# **SIEMENS**

#### Data sheet

### 3VA2010-6HM32-0AA0



CIRCUIT BREAKER 3VA2 IEC FRAME 100 BREAKING CAPACITY CLASS H ICU=85KA @ 415 V 3POLE, LINE PROTECTION ETU330, LIG, IN=100A OVERLOAD PROTECTION IR=40A ...100A SHORT CIRCUIT PROTECTION II=1,5...12 X IN GROUNDFAULTPROTECTION IG=0,2... 1 X IN, TG=0,1/0,3MS 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		Summation current formation L-conductor			
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		ETU330			
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		12 000			
Total disconnection time / for G-tripping / with standard characteristic / initial value	S	0.1			
Total disconnection time / for G-tripping / with standard characteristic / Full-scale value	S	0.3			
circuit-breaker / Design		3VA			
Mechanical service life (switching cycles) / typical		20 000			

Voltage		
Insulation voltage / Rated value	V	800
Drotaction class	_	
Protection class Protection class IP		IP40
Protection class IP / on the front		IP40
Protective function of the overcurrent release		LIG
Switching capacity		
Switching capacity class of the circuit breaker		Н
Dissipation		
Active power loss		
• maximum	W	13.5
Electricity		
Continuous current / Rated value / maximum	A	100
Continuous current / Rated value	A	100
Adjustable response value current / of the	A	1.5
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	А	100
● at 50 °C / Rated value	А	100
● at 60 °C / Rated value	А	100
● at 65 °C / Rated value	А	100
● at 70 °C / Rated value	А	100
Auxiliary circuit Number of NC contacts / for auxiliary contacts		0
Number of NO contacts / for auxiliary contacts		0
		•
Suitability		
Suitability for use		system protection
Adjustable parameters		
Adjustable response value current		
<ul> <li>for G-tripping / with standard characteristic /</li> </ul>	А	0.2
initial value		
• for G-tripping / with standard characteristic /	А	1
Full-scale value		
of I-trip / Full-scale value	A	12
Adjustable response value current / of the current-	A	0.4
dependent overload release / initial value		

Product component       No         • Trip indicator       No         • display       No         • undervoltage release       No         Product property       • of the circuit breaker with tripping unit / Tripping characteristic adjustable       Yes         • for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proof       No         Product function       Yes         Product function       Yes         • Intrinsic device protection       Yes         • other measurement function       No	Product details		
display undervoltage releaseNoProduct propery of the circuit breaker with tripping unit / Tripping oharacteristic adjustableYesof the circuit breaker with tripping unit / Tripping overload proofYesProduct expansion / optional / motor driveYesProduct functionYesProduct functionYesProduct functionNo• Intrinsic device protectionYes• Intrinsic device protectionNo• Or heart all conductors / upgradeable/retrofittable / Short-circuit and overload proofYesProduct functionNo• Intrinsic device protectionNo• other measurement functionNo• other measurement functionNo• other measurement functionNo• other measurement functionNoProtectuetVersProtectuetVersProtectuetVersProtectuetVersProtectuetNoProtectuetNoProtectuetNoProtectuetNoProtectuetNoProtectuetNoProtectuetShort-circuit current breaking capacity (tor)• at 400 V / Rated valueKA• at 415 V / Rated valueKA• at 400 V / Rated valueKA			
undervoltage releaseNoProduct property <ul><li>of the circuit breaker with tripping unit / Tripping</li><li>characteristic adjustable</li><li>or relutal conductors /</li><li>upgradeable/retrofittable / Short-circuit and</li><li>overload proof</li><li>Product spansion / optional / motor drive</li><li>Yes</li></ul> Product functionYesProduct functionYes• orth measurement functionNo• orth measurement functionNo• orther measurement functionNo• orther measurement functionNo• orther measurement functionStructure article number / of the supplied basic switchShort circuitXA2010-GHX32-0AA0Short circuitKA110at 415 V / Rated value• at 240 V / Rated valueKA• at 250 V / Rated valueKA• at 350 V / Rated valueKA• at 415 V / Rated valueKA• at 440 V /	Trip indicator		No
Product properly• of the circuit breaker with tripping unit / Tripping characteristic adjustableYes• for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proofNoProduct expansion / optional / motor driveYesProduct functionProduct functionProduct functionNo• Intrinsic device protectionYes• Intrinsic device protectionNo• other measurement functionNo• other measurement functionNo• other measurement functionSVA2010-0FIM322-0AAD• other measurement functionSVA2010-0FIM322-0AAD• at 240 V / Rated valueKA• at 240 V / Rated value	● display		No
• of the circuit breaker with tripping unit / Tripping characteristic adjustableYes• for neutral conductors / upgradeable/introfittable / Short-circuit and overload proofNoProduct expansion / optional / motor driveYesProduct functionYes• Intrinsic device protectionYes• Intrinsic device protectionNo• other measurement functionNo• other measurement functionNo• other measurement functionSt/Aco10-6HM32.0AAO• other measurement functionNo• other measurement functionNo• other measurement functionSt/Aco10-6HM32.0AAO• other measurement functionSt/Aco10-6HM32.0AAO• other measurement functionSt/Aco10-6HM32.0AAO• other measurement functionKA• other measurement functionSt/Aco10-6HM32.0AAO• other measurement functionKA• other measurement functionSt/Aco10-6HM32.0AAO• other measurement functionKA• other measurement functionKA• other measurement functionKA• other measurement functionKA• other measurement funct	<ul> <li>undervoltage release</li> </ul>		No
characteristic adjustableKin• for neutral conductors / upgradeable/retrofitable / Short-circuit and overload proofNoProduct functionYesProduct functionYes• Intrinsic device protectionNo• Drase failure detectionNo• Other measurement functionNo• other measurement functionNo• other measurement functionSNO• other functionSNO• other functionSNO• other functionSNO• other functionKA• other functionSNO• other functionSNO• other functionKA• other function	-	-	
characteristic adjustableNo• or neutral conductors / upgradeable/retrofittable / Short-circuit and overload proofVes• Product expansion / optional / motor driveVes• Product functionVes• Intrinsic device protectionNo• Intrinsic device protectionNo• Other measurement functionNo• Other measurement functionNo• Other measurement functionNo• Other measurement function3V/2010-6HM32.0AAD• Other measurement function3V/2010-6HM32.0AAD• Other measurement functionSo• Other measurement functionKA• Other measurement functionSo• Other measurement functionKA• Other measurement functionKA• I do V / Rated valueKA• I do V / Rated valueKA <t< td=""><td></td><td></td><td>Yes</td></t<>			Yes
Image: Constraint of the second of the se			
overload proofProduct expansion / optional / motor driveYesProduct functioninitrinsic device protectionNoinitrinsic device protectionNoommunication functionNoPhase failure detectionNoother measurement functionNoAccessoriesStatus detectionwitchStatus detectionShort circuitStatus detectionCorestoriesStatus detectionShort circuitKAShort circuitKACorestoriesStatus detectioni at 240 V / Rated valueKAi at 415 V / Rated valueKAi at 420 V / Rated valueKAi at 500 V / Rated valueKAi at 600 V / Rated valueK	<ul> <li>for neutral conductors /</li> </ul>		No
Product expansion / optional / motor drive     Yes       Product function     Intrinsic device protection     No <ul> <li>Intrinsic device protection</li> <li>communication function</li> <li>Phase failure detection</li> <li>other measurement function</li> <li>No</li> </ul> Accessories       Accessories       Operational short-circuit current breaking capacity (ics) <ul> <li>at 240 V / Rated value</li> <li>KA</li> <li>110</li> <li>at 400 V / Rated value</li> <li>KA</li> <li>at 500 V / Rated value</li> <li>A</li> <li>at 690 V / Rated value</li> <li>KA</li> <li>55</li> <li>at 690 V / Rated value</li> <li>KA</li></ul>			
Product function       Product function <ul> <li>Intrinsic device protection</li> <li>communication function</li> <li>No</li> </ul> <ul> <li>Phase failure detection</li> <li>other measurement function</li> </ul> <ul> <li>ather measurement function</li> <li>No</li> </ul> <ul> <li>Anufacturer article number / of the supplied basic switch</li> </ul> 3VA2010-8HM32-0AA0 <ul> <li>other measurement function</li> <li>No</li> </ul> <ul> <li>other measurement function</li> <li>Subtrianue faito value</li> <li>KA</li> <li>toti 500 V / Rated value</li> <li>KA</li></ul>		_	
Product function       Yes         • Intrinsic device protection       No         • communication function       No         • Phase failure detection       No         • other measurement function       No         Accessories       3VA2010-6HM32-0AA0         Short circuit       3VA2010-6HM32-0AA0         Corestional short-circuit current breaking capacity (ics)       3VA2010-6HM32-0AA0         • at 240 V / Rated value       KA       110         • at 415 V / Rated value       KA       85         • at 440 V / Rated value       kA       85         • at 450 V / Rated value       kA       85         • at 400 V / Rated value       kA       85         • at 400 V / Rated value       kA       85         • at 400 V / Rated value       kA       85         • at 400 V / Rated value       kA       85         • at 690 V / Rated value       kA       85         • at 400 V / Rated value       kA       85         • at 400 V / Rated value       kA       85         • at 400 V / Rated value       kA       85         • at 690 V / Rated value       kA       2         Short-circuit current making capacity (Icm)       10       10	Product expansion / optional / motor drive		Yes
Intrinsic device protectionYes.communication functionNo.Phase failure detectionNo.other measurement functionNoAccessories	Product function		
<ul> <li>communication function</li> <li>No</li> <li>Phase failure detection</li> <li>other measurement function</li> <li>No</li> <li></li></ul>	Product function		
Phase failure detectionNo• other measurement functionNoAccessoriesAccessoriesAssist of the supplied basic switchSVA2010-6HIM32-0AA0Short circuitState state st	<ul> <li>Intrinsic device protection</li> </ul>		Yes
• other measurement functionNoAnufacturer article number / of the supplied basic switch3VA2010-6HM32-0AA0Manufacturer article number / of the supplied basic switch3VA2010-6HM32-0AA0Short circuitVOperational short-circuit current breaking capacity (tcs)I• at 240 V / Rated valueKA110• at 415 V / Rated valueKA85• at 440 V / Rated valueKA85• at 600 V / Rated valueKA55• at 600 V / Rated valueKA2Maximum short-circuit current breaking capacity (lcu) • at 240 V / Rated valueKA85• at 415 V / Rated valueKA85• at 400 V / Rated valueKA85• at 600 V / Rated valueKA242• at 240 V / Rated valueKA187• at 240 V / Rated valueKA187• at 400 V / Rated value <td><ul> <li>communication function</li> </ul></td> <td></td> <td>No</td>	<ul> <li>communication function</li> </ul>		No
Accessories       3VA2010-6HM32-0AA0         Manufacturer article number / of the supplied basic switch       3VA2010-6HM32-0AA0         Short circuit       Short circuit current breaking capacity (ics)       at 240 V / Rated value       kA       110         • at 240 V / Rated value       kA       110       at 415 V / Rated value       kA       85         • at 440 V / Rated value       kA       85       at 440 V / Rated value       kA       85         • at 440 V / Rated value       kA       85       at 500 V / Rated value       kA       85         • at 690 V / Rated value       kA       85       at 690 V / Rated value       kA       95         • at 415 V / Rated value       kA       95       at 410       at 410       at 410       at 690 V / Rated value       kA       95         • at 240 V / Rated value       kA       95       at 410       at 410 <t< td=""><td><ul> <li>Phase failure detection</li> </ul></td><td></td><td>No</td></t<>	<ul> <li>Phase failure detection</li> </ul>		No
Manufacturer article number / of the supplied basic switch       3VA2010-6HM32:0AA0         Short circuit       Operational short-circuit current breaking capacity (ics)       III0         • at 240 V / Rated value       kA       110         • at 415 V / Rated value       kA       85         • at 410 V / Rated value       kA       85         • at 400 V / Rated value       kA       85         • at 400 V / Rated value       kA       85         • at 600 V / Rated value       kA       55         • at 600 V / Rated value       kA       2         Maximum short-circuit current breaking capacity (icu)	<ul> <li>other measurement function</li> </ul>		No
Manufacturer article number / of the supplied basic switch       3VA2010-6HM32:0AA0         Short circuit       Operational short-circuit current breaking capacity (ics)       III0         • at 240 V / Rated value       kA       110         • at 415 V / Rated value       kA       85         • at 410 V / Rated value       kA       85         • at 400 V / Rated value       kA       85         • at 400 V / Rated value       kA       85         • at 600 V / Rated value       kA       55         • at 600 V / Rated value       kA       2         Maximum short-circuit current breaking capacity (icu)	Accessories		
switch Shot circuit Operational short-circuit current breaking capacity (ics)		_	3VA2010-6HM32-0AA0
(lcs)         KA         110           • at 240 V / Rated value         KA         85           • at 415 V / Rated value         KA         85           • at 440 V / Rated value         KA         85           • at 440 V / Rated value         KA         85           • at 400 V / Rated value         KA         85           • at 690 V / Rated value         KA         2           Maximum short-circuit current breaking capacity (lcu)         V         V           • at 240 V / Rated value         KA         85           • at 240 V / Rated value         KA         110           • at 240 V / Rated value         KA         85           • at 440 V / Rated value         KA         85           • at 440 V / Rated value         KA         85           • at 690 V / Rated value         KA         24           • at 690 V / Rated value         KA         24           • at 240 V / Rated value         KA         242           • at 415 V / Rated value         KA         242           • at 415 V / Rated value         KA         187           • at 440 V / Rated value         KA         187           • at 400 V / Rated value         KA         121	Short circuit		
At 240 V / Rated valueKA110• at 240 V / Rated valueKA85• at 440 V / Rated valueKA85• at 440 V / Rated valueKA55• at 500 V / Rated valueKA2• at 690 V / Rated valueKA110• at 240 V / Rated valueKA110• at 240 V / Rated valueKA85• at 240 V / Rated valueKA85• at 440 V / Rated valueKA85• at 440 V / Rated valueKA85• at 440 V / Rated valueKA2• at 690 V / Rated valueKA2• at 690 V / Rated valueKA2• at 440 V / Rated valueKA10• at 440 V / Rated valueKA10• at 440 V / Rated valueKA10• at 690 V / Rated valueKA2• at 440 V / Rated valueKA10• at 440 V / Rated valueKA187• at 440 V / Rated valueKA187• at 440 V / Rated valueKA121			
A A A B A A A A A A A A A A A A A A A A		kA	110
<ul> <li>at 10 V / Rated value</li> <li>at 500 V / Rated value</li> <li>kA</li> <li>55</li> <li>at 690 V / Rated value</li> <li>kA</li> <li>2</li> </ul> Maximum short-circuit current breaking capacity (Icu) <ul> <li>at 240 V / Rated value</li> <li>kA</li> <li>110</li> <li>at 415 V / Rated value</li> <li>kA</li> <li>85</li> <li>at 440 V / Rated value</li> <li>kA</li> <li>85</li> <li>at 500 V / Rated value</li> <li>kA</li> <li>85</li> <li>at 690 V / Rated value</li> <li>kA</li> <li>85</li> <li>at 440 V / Rated value</li> <li>kA</li> <li>2</li> </ul> Short-circuit current making capacity (Icm) <ul> <li>at 240 V / Rated value</li> <li>kA</li> <li>242</li> </ul> Short-circuit current making capacity (Icm) <ul> <li>at 240 V / Rated value</li> <li>kA</li> <li>242</li> <li>st 415 V / Rated value</li> <li>kA</li> <li>187</li> <li>at 440 V / Rated value</li> <li>kA</li> <li>121</li> </ul>		kA	85
A at 500 V / Rated valueKA55• at 690 V / Rated valueKA2Maximum short-circuit current breaking capacity (loc)V• at 240 V / Rated valueKA110• at 415 V / Rated valueKA85• at 440 V / Rated valueKA85• at 440 V / Rated valueKA55• at 690 V / Rated valueKA2• at 690 V / Rated valueKA2• at 690 V / Rated valueKA242• at 240 V / Rated valueKA187• at 240 V / Rated valueKA187• at 440 V / Rated valueKA187• at 450 V / Rated valueKA187• at 450 V / Rated valueKA187• at 450 V / Rated valueKA187• at 500		kA	85
kA2Maximum short-circuit current breaking capacity (Icu)• at 240 V/Rated valuekA110• at 240 V/Rated valuekA85• at 415 V/Rated valuekA85• at 440 V/Rated valuekA85• at 400 V/Rated valuekA85• at 690 V/Rated valuekA2• at 690 V/Rated valuekA242• at 240 V/Rated valuekA242• at 240 V/Rated valuekA187• at 240 V/Rated valuekA187• at 415 V/Rated valuekA187• at 440 V/Rated valuekA187• at 400 V/Rated valuekA187• at 500 V/Rated valuekA121		kA	55
Maximum short-circuit current breaking capacity (Icu)KA110• at 240 V / Rated valueKA85• at 415 V / Rated valueKA85• at 440 V / Rated valueKA55• at 500 V / Rated valueKA2• at 690 V / Rated valueKA2• at 240 V / Rated valueKA242• at 690 V / Rated valueKA242• at 240 V / Rated valueKA187• at 240 V / Rated valueKA187• at 415 V / Rated valueKA187• at 440 V / Rated valueKA187• at 440 V / Rated valueKA187• at 450 V / Rated valueKA121			
• at 240 V / Rated valuekA110• at 415 V / Rated valuekA85• at 440 V / Rated valuekA85• at 500 V / Rated valuekA55• at 690 V / Rated valuekA2Short-circuit current making capacity (lcm)			
eat 415 V / Rated valuekA85e at 440 V / Rated valuekA85e at 500 V / Rated valuekA55e at 690 V / Rated valuekA2Short-circuit current making capacity (Icm)-e at 240 V / Rated valuekA242e at 415 V / Rated valuekA187e at 440 V / Rated valuekA187e at 440 V / Rated valuekA187e at 500 V / Rated valuekA187		kA	110
• at 500 V / Rated valuekA55• at 690 V / Rated valuekA2Short-circuit current making capacity (Icm)	• at 415 V / Rated value	kA	85
• at 500 V / Rated value       kA       55         • at 690 V / Rated value       kA       2         Short-circuit current making capacity (lcm)       -       -         • at 240 V / Rated value       kA       242         • at 415 V / Rated value       kA       187         • at 440 V / Rated value       kA       187         • at 500 V / Rated value       kA       187		kA	85
• at 690 V / Rated value       kA       2         Short-circuit current making capacity (Icm)       -       -         • at 240 V / Rated value       kA       242         • at 415 V / Rated value       kA       187         • at 440 V / Rated value       kA       187         • at 500 V / Rated value       kA       187		kA	55
• at 240 V / Rated valuekA242• at 415 V / Rated valuekA187• at 440 V / Rated valuekA187• at 500 V / Rated valuekA121		kA	2
• at 240 V / Rated valuekA242• at 415 V / Rated valuekA187• at 440 V / Rated valuekA187• at 500 V / Rated valuekA121	Short-circuit current making capacity (Icm)		
• at 415 V / Rated valuekA187• at 440 V / Rated valuekA187• at 500 V / Rated valuekA121		kA	242
• at 500 V / Rated value kA 121		kA	187
	● at 440 V / Rated value	kA	187
at 690 V / Rated value     kA     3	• at 500 V / Rated value	kA	121
	• at 690 V / Rated value	kA	3

Connections					
Arrangement of electrical connectors / for main		Front termin	al		
current circuit					
Type of connectable conductor cross-section					
<ul> <li>for flat-bar terminal connection / minimum</li> </ul>		13 x 1 mm	13 x 1 mm		
<ul> <li>for flat-bar terminal connection / maximum</li> </ul>		25 x 8.5	25 x 8.5		
Type of electrical connection / for main current circuit	_	Lug termina	Lug terminal		
Mechanical Design					
Height	mm	181			
Width	mm	105			
Depth	mm	107	107		
Mounting type	_	fixed mounti	fixed mounting		
Environmental conditions					
Ambient temperature					
<ul> <li>during operation / minimum</li> </ul>	°C	-25			
<ul> <li>during operation / maximum</li> </ul>	°C	70	70		
<ul> <li>during storage / minimum</li> </ul>	°C	-40	-40		
<ul> <li>during storage / maximum</li> </ul>	°C	80	80		
Certificates					
Equipment marking					
• acc. to DIN EN 61346-2		Q			
• acc. to DIN EN 81346-2		Q			
General Product Approval	E	MC	Declaration of Conformity	other	
		other	CE	other	
			EG-Konf.		

#### 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/3VA20106HM320AA0

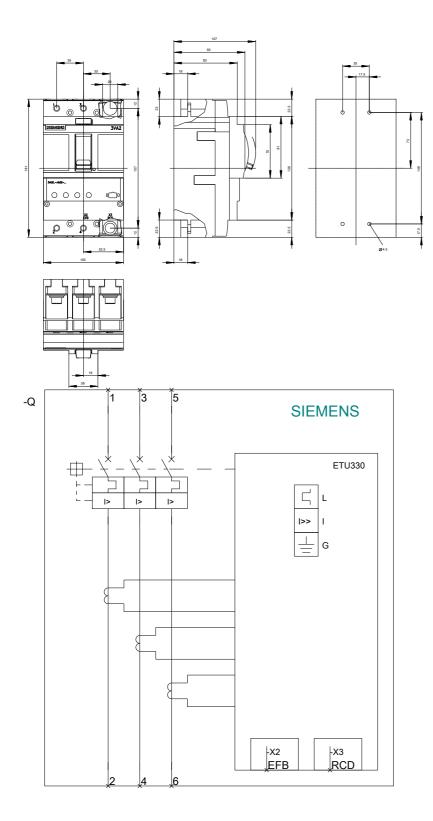
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA20106HM320AA0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA20106HM320AA0

CAx-Online-Generator http://www.siemens.com/cax

## Tender specifications

http://ausschreibungstexte.siemens.com/tiplv



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