SIEMENS

Data sheet

3VA1110-3FE46-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS N ICU=25KA @ 415 V 4-POLE, LINE PROTECTION TM220, ATFM, IN=100A OVERLOAD PROTECTION IR=70A ...100A SHORT CIRCUIT PROTECTION II=10 X IN NEUTRAL PROTECTION 50% 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		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 class of the circuit breaker N Dissipation Active power loss • maximum W 25 Electricity Continuous current / Rated value / maximum	Protection class IP		IP40	
Switching capacity Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 25 Electricity Continuous current / Rated value / maximum • 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 Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • of PC / 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	Protection class IP / on the front		IP40	
Switching capacity class of the circuit breaker N Dissipation Active power loss • maximum W 25 Electricity Continuous current / Rated value / maximum A 160 Continuous current / Rated value A 100 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 C/ Rated value • of the instantaneous short-circuit release / initial value • of the 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 70 °C / Rated value	Protective function of the overcurrent release		LI	
Switching capacity class of the circuit breaker N Dissipation Active power loss • maximum W 25 Electricity Continuous current / Rated value / maximum A 160 Continuous current / Rated value A 100 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 C/ Rated value • of the instantaneous short-circuit release / initial value • of the 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 70 °C / Rated value	Switching capacity			
Active power loss • maximum Maximum Maxi			N	
Electricity Continuous current / Rated value / maximum A 160 Continuous current / Rated value Adjustable response value current • of the current-dependent overload release / A 1 Full-scale value • of the instantaneous short-circuit release / initial A 10 value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • for DC / Rated value • of the 7C / Rated value • at 40 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 70 °C / Rated value • at 70 °C / Rated value • at 70 °C / Rated value • at 60 °C / Rated value • at 70 °C	Dissipation			
Electricity Continuous current / Rated value / maximum Continuous current / Rated value A 100 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 the or DC / Rated value of the OC / Rated value at 50 °C / Rated value at 60 °C / Rated value at 70 °C / R	Active power loss			
Continuous current / Rated value / maximum	• maximum	W	25	
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 current-dependent overload release / initial value of the current dependent overload release / initial value A 100 of the of the instantaneous short-circuit release / initial value A 100 of the current of the current-dependent overload release / initial value A 100 of the of the instantaneous short-circuit release / initial value A 100 of the current of the current-dependent overload release / initial value Product details	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 release / initial value of the instantaneous short-circuit release / initial value Operating voltage with AC / at 50/60 Hz / Rated value of or DC / Rated value of or DC / Rated value of at 40 °C / Rated value at 50 °C / Rated value of C / Rated value of OPerating current of C / Rated value of OPerating voltage of OPe	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 v 690 of ro DC / Rated value v 690 Operating current 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 67 °C / Rated value at 67 °C / Rated value at 67 °C / Rated value at 68 °C / Rated value at 67 °C / Rated value at 67 °C / Rated value at 68 °C / Rated value at 69 °C / Rated value at 69 °C / Rated value at 67 °C / Rated value at 68 °C / Rated va	Continuous current / Rated value	Α	100	
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 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	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 55 °C / Rated value • at 55 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value A 94 • at 70 °C / Rated value A 91 Auxiliary circuit Number of CO contacts / for auxiliary contacts O 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-dependent overload release / initial value Product details		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 A 100 • at 50 °C / Rated value A 98 • at 60 °C / Rated value A 96 • at 60 °C / Rated value A 96 • at 65 °C / Rated value A 96 • at 65 °C / Rated value A 94 • at 70 °C / Rated value A 91 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitability for use 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 0.5 Adjustable response value current / of the current-dependent overload release / initial value Product details		Α	10	
with AC / at 50/60 Hz / Rated value for DC / Rated value v 600 Operating current at 40 °C / Rated value at 50 °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 65 °C / Rated value at 65 °C / Rated value at 70 °C / Rated value A 91 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability Suitability Suitabile 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 Adjustable response value current / of the current-dependent overload release / Initial value Product details	Main circuit			
for DC / Rated value	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 70 °C / Rated value • at 70 °C / Rated value A 94 • at 70 °C / Rated value A 91 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 • for N-conductor protection / Full-scale value A 0.5 Adjustable response value current / of the current-dependent overload release / initial value Product details	• with AC / at 50/60 Hz / Rated value	V	690	
at 40 °C / Rated value at 50 °C / Rated value A 100 at 55 °C / Rated value A 98 at 60 °C / Rated value A 96 at 60 °C / Rated value A 91 Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability for use Adjustable parameters Adjustable response value current of or N-conductor protection / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value Product details	• for DC / Rated value	V	600	
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 94 at 70 °C / Rated value A 91 Auxiliary circuit Number of CO contacts / for auxiliary contacts Suitability Suitability 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 Adjustable response value current / of the current-dependent overload release / initial value Product details	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 91 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-dependent overload release / initial value Product details	• at 40 °C / Rated value	Α	100	
at 60 °C / Rated value at 65 °C / Rated value at 70 °C / Rated value A 91 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 Product details	• at 50 °C / Rated value	Α	100	
at 65 °C / Rated value at 65 °C / Rated value A 91 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 Adjustable response value current / of the current-dependent overload release / initial value Product details	• at 55 °C / Rated value	Α	98	
at 70 °C / Rated value 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 A 0.5 Adjustable response value current of ron-conductor protection / Full-scale value A 0.5 Adjustable response value current / of the current-dependent overload release / initial value Product details	• at 60 °C / Rated value	Α	96	
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-dependent overload release / initial value Product details	● at 65 °C / Rated value	Α	94	
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 A 0.5 of or N-conductor protection / Full-scale value A 0.5 Adjustable response value current / of the current-dependent overload release / initial value Product details	• at 70 °C / Rated value	Α	91	
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 A 0.5 of or N-conductor protection / Full-scale value A 0.5 Adjustable response value current / of the current-dependent overload release / initial value Product details	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 A 0.5 of N-conductor protection / Full-scale value A 0.5 Adjustable response value current / of the current-dependent overload release / initial value Product details			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 0.5 of N-conductor protection / Full-scale value A 0.5 Adjustable response value current / of the current-dependent overload release / initial value Product details	Suitability	_		
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 A 0.5 Adjustable response value current / of the current-dependent overload release / initial value Product details	· · · · · · · · · · · · · · · · · · ·		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 for N-conductor protection / Full-scale value A 0.5 Adjustable response value current / of the current-dependent overload release / initial value Product details	Adjustable parameters			
• for N-conductor protection / initial value • for N-conductor protection / Full-scale value • for N-conductor protection / Full-scale value • A 0.5 Adjustable response value current / of the current-dependent overload release / initial value Product details				
◆ for N-conductor protection / Full-scale value A 0.5 Adjustable response value current / of the current- dependent overload release / initial value Product details O.5 A 0.7	• of I-trip / Full-scale value	А	10	
Adjustable response value current / of the current- dependent overload release / initial value Product details	• for N-conductor protection / initial value	Α	0.5	
Product details	• for N-conductor protection / Full-scale value	Α	0.5	
	•	A	0.7	
	Product details			
r rouge, component	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 switch		3VA1110-3FE46-0AA0
Short circuit		
Operational short-circuit current breaking capacity (Ics)		
at 240 V / Rated value	kA	36
at 415 V / Rated value	kA	25
at 440 V / Rated value	kA	16
at 500 V / Rated value	kA	8
at 690 V / Rated value	kA	5
Maximum short-circuit current breaking capacity (Icu)	-	<u> </u>
• at 240 V / Rated value	kA	36
at 415 V / Rated value	kA	25
at 440 V / Rated value	kA	16
at 500 V / Rated value	kA	8
at 690 V / Rated value at 690 V / Rated value	kA	7
Short-circuit current making capacity (Icm)	-	·
at 240 V / Rated value	kA	75.6
at 240 V / Rated value at 415 V / Rated value	kA	52.5
	kA	7.5
at 690 V / Rated value	K/A	1.3
Connections		
Arrangement of electrical connectors / for main current circuit		Front terminal
Type of connectable conductor cross-section	-	

• of the round conductor terminal / stra	anded			1 x (1.5 - 70 mm²)	
Type of electrical connection / for main cu	rrent circuit			Box 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	during operation / maximum			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	Shipp	ping Approval	other

Further information

Product

Approval

Information- and Downloadcenter (Catalogs, Brochures,...)

other

http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system)
https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA11103FE460AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA11103FE460AA0/all

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

Conformity

EG-Konf.

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA11103FE460AA0

CAx-Online-Generator

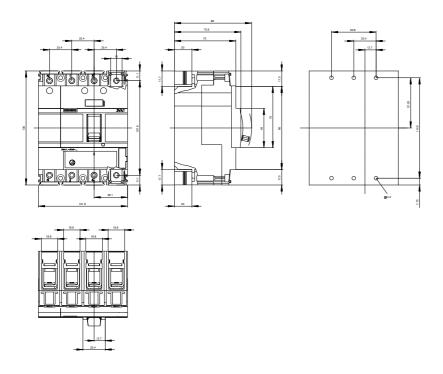
http://www.siemens.com/cax

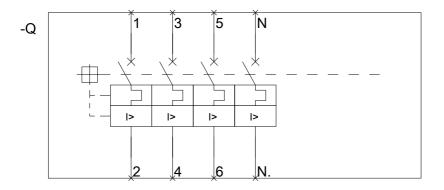
Tender specifications

http://ausschreibungstexte.siemens.com/tiplv

other

GL





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