## Data sheet

## 3VA2116-7KQ42-0AA0



CIRCUIT BREAKER 3VA2 IEC FRAME 160 BREAKING CAPACITY CLASS C ICU=110KA @ 415 V 4POLE, LINE PROTECTION ETU860, LSIG, IN=160A OVERLOAD PROTECTION IR=64A ...160A SHORT CIRCUIT PROTECTION ISD=0,6..10X IN, II=1,5..10X IN NEUTRAL PROTECTION ADJUSTABLE (OFF, UPTO 100%) GROUNDFAULT, SWITCHABLE IG=0,2... 1 X IN, TG=0,050,8MS 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	ETU860	

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		25
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	0.05
Total disconnection time / for G-tripping / with standard characteristic / Full-scale value	S	0.8
circuit-breaker / Design		3VA
Mechanical service life (switching cycles) / typical		20 000

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		LSIG		
0.111				
Switching capacity		C		
Switching capacity class of the circuit breaker		C		
Dissipation				
Active power loss				
• maximum	W	25.5		
Electricity				
Continuous current / Rated value / maximum	Α	160		
Continuous current / Rated value	Α	160		
Adjustable response value current / of the	Α	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	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		
Cultability for use		System protection		
Adjustable parameters				
Adjustable response value current				
<ul> <li>for G-tripping / with I2t characteristic / initial value</li> </ul>	Α	0.2		
for G-tripping / with I2t characteristic / Full-scale	Α	1		
value				
for G-tripping / with standard characteristic /	Α	0.2		
initial value				
• for G-tripping / with standard characteristic /	Α	1		
Full-scale value				

• of I-trip / Full-scale value	Α	12
<ul> <li>of the short-time delayed short-circuit release / initial value</li> </ul>	А	0.6
<ul> <li>of the short-time delayed short-circuit release / Full-scale value</li> </ul>	Α	10
<ul> <li>of S-trip / with standard characteristic / initial value</li> </ul>	Α	0.6
<ul> <li>of S-trip / with standard characteristic / Full- scale value</li> </ul>	Α	10
Adjustable delay time		
<ul> <li>for G-tripping / with I2t characteristic / initial value</li> </ul>	s	0.05
• for G-tripping / with I2t characteristic / Full-scale value	S	0.8
• of S-trip / with I2t characteristic / initial value	s	0.05
<ul> <li>of S-trip / with I2t characteristic / Full-scale value</li> </ul>	S	0.5
<ul> <li>of S-trip / with standard characteristic / initial value</li> </ul>	S	0.05
<ul> <li>of S-trip / with standard characteristic / Full- scale value</li> </ul>	S	0.5
Adjustable response value current / of the current- dependent overload release / initial value	А	0.4
Product details		
Product component		
Trip indicator		No
• display		Yes
undervoltage release		No
Product property	_	
<ul> <li>of the circuit breaker with tripping unit / Tripping characteristic adjustable</li> </ul>		Yes
<ul> <li>for neutral conductors / upgradeable/retrofittable / Short-circuit and overload proof</li> </ul>		No
Product expansion / optional / motor drive		Yes
Product function		
Product function		
Intrinsic device protection		Yes
• communication function		Yes
Phase failure detection		No
• Friase failure detection		

Accessories

• other measurement function

Yes

Manufacturer article number / of the supplied basic switch		3VA2116-7KQ42-0AA0
Short circuit		
Operational short-circuit current breaking capacity (Ics)		
at 240 V / Rated value	kA	150
• at 415 V / Rated value	kA	110
• at 440 V / Rated value	kA	110
• 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 500 V / Rated value	kA	85
• at 690 V / Rated value	kA	2.5
Short-circuit current making capacity (lcm)		
• 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	187
● at 690 V / Rated value	kA	3.75
Connections		
Arrangement of electrical connectors / for main		Front terminal
current circuit		
Type of connectable conductor cross-section		42 4
• 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  Mounting type	mm	107 fixed mounting
Environmental conditions  Ambient temperature		
during operation / minimum	°C	-25
during operation / maximum     during operation / maximum	°C	70
during operation / maximum     during storage / minimum	°C	-40
	°C	80
during storage / maximum		00

## Certificates **Equipment marking** • acc. to DIN EN 61346-2 Q Q • acc. to DIN EN 81346-2 **General Product Approval EMC Declaration of Shipping** Conformity **Approval** other

**Shipping** other **Approval** 



other

GL

## 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/3VA21167KQ420AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA21167KQ420AA0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

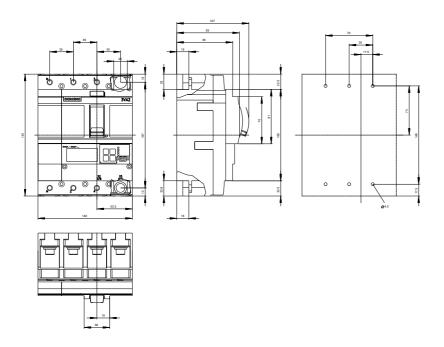
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA21167KQ420AA0

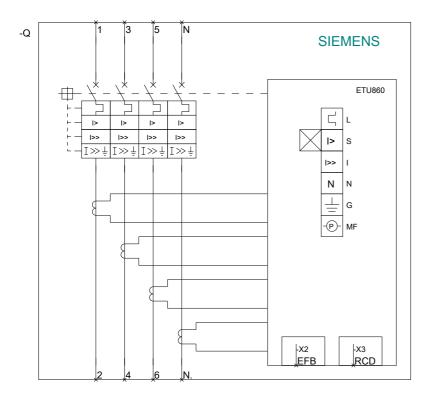
**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://ausschreibungstexte.siemens.com/tiplv





last modified: 11.03.2015