# **SIEMENS**

## Data sheet

# 3VA2225-8HL32-0AA0



CIRCUIT BREAKER 3VA2 IEC FRAME 250 BREAKING CAPACITY CLASS L ICU=150KA @ 415 V 3POLE, LINE PROTECTION ETU320, LI, IN=250A OVERLOAD PROTECTION IR=100A ...250A SHORT CIRCUIT PROTECTION II=10 X IN 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

General technical data	
Number of poles	3
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

Protection class IP / on the front Protective function of the overcurrent release  LI  Switching capacity Switching capacity Switching capacity class of the circuit breaker  L  Dissipation Active power loss  • maximum  W  48  Electricity  Continuous current / Rated value / maximum Active power power loss • maximum  W  48  Electricity  Continuous current / Rated value / maximum Active power power loss • maximum Active power loss  LI  L  L  L  L  L  L  L  L  L  L  L  L	Protection class IP		IP40
Switching capacity  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  Adjustable response value current / of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  • with AC / at 50/60 Hz / Rated value  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 60 °C / Rated value  • at 70 °C	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  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 65 °C / Rated value  • at 70 °C / Rated value  • at 80 °C / Rated value  • at 90 °C	Protective function of the overcurrent release		LI
Dissipation  Active power loss  • maximum  W 48  Electricity  Continuous current / Rated value / maximum	Switching capacity		
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 V 690  Operating current • at 40 °C / Rated value A 250 • at 50 °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 1  Suitability  Suitability for use  Adjustable response value current • of I-trip / Full-scale value A 10  Adjustable response value current  of I-trip / Full-scale value A 10  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product details  Product component • Trip indicator • display • undervoltage release	Switching capacity class of the circuit breaker		L
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 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 • at 70 °C / Rated value A 250 • at 60 °C / Rated value A 250 • at 60 °C / Rated value A 250 Suitability  Suitability  Suitability  Suitability  Suitability  Suitability  Suitability  Suitability  Suitability  Product details  Product component • Trip indicator • display • undervoltage release	Dissipation		
Electricity  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  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  • at 60 °C / Rated value  •	Active power loss		
Continuous current / Rated value / maximum	• 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  Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 65 °C / Rated value  • at 70 °C / Rated value  • at 80 °C / Rated value  • at			
Adjustable response value current / of the instantaneous short-circuit release / initial value  Main circuit  Operating voltage  • with AC / at 50/60 Hz / Rated value  Operating current  • at 40 °C / Rated value  • at 50 °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 NO contacts / for auxiliary contacts  O  Suitability for use  Adjustable parameters  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  • Trip indicator  • display  • undervoltage release	Continuous current / Rated value / maximum	Α	250
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 65 °C / Rated value  • at 65 °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  Number of NO contacts / for auxiliary contacts  Number of NO contacts / for auxiliary contacts  O  Suitability  Suitability  Suitabile response value current  • of I-trip / Full-scale value  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  • Trip indicator  • display  • undervoltage release	Continuous current / Rated value	Α	250
Operating voltage  • with AC / at 50/60 Hz / Rated value  Operating current  • at 40 °C / Rated value  • at 50 °C / Rated value  • at 65 °C / Rated value  • at 65 °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  Outliability  Suitability for use  Suitability for use  Adjustable parameters  Adjustable response value current  • of I-trip / Full-scale value  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  • Trip indicator  • display  • undervoltage release		Α	1.5
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 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  Suitability for use  Adjustable parameters  Adjustable parameters  Adjustable response value current     of I-trip / Full-scale value  A 10  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component     Trip indicator     display     undervoltage release  No No	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  O  Suitability  Suitability  Suitabile parameters  Adjustable parameters  Adjustable response value current  • of I-trip / Full-scale value  Adjustable response value current / of the current-dependent overload release / initial value  Product component  • Trip indicator  • display  • undervoltage release  No	Operating voltage		
at 40 °C / Rated value 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  Number of NO contacts / for auxiliary contacts  Suitability  Suitability  Suitability for use  Adjustable parameters  Adjustable parameters  Adjustable response value current of I-trip / Full-scale value Adjustable response value current / of the current-dependent overload release / initial value  Product component Trip indicator display undervoltage release No	<ul> <li>with AC / at 50/60 Hz / Rated value</li> </ul>	V	690
at 50 °C / Rated value 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  Suitability for use  Adjustable parameters  Adjustable parameters  Adjustable response value current of I-trip / Full-scale value  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component Trip indicator display undervoltage release No	Operating current		
at 60 °C / Rated value 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  Suitability for use  Adjustable parameters  Adjustable response value current of I-trip / Full-scale value  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component Trip indicator display undervoltage release No	• at 40 °C / Rated value	Α	250
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  0  Suitability  Suitability  Suitability for use  Adjustable parameters  Adjustable parameters  Adjustable response value current      of I-trip / Full-scale value  A 10  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component      Trip indicator     display     undervoltage release  No	• 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  Adjustable parameters  Adjustable response value current  • of I-trip / Full-scale value  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  • Trip indicator  • display  • undervoltage release  No	● 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 or use  Adjustable parameters  Adjustable response value current  • of I-trip / Full-scale value  Adjustable response value current-dependent overload release / initial value  Product details  Product component  • Trip indicator  • display  • undervoltage release  No	• 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  Adjustable parameters  Adjustable response value current  • of I-trip / Full-scale value  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  • Trip indicator  • display  • undervoltage release  No	• at 70 °C / Rated value	Α	250
Number of NO contacts / for auxiliary contacts  Suitability Suitability for use  Adjustable parameters  Adjustable response value current  • of I-trip / Full-scale value  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  • Trip indicator  • display  • undervoltage release	Auxiliary circuit		
Suitability  Suitability for use  Adjustable parameters  Adjustable response value current  • of I-trip / Full-scale value  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  • Trip indicator  • display  • undervoltage release  System protection  A  10  A  0.4	Number of NC contacts / for auxiliary contacts		0
Suitability for use system protection  Adjustable parameters  Adjustable response value current  • of I-trip / Full-scale value  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  • Trip indicator  • display  • undervoltage release	Number of NO contacts / for auxiliary contacts		0
Adjustable parameters  Adjustable response value current  • of I-trip / Full-scale value  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  • Trip indicator  • display  • undervoltage release  No	Suitability		
Adjustable response value current  of l-trip / Full-scale value  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component  Trip indicator  display  undervoltage release  No	Suitability for use		system protection
of I-trip / Full-scale value     A 10  Adjustable response value current / of the current-dependent overload release / initial value  Product details  Product component      Trip indicator     display     undervoltage release  No  No			
Adjustable response value current / of the current- dependent overload release / initial value  Product details  Product component  • Trip indicator • display • undervoltage release  No			
Product details  Product component  Trip indicator  display  undervoltage release  No	•	Α	
Product component  Trip indicator  display  undervoltage release  No		Α	0.4
<ul> <li>Trip indicator</li> <li>display</li> <li>undervoltage release</li> <li>No</li> <li>No</li> <li>No</li> </ul>	Product details		
<ul> <li>display</li> <li>undervoltage release</li> <li>No</li> <li>No</li> </ul>	Product component		
• undervoltage release No	Trip indicator		No
and related to the second seco	• display		No
Product property	undervoltage release		No
i loddot property	Product property		

for neutral conductors / 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
<ul> <li>other measurement function</li> </ul>		No
Accessories		
Manufacturer article number / of the supplied basic switch		3VA2225-8HL32-0AA0
Short circuit		
Operational short-circuit current breaking capacity		
(lcs)		
• at 240 V / Rated value	kA	200
● at 415 V / Rated value	kA	150
• at 440 V / Rated value	kA	150
• at 500 V / Rated value	kA	100
• at 690 V / Rated value	kA	18
Maximum short-circuit current breaking capacity (Icu)		
• at 240 V / Rated value	kA	200
• at 415 V / Rated value	kA	150
• at 440 V / Rated value	kA	150
• at 500 V / Rated value	kA	100
• at 690 V / Rated value	kA	24
Short-circuit current making capacity (lcm)		
• at 240 V / Rated value	kA	440
• at 415 V / Rated value	kA	330
• at 440 V / Rated value	kA	330
• at 500 V / Rated value	kA	220
• at 690 V / Rated value	kA	48
Connections		
Arrangement of electrical connectors / for main		Front terminal
current circuit		
Type of connectable conductor cross-section		
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		

Height	mm	181
Width	mm	105
Depth	mm	107
Mounting type		fixed mounting

Environmenta	al conditions

Ambient temperature		
<ul><li>during operation / minimum</li></ul>	°C	-25
<ul><li>during operation / maximum</li></ul>	°C	70
during storage / minimum	°C	-40
<ul><li>during storage / maximum</li></ul>	°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











Shipping	other
Approval	



other

GL

## Further information

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

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

Industry Mall (Online ordering system)

 $\underline{\text{https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA22258HL320AA0}}$ 

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

http://support.automation.siemens.com/WW/view/en/3VA22258HL320AA0/all

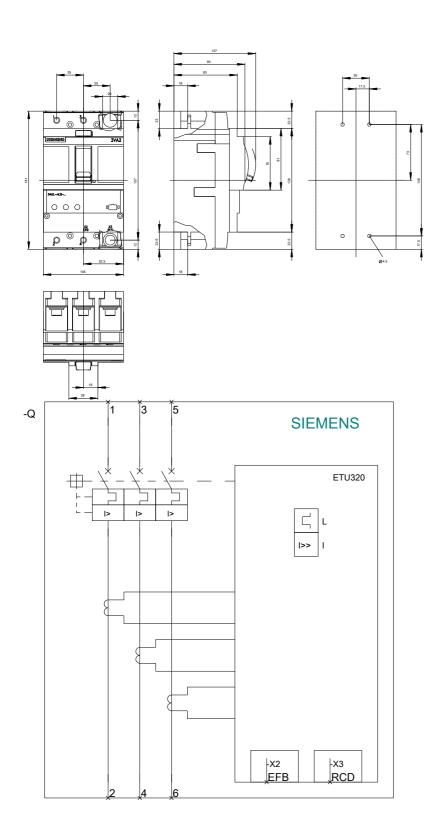
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA22258HL320AA0">http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA22258HL320AA0</a>

**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://ausschreibungstexte.siemens.com/tiplv



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