SIEMENS

Data sheet

3VA1120-6EE36-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS H ICU=70KA @ 415 V 3-POLE, LINE PROTECTION TM220, ATFM, IN=20A OVERLOAD PROTECTION IR=14A ...20A SHORT CIRCUIT PROTECTION II=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	TM220

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		
	tage	
Insulation voltage / Rated value V 800	sulation voltage / Rated value	V

Protection class

Protective function of the overcurrent release LI Switching capacity Switching capacity class of the circuit breaker H Dissipation Active power loss • maximum Electricity Continuous current / Rated value / maximum A 160 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 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 70 °C / R	Protection class IP		IP40
Switching capacity Class of the circuit breaker H Dissipation Active power loss • maximum W 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 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 55 °C / Rated value A 20 • at 65 °C / Rated value A 19 • 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 Ocultability Suitability Suitability Suitability for use Adjustable response value current • of I-trip / Full-scale value	Protection class IP / on the front		IP40
Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 12	Protective function of the overcurrent release		LI
Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 12	Switching capacity		
Active power loss • maximum M 12			Н
Active power loss • maximum M 12	Dissipation		
Continuous current / Rated value / maximum	Active power loss		
Continuous current / Rated value / maximum	• 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 value Main circuit Operating voltage with AC / at 50/60 Hz / Rated value of or DC / Rated value value 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 70 °C / Rated value A 19 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitability for use system protection Adjustable parameters Adjustable response value current of 1-trip / Full-scale value A 10	Electricity		
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 50 °C / Rated value • at 50 °C / Rated value • at 60 °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 0 Suitability Suitability for use Adjustable parameters Adjustable response value current • of I-trip / Full-scale value A 10	Continuous current / Rated value / maximum	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 vor DC / Rated value vor DC / Rated value vor A 20 Operating current at 40 °C / Rated value A 20 at 55 °C / Rated value at 55 °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 Suitability Suitabile parameters Adjustable parameters Adjustable response value current of I-trip / Full-scale value A 10	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 50 °C / Rated value • at 50 °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 Suitability for use Adjustable parameters Adjustable response value current • of I-trip / Full-scale value A 10	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 50 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 670 °C / Rated value • at 670 °C / Rated value • at 680 °C / Rated value • at 690 °C / Rated value • at 700 °C / Rated value • at 700 °C / Rated value • at 700 °C / Rated value A 190 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		Α	1
Operating voltage • 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 55 °C / Rated value • at 65 °C / Rated value • 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 O Suitability Suitability for use Adjustable parameters Adjustable response value current • of I-trip / Full-scale value A 10		Α	10
 with AC / at 50/60 Hz / Rated value for DC / Rated value for DC / Rated value at 40 °C / Rated value 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 	Main circuit		
for DC / Rated value V 500 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 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 Suitabile parameters Adjustable parameters Adjustable response value current of I-trip / Full-scale value A 10	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 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 A 20 A 19 A 19 Suitability Suitability for use	• 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 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 for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value A 20 A 19 A 19 A 19 A 19 Auxiliary circuit Number of CO contacts / for auxiliary contacts Adjustable parameters Adjustable parameters Adjustable response value current of I-trip / Full-scale value A 10	• for DC / Rated value	V	500
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 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 A 20 A 19 A 19 Suitability Suitability A 19	Operating current		
at 55 °C / Rated value 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 for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value A 20 A 19 A 19 A 19 A 19 A 19	• 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 Suitability for use Adjustable parameters Adjustable response value current of I-trip / Full-scale value A 19 A 19 A 19 A 19	• 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 A 19 A 10	● at 55 °C / Rated value	Α	20
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 A 10	• 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 A 10	• 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 A 10	• at 70 °C / Rated value	Α	19
Number of CO contacts / for auxiliary contacts Suitability Suitability for use Suitability for use Adjustable parameters Adjustable response value current • of I-trip / Full-scale value A 10	Auxiliary circuit		
Suitability for use system protection Adjustable parameters Adjustable response value current • of I-trip / Full-scale value A 10			0
Suitability for use system protection Adjustable parameters Adjustable response value current • of I-trip / Full-scale value A 10	Suitability		
Adjustable response value current ● of I-trip / Full-scale value A 10	·		system protection
• of I-trip / Full-scale value A 10	Adjustable parameters		
• for N-conductor protection / initial value	• of I-trip / Full-scale value	Α	10
Fig. 18-contractor protection / initial value	• for N-conductor protection / initial value	Α	0
• for N-conductor protection / Full-scale value A 0	• for N-conductor protection / Full-scale value	Α	0
Adjustable response value current / of the current- dependent overload release / initial value	-	А	0.7
Product details	Product details		
Product component			

		NI
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		3VA1120-6EE36-0AA0
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 kA	10
at 690 V / Rated value Short-circuit current making capacity (Icm)		
Short-circuit current making capacity (lcm)	kA	10
Short-circuit current making capacity (lcm) • at 240 V / Rated value	kA	10 220
Short-circuit current making capacity (Icm) • at 240 V / Rated value • at 415 V / Rated value	kA kA kA	10 220 154
Short-circuit current making capacity (Icm) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value Connections Arrangement of electrical connectors / for main	kA kA kA	10 220 154
Short-circuit current making capacity (Icm) • at 240 V / Rated value • at 415 V / Rated value • at 690 V / Rated value Connections	kA kA kA	10 220 154 17

• of the round co	onductor terminal / str	anded		1 x (1.5	- 70 mm²)	
Type of electrical cor	electrical connection / for main current circuit			Box tern	Box terminal	
Mechanical Design						
Height			mm	130		
Width			mm	76.2		
Depth			mm	70		
Mounting type				fixed mo	unting	
Environmental cond	litions					
Ambient temperature)					
during operation	on / minimum		°C	-25		
 during operation 	on / 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	EMC	Declaration	n of	Shipping App	oroval	other
Product		Conformity	<i>'</i>			
Approval						
FMF	other			₽ &		other
FHI				$\Phi \Phi$		
LIIL		EG-Konf.		DNV	GL	

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/3VA11206EE360AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA11206EE360AA0/all

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA11206EE360AA0

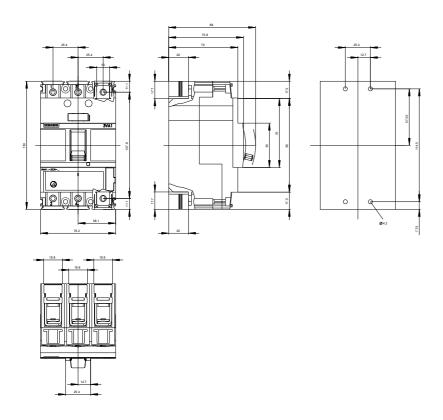
CAx-Online-Generator

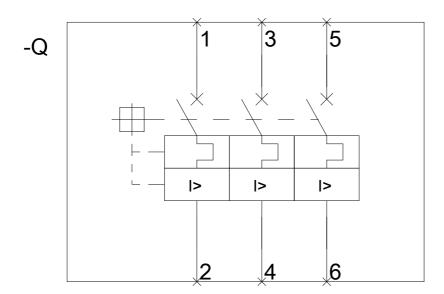
http://www.siemens.com/cax

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv

GL





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