SIEMENS

Data sheet



3VA2225-5HN42-0AA0

CIRCUIT BREAKER 3VA2 IEC FRAME 250 BREAKING CAPACITY CLASS M ICU=55KA @ 415 V 4POLE, LINE PROTECTION ETU350, LSI, IN=250A OVERLOAD PROTECTION IR=100A ...250A SHORT CIRCUIT PROTECTION ISD=1,5... 10 X IR, 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		ETU350
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		

Protection class IP	-	IP40
Protection class IP / on the front		IP40
Protective function of the overcurrent release		LSI
Switching capacity		
Switching capacity class of the circuit breaker		Μ
Dissipation		
Active power loss		
● maximum	W	48
Electricity		
Continuous current / Rated value / maximum	А	250
Continuous current / Rated value	А	250
Adjustable response value current / of the	A	10
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	250
● at 50 °C / Rated value	А	250
● at 60 °C / Rated value	А	250
• at 65 °C / Rated value	А	250
• at 70 °C / Rated value	A	250
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		
 of I-trip / Full-scale value 	А	10
 of the short-time delayed short-circuit release / initial value 	A	1.5
 of the short-time delayed short-circuit release / Full-scale value 	A	10
Adjustable delay time		
• of S-trip / with I2t characteristic / initial value	s	0.02
 of S-trip / with I2t characteristic / Full-scale value 	S	0.4
Adjustable response value current / of the current- dependent overload release / initial value	A	0.4
•		

Product component Irip indicator display indervoltage release No Product properly or neutral conductors / upgradeable/retrofittable / Short-circuit and overload proof Product expansion / optional / motor drive Yes Product function Intrinsic device protection Intrinsic device protection No One mumication function No Phase failure detection onther measurement function No Accessories Short circuit Coperational short-circuit current breaking capacity (Ics) at 240 V / Rated value at 450 V / Rated value at 650 V / Rated value at 455 at 400 V / Rated value A 36 at 415 V / Rated value A 55 at 415 V / Rated value A 36 at 440 V / Rated value A 36 at 4415 V / Rated value A 36 at 440 V / Rated value A 36 at 4415 V / Rated value A 36 at 4415 V / Rated value A 36 at 4415 V / Rated value A 30 	Product details		
original original original original overload proofNoProduct property original/endotors / upgradeable/retrofittable / Short-circuit and 			
undervoltage releaseNoProduct propertyNo• for neutral conductors / upgradeable/retrofitable / Short-circuit and overload proofYesProduct expansion / optional / motor driveYesProduct functionYesProduct functionNo• Intrinsic device protectionYes• Intrinsic device protectionNo• ommunication functionNo• ommunication functionNo• other measurement functionNo• other measurement functionNo• other measurement functionStructoret• other device protectionStructoret• at 240 V / Rated valueKA• at 240 V / Rated valueKA• at 240 V / Rated valueKA• at 340 V / Rated va	Trip indicator		No
Product property Image: mail of the second	● display		No
• for neutral conductors / upgradeable/retrofitable / Short-circuit and overload proofNoProduct expansion / optional / motor driveYesProduct functionYesProduct functionNo• Intrinsic device protectionNo• Other measurement functionNo• other measurement functionSVA2225-5HN42-0AA0• other measurement functionSVA2225-5HN42-0AA0• other measurement functionSVA2225-5HN42-0AA0• at 240 V / Rated valueKA• at 550 C / Rated valueKA• at 240 V / Rated value <td< td=""><td> undervoltage release </td><td></td><td>No</td></td<>	 undervoltage release 		No
upgradeable/retrofittable / Short-circuit and overload proofYesProduct expansion / optional / motor driveYesProduct functionYes• Intrinsic device protectionNo• Intrinsic device protectionNo• Orbase failure detectionNo• other measurement functionNo• other measurement functionStrategeeManufacturer article number / of the supplied basicStrategeeswitchStrategeeOperational short-circuit current breaking capacity (tes)Strategee• at 240 V / Rated valueKA85• at 415 V / Rated valueKA55• at 400 V / Rated valueKA36• at 600 V / Rated valueKA55• at 400 V / Rated valueKA36• at 415 V / Rated valueKA36• at 600 V / Rated valueKA36• at 600 V / Rated valueKA36• at 415 V / Rated valueKA36• at 410 V / Rated valueKA36• at 410 V / Rated valueKA36• at 600 V / Rated valueKA36• at 410 V / Rated valueKA36• at 410 V / Rated valueKA36• at 410 V / Rated valueKA36• at 600 V / Rated valueKA121• at 415 V / Rated valueKA121• at 415 V / Rated	Product property		
overload proofImage: second secon	 for neutral conductors / 		No
Product expansion / optional / motor drive Yes Product function Ves Product function No • Intrinsic device protection No • communication function No • Other measurement function No • other measurement function No • other measurement function No Accessories 3VA2225-SHN42-0/AAO Schort circuit Opperational short-circuit current breaking capacity (Ics) • at 240 V / Rated value KA • at 240 V / Rated value KA • at 415 V / Rated value KA • at 500 V / Rated value KA • at 240 V / Rated value KA • at 240 V / Rated value KA • at 690 V / Rated value KA • at 690 V / Rated value KA • at 415 V / Rated value KA • at 410 V / Rated value KA • at 400 V / Rated value KA • at 415 V / Rated value KA • at 690 V / Rated value KA • at 415 V / Rated value KA • at 410 V / Rated value KA • at 690 V / Rated value KA • at 690 V / Rated value KA • at 415 V / Rated value KA • at 690 V / Rated value </td <td></td> <td></td> <td></td>			
Product function Product function Yes • Intrinsic device protection No • communication function No • other measurement function No • other measurement function No • other measurement function No Accessories 3V/A2225-5HN42-0AA0 Short circuit Strot circuit current breaking capacity (los) • at 240 V / Rated value KA 85 • at 440 V / Rated value KA 85 • at 440 V / Rated value KA 30 • at 690 V / Rated value KA 36 • at 690 V / Rated value KA 55 • at 690 V / Rated value KA 55 • at 440 V / Rated value KA 30 Maximum short-circuit current breaking capacity (locu) Image: transmitter of the supplied basic strong			
Product function Yes • Intrinsic device protection No • communication function No • Phase failure detection No • other measurement function No Accessories 3VA2225-5HN42-0AA0 Manufacturer article number / of the supplied basic switch 3VA2225-5HN42-0AA0 Short circuit 2000 Operational short-circuit current breaking capacity (Ics) 4A • at 240 V / Rated value kA • at 415 V / Rated value kA • at 400 V / Rated value kA • at 400 V / Rated value kA • at 690 V / Rated value kA • at 240 V / Rated value kA • at 415 V / Rated value kA • at 420 V / Rated value kA • at 420 V / Rated value kA • at 420 V / Rated value kA • at 430 V / Rated value kA • at 450 V / Rated value kA • at 400 V	Product expansion / optional / motor drive		Yes
Intrinsic device protectionYesIntrinsic device protectionNoPhase failure detectionNoother measurement functionNoAccessories3VA2225-5HN42-0AA0Manufacturer article number / of the supplied basic3VA2225-5HN42-0AA0switch3VA2225-5HN42-0AA0Short circuitShort circuitOperational short-circuit current breaking capacity (rcs)Image: Circuit Current breaking capacity (rcs)• at 240 V / Rated valueKA• at 415 V / Rated valueKA• at 440 V / Rated valueKA• at 690 V / Rated valueKA• at 240 V / Rated valueKA• at 400 V / Rated valueKA• at 415 V / Rated valueKA• at 690 V / Rated valueKA• at 400 V / Rated valueKA• at 400 V / Rated valueKA <tr <td="">• at 690 V / Rated value<</tr>	Product function		
 communication function communication function Phase failure detection other measurement function No No Accessories Accessories Short-circuit current breaking capacity (Icu) at 240 V / Rated value kA at 240 V / Rated value kA S5 at 415 V / Rated value kA S5 at 440 V / Rated value kA S6 S6 S6 S6 S6 S6 S6 S6 S6 <li< td=""><td>Product function</td><td></td><td></td></li<>	Product function		
Phase failure detectionNo• other measurement functionNoAccessories3VA2225-5HN42-0AA0Accessories3VA2225-5HN42-0AA0Short circuitSoft circuitOperational short-circuit current breaking capacity (lcs)I• at 240 V / Rated valueKA• at 415 V / Rated valueKA• at 440 V / Rated valueKA• at 690 V / Rated valueKA• at 415 V / Rated valueKA• at 440 V / Rated valueKA• at 440 V / Rated valueKA• at 440 V / Rated valueKA• at 690 V / Rated value<	 Intrinsic device protection 		Yes
• other measurement functionNoAccessories3VA2225-5HN42-0AA0Marufacturer article number / of the supplied basic switch3VA2225-5HN42-0AA0Short circuitShort circuit current breaking capacity (lcs)Image: Comparison of the supplied basic supplied basicOperational short-circuit current breaking capacity (lcs)Image: Comparison of the supplied basic supplied basic• at 240 V / Rated valuekA85• at 415 V / Rated valuekA85• at 440 V / Rated valuekA36• at 440 V / Rated valuekA36• at 690 V / Rated valuekA36• at 240 V / Rated valuekA85• at 240 V / Rated valuekA36• at 400 / Rated valuekA36• at 240 V / Rated valuekA187• at 240 V / Rated valuekA187• at 240 V / Rated valuekA121• at 240 V / Rated value <t< td=""><td> communication function </td><td></td><td>No</td></t<>	 communication function 		No
Accessories 3VA2225-5HN42-0AA0 Manufacturer article number / of the supplied basic switch 3VA2225-5HN42-0AA0 Short circuit Short circuit current breaking capacity (ics) at 240 V / Rated value kA 85 • at 240 V / Rated value kA 55 •<	 Phase failure detection 		No
Manufacturer article number / of the supplied basic switch3VA2225-5HN42-0AA0Short circuitOperational short-circuit current breaking capacity (ics)• at 240 V / Rated valuekA85• at 440 V / Rated valuekA55• at 440 V / Rated valuekA55• at 440 V / Rated valuekA36• at 690 V / Rated valuekA36• at 690 V / Rated valuekA55• at 415 V / Rated valuekA55• at 690 V / Rated valuekA36• at 415 V / Rated valuekA55• at 440 V / Rated valuekA85• at 440 V / Rated valuekA55• at 440 V / Rated valuekA36• at 450 V / Rated valuekA36• at 440 V / Rated valuekA36• at 450 V / Rated valuekA36• at 400 V / Rated valuekA187• at 240 V / Rated valuekA121• at 440 V / Rated valuekA121• at 440 V / Rated valuekA121• at 440 V / Rated valuekA121• at 450 V / R	 other measurement function 		No
Manufacturer article number / of the supplied basic switch3VA2225-5HN42-0AA0Short circuitOperational short-circuit current breaking capacity (ics)• at 240 V / Rated valuekA85• at 440 V / Rated valuekA55• at 440 V / Rated valuekA55• at 440 V / Rated valuekA36• at 690 V / Rated valuekA36• at 690 V / Rated valuekA55• at 415 V / Rated valuekA55• at 690 V / Rated valuekA36• at 415 V / Rated valuekA55• at 440 V / Rated valuekA85• at 440 V / Rated valuekA55• at 440 V / Rated valuekA36• at 450 V / Rated valuekA36• at 440 V / Rated valuekA36• at 450 V / Rated valuekA36• at 400 V / Rated valuekA187• at 240 V / Rated valuekA121• at 440 V / Rated valuekA121• at 440 V / Rated valuekA121• at 440 V / Rated valuekA121• at 450 V / R	Accessories		
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Operational short-circuit current breaking capacity (Ics)KA85• at 240 V / Rated valuekA85• at 415 V / Rated valuekA55• at 440 V / Rated valuekA55• at 440 V / Rated valuekA36• at 500 V / Rated valuekA36• at 690 V / Rated valuekA3Maximum short-circuit current breaking capacity (Icu)	switch		
(ics) Icn • at 240 V / Rated value KA 85 • at 415 V / Rated value KA 55 • at 440 V / Rated value KA 36 • at 400 V / Rated value KA 36 • at 690 V / Rated value KA 36 • at 690 V / Rated value KA 36 • at 690 V / Rated value KA 36 • at 240 V / Rated value KA 55 • at 240 V / Rated value KA 55 • at 415 V / Rated value KA 55 • at 440 V / Rated value KA 55 • at 440 V / Rated value KA 36 • at 690 V / Rated value KA 36 • at 690 V / Rated value KA 36 • at 240 V / Rated value KA 36 • at 240 V / Rated value KA 36 • at 240 V / Rated value KA 36 • at 415 V / Rated value KA 121 • at 415 V / Rated value KA 121 • at 440 V / Rated value <	Short circuit		
+ at 240 V / Rated valuekA85- at 415 V / Rated valuekA55- at 440 V / Rated valuekA36- at 500 V / Rated valuekA36- at 690 V / Rated valuekA3- at 690 V / Rated valuekA85- at 240 V / Rated valuekA85- at 240 V / Rated valuekA55- at 415 V / Rated valuekA55- at 440 V / Rated valuekA55- at 440 V / Rated valuekA36- at 440 V / Rated valuekA187- at 440 V / Rated valuekA121- at 440 V / Rated valuekA121- at 440 V / Rated valuekA36- at 440 V / Rated valuekA121- at 440 V / Rated valuekA121- at 440 V / Rated valuekA121- at 500 V / Rated valuekA121			
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at 440 V / Rated valuekA55• at 440 V / Rated valuekA36• at 500 V / Rated valuekA3Maximum short-circuit current breaking capacity (Icu)-• at 240 V / Rated valuekA85• at 415 V / Rated valuekA55• at 440 V / Rated valuekA55• at 440 V / Rated valuekA55• at 440 V / Rated valuekA36• at 440 V / Rated valuekA36• at 500 V / Rated valuekA36• at 690 V / Rated valuekA187• at 240 V / Rated valuekA121• at 440 V / Rated valuekA121• at 440 V / Rated valuekA79			
 at 100 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 36 stoot V / Rated value kA 136 at 240 V / Rated value kA 36 at 490 V / Rated value kA 136 at 490 V / Rated value kA 36 at 490 V / Rated value kA 36 at 490 V / Rated value kA 36 at 500 V / Rated value kA 36 at 500 V / Rated value kA 137 at 415 V / Rated value kA 121 at 440 V / Rated value kA 79 			
• at 600 V / Rated valuekA3• at 690 V / Rated valuekA3• at 240 V / Rated valuekA85• at 240 V / Rated valuekA55• at 415 V / Rated valuekA55• at 440 V / Rated valuekA55• at 440 V / Rated valuekA36• at 500 V / Rated valuekA36• at 690 V / Rated valuekA3• at 690 V / Rated valuekA187• at 240 V / Rated valuekA121• at 240 V / Rated valuekA121• at 415 V / Rated valuekA79			
Maximum short-circuit current breaking capacity (lou)• at 240 V / Rated valuekA85• at 240 V / Rated valuekA55• at 415 V / Rated valuekA55• at 440 V / Rated valuekA36• at 500 V / Rated valuekA36• at 690 V / Rated valuekA3• at 690 V / Rated valuekA3• at 240 V / Rated valuekA187• at 240 V / Rated valuekA121• at 440 V / Rated valuekA121• at 440 V / Rated valuekA121• at 440 V / Rated valuekA121• at 500 V / Rated valuekA79			
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• at 415 V / Rated valuekA55• at 440 V / Rated valuekA55• at 500 V / Rated valuekA36• at 690 V / Rated valuekA3• at 690 V / Rated valuekA10• at 240 V / Rated valuekA187• at 415 V / Rated valuekA121• at 440 V / Rated valuekA121• at 500 V / Rated valuekA79			
• at 440 V / Rated valuekA55• at 500 V / Rated valuekA36• at 690 V / Rated valuekA3Short-circuit current making capacity (Icm)			
• at 500 V / Rated valuekA36• at 690 V / Rated valuekA3Short-circuit current making capacity (Icm)			
• at 690 V / Rated valuekA3Short-circuit current making capacity (Icm)-• at 240 V / Rated valuekA187• at 415 V / Rated valuekA121• at 440 V / Rated valuekA121• at 500 V / Rated valuekA79			
Short-circuit current making capacity (Icm)KA187• at 240 V / Rated valuekA121• at 415 V / Rated valuekA121• at 440 V / Rated valuekA121• at 500 V / Rated valuekA79	• at 500 V / Rated value		
• at 240 V / Rated valuekA187• at 415 V / Rated valuekA121• at 440 V / Rated valuekA121• at 500 V / Rated valuekA79		kA	3
 at 415 V / Rated value at 440 V / Rated value kA 121 kA 121 kA 79 			
 at 440 V / Rated value kA 121 at 500 V / Rated value kA 79 	• at 240 V / Rated value		
• at 500 V / Rated value kA 79	● at 415 V / Rated value	kA	
	• at 440 V / Rated value	kA	121
• at 690 V / Rated value kA 4.5	• at 500 V / Rated value	kA	79
	● at 690 V / Rated value	kA	4.5
Connections	Connections		

Acchanical Design Height mm 181 Width mm 140 Depth mm 107 Mounting type fixed mounting invironmental conditions fixed mounting Ambient temperature • during operation / minimum °C -25 • during operation / maximum °C 70 • during storage / minimum °C -40 • during storage / maximum °C 80	
• for flat-bar terminal connection / maximum25 x 8.5Type of electrical connection / for main current circuitLug terminalAechanical Designmm181Heightmm140Depthmm107Mounting typefixed mountingenvironmental conditions-25Ambient temperature • during operation / minimum°C-25-25-25-25-25-40 <t< td=""><td></td></t<>	
Type of electrical connection / for main current circuit Lug terminal Alechanical Design mm 181 Width mm 140 Depth mm 107 Mounting type fixed mounting Environmental conditions C -25 Ambient temperature °C 70 during operation / maximum °C 70 during storage / minimum °C 40 eduring storage / maximum °C 80	
Aechanical Design Height mm 181 Width mm 140 Depth mm 107 Mounting type fixed mounting Environmental conditions C -25 Ambient temperature °C -25 • during operation / minimum °C -25 • during operation / maximum °C -40 • during storage / minimum °C -40 • during storage / maximum °C 80	
Heightmm181Widthmm140Depthmm107Mounting typefixed mountingEnvironmental conditionsfixed mountingAmbient temperature-25• during operation / minimum°C-25• during operation / maximum°C70• during storage / minimum°C-40• during storage / maximum°C80	
Vidthmm140Depthmm107Mounting typefixed mountingEnvironmental conditionsread mountingAmbient temperature°C• during operation / minimum°C• during operation / maximum°C• during storage / minimum°C• during storage / maximum°C• during storage / maximum°C• Certificates	
Depthmm107Mounting typefixed mountingEnvironmental conditionsfixed mountingEnvironmental conditions°CAmbient temperature • during operation / minimum°C• during operation / minimum°C• during operation / maximum°C• during storage / minimum°C• during storage / maximum°C• Crtificates	
Mounting type fixed mounting Environmental conditions	
Environmental conditions Ambient temperature • during operation / minimum °C -25 • during operation / maximum °C 70 • during storage / minimum °C -40 • during storage / maximum °C 80	
Ambient temperature °C -25 • during operation / minimum °C 70 • during storage / minimum °C -40 • during storage / maximum °C 80	
 during operation / minimum during operation / maximum during storage / minimum during storage / maximum C -25 C 70 -25 C 70 80 	
 during operation / maximum during storage / minimum during storage / maximum C C C A0 C C	
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• during storage / maximum *C 80 Certificates	
Certificates	
Equipment marking	
• acc. to DIN EN 61346-2 Q	
• acc. to DIN EN 81346-2 Q	
General Product Approval EMC Declaration of Shipp	oing
Conformity Appre	oval
CCC VDE EFFC other CFC DN	

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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/3VA22255HN420AA0

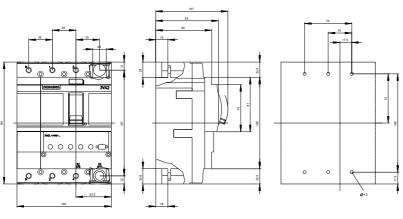
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA22255HN420AA0/all

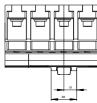
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA22255HN420AA0

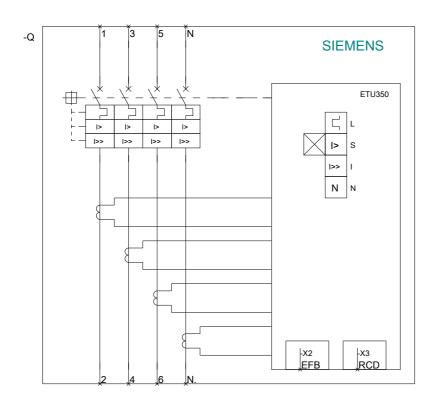
CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications http://ausschreibungstexte.siemens.com/tiplv







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