SIEMENS

Data sheet

3VA2116-7HM32-0AA0



CIRCUIT BREAKER 3VA2 IEC FRAME 160 BREAKING CAPACITY CLASS C ICU=110KA @ 415 V 3POLE, LINE PROTECTION ETU330, LIG, IN=160A OVERLOAD PROTECTION IR=64A ...160A SHORT CIRCUIT PROTECTION II=1,5...10 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
Distostion alogo	_	
Protection class Protection class IP	_	IP40
Protection class IP / on the front		IP40
Protective function of the overcurrent release	-	LIG
		LIG
Switching capacity		
Switching capacity class of the circuit breaker		C
Dissipation		
Active power loss		
• maximum	W	25.5
Electricity		
Continuous current / Rated value / maximum	A	160
Continuous current / Rated value	А	160
Adjustable response value current / of the	А	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	160
● at 50 °C / Rated value	А	160
● at 60 °C / Rated value	А	160
● at 65 °C / Rated value	А	160
• at 70 °C / Rated value	А	160
	_	
Auxiliary circuit Number of NC contacts / for auxiliary contacts	_	0
Number of NO contacts / for auxiliary contacts		0
		0
Suitability	_	
Suitability for use		system protection
Adjustable parameters	_	
Adjustable response value current		
 for G-tripping / with standard characteristic / initial value 	A	0.2
 for G-tripping / with standard characteristic / Full-scale value 	А	1
● of I-trip / Full-scale value	А	10
Adjustable response value current / of the current- dependent overload release / initial value	A	0.394
-		

Operational short-circuit current breaking capacity (Ics)KA150• at 240 V / Rated valueKA110• at 415 V / Rated valueKA110• at 440 V / Rated valueKA110• at 440 V / Rated valueKA85• at 500 V / Rated valueKA2.5Maximum short-circuit current breaking capacity (Icu)KA150• at 240 V / Rated valueKA150• at 240 V / Rated valueKA150• at 240 V / Rated valueKA110• at 240 V / Rated valueKA110• at 440 V / Rated valueKA110• at 450 V / Rated valueKA350• at 690 V / Rated valueKA350• at 415 V / Rated valueKA2.5Short-circuit current making capacity (Icm)Image: Comparison of the fourth current making capacity (Icm)• at 240 V / Rated valueKA330• at 240 V / Rated valueKA242• at 440 V / Rated valueKA330• at 440 V / Rated valueKA330• at 440 V / Rated valueKA242• at 440 V / Rated valueKA187	Product details		
display display undervoltage releaseNoProduct property of the circuit breaker with tripping unit / Tripping othracteristic adjustable or neutral conductors / upgradeable/retrofittable / Short-circuit and overload proofYesProduct expansion / optional / motor driveYesProduct function overload proofYesProduct function our infinisic device protection o ommunication functionYesProduct function other measurement functionNoProtect function other measurement functionNoProtect function other measurement functionNoProtect of the circuit current breaking capacity (res)Strutt 16-7HM52-0AAOProtect of under on the supplied basic switchStrutt 16-7HM52-0AAOProtect of the supplied basic switchStrutt 16-7HM52-0AAOProtect	Product component		
undervoltage releaseNoProduct property • of the circuit breaker with tripping unit / Tripping characteristic adjustable • for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proofYesProduct sepansion / optional / motor driveYesProduct functionYes• Intrinsic device protectionYes• or neutral conductors / upgradeable/retrofittable / Short-circuit and overload proofYesProduct functionYes• Intrinsic device protectionNo• Other measurement functionNo• other measurement functionNo• other measurement functionNo• other measurement functionShort-circuitShort circuitYated value(cs)stated value• at 415 V / Rated valueKA• at 45 V / Rated valueKA• at 450 V / Rated valueKA•	Trip indicator		No
Product progrey • of the circuit breaker with tripping unit / Tripping characteristic adjustable • for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proofYesProduct expansion / optional / motor driveYesProduct functionNo • Intrinsic device protectionYes• other measurement functionNo• other measurement functionNo• other measurement functionStA2116-7FM32-0AA0• other reasurement functionNoShort circuitCoperational short-circuit current breaking capacity (ics)• at 240 V / Rated valueKA• at 415 V / Rated valueKA• at 420 V / Rated valueKA• at 690 V / Rated valueKA• at 690 V / Rated valueKA• at 690 V / Rated valueKA• at 440 V / Rated valueKA<	• display		No
• of the circuit breaker with tripping characteristic adjustableYes• for neutral conductors / upgradeable/introfitable / Shott-circuit and overload proofNoProduct expansion / optional / motor driveYesProduct expansion / optional / motor driveYesProduct functionYes• Intrinsic device protectionYes• Intrinsic device protectionNo• Other measurement functionNo• other measurement functionNo• other measurement functionState 2000• other measurement functionNo• other measurement functionState 2000• other measurement functionState 2000• other measurement functionKA• other measurement functionKA </td <td>undervoltage release</td> <td></td> <td>No</td>	undervoltage release		No
characteristic adjustablecharacteristic adjustableno• for neutral conductors / upgradeable/retrofitable / Short-circuit and overload proofNoProduct functionYesProduct functionYes• Intrinsic device protectionNo• Intrinsic device protectionNo• other measurement functionNo• other measurement functionNo• other measurement functionNo• other measurement function3V/2116-7HM32-0AAO• other measurement functionSo• other measurement functionSo• other measurement functionNo• other measurement functionSo• other forcuitKA• other forcuit <td< td=""><td>Product property</td><td>-</td><td></td></td<>	Product property	-	
upgradeable/retrofittable / Short-circuit and overlead proofYesProduct expansion / optional / motor driveYesProduct functionVes• Intrinsic device protectionNo• Intrinsic device protectionNo• Orther measurement functionNo• other device protectionNo• other device protectionKA• other device protectionKA			Yes
Product function Product function Intrinsic device protection communication function No Phase failure detection other measurement function No Accessories Sinder table of the supplied basic switch Prioduct function (Inction) other measurement function No Accessories Sinder table of the supplied basic switch Accessories Sinder table of the supplied basic switch Coperational short-circuit current breaking capacity (Ics) at 240 V / Rated value kA 150 at 440 V / Rated value exit 40 V / Rated value at 415 V / Rated value kA at 420 V / Rated value kA ct 420 V / Rated value kA ct 420 V / Rated value kA	upgradeable/retrofittable / Short-circuit and		No
Product function Intrinsic device protection Yes • communication function No • Phase failure detection No • other measurement function No • other measurement function No Accessories 3VA2116-7HM32-20AA0 Manufacturer article number / of the supplied basic switch 3VA2116-7HM32-20AA0 Short circuit Operational short-circuit current breaking capacity (Ics) • at 240 V / Rated value KA 150 • at 415 V / Rated value KA 110 • at 400 V / Rated value KA 110 • at 400 V / Rated value KA 150 • at 400 V / Rated value KA 150 • at 400 V / Rated value KA 110 • at 400 V / Rated value KA 2.5 Maximum short-circuit current breaking capacity (Icu) Image: Common short-circuit current breaking capacity (Icu) • at 400 V / Rated value KA 150 • at 400 V / Rated value KA 150 • at 400 V / Rated value KA 10 • at 400 V / Rated value KA 25 Short-circuit current making capacity	Product expansion / optional / motor drive	_	Yes
Product function Intrinsic device protection Yes • communication function No • Phase failure detection No • other measurement function No • other measurement function No Accessories 3VA2116-7HM32-20AA0 Manufacturer article number / of the supplied basic switch 3VA2116-7HM32-20AA0 Short circuit Operational short-circuit current breaking capacity (Ics) • at 240 V / Rated value KA 150 • at 415 V / Rated value KA 110 • at 400 V / Rated value KA 110 • at 400 V / Rated value KA 150 • at 400 V / Rated value KA 150 • at 400 V / Rated value KA 110 • at 400 V / Rated value KA 2.5 Maximum short-circuit current breaking capacity (Icu) Image: Common short-circuit current breaking capacity (Icu) • at 400 V / Rated value KA 150 • at 400 V / Rated value KA 150 • at 400 V / Rated value KA 10 • at 400 V / Rated value KA 25 Short-circuit current making capacity	Product function		
Phase failure detectionNo• other measurement functionNoAccessoriesManufacturer article number / of the supplied basic switch3VA2116-7FIM32-0AA0Short circuitSolutionOperational short-circuit current breaking capacity (tcs)Image: Constant of the supplied basic switchOperational short-circuit current breaking capacity (tcs)KA• at 240 V / Rated valuekA• at 415 V / Rated valuekA• at 415 V / Rated valuekA• at 440 V / Rated valuekA• at 450 V / Rated valuekA• at 690 V / Rated valuekA• at 240 V / Rated valuekA• at 690 V / Rated valuekA• at 690 V / Rated valuekA• at 240 V / Rated valuekA• at 240 V / Rated valuekA• at 690 V / Rated valuekA• at 240 V / Rated valuekA• at 240 V / Rated valuekA• at 240 V / Rated valuekA• at 415 V / Rated valuekA• at 410 V / Rated valuekA• at 690 V / Rated valuekA• at 690 V / Rated valuekA• at 690 V / Rated valuekA• at 400 V / Rated value </td <td> Intrinsic device protection </td> <td></td> <td>Yes</td>	 Intrinsic device protection 		Yes
• other measurement functionNoAncessoriesSVA2116-7HM32-0AA0Manufacturer article number / of the supplied basic switchSVA2116-7HM32-0AA0Short circuitSVA2116-7HM32-0AA0Operational short-circuit current breaking capacity (ics)SVA2116-7HM32-0AA0• at 240 V / Rated valueKA150• at 240 V / Rated valueKA150• at 415 V / Rated valueKA110• at 440 V / Rated valueKA110• at 690 V / Rated valueKA150• at 240 V / Rated valueKA150• at 690 V / Rated valueKA150• at 240 V / Rated valueKA150• at 240 V / Rated valueKA150• at 240 V / Rated valueKA150• at 440 V / Rated valueKA150• at 450 V / Rated valueKA2.5Short-circuit current breaking capacity (icu)•• at 240 V / Rated valueKA2.5Short-circuit current making capacity (icm)•• at 240 V / Rated valueKA2.5Short-circuit current making capacity (icm)•• at 240 V / Rated valueKA2.5Short-circuit current making capacity (icm)•• at 240 V / Rated valueKA2.5Short-circuit current making capacity (icm)•• at 240 V / Rated valueKA2.42<	 communication function 		No
Accessories Manufacturer article number / of the supplied basic switch 3VA2116-7HM32-0AA0 Short circuit Short circuit current breaking capacity (ics) at 240 V / Rated value • at 240 V / Rated value kA 150 • at 415 V / Rated value kA 110 • at 440 V / Rated value kA 110 • at 440 V / Rated value kA 110 • at 4500 V / Rated value kA 55 • at 690 V / Rated value kA 150 • at 240 V / Rated value kA 10 • at 400 V / Rated value kA 85 • at 690 V / Rated value kA 150 • at 400 V / Rated value kA 110 • at 240 V / Rated value kA 150 • at 415 V / Rated value kA 110 • at 415 V / Rated value kA 110 • at 400 V / Rated value kA 25 Short-circuit current making capacity (Icm)	 Phase failure detection 		No
Manufacturer article number / of the supplied basic 3VA2116-7HM32:0AA0 switch Short circuit Operational short-circuit current breaking capacity (ics) 4 • at 240 V / Rated value kA • at 415 V / Rated value kA • at 440 V / Rated value kA • at 440 V / Rated value kA • at 440 V / Rated value kA • at 690 V / Rated value kA • at 690 V / Rated value kA • at 690 V / Rated value kA • at 240 V / Rated value kA • at 690 V / Rated value kA • at 690 V / Rated value kA • at 240 V / Rated value kA • at 240 V / Rated value kA • at 415 V / Rated value kA • at 440 V / Rated value kA • at 440 V / Rated value kA • at 400 V / Rated value kA • at 690 V / Rated value kA • at 690 V / Rated value kA • at 400 V / Rated value kA • at 400 V / Rated value kA • at 400 V / Rated value kA • at 440 V / Rated val	 other measurement function 		No
Manufacturer article number / of the supplied basic 3VA2116-7HM32:0AA0 switch Short circuit Operational short-circuit current breaking capacity (ics) 4 • at 240 V / Rated value kA • at 415 V / Rated value kA • at 440 V / Rated value kA • at 440 V / Rated value kA • at 440 V / Rated value kA • at 690 V / Rated value kA • at 690 V / Rated value kA • at 690 V / Rated value kA • at 240 V / Rated value kA • at 690 V / Rated value kA • at 690 V / Rated value kA • at 240 V / Rated value kA • at 240 V / Rated value kA • at 415 V / Rated value kA • at 440 V / Rated value kA • at 440 V / Rated value kA • at 400 V / Rated value kA • at 690 V / Rated value kA • at 690 V / Rated value kA • at 400 V / Rated value kA • at 400 V / Rated value kA • at 400 V / Rated value kA • at 440 V / Rated val	Access	_	
switchImage: Constraint of the set of the		_	3V/A2116.7HM32.0AA0
(ics) Image: Constraint of the second s	Short circuit Operational short-circuit current breaking capacity	_	
• at 240 V / Rated value KA 150 • at 415 V / Rated value KA 110 • at 440 V / Rated value KA 110 • at 440 V / Rated value KA 85 • at 690 V / Rated value KA 2.5 Maximum short-circuit current breaking capacity (Ico) V V • at 240 V / Rated value KA 150 • at 440 V / Rated value KA 150 • at 440 V / Rated value KA 150 • at 440 V / Rated value KA 150 • at 440 V / Rated value KA 110 • at 440 V / Rated value KA 110 • at 450 V / Rated value KA 110 • at 450 V / Rated value KA 110 • at 400 V / Rated value KA 350 • at 415 V / Rated value KA 330 • at 440 V / Rated value KA 340 • at 440 V / Rated value KA 322 • at 440 V / Rated value KA 342 • at 440 V / Rated value KA 342 • at 440 V / Rated value KA 387			
• at 415 V / Rated valueKA110• at 440 V / Rated valueKA110• at 500 V / Rated valueKA85• at 690 V / Rated valueKA2.5Maximum short-circuit current breaking capacity (current breaking capa		kA	150
 at 100 V / Rated value at 500 V / Rated value kA 85 at 690 V / Rated value kA 2.5 Maximum short-circuit current breaking capacity (Icu) at 240 V / Rated value kA 150 at 415 V / Rated value kA 110 at 440 V / Rated value kA 110 at 440 V / Rated value kA 85 at 690 V / Rated value kA 110 at 440 V / Rated value kA 110 at 440 V / Rated value kA 85 at 690 V / Rated value kA 85 at 690 V / Rated value kA 330 at 415 V / Rated value kA 242 at 415 V / Rated value kA 242 at 440 V / Rated value kA 242 		kA	110
eat 500 V / Rated valuekA85• at 690 V / Rated valuekA2.5Maximum short-circuit current breaking capacity (Icu)• at 240 V / Rated valuekA150• at 415 V / Rated valuekA110• at 440 V / Rated valuekA110• at 440 V / Rated valuekA85• at 690 V / Rated valuekA85• at 690 V / Rated valuekA30• at 690 V / Rated valuekA330• at 240 V / Rated valuekA324• at 240 V / Rated valuekA324• at 415 V / Rated valuekA310• at 440 V / Rated valuekA342• at 440 V / Rated valuekA342• at 450 V / Rated valuekA342• at 500 V / Rated valuekA347• at		kA	110
kA2.5Maximum short-circuit current breaking capacity (Icu)• at 240 V / Rated valuekA150• at 415 V / Rated valuekA110• at 440 V / Rated valuekA110• at 440 V / Rated valuekA85• at 690 V / Rated valuekA2.5Short-circuit current making capacity (Icm)• at 240 V / Rated valuekA330• at 240 V / Rated valuekA242• at 240 V / Rated valuekA330• at 240 V / Rated valuekA242• at 240 V / Rated valuekA330• at 415 V / Rated valuekA242• at 440 V / Rated valuekA310• at 440 V / Rated valuekA242• at 440 V / Rated valuekA310• at 440 V / Rated valuekA242• at 440 V / Rated valuekA340• at 440 V / Rated valuekA242• at 450 V / Rated valuekA340• at 500 V / Rated value		kA	85
Maximum short-circuit current breaking capacity (Icu)KA150• at 240 V / Rated valuekA110• at 415 V / Rated valuekA110• at 440 V / Rated valuekA110• at 500 V / Rated valuekA85• at 690 V / Rated valuekA2.5Short-circuit current making capacity (Icm)V• at 240 V / Rated valuekA330• at 240 V / Rated valuekA242• at 240 V / Rated valuekA10• at 415 V / Rated valuekA10• at 410 V / Rated valuekA10• at 440 V / Rated valuekA10• a			
• at 240 V / Rated value kA 150 • at 415 V / Rated value kA 110 • at 440 V / Rated value kA 110 • at 440 V / Rated value kA 85 • at 690 V / Rated value kA 2.5 Short-circuit current making capacity (Icm)		-	
• at 440 V / Rated valuekA110• at 500 V / Rated valuekA85• at 690 V / Rated valuekA2.5Short-circuit current making capacity (Icm)		kA	150
• at 440 V / Rated valuekA110• at 500 V / Rated valuekA85• at 690 V / Rated valuekA2.5Shot-circuit current making capacity (Icm)• at 240 V / Rated valuekA330• at 415 V / Rated valuekA242• at 440 V / Rated valuekA242• at 440 V / Rated valuekA187		kA	110
• at 500 V / Rated value kA 85 • at 690 V / Rated value kA 2.5 Short-circuit current making capacity (Icm) - - • at 240 V / Rated value kA 330 • at 415 V / Rated value kA 242 • at 440 V / Rated value kA 242 • at 500 V / Rated value kA 36		kA	110
• at 690 V / Rated valuekA2.5Short-circuit current making capacity (Icm)-• at 240 V / Rated valuekA330• at 415 V / Rated valuekA242• at 440 V / Rated valuekA242• at 500 V / Rated valuekA187		kA	
• at 240 V / Rated valuekA330• at 415 V / Rated valuekA242• at 440 V / Rated valuekA242• at 500 V / Rated valuekA187		kA	2.5
• at 240 V / Rated valuekA330• at 415 V / Rated valuekA242• at 440 V / Rated valuekA242• at 500 V / Rated valuekA187			
• at 415 V / Rated valuekA242• at 440 V / Rated valuekA242• at 500 V / Rated valuekA187		kA	330
• at 500 V / Rated value kA 187		kA	242
• at 500 V / Rated value kA 187	• at 440 V / Rated value	kA	242
		kA	
	at 690 V / Rated value	kA	

Connections						
Arrangement of electrical connectors / for main		Front termin	al			
current circuit						
Type of connectable conductor cross-section						
 for flat-bar terminal connection / minimum 		13 x 1 mm	13 x 1 mm			
 for flat-bar terminal connection / maximum 		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						
 during operation / minimum 	°C	-25				
 during operation / maximum 	°C	70	70			
 during storage / minimum 	°C	-40	-40			
 during storage / maximum 	°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/3VA21167HM320AA0

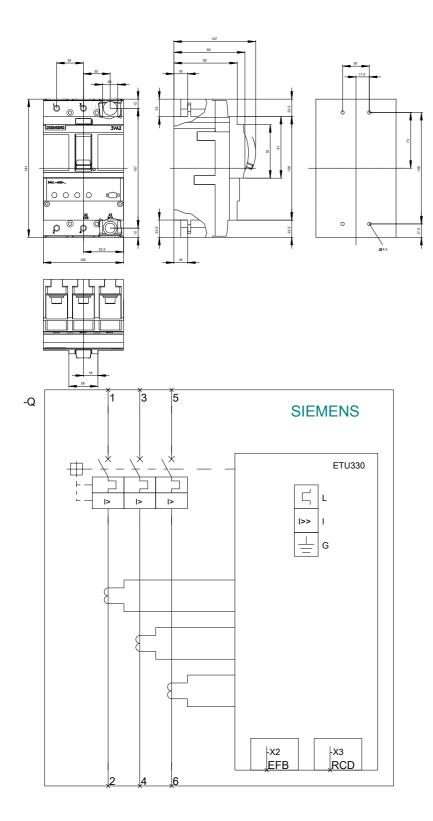
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA21167HM320AA0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA21167HM320AA0

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

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv



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