SIEMENS

Data sheet

3VA2116-7HM42-0AA0



CIRCUIT BREAKER 3VA2 IEC FRAME 160 BREAKING CAPACITY CLASS C ICU=110KA @ 415 V 4POLE, LINE PROTECTION ETU330, LIG, IN=160A OVERLOAD PROTECTION IR=64A ...160A SHORT CIRCUIT PROTECTION II=1,5...10 X IN NEUTRAL PROTECTION ADJUSTABLE(OFF,50%,100%) 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 + N 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		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		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
Protection class Protection class IP		IP40
Protection class IP / on the front		IP40
Protective function of the overcurrent release		
Protective function of the overcurrent release		LIG
Switching capacity		
Switching capacity class of the circuit breaker		С
Dissipation		
Active power loss		
• maximum	W	25.5
Electricity Continuous current / Rated value / maximum	^	160
Continuous current / Rated value / maximum Continuous current / Rated value	A	160 160
Adjustable response value current / of the instantaneous short-circuit release / initial value	Α	1.5
instantaneous short on out release / initial value		
Main circuit		
Operating voltage		
with AC / at 50/60 Hz / Rated value	V	690
Operating current		
• at 40 °C / Rated value	Α	160
● at 50 °C / Rated value	Α	160
● at 60 °C / Rated value	Α	160
• at 65 °C / Rated value	Α	160
• at 70 °C / Rated value	Α	160
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		
 for G-tripping / with standard characteristic / initial value 	Α	0.2
 for G-tripping / with standard characteristic / Full-scale value 	Α	1
of I-trip / Full-scale value	Α	10
Adjustable response value current / of the current-	Α	0.394
dependent overload release / initial value		

Product details		
Product component		
Trip indicator		No
• display		No
undervoltage release		No
Product property		
of the circuit breaker with tripping unit / Tripping		Yes
characteristic adjustable		
for neutral conductors /		No
upgradeable/retrofittable / Short-circuit and		
overload proof Product expansion / optional / motor drive		Yes
Product expansion / optional / motor drive		165
Product function		
Product function		
Intrinsic device protection		Yes
communication function		No
Phase failure detection		No
 other measurement function 		No
Accessories		
switch Short circuit		
Operational short-circuit current breaking capacity		
(Ics)		
(Ics) ● at 240 V / Rated value	kA	150
(Ics)	kA	110
(Ics) ● at 240 V / Rated value	kA kA	110 110
 (Ics) at 240 V / Rated value at 415 V / Rated value at 440 V / Rated value at 500 V / Rated value 	kA kA kA	110 110 85
 (Ics) at 240 V / Rated value at 415 V / Rated value at 440 V / Rated value at 500 V / Rated value at 690 V / Rated value 	kA kA	110 110
(Ics) • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 500 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu)	kA kA kA kA	110 110 85 2.5
(Ics) • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 500 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value	kA kA kA kA	110 110 85 2.5
(Ics) • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 500 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value • at 415 V / Rated value	kA kA kA kA	110 110 85 2.5 150 110
(Ics) • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 500 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value	kA kA kA kA kA	110 110 85 2.5 150 110
 (Ics) at 240 V / Rated value at 415 V / Rated value at 440 V / Rated value at 500 V / Rated value at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) at 240 V / Rated value at 415 V / Rated value at 440 V / Rated value at 500 V / Rated value at 500 V / Rated value at 500 V / Rated value 	kA kA kA kA kA kA	110 110 85 2.5 150 110 110 85
(Ics) • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 500 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 690 V / Rated value • at 690 V / Rated value • at 690 V / Rated value	kA kA kA kA kA	110 110 85 2.5 150 110
(Ics) • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 500 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 500 V / Rated value • at 690 V / Rated value • at 690 V / Rated value Short-circuit current making capacity (Icm)	kA kA kA kA kA kA kA	110 110 85 2.5 150 110 110 110 85 2.5
(Ics) • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 500 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 500 V / Rated value • at 690 V / Rated value Short-circuit current making capacity (Icm) • at 240 V / Rated value	kA kA kA kA kA kA kA kA	110 110 85 2.5 150 110 110 85 2.5 330
(Ics) • at 240 V / Rated value • at 415 V / Rated value • at 500 V / Rated value • at 690 V / Rated value • at 240 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 500 V / Rated value • at 690 V / Rated value • at 690 V / Rated value Short-circuit current making capacity (Icm) • at 240 V / Rated value • at 415 V / Rated value	kA kA kA kA kA kA kA kA kA	110 110 85 2.5 150 110 110 85 2.5 330 242
(Ics) • at 240 V / Rated value • at 415 V / Rated value • at 500 V / Rated value • at 690 V / Rated value • at 240 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 500 V / Rated value • at 690 V / Rated value • at 690 V / Rated value • at 690 V / Rated value • at 440 V / Rated value • at 240 V / Rated value • at 240 V / Rated value • at 415 V / Rated value • at 415 V / Rated value • at 440 V / Rated value	kA	110 110 85 2.5 150 110 110 88 5 2.5 330 242 242
(Ics) • at 240 V / Rated value • at 415 V / Rated value • at 500 V / Rated value • at 690 V / Rated value • at 240 V / Rated value • at 690 V / Rated value Maximum short-circuit current breaking capacity (Icu) • at 240 V / Rated value • at 415 V / Rated value • at 440 V / Rated value • at 500 V / Rated value • at 690 V / Rated value • at 690 V / Rated value Short-circuit current making capacity (Icm) • at 240 V / Rated value • at 415 V / Rated value	kA kA kA kA kA kA kA kA kA	110 110 85 2.5 150 110 110 85 2.5 330 242

Connections	
Arrangement of electrical connectors / for main current circuit	Front terminal
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	140
Depth	mm	107
Mounting type		fixed mounting

Environmental conditions			
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	other	







other EG-Konf.

Conformity

other

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/3VA21167HM420AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA21167HM420AA0/all

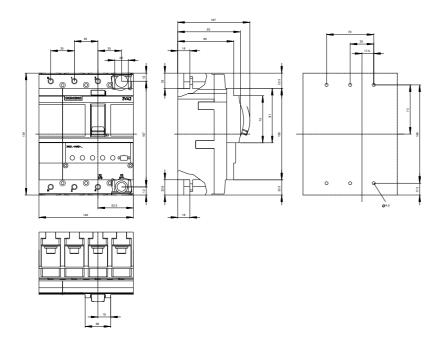
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA21167HM420AA0

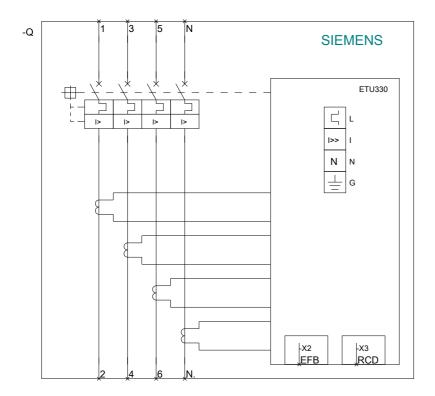
CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://ausschreibungstexte.siemens.com/tiplv





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