SIEMENS

Data sheet

3VA1125-6EF42-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS H ICU=70KA @ 415 V 4-POLE, LINE PROTECTION TM240, ATAM, IN=25A OVERLOAD PROTECTION IR=17,5A ...25A SHORT CIRCUIT PROTECTION II=5...10 X IN NEUTRAL UNPROTECTED BUSBAR CONNECTION

Figure similar

Model		
product brand name	SENTRON	
Product designation	Molded case circuit brea	ker
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		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 H Dissipation Active power loss • maximum W 8.5 Electricity Continuous current / Rated value / maximum A 160 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 C / Rated value • of the C / Rated value • of PC / Rated value • at 40 °C / Rated value • at 40 °C / Rated value • at 60 °C / Rated	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	Protection class IP / on the front	_	IP40
Switching capacity class of the circuit breaker H Dissipation Active power loss • maximum W 3.5 Electricity Continuous current / Rated value / maximum	Protective function of the overcurrent release	_	LI
Switching capacity class of the circuit breaker H Dissipation Active power loss • maximum W 3.5 Electricity Continuous current / Rated value / maximum	Switching capacity		
Active power loss			н
Active power loss	Dissipation		
Electricity Continuous current / Rated value / 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 • of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • for DC / Rated value • of r DC / Rated value • at 40 °C / Rated value • at 55 °C / Rated value • at 60 °C / Rated value • at 70 °C / Rate			
Continuous current / Rated value / maximum	• 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 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 of CRated value at 55 °C / Rated value at 65 °C / Rated value at 70 °C / Rat	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 55 °C / Rated value • at 55 °C / Rated value • at 65 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 70 °C / Rated va	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 of ro DC / Rated value verified to a 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 65 °C / Rated value at 65 °C / Rated value at 67 °C / Rated val	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 • at 40 °C / Rated value • 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 70 °C / Rated value A 23 Auxiliary circuit Number of CO contacts / for auxiliary contacts O 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 • for N-conductor protection / Full-scale value • for N-conductor protection / Full-scale value	Adjustable response value current	_	
Main circuit		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 23 • 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		А	5
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 55 °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 Suitabile parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value	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 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 23 at 70 °C / Rated value A 23 Auxiliary circuit Number of CO contacts / for auxiliary contacts O 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	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 23 Auxiliary circuit Number of CO contacts / for auxiliary contacts O 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	• with AC / at 50/60 Hz / Rated value	V	690
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 70 °C / Rated value A 23 Auxiliary circuit Number of CO contacts / for auxiliary contacts Adjustable parameters Adjustable parameters Adjustable response value current of I-trip / Full-scale value for N-conductor protection / Full-scale value A 0	• 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 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 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 of I-trop / Full-scale value A 0 of N-conductor protection / Full-scale value A 0	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 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 of or N-conductor protection / Full-scale value of or N-conductor protection / Full-scale value of or N-conductor protection / Full-scale value A 0	• at 40 °C / Rated value	Α	25
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 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 for N-conductor protection / Full-scale value A 0	• 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 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 A 23 A 23 A 23 Auxiliary circuit A 10 A 10 of I-trip / Full-scale value A 0 of I-trip / Full-scale value A 0 of I-trip / Full-scale value A 0	• 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 • for N-conductor protection / Full-scale value • A 0	• 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 A 0 • for N-conductor protection / Full-scale value A 0	• 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 for N-conductor protection / Full-scale value for N-conductor protection / Full-scale value A 0	• 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 A 0 • for N-conductor protection / Full-scale value A 0	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 of N-conductor protection / Full-scale value A 0			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 of N-conductor protection / Full-scale value A 0	Suitability		
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 of N-conductor protection / Full-scale value A 0			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 0 of N-conductor protection / Full-scale value A 0	Adjustable parameters		
 for N-conductor protection / initial value for N-conductor protection / Full-scale value A 0 O O			
• for N-conductor protection / Full-scale value A 0	• of I-trip / Full-scale value	Α	10
	• for N-conductor protection / initial value	Α	0
	• for N-conductor protection / Full-scale value	Α	0
Adjustable response value current / of the current- A 0.7 dependent overload release / initial value	Adjustable response value current / of the current-	Α	0.7
Product details	Product details		
Product component			

		N-
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
other measurement function		
Accessories		
Manufacturer article number / of the supplied basic switch		3VA1125-6EF42-0AA0
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		
Arrangement of electrical connectors / for main		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			
during operation / minimum	°C	-25	
 during operation / maximum 	°C	70	
 during storage / minimum 	°C	-40	
during storage / maximum	°C	80	

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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	













 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/3VA11256EF420AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA11256EF420AA0/all

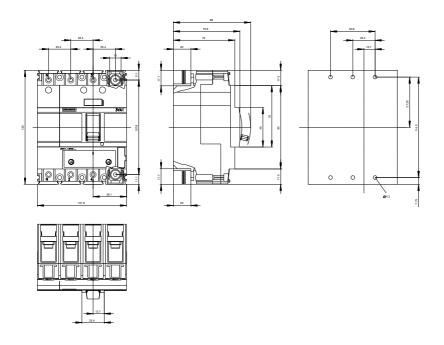
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA11256EF420AA0

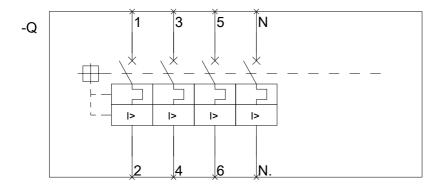
CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv





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