SIEMENS

Data sheet

3VA2225-5HL42-0AA0



CIRCUIT BREAKER 3VA2 IEC FRAME 250 BREAKING CAPACITY CLASS M ICU=55KA @ 415 V 4POLE, LINE PROTECTION ETU320, LI, IN=250A OVERLOAD PROTECTION IR=100A ...250A SHORT CIRCUIT PROTECTION II=10 X IN NEUTRAL PROTECTION ADJUSTABLE(OFF,50%,100%) BUSBAR CONNECTION

Model	
product brand name	SENTRON
Product designation	Molded case circuit breaker
Design of the product	Line protection
Product variations	Selective Applications
Ground fault monitoring version	Without
Design of the auxiliary release	without auxiliaryrelease
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	ETU320
Consequence data	

General technical data	
Number of poles	4
Trip class / of the L-trip / with I2t characteristic / initial value	0.5
Trip class / of the L-trip / with I2t characteristic / Full-scale value	17
Electrical endurance (switching cycles)	
• at AC-1 / at 380/415 V / at 50/60 Hz	10 000
circuit-breaker / Design	3VA
Mechanical service life (switching cycles) / typical	20 000

Voltage	
Insulation voltage / Rated value V	800

Protection class

Protective function of the overcurrent release LI Switching capacity Switching capacity class of the circuit breaker M Dissipation Active power loss • maximum W 48 Electricity Continuous current / Rated value / maximum A 250 Continuous current / Rated value Adjustable response value current / of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • at 40 °C / Rated value • at 60 °C / Rated value • at 70 °C / Rated va	Protection class IP		IP40
Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 48 Electricity Continuous current / Rated value / maximum Continuous current / Rated value / maximum A 250 Adjustable response value current / of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • at 40 °C / Rated value • at 50 °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 250 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NC contacts / for auxiliary contacts Number of NC contacts / for auxiliary contacts Adjustable parameters Adjustable parameters Adjustable parameters	Protection class IP / on the front		IP40
Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 48 Electricity Continuous current / Rated value / maximum A 250 Continuous current / Rated value — A 250 Adjustable response value current / of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • at 40 °C / Rated value • at 40 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value • at 70 °C / Rated value • at 70 °C / Round in circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts Adjustable parameters Adjustable parameters Adjustable parameters Adjustable response value current	Protective function of the overcurrent release		Ц
Switching capacity class of the circuit breaker Dissipation Active power loss • maximum W 48 Electricity Continuous current / Rated value / maximum A 250 Continuous current / Rated value — A 250 Adjustable response value current / of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value • at 40 °C / Rated value • at 40 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value • at 70 °C / Rated value • at 70 °C / Round in circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts Adjustable parameters Adjustable parameters Adjustable parameters Adjustable response value current	Switching canacity		
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Active power loss • maximum Material Section	Contouring capacity diago of the cheat broater		l
Praximum Parameter Patental Value Patental Va			
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Continuous current / Rated value / maximum Continuous current / Rated value A 250 Adjustable response value current / of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value V 690 Operating current • at 40 °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 250 • at 70 °C / Rated value • at 70 °C / Rated value Suitability Suitability Suitable parameters Adjustable response value current	• maximum	W	48
Continuous current / Rated value Adjustable response value current / of the instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value V 690 Operating current • at 40 °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 250 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O Suitability Suitability Suitabile parameters Adjustable response value current	Electricity		
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instantaneous short-circuit release / initial value Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value V 690 Operating current • at 40 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value • at 60 °C / Rated value A 250 • at 65 °C / Rated value A 250 • at 70 °C / Rated value A 250 • at 70 °C / Rated value O Xuxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O Xuitability Suitability Suitability or use Adjustable parameters Adjustable response value current	Continuous current / Rated value	Α	250
Main circuit Operating voltage • with AC / at 50/60 Hz / Rated value V 690 Operating current • at 40 °C / Rated value • at 50 °C / Rated value A 250 • at 60 °C / Rated value A 250 • at 60 °C / Rated value A 250 • at 65 °C / Rated value A 250 • at 70 °C / Rated value A 250 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O Suitability Suitability Suitable parameters Adjustable parameters	Adjustable response value current / of the	Α	1.5
Operating voltage • with AC / at 50/60 Hz / Rated value Operating current • at 40 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value A 250 • at 70 °C / Rated value A 250 • at 70 °C / Rated value A 250 Suitability Suitability Suitabile response value current	instantaneous short-circuit release / initial value		
with AC / at 50/60 Hz / Rated value Operating current at 40 °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 250 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts O Suitability Suitability for use Adjustable parameters Adjustable response value current	Main circuit		
Operating current • at 40 °C / Rated value • at 50 °C / Rated value • at 60 °C / Rated value • at 65 °C / Rated value • at 65 °C / Rated value • at 70 °C / Rated value A 250 • at 70 °C / Rated value A 250 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 0 Suitability Suitability for use Adjustable parameters Adjustable response value current	Operating voltage		
at 40 °C / Rated value at 50 °C / Rated value at 60 °C / Rated value at 65 °C / Rated value at 65 °C / Rated value at 70 °C / Rated value At 250 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts Suitability Suitability Suitabile parameters Adjustable parameters Adjustable response value current	• with AC / at 50/60 Hz / Rated value	V	690
at 50 °C / Rated value at 60 °C / Rated value at 65 °C / Rated value at 70 °C / Rated value at 70 °C / Rated value A 250 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts Suitability Suitability Suitabile parameters Adjustable parameters Adjustable response value current	Operating current		
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at 65 °C / Rated value at 70 °C / Rated value A 250 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts Suitability Suitability for use Adjustable parameters Adjustable response value current	• at 50 °C / Rated value	Α	250
at 70 °C / Rated value A 250 Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 0 Suitability Suitability for use system protection Adjustable parameters Adjustable response value current	• at 60 °C / Rated value	Α	250
Auxiliary circuit Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 0 Suitability Suitability for use system protection Adjustable parameters Adjustable response value current	• at 65 °C / Rated value	Α	250
Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 0 Suitability Suitability for use system protection Adjustable parameters Adjustable response value current	• at 70 °C / Rated value	Α	250
Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 0 Suitability Suitability for use system protection Adjustable parameters Adjustable response value current	Auxiliary circuit		
Suitability Suitability for use system protection Adjustable parameters Adjustable response value current			0
Suitability for use system protection Adjustable parameters Adjustable response value current	Number of NO contacts / for auxiliary contacts		0
Suitability for use system protection Adjustable parameters Adjustable response value current	0.11.131		
Adjustable parameters Adjustable response value current			system protection
Adjustable response value current	Suitability for use		System protection
• of I-trip / Full-scale value A 10			
Adjustable response value current / of the current- A 0.4		Α	0.4
dependent overload release / initial value	dependent overload release / initial value		
Product details	Product details		
Product component	Product component		
• Trip indicator No	Trip indicator		No
• display No	• display		No
• undervoltage release No	• undervoltage release		No
Product property	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		3VA2225-5HL42-0AA0
switch		
Short circuit		
Operational short-circuit current breaking capacity		
(lcs)		
• at 240 V / Rated value	kA	85
● at 415 V / Rated value	kA	55
• at 440 V / Rated value	kA	55
• at 500 V / Rated value	kA	36
• at 690 V / Rated value	kA	3
Maximum short-circuit current breaking capacity (Icu)		
• at 240 V / Rated value	kA	85
• at 415 V / Rated value	kA	55
• at 440 V / Rated value	kA	55
• at 500 V / Rated value	kA	36
• at 690 V / Rated value	kA	3
Short-circuit current making capacity (Icm)		
• at 240 V / Rated value	kA	187
● at 415 V / Rated value	kA	121
• at 440 V / Rated value	kA	121
• at 500 V / Rated value	kA	79
● at 690 V / Rated value	kA	4.5
Connections		
Arrangement of electrical connectors / for main		Front terminal
current circuit		
Type of connectable conductor cross-section		40.4
for flat-bar terminal connection / minimum		13 x 1 mm
• for flat-bar terminal connection / maximum		25 x 8.5
Type of electrical connection / for main current circuit		Lug terminal
Mechanical Design		

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Height	mm	181
Width	mm	140
Depth	mm	107
Mounting type		fixed mounting

Environmen ¹	-	conditions
		COLOHOUS

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	Q
• acc. to DIN EN 81346-2	Q

General Product Approval	EMC	Declaration of	Shipping
		Conformity	Approval

other











Shipping	other
Approval	



other

GL

Further information

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

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

Industry Mall (Online ordering system)

 $\underline{\text{https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA22255HL420AA0}}$

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

http://support.automation.siemens.com/WW/view/en/3VA22255HL420AA0/all

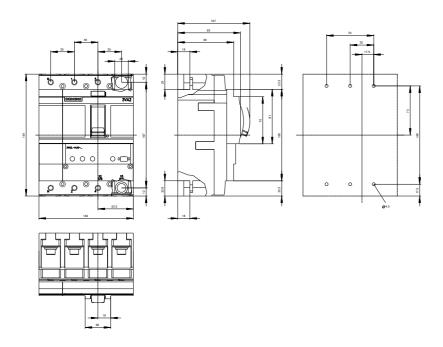
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA22255HL420AA0

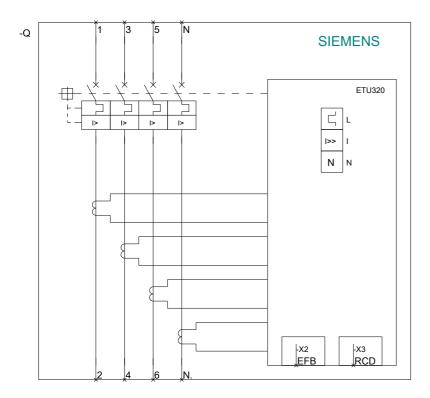
CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv





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