



Figure similar

CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS H ICU=70KA @ 415 V 4-POLE, LINE PROTECTION TM210, FTFM, IN=80A OVERLOAD PROTECTION IR=80A FIXED SHORT CIRCUIT PROTECTION II=10 X IN NEUTRAL PROTECTION 100% BUSBAR CONNECTION

Model		
product brand name		SENTRON
Product designation		Molded case circuit breaker
Design of the product		Line protection
Product variations		General Applications
Ground fault monitoring version		Without
Design of the operating mechanism		toggle handle
Type of the driving mechanism / motor drive		No
Design of the overcurrent release		TM210
General technical data		
Number of poles		4
Trip class / of the L-trip / with I <sup>2</sup> t characteristic / initial value		1
Trip class / of the L-trip / with I <sup>2</sup> t characteristic / Full-scale value		1
Mechanical service life (switching cycles) / typical		15 000
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		LI
Switching capacity		
Switching capacity class of the circuit breaker		H

Dissipation		
<b>Active power loss</b>		
• maximum	W	19.2
Electricity		
<b>Continuous current / Rated value / maximum</b>	A	160
Continuous current / Rated value	A	80
Main circuit		
<b>Operating voltage</b>		
• with AC / at 50/60 Hz / Rated value	V	690
• for DC / Rated value	V	600
<b>Operating current</b>		
• at 40 °C / Rated value	A	80
• at 50 °C / Rated value	A	80
• at 55 °C / Rated value	A	78
• at 60 °C / Rated value	A	77
• at 65 °C / Rated value	A	75
• at 70 °C / Rated value	A	74
Auxiliary circuit		
Number of CO contacts / for auxiliary contacts		0
Suitability		
<b>Suitability for use</b>		system protection
Adjustable parameters		
<b>Adjustable response value current / of the current-dependent overload release / initial value</b>	A	80
Product details		
<b>Product component</b>		
• Trip indicator		No
• display		No
• undervoltage release		No
<b>Product property</b>		
• for neutral conductors / upgradeable/retrofitable / Short-circuit and overload proof		No
Product expansion / optional / motor drive		Yes
Product function		
<b>Product function</b>		
• Intrinsic device protection		Yes
• communication function		No
• other measurement function		No

## Short circuit

<b>Operational short-circuit current breaking capacity (Ics)</b>		
• at 240 V / Rated value	kA	100
• at 415 V / Rated value	kA	70
• at 440 V / Rated value	kA	40
• at 500 V / Rated value	kA	15
• at 690 V / Rated value	kA	5
<b>Maximum short-circuit current breaking capacity (Icu)</b>		
• at 240 V / Rated value	kA	100
• at 415 V / Rated value	kA	70
• at 440 V / Rated value	kA	55
• at 500 V / Rated value	kA	20
• at 690 V / Rated value	kA	10
<b>Short-circuit current making capacity (Icm)</b>		
• at 240 V / Rated value	kA	220
• at 415 V / Rated value	kA	154
• at 440 V / Rated value	kA	121
• at 500 V / Rated value	kA	40
• at 690 V / Rated value	kA	17

## Connections

Arrangement of electrical connectors / for main current circuit		Front terminal
Type of connectable conductor cross-section		
• for flat-bar terminal connection / minimum		12 x 0
• for flat-bar terminal connection / maximum		17 x 6.5
Type of electrical connection / for main current circuit		Lug terminal

## Mechanical Design

<b>Height</b>	mm	130
<b>Width</b>	mm	101.6
<b>Depth</b>	mm	70
<b>Mounting type</b>		fixed mounting
<b>Net weight</b>	g	1 200

## Environmental conditions

<b>Ambient temperature</b>		
• during operation / minimum	°C	-25
• during operation / maximum	°C	70
• during storage / minimum	°C	-40
• during storage / maximum	°C	80

## Certificates

<b>Equipment marking</b>		
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- acc. to DIN EN 61346-2
- acc. to DIN EN 81346-2

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General Product Approval	EMC	Declaration of Conformity	Test Certificates	Shipping Approval
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CCC


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EG-Konf.

[Typprüfbescheinigung/Werkszeugnis](#)


DNV

Shipping Approval	other
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GL



LRS

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### 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/3VA11806GD420AA0>

#### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3VA11806GD420AA0/all>

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

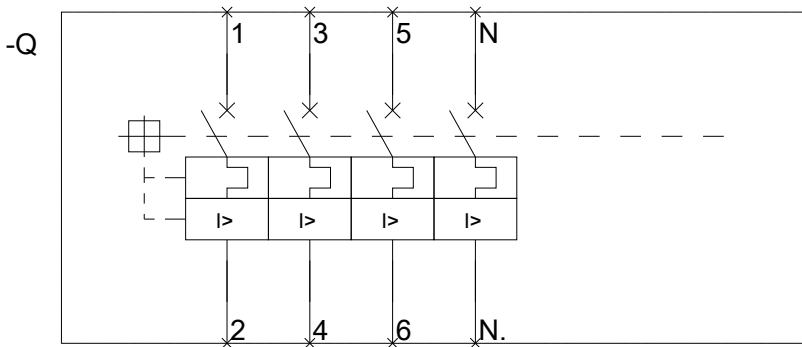
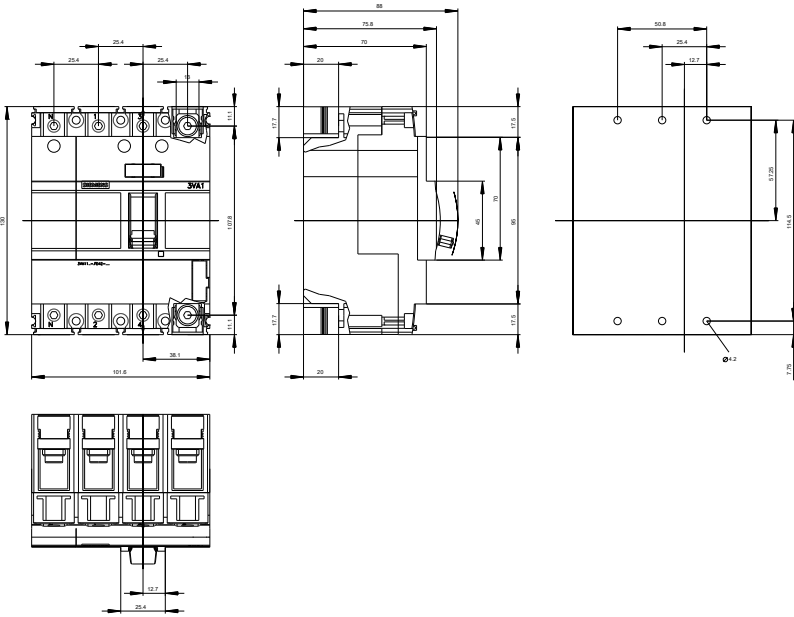
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA11806GD420AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA11806GD420AA0)

#### CAX-Online-Generator

<http://www.siemens.com/cax>

#### Tender specifications

<http://ausschreibungstexte.siemens.com/tiplv>



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