-dependent overload release / Full-scale value of the instantaneous short-circuit release / initial value of the instantaneous short-circuit release / initial value of the instantaneous short-circuit release / initial value of or DC / Rated value at 40 °C / Rated value at 55 °C / Rated value at 60 °C / Rated value at 60 °C / Rated value at 60 °C / Rated value at 70 °C / Rated value at 70 °C / Rated value of or DC / Rated value of or DC / Rated value at 60 °C / Rated value at 60 °C / Rated value of or CO contacts / for auxiliary contacts Duttability Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value af on N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable response value current of the current- Adjustable response value current of the current- Adjustable response value current of the current-	• maximum	W	12			
Continuous current / Rated value Adjustable response value current of the current-dependent overload release / Full-scale value of the instantaneous short-circuit release / initial va	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-circuit value short-circuit value short-circuit value short-ci		Α	160			
of the current-dependent overload release / Full-scale value of the instantaneous short-circuit release / initial value Main circuit Operating voltage with AC / at 50/60 Hz / Rated value of DC / Rated value volume Operating current at 40 °C / Rated value A 20 at 55 °C / Rated value at 55 °C / Rated value at 65 °C / Rated value at 65 °C / Rated value at 65 °C / Rated value at 67 °C / Rated valu	Continuous current / Rated value	Α	20			
Full-scale value • of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • for DC / Rated value Operating current • at 40 °C / Rated value • at 55 °C / Rated value • at 55 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 70 °C / Rated value A 19 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitable parameters Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • for N-conductor protection / Full-scale value A 0 Adjustable response value current / of the current- Adjustable response value current / of the current-	Adjustable response value current					
Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value V 690 • for DC / Rated value V 500 Operating current • at 40 °C / Rated value A 20 • at 50 °C / Rated value A 20 • at 55 °C / Rated value A 19 • at 65 °C / Rated value A 19 • at 70 °C / Rated value A 19 • at 70 °C / Rated value A 19 • Auxiliary circuit Number of CO contacts / for auxiliary contacts 0 Suitability Suitability for use Adjustable parameters Adjustable response value current • of I-trip / Full-scale value A 10 • for N-conductor protection / Full-scale value A 0 • for N-conductor protection / Full-scale value A 0 • Adjustable response value current / of the current- A 0		Α	1			
Operating voltage • with AC / at 50/60 Hz / Rated value • for DC / Rated value Operating current • at 40 °C / Rated value • at 50 °C / Rated value • at 55 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value A 19 • at 65 °C / Rated value A 19 • at 70 °C / Rated value A 19 Auxiliary circuit Number of CO contacts / for auxiliary contacts O 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- Adjustable response value current / of the current-		Α	5			
with AC / at 50/60 Hz / Rated value for DC / Rated value v 500 Operating current at 40 °C / Rated value at 50 °C / Rated value at 50 °C / Rated value at 55 °C / Rated value at 60 °C / Rated value at 65 °C / Rated value at 70 °C / Rated value at	Main circuit					
for DC / Rated value Operating current at 40 °C / Rated value at 50 °C / Rated value at 55 °C / Rated value at 60 °C / Rated value at 65 °C / Rated value at 65 °C / Rated value at 65 °C / Rated value at 67 °C / Rated value at 67 °C / Rated value A 19 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 / initial value of or N-conductor protection / Full-scale value Adjustable response value current / of the current-	Operating voltage					
Operating current • at 40 °C / Rated value • at 50 °C / Rated value • at 55 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value A 19 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- Adjustable response value current / of the current-	• with AC / at 50/60 Hz / Rated value	V	690			
 at 40 °C / Rated value at 50 °C / Rated value at 55 °C / Rated value at 60 °C / Rated value at 65 °C / Rated value at 65 °C / Rated value at 70 °C / Rated value at 70 °C / Rated value A 19 at 70 °C / Rated value A 19 Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability for use system protection Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value for N-conductor protection / Full-scale value Adjustable response value current / of the current- Adjustable response value current / of the current- 	• for DC / Rated value	V	500			
at 50 °C / Rated value at 55 °C / Rated value at 65 °C / Rated value at 65 °C / Rated value at 65 °C / Rated value at 70 °C / Rated value At 19 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 N-conductor protection / Full-scale value Adjustable response value current / of the current- Adjustable response value current / of the current- Adjustable response value current / of the current-	Operating current					
at 55 °C / Rated value at 60 °C / Rated value at 65 °C / Rated value A 19 at 65 °C / Rated value A 19 at 70 °C / Rated value A 19 Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability Suitable parameters Adjustable parameters Adjustable response value current of I-trip / Full-scale value of or N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable response value current / of the current- Adjustable response value current / of the current- Adjustable response value current / of the current- A 0.7	• at 40 °C / Rated value	Α	20			
at 60 °C / Rated value at 65 °C / Rated value at 70 °C / Rated value A 19 Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability Suitabile parameters Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current- Adjustable response value current / of the current- Adjustable response value current / of the current- A 0.7	• at 50 °C / Rated value	Α	20			
at 65 °C / Rated value at 70 °C / Rated value A 19 Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current- Adjustable response value current / of the current- Adjustable response value current / of the current-	● at 55 °C / Rated value	Α	20			
at 70 °C / Rated value A 19 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 for N-conductor protection / initial value of or N-conductor protection / Full-scale value Adjustable response value current / of the current- Adjustable response value current / of the current-	• at 60 °C / Rated value	Α	19			
Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current- Adjustable response value current / of the current-	• at 65 °C / Rated value	Α	19			
Number of CO contacts / for auxiliary contacts Suitability Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current- Adjustable response value current / of the current- Adjustable response value current / of the current-	• at 70 °C / Rated value	Α	19			
Number of CO contacts / for auxiliary contacts Suitability Suitability for use Adjustable parameters Adjustable response value current • of I-trip / Full-scale value • for N-conductor protection / initial value • for N-conductor protection / Full-scale value Adjustable response value current / of the current- Adjustable response value current / of the current- A 0.7	Auxiliary circuit					
Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current- Adjustable response value current / of the current-			0			
Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current- Adjustable response value current / of the current-	Suitability					
Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current- A 0.7			system protection			
 of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value A 0 Adjustable response value current / of the current- A 0.7 	Adjustable parameters					
 for N-conductor protection / initial value for N-conductor protection / Full-scale value Adjustable response value current / of the current- A 0 Adjustable response value current / of the current- 	Adjustable response value current					
 for N-conductor protection / Full-scale value Adjustable response value current / of the current- A 0.7 	• of I-trip / Full-scale value	Α	10			
Adjustable response value current / of the current- A 0.7	• for N-conductor protection / initial value	Α	0			
	• for N-conductor protection / Full-scale value	Α	0			
	Adjustable response value current / of the current- dependent overload release / initial value	Α	0.7			
Product details	Product details					
Product component Product component						

Trip indicator		No
		No
• display		No
Voltage trigger		
undervoltage release		No
undervoltage release with leading contact		No
Product property		
• for neutral conductors /		No
upgradeable/retrofittable / Short-circuit and overload proof		
Product expansion / optional / motor drive		Yes
Troduct expansion, optional, motor and		1.00
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		3VA1120-6EF36-0AA0
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		
Connections Arrangement of electrical connectors / for main		Front terminal
current circuit		
Type of connectable conductor cross-section		

• of the round c	onductor terminal / str	anded			1 x (1.5 - 70 mm²)		
	nnection / for main cu				Box terminal		
Mechanical Design							
Height			mm		130	_	
Width			mm		76.2		
Depth			mm		70		
Mounting type					fixed mounting		
Environmental cond	ditions						
Ambient temperatur	e						
 during operation 	on / minimum		°C		-25		
 during operation 	during operation / maximum		°C		70		
 during storage 	e / minimum		°C		-40		
 during storage 	e / maximum		°C		80		
Certificates							
Equipment marking							
● acc. to DIN EN	N 61346-2				Q		
• acc. to DIN EN	• acc. to DIN EN 81346-2				Q		
General Product	EMC	Declaration Conformity		Ship	pping Approval		other
Approval							
гпг	other			£	Å C		other
FHI		しと		Ψ	GL®		
LIIL		EG-Konf.		DE	NV GI		

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/3VA11206EF360AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA11206EF360AA0/all

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA11206EF360AA0

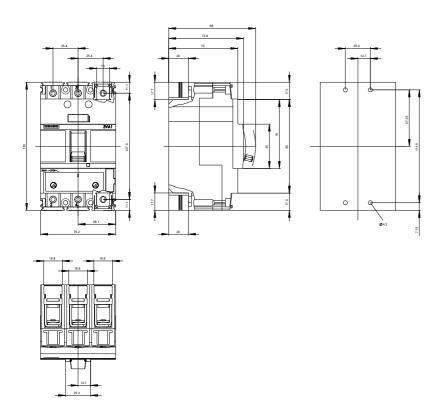
CAx-Online-Generator

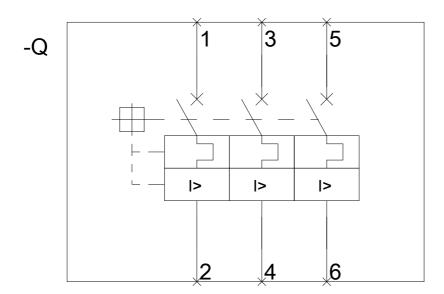
http://www.siemens.com/cax

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv

GL





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