

circuit breaker 3VA1 IEC frame 250 breaking capacity class H  
 $I_{cu}=70\text{kA}$  @ 415V 3-pole, starter protection TM120M, AM,  $I_n=200\text{A}$   
 without overload protection short-circuit protection  $I_i=6\dots 14 \times I_n$  nut  
 keeper kit shunt trip (STL) 110-127V DC, AC 50/60Hz 2 auxiliary  
 switches HQ



Model	
Product brand name	SENTRON
Product designation	Molded case circuit breaker
Product version	Starter protection
Design of the overcurrent release	TM120M
Protective function of the overcurrent release	I
Number of poles	3
Design of the auxiliary release	Shunt trip (STL)
Auxiliary contact version	2 auxiliary switches HQ
General technical data	
Rated insulation voltage $U_i$	800 V
Max. rated operational voltage $U_e$ with AC 50/60Hz	690 V
Max. rated operational voltage $U_e$ with DC	500 V
Operating power / at AC-3 / at 400 V	75 W
Latching - endurance	15 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Neutral conductors / upgradeable/retrofitable	No
Ground fault monitoring version	Without

Product function	
<ul style="list-style-type: none"> <li>• communication function</li> </ul>	No
<ul style="list-style-type: none"> <li>• Phase failure detection</li> </ul>	No
<ul style="list-style-type: none"> <li>• other measurement function</li> </ul>	No
Net weight	2.06 kg

### Current

Max. rated operational current of the frame size	250 A
Rated continuous current I <sub>u</sub>	200 A
Operating current	
<ul style="list-style-type: none"> <li>• at 40 °C</li> </ul>	200 A
<ul style="list-style-type: none"> <li>• at 45 °C</li> </ul>	200 A
<ul style="list-style-type: none"> <li>• at 50 °C</li> </ul>	200 A
<ul style="list-style-type: none"> <li>• at 55 °C</li> </ul>	192 A
<ul style="list-style-type: none"> <li>• at 60 °C</li> </ul>	188 A
<ul style="list-style-type: none"> <li>• at 65 °C</li> </ul>	184 A
<ul style="list-style-type: none"> <li>• at 70 °C</li> </ul>	180 A

### Switching capacity according to IEC 60947

Switching capacity class of the circuit breaker	H
Maximum short-circuit current breaking capacity (I <sub>cu</sub> )	
<ul style="list-style-type: none"> <li>• at 240 V</li> </ul>	100 kA
<ul style="list-style-type: none"> <li>• at 415 V</li> </ul>	70 kA
<ul style="list-style-type: none"> <li>• at 440 V</li> </ul>	36 kA
<ul style="list-style-type: none"> <li>• at 690 V</li> </ul>	10 kA
Operational short-circuit current breaking capacity (I <sub>cs</sub> )	
<ul style="list-style-type: none"> <li>• at 240 V</li> </ul>	100 kA
<ul style="list-style-type: none"> <li>• at 415 V</li> </ul>	70 kA
<ul style="list-style-type: none"> <li>• at 440 V</li> </ul>	36 kA
<ul style="list-style-type: none"> <li>• at 690 V</li> </ul>	5 kA
Short-circuit current making capacity (I <sub>cm</sub> )	
<ul style="list-style-type: none"> <li>• at 240 V</li> </ul>	220 kA
<ul style="list-style-type: none"> <li>• at 415 V</li> </ul>	154 kA
<ul style="list-style-type: none"> <li>• at 690 V</li> </ul>	17 kA

### Adjustable parameters

Short-term delayed / tripping switchable / I <sub>2t</sub> =ON/OFF	No
Adjustable response value current / I <sub>i</sub> min.	1 200 A
Adjustable response value current / I <sub>i</sub> max.	2 800 A

### Mechanical Design

Height	158 mm
Width	105 mm

Depth	70 mm
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### Connections

Arrangement of electrical connectors / for main current circuit	Front terminal
Type of electrical connection / for main current circuit	lug terminal

### Auxiliary circuit

Product component	
<ul style="list-style-type: none"> <li>• undervoltage release</li> </ul>	No
<ul style="list-style-type: none"> <li>• Voltage trigger</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• undervoltage release with leading contact</li> </ul>	No
<ul style="list-style-type: none"> <li>• Trip indicator</li> </ul>	No
Number of CO contacts / for auxiliary contacts	2

### Accessories

Product extension / optional / motor drive	Yes
Manufacturer's article number	
<ul style="list-style-type: none"> <li>• of the integrated auxiliary switch/alarm switch</li> </ul>	<a href="#">3VA9988-0AA12</a>
<ul style="list-style-type: none"> <li>• of the integrated auxiliary trip</li> </ul>	3VA9688-0BL32

### Environmental conditions

Protection class IP / on the front	IP40
Ambient temperature	
<ul style="list-style-type: none"> <li>• during operation / minimum</li> </ul>	-25 °C
<ul style="list-style-type: none"> <li>• during operation / maximum</li> </ul>	70 °C
<ul style="list-style-type: none"> <li>• during storage / minimum</li> </ul>	-40 °C
<ul style="list-style-type: none"> <li>• during storage / maximum</li> </ul>	80 °C

### Certificates

Reference code / acc. to DIN EN 81346-2	Q
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<b>General Product Approval</b>	<b>EMC</b>	<b>Declaration of Conformity</b>
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[Miscellaneous](#)



<b>Test Certificates</b>	<b>Shipping Approval</b>	<b>other</b>
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[Miscellaneous](#)

[Special Test Certificate](#)



LRS

[Confirmation](#)

[Manufacturer Declaration](#)

[Miscellaneous](#)

## Further information

### Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mfb=3VA1220-6MH32-0JC0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1220-6MH32-0JC0>

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

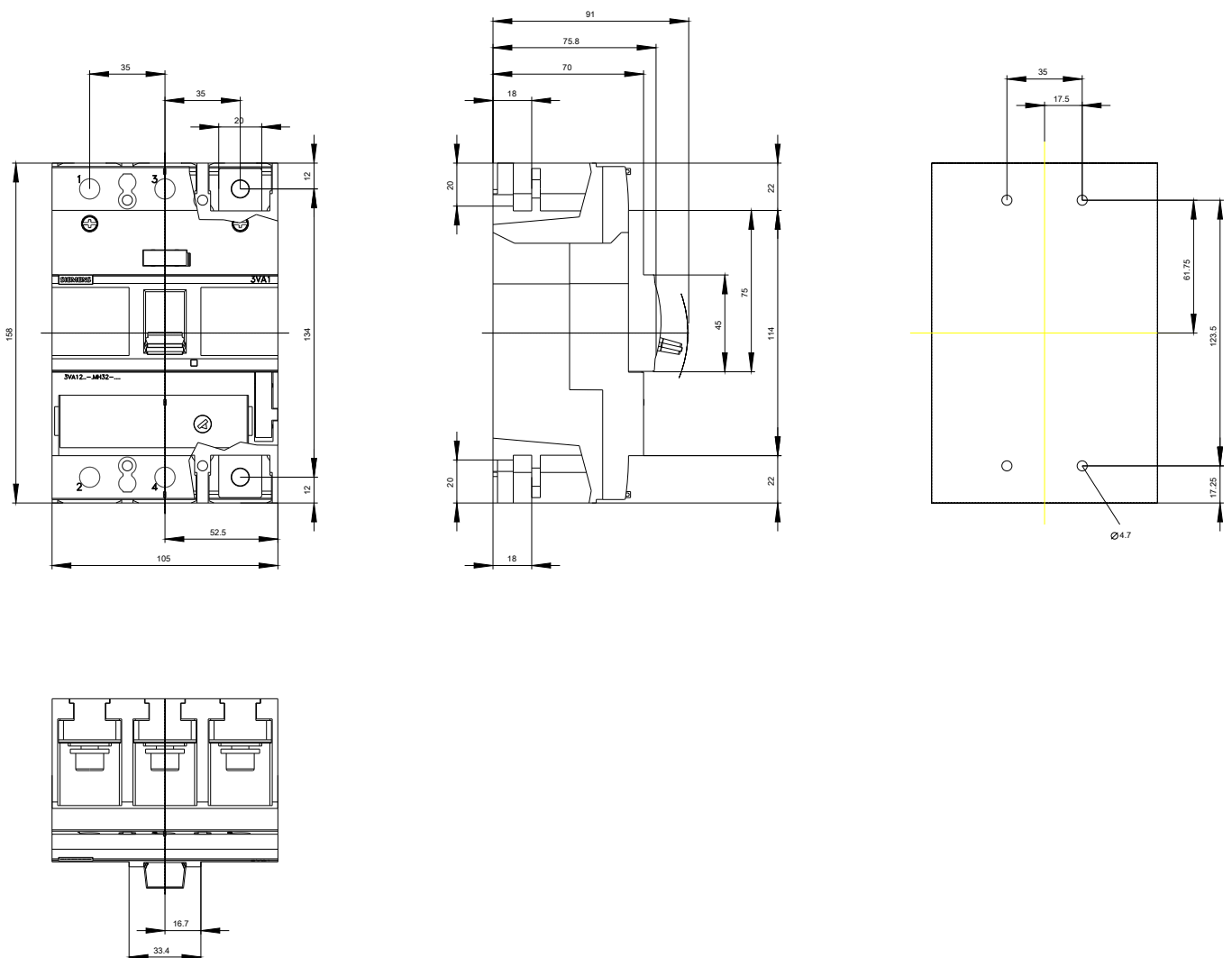
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA1220-6MH32-0JC0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA1220-6MH32-0JC0)

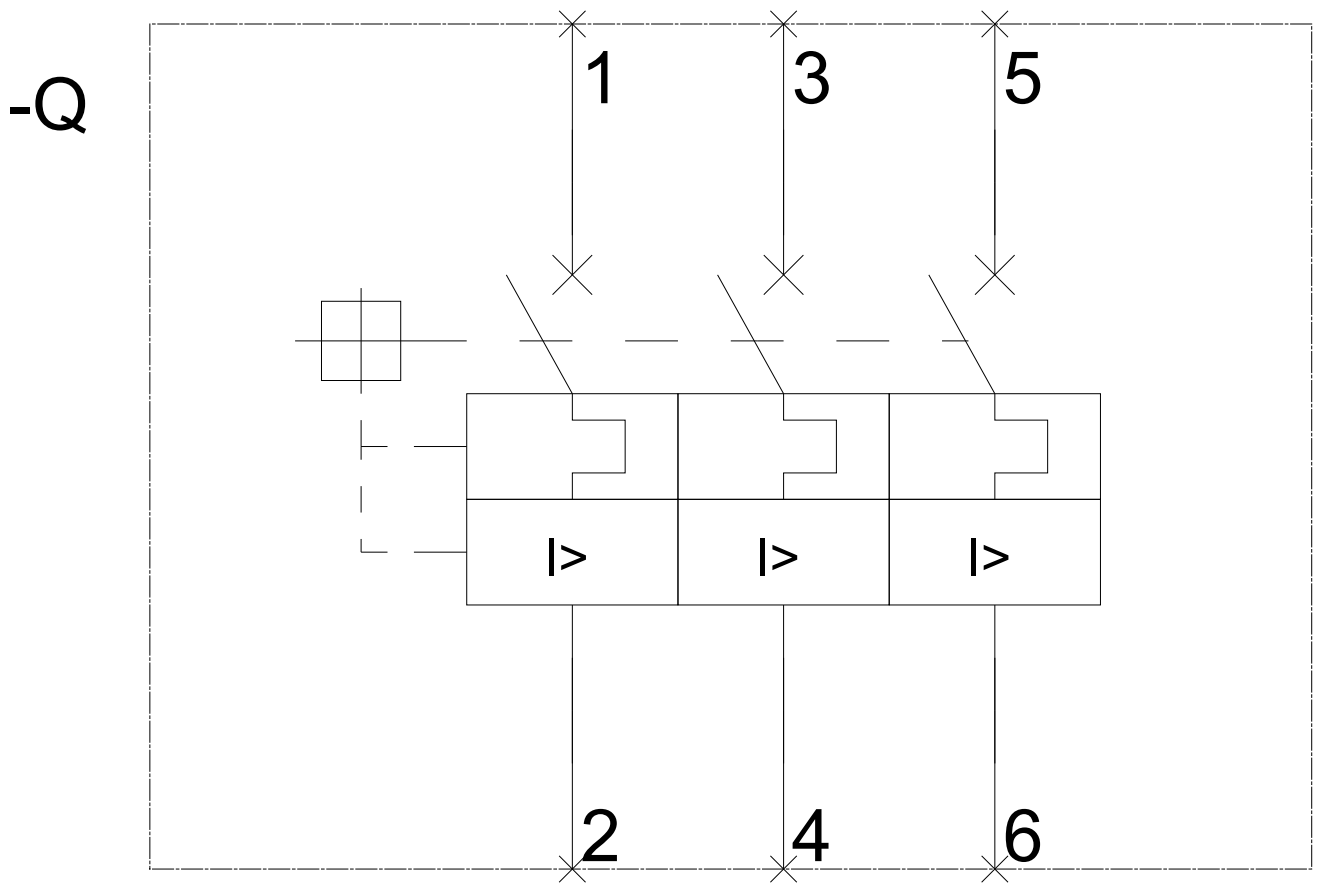
### CAX-Online-Generator

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

### Tender specifications

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





**last modified:**

08/10/2019