SIEMENS

Data sheet

3VA1140-4GE42-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS S ICU=36KA @ 415 V 4-POLE, LINE PROTECTION TM220, ATFM, IN=40A OVERLOAD PROTECTION IR=28A ...40A 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		
	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 S Dissipation Active power loss • maximum W 10.8 Electricity Continuous current / Rated value / maximum A 180 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 Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • of p DC / 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 val	Protection class IP		IP40
Switching capacity Switching capacity class of the circuit breaker S Dissipation Active power loss • maximum W 10.8 Electricity Continuous current / Rated value / maximum A 160 Continuous current / Rated value • 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 CP / Rated value • of the CP / Rated value • of DC / Rated value • of VC / Rated value • at 50 °C / Rated value • at 50 °C / Rated value • at 65 °C / Rated value • at 67 °C / Rated	Protection class IP / on the front		IP40
Switching capacity class of the circuit breaker Active power loss • maximum **Transpart of the circuit breaker** **Transpart of the circuit breaker** **Transpart of the circuit power loss • maximum **Transpart of the current Rated value maximum A 40 **Adjustable response value current • of the current-dependent overload release A 1 **Full-scale value • of the instantaneous short-circuit release initial A 10 **Main circuit** **Operating voltage • with AC at 50/60 Hz Rated value V 690 • for DC Rated value V 690 **Operating current • at 40 °C Rated value A 40 • at 50 °C Rated value A 40 • at 50 °C Rated value A 39 • at 60 °C Rated value A 39 • at 65 °C Rated value A 38 • at 65 °C Rated value A 38 • at 70 °C Rated value A 37 **Auxiliary circuit** **Number of CO contacts for auxiliary contacts 0 **Suitability** **Suitability** **Suitability** **Suitability** **Suitability** **Suitabile parameters** **Adjustable parameters** **Adjustable response value current • of 1-trip Full-scale value A 10 • for N-conductor protection Full-scale value A 100	Protective function of the overcurrent release		Ц
Switching capacity class of the circuit breaker Active power loss • maximum **Transpart of the circuit breaker** **Transpart of the circuit breaker** **Transpart of the circuit power loss • maximum **Transpart of the current Rated value maximum A 40 **Adjustable response value current • of the current-dependent overload release A 1 **Full-scale value • of the instantaneous short-circuit release initial A 10 **Main circuit** **Operating voltage • with AC at 50/60 Hz Rated value V 690 • for DC Rated value V 690 **Operating current • at 40 °C Rated value A 40 • at 50 °C Rated value A 40 • at 50 °C Rated value A 39 • at 60 °C Rated value A 39 • at 65 °C Rated value A 38 • at 65 °C Rated value A 38 • at 70 °C Rated value A 37 **Auxiliary circuit** **Number of CO contacts for auxiliary contacts 0 **Suitability** **Suitability** **Suitability** **Suitability** **Suitability** **Suitabile parameters** **Adjustable parameters** **Adjustable response value current • of 1-trip Full-scale value A 10 • for N-conductor protection Full-scale value A 100	Switching capacity		
Active power loss • maximum M			S
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 60 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 67 °C / Rated value • at 70 °C / Rated value •			
Continuous current / Rated value / maximum	• maximum	W	10.8
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 ro DC / Rated value v 600 Operating current at 40 °C / Rated value of 2 / 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 70 °C /	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 • for DC / 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 67 °C / Rated value • at 70 °C / Rated valu	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 of for DC / Rated value v 600 Operating current 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 67 °C / Rated value a	Continuous current / Rated value	Α	40
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 60 °C / Rated value • at 60 °C / Rated value • at 70 °C / Rated value A 38 • at 70 °C / Rated value A 37 Auxiliary circuit Number of CO contacts / for auxiliary contacts O Suitability 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 A 100	Adjustable response value current		
Main circuit		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 40 • at 50 °C / Rated value A 39 • at 60 °C / Rated value A 39 • at 60 °C / Rated value A 39 • at 65 °C / Rated value A 38 • at 70 °C / Rated value A 37 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 A 100 • for N-conductor protection / Full-scale value A 100		Α	10
with AC / at 50/60 Hz / Rated value for DC / Rated value v 600 Operating current at 40 °C / Rated value A 40 at 50 °C / Rated value A 40 at 55 °C / Rated value A 39 at 60 °C / Rated value A 39 at 65 °C / Rated value A 38 at 65 °C / Rated value A 37 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 A 100	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 65 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value A 38 • at 70 °C / Rated value A 37 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 A 100	• 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 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 39 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 af 10 of or N-conductor protection / initial value of or N-conductor protection / Full-scale value at 100 Ad 100	• for DC / Rated value	V	600
at 50 °C / Rated value at 55 °C / Rated value at 60 °C / Rated value A 39 at 60 °C / Rated value A 39 at 65 °C / Rated value A 38 at 70 °C / Rated value A 37 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 of rN-conductor protection / Full-scale value A 100 for N-conductor protection / Full-scale value A 100	Operating current		
at 55 °C / Rated value at 60 °C / Rated value at 65 °C / Rated value at 65 °C / Rated value A 39 at 65 °C / Rated value A 38 at 70 °C / Rated value A 37 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 A 100 of or N-conductor protection / Full-scale value A 100	• at 40 °C / Rated value	Α	40
at 60 °C / Rated value at 65 °C / Rated value A 38 at 70 °C / Rated value A 37 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 100 for N-conductor protection / Full-scale value A 100	• at 50 °C / Rated value	Α	40
at 65 °C / Rated value at 65 °C / Rated value A 38 at 70 °C / Rated value A 37 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 for N-conductor protection / initial value of or N-conductor protection / Full-scale value A 100 of or N-conductor protection / Full-scale value A 100	• at 55 °C / Rated value	Α	39
at 70 °C / Rated value A 37 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 A 100 • for N-conductor protection / Full-scale value A 100	• at 60 °C / Rated value	Α	39
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 A 100 • for N-conductor protection / Full-scale value A 100	• at 65 °C / Rated value	Α	38
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 100 • for N-conductor protection / Full-scale value A 100	• at 70 °C / Rated value	Α	37
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 100 • for N-conductor protection / Full-scale value A 100	Auxiliary circuit		
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 A 100 • for N-conductor protection / Full-scale value A 100			0
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 A 100 • for N-conductor protection / Full-scale value A 100	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 100 for N-conductor protection / Full-scale value A 100	· · · · · · · · · · · · · · · · · · ·		system protection
 of I-trip / Full-scale value for N-conductor protection / initial value for N-conductor protection / Full-scale value A 100 100 	Adjustable parameters		
 for N-conductor protection / initial value for N-conductor protection / Full-scale value A 100 A 100 			
• for N-conductor protection / Full-scale value A 100	• of I-trip / Full-scale value	Α	10
	• for N-conductor protection / initial value	Α	100
Adjustable response value current / of the current- A 0.7	• for N-conductor protection / Full-scale value	Α	100
dependent overload release / initial value	Adjustable response value current / of the current- dependent overload release / initial value	Α	0.7
Product details	Product details		
Product component			

Trip indicator		No
		No
display Voltage trigger		No
Voltage triggerundervoltage release		No
•		No
undervoltage release with leading contact Product property		INO
Product property for neutral conductors /		No
upgradeable/retrofittable / Short-circuit and		NO
overload proof		
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		3VA1140-4GE42-0AA0
switch		
Short circuit		
Operational short-circuit current breaking capacity		
(lcs)		
at 240 V / Rated value	kA	55
• at 415 V / Rated value	kA	36
• at 440 V / Rated value	kA	25
• 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	55
• at 415 V / Rated value	kA	36
• at 440 V / Rated value	kA	25
• at 500 V / Rated value	kA	16
● at 690 V / Rated value	kA	7
Short-circuit current making capacity (lcm)		
• at 240 V / Rated value	kA	121
● at 415 V / Rated value	kA	75.6
• at 690 V / Rated value	kA	7.5
Connections		
Arrangement of electrical connectors / for main		Front terminal
		1 Toric terminal
Current circuit Type of connectable conductor cross-section		Tront terminal

• 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	

Certificates

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/3VA11404GE420AA0

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

http://support.automation.siemens.com/WW/view/en/3VA11404GE420AA0/all

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

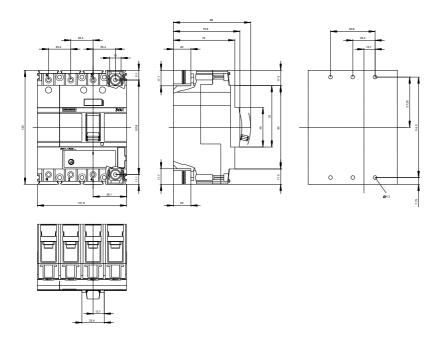
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA11404GE420AA0

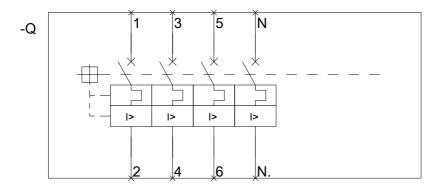
CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv





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